



UNIVERSITY OF
MARYLAND

2005
Results of
Weed Control
Research



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HIWOT MENBERE

AGRICULTURE EXPERIMENT STATION
DEPARTMENT OF NATURAL RESOURCE SCIENCE
AND LANDSCAPE ARCHITECTURE

CONTENTS

| | PAGE NO. |
|---|-----------------|
| PREFACE..... | 2 |
| ACKNOWLEDGMENTS..... | 2 |
| FINANCIAL SUPPORT..... | 3 |
| PUBLICATION RIGHTS..... | 3 |
| LOCATION..... | 4 |
| ABBREVIATIONS..... | 4 |
| APPLICATION..... | 5 |
| RATING SYSTEM..... | 5 |
| YIELD..... | 6 |
| WYE RESEARCH AND EDUCATION CENTER..... | 6 |
| HAYDEN FARM..... | 7 |
| ON-FARM TESTS..... | 9 |
| CLIMATOLOGICAL DATA | |
| WYE RESEARCH AND EDUCATION CENTER, QUEENSTOWN, MD..... | 365 |
| BELTSVILLE FIELD UNIT - HAYDEN FARM, BELTSVILLE, MD..... | 371 |
| CARROLL CO. - WESTMINSTER, MD..... | 384 |

CROP AND WEED REFERENCE.....389
CHEMICAL INDEX.....393

PREFACE

This publication contains a progress report of on going field research. Interpretation of the data herein may be modified through future experimentation. These results are compiled for reference by research, industry, regulatory, Extension, and other agribusiness personnel. Climatological data, crop and weed references, and a chemical product index are located in the back of this publication.

ACKNOWLEDGMENTS

Appreciation is extended to the following individuals for their assistance:

| | |
|---|---|
| Wye Research and Education Center: | Mark Sultenfuss, Manager Reese Stafford Joe Streett |
| Beltsville Field Unit: (Hayden Farm) | Kevin Conover, Manager Mike Heyser Donny Murphy Dan Shirley (USDA) |

FINANCIAL SUPPORT

Appreciation is extended to all of the companies and associations that provided financial support, chemicals, and other supplies to conduct these field studies. These companies and associations are acknowledged as follows:

**AMVAC
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Bayer
Dow Agro Sciences
DuPont
Kumiai America
Monsanto
Syngenta
Valent
MD Grain Producers
MD Soybean Board**

PUBLICATION RIGHTS

Publication of any data or statements should not be made without prior written approval of Dr. Ronald L. Ritter, Department of Natural Resource Sciences and Landscape Architecture, Agricultural Experiment Station, University of Maryland, College Park, MD 20742-5821.

LOCATION

Experiments were conducted at various locations including the Wye Research and Education Center (WREC), Queenstown, MD; University of Maryland Beltsville Field Unit (Hayden Farm), Beltsville, MD; and miscellaneous sites throughout Maryland. The location for each experiment can be found within the individual reports.

ABBREVIATIONS

The following abbreviations are used throughout the test:

| | |
|-----------------------|-------------------------------|
| AC | - at cracking |
| BD | - band |
| C | - conventional |
| EP | - early post |
| EPP | - early preplant |
| EW | - early winter |
| FB (or fb) | - followed by (sequential) |
| IF | - in furrow |
| IR | - imidazolinone resistant |
| IT | - imidazolinone tolerant |
| LP | - late postemergence |
| LW | - late winter |
| MP | - mid postemergence |
| NIR (or NOIR) | - not imidazolinone resistant |
| NIT (or NOIT) | - not imidazolinone resistant |
| NT | - no-till |
| PD | - post directed |
| PM | - package-mix |
| PPI | - preplant incorporated |
| PRE | - preemergence |
| PREOT | - preemergence over-the-top |
| SB | - surface blend |
| S-PRE | - sequential preemergence |

| | |
|--------------|-------------------------------------|
| TM | - tank-mix |
| TR | - triazine-resistant |
| TRIF | - trifoliolate |
| TS | - triazine-susceptible |
| WK | - week |
| 1-cut | - after one (usually first) cutting |
| 2-cut | - after second cutting |

APPLICATION

Except as noted within a report, forages (alfalfa), small grains (barley and wheat), corn, soybeans, tobacco, and noncrop land or cover crops were sprayed with a CO₂ pressurized backpack sprayer utilizing SS-8003 flat fan nozzles. Most sprayer applications, other than applications of postemergence soybean herbicides, were delivered in a total volume of 18 gpa (gallons per acre) at 20 psi (pounds per square inch). Spray delivery for the postemergence soybean herbicides measured 26 gpa at 38psi.

RATING SYSTEM

Visual ratings of weed control and crop injury were taken throughout the growing season based upon a 0 to 100 scale.

| | |
|------------------------|-------------------------------------|
| % Weed Control: | 0 = no weed control |
| | to |
| (% Bayer Code) | 100 = total weed control |
| % Crop Injury | 0 = no injury |
| | to |
| (% PHYTO) | 100 = total crop dessication |

YIELD

Small grain, corn, and soybean yields, when available, were obtained using a standard field combine, generally from the center of the plot. Grain weights were measured per plot. Moisture content was measured with an electronic meter. Plot weights were then converted to bushels per acre (BU/A) at the standard moisture for the crop. Alfalfa was cut and weighed in the field, samples were dried down, and then the wet measurements were expressed in tons of dry matter per acre (TDM/A).

WYE RESEARCH AND EDUCATION CENTER - QUEENSTOWN, MD

| EXP. NO. | TITLE | PAGE NO. |
|------------|---|----------|
| WY 01 2005 | A Comparison of Preemergence Grass Herbicides in Conventional Corn..... | 11 |
| WY 02 2005 | A Comparison of Pre-Packs and Tank-Mixes for Conventional Corn..... | 19 |
| WY 03 2005 | Pre and Post Applications of KIH-485 in Conventional Corn..... | 27 |
| WY 04 2005 | Pre and Post Programs for Conventional Corn - I..... | 36 |
| WY 05 2005 | Pre and Post Programs for Conventional Corn - II..... | 44 |
| WY 06 2005 | Accent Tank-Mix/Timing Study..... | 52 |
| WY 07 2005 | Glyphosate Timing Study in Conventional Corn..... | 65 |
| WY 08 2005 | Use of Lightning in Clearfield Corn..... | 73 |
| WY 09 2005 | Use of Liberty and Liberty-Link Corn..... | 81 |
| WY 11 2005 | Johnsongrass Control Programs for Conventional Corn..... | 89 |
| WY 12 2005 | Examining KIH-485 for Johnsongrass Control in Conventional Corn..... | 97 |

| | | |
|-------------------|--|------------|
| WY 13 2005 | Johnsongrass Control Programs in Soybean..... | 106 |
| WY 14 2005 | Postemergence Combinations for Roundup-Ready Soybean-I..... | 114 |
| WY 15 2005 | Use of KIH-485 in Conventional Soybean..... | 122 |
| WY 16 2005 | Pre and Post Programs for Conventional and Roundup-Ready Soybean..... | 130 |
| WY 17 2005 | Postemergence Combinations for Roundup-Ready Soybean-II..... | 138 |
| WY 18 2005 | Glyphosate Timing Study in Soybean..... | 146 |
| WY 20 2005 | Knockout Extra Comparisons in Roundup-Ready Soybean..... | 153 |

**UNIVERSITY OF MARYLAND BELTSVILLE FIELD UNIT - HAYDEN FARM
BELTSVILLE, MD**

| EXP. NO. | TITLE | PAGE NO. |
|-------------------|--|-----------------|
| HF 01 2005 | Winter Cover Crops - I - Burndown Control of Barley in the Spring..... | 161 |
| HF 02 2005 | Winter Cover Crops - II - Burndown Control of Rye in the Spring..... | 169 |
| HF 03 2005 | Winter Cover Crops - III - Burndown Control of Triticale in the Spring..... | 177 |
| HF 04 2005 | Winter Cover Crops - Iv - Burndown Control of Wheat in the Spring..... | 185 |
| HF 05 2005 | Use of KIH-485 for Control of Italian Ryegrass in Wheat..... | 193 |
| HF 07 2005 | Weed Control Systems in No-till Wheat..... | 201 |
| HF 08 2005 | Fall Applications of Canopy EX..... | 208 |
| HF 09 2005 | Herbicide Programs for Newly Seeded Alfalfa - Dormant Applications... | 216 |

| | | |
|-------------------|--|------------|
| HF 10 2005 | Use of CGA-185072 on Control of Italian Ryegrass in Wheat..... | 224 |
| HF 13 2005 | Italian Ryegrass Control in Wheat..... | 229 |
| HF 14 2005 | Preplant Programs for No-till Corn..... | 235 |
| HF 15 2005 | Preplant Applications of Valor in No-till Corn..... | 246 |
| HF 16 2005 | A Comparison of Preemergence Grass Herbicides in Conventional Corn..... | 257 |
| HF 17 2005 | A Comparison of Pre-Packs and Tank-Mixes for No-till Corn - Preemergence..... | 265 |
| HF 18 2005 | A Comparison of Pre-Packs and Tank-Mixes for No-till Corn - Early Postemergence..... | 273 |
| HF 19 2005 | Use of Gramoxone Inteon in No-till Corn..... | 280 |
| HF 20 2005 | Glyphosate Tank-Mix Timing Study in No-till Corn..... | 288 |
| HF 21 2005 | Early Preplant Applications of Canopy EX and Synchrony XP for Full-Season No-till Soybeans..... | 295 |
| HF 22 2005 | Use of Gramoxone Inteon for Full-Season No-till Soybeans..... | 303 |
| HF 23 2005 | Knockout Extra Comparisons in No-till Corn..... | 311 |
| HF 24 2005 | Marestail Control in No-till Soybean..... | 319 |
| HF 25 2005 | Weed Control in Sunflowers..... | 326 |

ON-FARM STUDIES

| EXP. NO. | TITLE | PAGE NO. |
|-------------------|--|-----------------|
| CT 01 2005 | Postemergence Control of Canada Thistle in No-till Corn..... | 331 |
| CT 02 2005 | Postemergence Control of Canada Thistle in No-till Corn - Strip Trial..... | 336 |
| LQ 01 2005 | Preemergence Control of Triazine-Resistant Common Lambsquarters in No-till Corn..... | 341 |
| LQ 02 2005 | Postemergence Control of Triazine-Resistant Common Lambsquarters in No-till Corn..... | 349 |
| MT 01 2005 | Glyphosate-Resistant Maretail Control in Full-Season No-till Soybean..... | 357 |

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 WA **ALTERNATE ID#:** WY 01 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** US 005/02/01
CREATED BY: US RITTER R
CREATED: 03-25-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTRY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 21 **TILLAGE:** COT
% SILT: 59 **PH:** 5.8
% CLAY: 20 **CEC:** 5.9
TEXTURE: SIL **% OM:** 2.0
SOIL GEN: M
PREVIOUS CROP: GLXMA - SOYBEAN
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** EFF
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 14 **ACTUAL SUB-BLOCKS:** 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-04-05 | USA |
| TIME - BEGIN | 13:30 | 24H |
| TIME - END | 14:30 | 24H |
| AIR TEMPERATURE | 56 | F |
| % REL. HUMIDITY | 30 | |
| WIND DIRECTION | SOUTHWEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 58/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003

01 P CHEAL - LAMBSQUARTERS, COMMON

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | IND | . | . | . IN | --- | |

02 P SETFA - FOXTAIL, GIANT

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | IND | . | . | . IN | --- | |

03 P ZEAMX - CORN, VOLUNTEER, FIELD

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|--------------|---------|---------|---------|------------|-------|
| 05-03-2005 | 00 | MED | 26000.00 IPA | . | . | . IN | NA | |
| 05-04-2005 | 00 | MED | 26000.00 IPA | . | . | . IN | NA | |

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 03-25-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|-----------------------------------|--------|------|----|---------------------|---------------------|---------------------|---------------------|---------------------|
| | RATE | UNIT | | 05-24-05 P ZEAMX | 05-24-05 P SETFA | 05-24-05 P CHEAL | 06-07-05 P SETFA | 06-07-05 P CHEAL |
| | | | | VAR 03 | | | | |
| | | | | PHY % | CON % | CON % | CON % | CON % |
| | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 0 | 97 | 70 | 98 | 70 |
| 3A»OUTLOOK (6EC) | 0.75 | LAA | 0 | 0 | 95 | 75 | 100 | 67 |
| 4A»DEFINE (4SC) | 0.50 | LAA | 0 | 0 | 95 | 80 | 98 | 75 |
| 5A HARNES (7EC) | 1.97 | LAA | 0 | 0 | 95 | 92 | 100 | 93 |
| 6A»DEGREE (3.8CS) | 2.00 | LAA | 0 | 0 | 90 | 83 | 97 | 78 |
| 7A»TOPNOTCH (3.2CS) | 2.00 | LAA | 0 | 0 | 98 | 97 | 100 | 98 |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 0 | 92 | 100 | 87 | 100 |
| 9A»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 0 | 83 | 100 | 75 | 98 |
| 10A»PROWL H20 (3.8CS) | 2.00 | LAA | 0 | 0 | 92 | 100 | 87 | 100 |
| 11A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 93 | 95 | 98 | 93 |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 92 | 97 | 100 | 100 |
| 13A PRINCEP 4L (SC) | 1.25 | LAA | 0 | 0 | 90 | 100 | 95 | 100 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| LSD (0.05) | | | | 0.00 | 6.48 | 23.10 | 6.13 | 22.24 |
| SIGNIFICANCE OF F | | | | ns | ** | ** | ** | ** |
| STANDARD DEVIATION | | | | 0.00 | 3.15 | 11.23 | 3.00 | 10.82 |
| COEFFICIENT OF VARIANCE | | | | 0.00 | 4.86 | 17.70 | 4.50 | 17.28 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 20 | 20 | 20 | 34 | 34 |

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 03-25-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW | |
|--------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 06-21-05 P SETFA | 06-21-05 P CHEAL | 07-13-05 P SETFA | 07-13-05 P CHEAL | 08-02-05 P SETFA | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A>>DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 95 | 57 | 90 | 30 | 92 | |
| 3A>>OUTLOOK (6EC) | 0.75 | LAA | 0 | 97 | 52 | 92 | 40 | 92 | |
| 4A>>DEFINE (4SC) | 0.50 | LAA | 0 | 98 | 52 | 98 | 28 | 98 | |
| 5A HARNESS (7EC) | 1.97 | LAA | 0 | 98 | 77 | 90 | 53 | 88 | |
| 6A>>DEGREE (3.8CS) | 2.00 | LAA | 0 | 97 | 67 | 97 | 50 | 97 | |
| 7A>>TOPNOTCH (3.2CS) | 2.00 | LAA | 0 | 100 | 90 | 95 | 88 | 95 | |
| 8A>>BALANCE PRO (4SC) | 0.07 | LAA | 0 | 72 | 100 | 55 | 98 | 37 | |
| 9A>>PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 55 | 98 | 37 | 98 | 30 | |
| 10A>>PROWL H20 (3.8CS) | 2.00 | LAA | 0 | 73 | 100 | 70 | 100 | 58 | |
| 11A>>KIH-485 (60WG) | 0.144 | LAA | 0 | 97 | 92 | 93 | 78 | 90 | |
| 12A>>KIH-485 (60WG) | 0.181 | LAA | 0 | 100 | 92 | 97 | 90 | 93 | |
| 13A PRINCEP 4L (SC) | 1.25 | LAA | 0 | 87 | 100 | 70 | 100 | 63 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 11.11 | 28.14 | 13.88 | 36.00 | 16.90 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 5.40 | 13.69 | 6.75 | 17.50 | 8.22 |
| | | | | COEFFICIENT OF VARIANCE | 8.67 | 24.07 | 11.77 | 35.09 | 15.10 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 48 | 48 | 70 | 70 | 90 |

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 03-25-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | VAR 03 | VAR 03 | |
|--------------------------------|--------|------|----|-----------------------------------|-------------------------|------------------------|-------|
| | RATE | UNIT | TM | 1.00 PL ALL | YLD LB 1.00 PL SD | YLD BU 1.00 A SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 6.8 | 41.0 | |
| 2A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 22 | 26.0 | 157.0 | |
| 3A»OUTLOOK (6EC) | 0.75 | LAA | 0 | 33 | 28.0 | 169.0 | |
| 4A»DEFINE (4SC) | 0.50 | LAA | 0 | 17 | 17.8 | 107.0 | |
| 5A HARNESS (7EC) | 1.97 | LAA | 0 | 50 | 30.7 | 185.0 | |
| 6A»DEGREE (3.8CS) | 2.00 | LAA | 0 | 42 | 17.5 | 106.0 | |
| 7A»TOPNOTCH (3.2CS) | 2.00 | LAA | 0 | 87 | 37.0 | 223.0 | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 98 | 31.2 | 189.0 | |
| 9A»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 98 | 25.6 | 154.0 | |
| 10A»PROWL H20 (3.8CS) | 2.00 | LAA | 0 | 100 | 29.1 | 175.0 | |
| 11A»KIH-485 (60WG) | 0.144 | LAA | 0 | 75 | 40.6 | 245.0 | |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 90 | 39.3 | 237.0 | |
| 13A PRINCEP 4L (SC) | 1.25 | LAA | 0 | 100 | 37.8 | 228.0 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 2.1 | 12.0 | |
| | | | | LSD (0.05) | 35.61 | 13.89 | 83.88 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** |
| | | | | STANDARD DEVIATION | 17.32 | 6.75 | 40.80 |
| | | | | COEFFICIENT OF VARIANCE | 36.59 | 31.36 | 31.37 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 90 | 147 | 147 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-04-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTR | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 05-24-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 05-24-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 05-24-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 06-07-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 06-07-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 06-21-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 06-21-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 07-13-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 07-13-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SETFA | CON % | 08-02-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 08-02-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | ZEAMX | YLD/PLOT | 09-28-2005 | 03 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 03 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = DEKALB 60-19

* USER DEFINED CALCULATIONS

*** CONTINUE ON NEXT PAGE

* USER DEFINED CALCULATIONS*** CONTINUED
US 003/05/01 001 WA--- 012 -- {RAW}*(3.82)
US 003/05/01 001 WA--- 012 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 WB ALTERNATE ID#: WY 02 2005
PROTOCOL#: US 003/05/01 ALTERNATE ID#: US 005/02/01
CREATED BY: US RITTER R
CREATED: 03-25-2005 REVISED: 10-18-2005 COMPLETED: Y
TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN -
PREEMERGENCE

COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS DATA SOURCE: UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. TYPE: FIELD TRIAL
CITY: QUEENSTOWN STATE: MARYLAND
COUNTY: QUEEN ANNE'S ZIP: 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 21 TILLAGE: COT
% SILT: 59 PH: 5.8
% CLAY: 20 CEC: 5.9
TEXTURE: SIL % OM: 2.0
SOIL GEN: M
PREVIOUS CROP: GLXMA - SOYBEAN
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
ACTUAL REPS: 3 ACTUAL BLOCKS: 1
ACTUAL TRTS: 14 ACTUAL SUB-BLOCKS: 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-04-05 | USA |
| TIME - BEGIN | 13:30 | 24H |
| TIME - END | 14:30 | 24H |
| AIR TEMPERATURE | 56 | F |
| % REL. HUMIDITY | 30 | |
| WIND DIRECTION | SOUTHWEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 58/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATEAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-04-2005 00 --- IND . . . IN ---

02 P SETFA - FOXTAIL, GIANT
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-04-2005 00 --- IND . . . IN ---

03 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
 TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 05-03-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-03-2005 00 MED 26000.00 IPA . . . IN NA
 05-04-2005 00 MED 26000.00 IPA . . . IN NA

* STAGE CODE -- CORN
 00 = DRY SEED (CARYOPSIS)
 * STAGE CODE -- GENERAL
 00 = DRY SEED; DORMANCY

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - PREEMERGENCE

CREATED: 03-25-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 03 | | | | |
|---|-----------------------------------|------------|--------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 001 RAW 05-24-05 P ZEAMX | | | | | | | | |
| 002 RAW 05-24-05 P SETFA | | | | | | | | |
| 003 RAW 05-24-05 P CHEAL | | | | | | | | |
| 004 RAW 06-07-05 P SETFA | | | | | | | | |
| 005 RAW 06-07-05 P CHEAL | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 4A HARNESX XTRA 5.6(SC) | 3.36 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 7A»DEFINE (4SC) B ATRAZINE 4L (SC) | 0.56 1.25 | LAA LAA | 0 0 | 0 0 | 100 100 | 100 100 | 100 100 | 100 100 |
| 8A»BALANCE PRO (4SC) B ATRAZINE 4L (SC) | 0.07 1.25 | LAA LAA | 0 0 | 0 0 | 100 100 | 100 100 | 100 100 | 100 100 |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 10A»GUARDSMAN MAX (5L) B»PROWL H20 (3.8CS) | 2.50 1.50 | LAA LAA | 0 0 | 0 0 | 100 100 | 100 100 | 100 100 | 100 100 |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | SIGNIFICANCE OF F | | | ns | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | COEFFICIENT OF VARIANCE | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 20 | 20 | 20 | 34 | 34 |

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - PREEMERGENCE

CREATED: 03-25-2005 REVISD: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|--------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 100 | 100 | 95 | 98 | 93 |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 100 | 95 | 100 | 85 |
| 4A HARNES XTRA 5.6(SC) | 3.36 | LAA | 0 | 98 | 100 | 92 | 100 | 83 |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 100 | 100 | 95 | 100 | 90 |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 98 | 100 | 93 | 100 | 85 |
| 7A»DEFINE (4SC) | 0.56 | LAA | 0 | 100 | 100 | 98 | 100 | 95 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 92 | 100 | 82 | 100 | 68 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 95 | 100 | 90 | 100 | 80 |
| 10A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 98 | 100 | 93 | 100 | 85 |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | | | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 100 | 98 | 100 | 95 |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 100 | 100 | 98 | 100 | 95 |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 98 | 100 | 98 | 100 | 95 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | LSD (0.05) | 3.43 | 0.00 | 6.84 | 1.30 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 1.67 | 0.00 | 3.33 | 0.63 |
| | | | | COEFFICIENT OF VARIANCE | 2.42 | 0.00 | 5.06 | 0.901 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 48 | 48 | 70 | 70 |

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - PREEMERGENCE

CREATED: 03-25-2005 REVISED: 10-18-2005 COMPLETED: Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % 1.00 | VAR 03 YLD LB 1.00 | VAR 03 YLD BU 1.00 |
|--------------------------------|--------|------|----|---------------|--------------------------|--------------------------|
| | RATE | UNIT | TM | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 23.6 | 88.5 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 98 | 44.5 | 167.0 |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 49.9 | 187.3 |
| 4A HARNESX XTRA 5.6(SC) | 3.36 | LAA | 0 | 100 | 45.2 | 169.6 |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 100 | 45.6 | 171.2 |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 98 | 41.7 | 156.6 |
| 7A»DEFINE (4SC) | 0.56 | LAA | 0 | 100 | 48.3 | 181.4 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 100 | 43.2 | 162.2 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 100 | 43.7 | 164.0 |
| 10A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 48.3 | 181.2 |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 46.6 | 175.0 |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 100 | 45.4 | 170.6 |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 100 | 48.5 | 182.1 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 9.9 | 37.2 |
| | | | | | 12.77 | 47.93 |
| | | | | ** | ** | ** |
| | | | | | 6.21 | 23.31 |
| | | | | | 18.23 | 18.22 |
| | | | | 90 | 147 | 147 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-04-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 05-24-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 05-24-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 05-24-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 06-07-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 06-07-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 06-21-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 06-21-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 07-13-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 07-13-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SETFA | CON % | 08-02-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 08-02-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | ZEAMX | YLD/PLOT | 09-28-2005 | 03 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 03 = DEKALB 60-19

*** SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)**

03 = DEKALB 60-19

*** USER DEFINED CALCULATIONS**

US 003/05/01 001 WB--- 012 -- {RAW}*(3.755)

US 003/05/01 001 WB--- 012 -- {RAW}*(3.755)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WC **ALTERNATE ID#:** WY 03 2005
PROTOCOL#: US 005/05/01 **ALTERNATE ID#:** WREC-2005
CREATED BY: US RITTER R
CREATED: 03-29-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
TITLE: PRE AND POST APPLICATIONS OF KIH-485 IN CONVENTIONAL CORN
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 21 **TILLAGE:** COT
% SILT: 59 **PH:** 5.8
% CLAY: 20 **CEC:** 5.9
TEXTURE: SIL **% OM:** 2.0
SOIL GEN: M
PREVIOUS CROP: GLXMA - SOYBEAN
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** ---
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 20 **ACTUAL SUB-BLOCKS:** 20

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Postemergence applications made 05/27/2005.
7. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|-----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-04-05 | 05-27-05 | USA |
| TIME - BEGIN | 15:30 | 13:00 | 24H |
| TIME - END | 16:30 | 14:00 | 24H |
| AIR TEMPERATURE | 61 | 65 | F |
| % REL. HUMIDITY | 30 | 45 | |
| WIND DIRECTION | SOUTHWEST | SOUTHEAST | |
| WIND SPEED | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLOUDY | PARTCLDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | WET/WET | |
| SOIL CONDITION | --- | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 68/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
01 = POSPOS / POSTEMERGENCE - V3-V4 STAGE

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003

01 P CHEAL - LAMBSQUARTERS, COMMON

| TARGET: PEST | | SITE: FG | | PLANTED: | | | | | | |
|-------------------|------------|------------|--|------------|---------|---------|---------|------|-------|-------|
| INFESTATION DATE: | | METHOD: NA | | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
| STAGE ON | STAGE CODE | POP.GEN. | | | | | | | | |
| 05-04-2005 | 00 | --- | | | IND | | | | --- | |
| 05-27-2005 | 14 | MED | | 1.00 | SQF | 1.00 | 1.00 | 1.00 | IN | TUR |

02 P SETFA - FOXTAIL, GIANT

| TARGET: PEST | | SITE: FG | | PLANTED: | | | | | | |
|-------------------|------------|------------|--|------------|---------|---------|---------|------|-------|-------|
| INFESTATION DATE: | | METHOD: NA | | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
| STAGE ON | STAGE CODE | POP.GEN. | | | | | | | | |
| 05-04-2005 | 00 | --- | | | IND | | | | --- | |
| 05-27-2005 | 13 | HGH | | 8.00 | SQF | 1.00 | 1.00 | 1.00 | IN | TUR |

03 P ZEAMX - CORN, VOLUNTEER, FIELD

| TARGET: CROP | | SITE: FG | | POPULATION: 26000.00 IPA | | CULTIVAR: DEKALB 60-19 | | PLANTED: 05-03-2005 | | |
|------------------------|------------|------------|--|--------------------------|---------|------------------------|---------|---------------------|-------|-------|
| PLANTING DEPTH: 1.5 IN | | | | ROW WIDTH: 30.0 IN | | | | | | |
| INFESTATION DATE: | | METHOD: NA | | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
| STAGE ON | STAGE CODE | POP.GEN. | | | | | | | | |
| 05-03-2005 | 00 | MED | | 26000.00 | IPA | . | . | . | IN | NA |
| 05-04-2005 | 00 | MED | | 26000.00 | IPA | . | . | . | IN | NA |
| 05-27-2005 | 13 | MED | | 26000.00 | IPA | 4.00 | 4.00 | 4.00 | IN | TUR |

04 P DATST - JIMSONWEED

| TARGET: PEST | | SITE: FG | | PLANTED: | | | | | | |
|-------------------|------------|------------|--|------------|---------|---------|---------|------|-------|-------|
| INFESTATION DATE: | | METHOD: NA | | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
| STAGE ON | STAGE CODE | POP.GEN. | | | | | | | | |
| 05-04-2005 | 00 | --- | | | IND | | | | --- | NA |
| 05-27-2005 | 10 | LOW | | 1.00 | SQY | 0.50 | 0.50 | 0.50 | IN | TUR |

* STAGE CODE -- CORN

- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

- 00 = DRY SEED; DORMANCY
- 10 = 1ST LEAF EMERGED; COTYLEDONS UNFOLDED
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

- 13 = 3 LEAVES UNFOLDED

TITLE: PRE AND POST APPLICATIONS OF KIH-485 IN CONVENTIONAL CORN
CREATED: 03-29-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE | UNIT | TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|----------------------------------|----------------|------|----|-----------------------------------|---------------|---------------|-------------------------|---------------|------|
| | | | | 05-24-05 | 05-24-05 | 05-24-05 | 06-01-05 | 06-01-05 | |
| | | | | P ZEAMX | P SETFA | P CHEAL | P ZEAMX | P SETFA | |
| | | | | VAR 03 PHY % 1.00 | CON % 1.00 | CON % 1.00 | VAR 03 PHY % 1.00 | CON % 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 92 | 95 | 0 | 98 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 93 | 93 | 0 | 98 | |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 0 | 95 | 100 | 0 | 98 | |
| 5A»KIH-485 (60WG) | 0.362 | LAA | 0 | 0 | 93 | 95 | 3 | 100 | |
| 6A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 0 | 93 | 65 | 0 | 98 | |
| 7A HARNESS (7EC) | 1.51 | LAA | 0 | 0 | 97 | 98 | 0 | 98 | |
| 8A HARNESS (7EC) | 1.94 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| 9A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| 10A»BICEP II MAGNUM (5.5SC) | 2.80 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| 11A»KIH-485 (60WG) | 0.087 | LAA | 0 | 0 | 80 | 80 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 97 | 93 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 13A»KIH-485 (60WG) | 0.091 | LAA | 1 | 0 | 0 | 0 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 1 | 0 | 0 | 0 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 15A HARNESS (7EC) | 0.97 | LAA | 1 | 0 | 0 | 0 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 16A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 0 | 0 | 93 | 93 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 17A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 1 | 0 | 0 | 0 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 18A»BICEP II MAGNUM (5.5SC) | 1.45 | LAA | 1 | 0 | 0 | 0 | 0 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 0 | 0 | 0 | 0 | 100 | |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 0.00 | 7.40 | 14.17 | 2.13 | 2.28 |
| | | | | SIGNIFICANCE OF F | ns | ** | ** | ns | ** |
| | | | | STANDARD DEVIATION | 0.00 | 3.66 | 7.00 | 1.05 | 1.13 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 7.91 | 15.42 | 774.60 | 1.54 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 20 | 20 | 20 | 28 | 28 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | NA | NA | NA | 5 | 5 |

TITLE: PRE AND POST APPLICATIONS OF KIH-485 IN CONVENTIONAL CORN
 CREATED: 03-29-2005 REVISD: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW |
|----------------------------------|-----------------------------------|------|----|-------------------------|-----------------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 06-01-05 P CHEAL | 06-07-05 P ZEAMX | 06-07-05 P SETFA | 06-07-05 P CHEAL | 06-21-05 P SETFA |
| | | | | CON % 1.00 PL ALL | VAR 03 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 93 | 0 | 100 | 98 | 97 |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 98 | 2 | 100 | 100 | 100 |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 100 | 5 | 100 | 100 | 100 |
| 5A»KIH-485 (60WG) | 0.362 | LAA | 0 | 100 | 12 | 100 | 100 | 100 |
| 6A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 63 | 0 | 100 | 70 | 97 |
| 7A HARNESS (7EC) | 1.51 | LAA | 0 | 97 | 0 | 100 | 98 | 92 |
| 8A HARNESS (7EC) | 1.94 | LAA | 0 | 100 | 3 | 100 | 100 | 98 |
| 9A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 3 | 100 | 100 | 100 |
| 10A»BICEP II MAGNUM (5.5SC) | 2.80 | LAA | 0 | 100 | 0 | 100 | 100 | 100 |
| 11A»KIH-485 (60WG) | 0.087 | LAA | 0 | 100 | 0 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 100 | 2 | 100 | 97 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 13A»KIH-485 (60WG) | 0.091 | LAA | 1 | 100 | 0 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 1 | 100 | 0 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 15A HARNESS (7EC) | 0.97 | LAA | 1 | 100 | 0 | 100 | 100 | 95 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 16A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 0 | 100 | 0 | 100 | 100 | 97 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 17A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 1 | 100 | 0 | 100 | 100 | 98 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 18A»BICEP II MAGNUM (5.5SC) | 1.45 | LAA | 1 | 100 | 0 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 0 | 97 | 100 | 80 |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | | | 20.76 | 2.93 | 2.13 | 13.15 | 5.00 |
| | SIGNIFICANCE OF F | | | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | 10.27 | 1.45 | 1.05 | 6.51 | 2.48 |
| | COEFFICIENT OF VARIANCE | | | 14.37 | 133.28 | 1.44 | 9.00 | 3.46 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 28 | 34 | 34 | 34 | 48 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | 5 | 11 | 11 | 11 | 25 |

TITLE: PRE AND POST APPLICATIONS OF KIH-485 IN CONVENTIONAL CORN
CREATED: 03-29-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 012 RAW | 013 RAW | 014 RAW | 015 RAW |
|----------------------------------|--------|-----------------------------------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 06-21-05 P CHEAL | 07-13-05 P SETFA | 07-13-05 P CHEAL | 08-02-05 P SETFA | 08-02-05 P CHEAL |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 82 | 95 | 70 | 92 | 57 |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 93 | 97 | 92 | 97 | 87 |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 95 | 100 | 98 | 100 | 97 |
| 5A»KIH-485 (60WG) | 0.362 | LAA | 0 | 100 | 100 | 100 | 98 | 98 |
| 6A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 53 | 95 | 40 | 93 | 28 |
| 7A HARNESS (7EC) | 1.51 | LAA | 0 | 93 | 83 | 90 | 70 | 80 |
| 8A HARNESS (7EC) | 1.94 | LAA | 0 | 97 | 90 | 92 | 83 | 83 |
| 9A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 98 | 100 | 92 | 100 |
| 10A»BICEP II MAGNUM (5.5SC) | 2.80 | LAA | 0 | 100 | 97 | 100 | 93 | 100 |
| 11A»KIH-485 (60WG) | 0.087 | LAA | 0 | 100 | 93 | 97 | 90 | 93 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 93 | 100 | 87 | 100 | 75 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 13A»KIH-485 (60WG) | 0.091 | LAA | 1 | 100 | 97 | 100 | 97 | 98 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 1 | 100 | 100 | 100 | 98 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 15A HARNESS (7EC) | 0.97 | LAA | 1 | 100 | 88 | 100 | 83 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 16A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 0 | 100 | 90 | 100 | 83 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 17A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 1 | 100 | 97 | 100 | 92 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 18A»BICEP II MAGNUM (5.5SC) | 1.45 | LAA | 1 | 100 | 95 | 100 | 92 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 98 | 62 | 95 | 45 | 95 |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| | | LSL (0.05) | | 19.83 | 7.00 | 18.66 | 9.89 | 23.41 |
| | | SIGNIFICANCE OF F | | ** | ** | ** | ** | ** |
| | | STANDARD DEVIATION | | 9.81 | 3.47 | 9.23 | 4.90 | 11.58 |
| | | COEFFICIENT OF VARIANCE | | 14.10 | 5.07 | 13.63 | 7.50 | 17.83 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 48 | 70 | 70 | 90 | 90 |
| | | DAT APPLICATION # 02 TIMINGS (01) | | 25 | 47 | 47 | 67 | 67 |

TITLE: PRE AND POST APPLICATIONS OF KIH-485 IN CONVENTIONAL CORN
CREATED: 03-29-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 016 RAW | 016 CALC |
|----------------------------------|--------|------|----|-----------------------------------|---------------------|
| | RATE | UNIT | TM | 09-28-05 P ZEAMX | 09-28-05 P ZEAMX |
| | | | | VAR 03 YLD LB | VAR 03 YLD BU |
| | | | | 1.00 PL SD | 1.00 A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 21.8 | 81.7 |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 36.6 | 137.3 |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 39.7 | 149.1 |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 46.8 | 175.8 |
| 5A»KIH-485 (60WG) | 0.362 | LAA | 0 | 35.4 | 132.9 |
| 6A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 35.2 | 132.0 |
| 7A HARNESS (7EC) | 1.51 | LAA | 0 | 36.7 | 137.9 |
| 8A HARNESS (7EC) | 1.94 | LAA | 0 | 39.6 | 148.8 |
| 9A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 46.0 | 172.6 |
| 10A»BICEP II MAGNUM (5.5SC) | 2.80 | LAA | 0 | 49.1 | 184.5 |
| 11A»KIH-485 (60WG) | 0.087 | LAA | 0 | 47.0 | 176.4 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 40.1 | 150.4 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 13A»KIH-485 (60WG) | 0.091 | LAA | 1 | 44.2 | 166.0 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 1 | 44.8 | 168.2 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 15A HARNESS (7EC) | 0.97 | LAA | 1 | 46.1 | 173.0 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 16A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 0 | 46.1 | 173.2 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 17A»KIH-485/ATRAZINE (57.8WG) | 0.67 | LAA | 1 | 43.6 | 163.8 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 18A»BICEP II MAGNUM (5.5SC) | 1.45 | LAA | 1 | 44.8 | 168.3 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 43.5 | 163.4 |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 19.0 | 71.5 |
| | | | | LSD (0.05) | 11.17 |
| | | | | SIGNIFICANCE OF F | ** |
| | | | | STANDARD DEVIATION | 5.53 |
| | | | | COEFFICIENT OF VARIANCE | 16.79 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 147 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 124 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES
00 = PREPRE / PREEMERGENCE 05-04-2005(1)
01 = POSPOS / POSTEMERGENCE - V3-V4 STAGE 05-27-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 05-24-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: PRE AND POST APPLICATIONS OF KIH-485 IN CONVENTIONAL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 002 | SETFA | CON % | 05-24-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 05-24-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ZEAMX | PHYTO % | 06-01-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 06-01-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-01-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | ZEAMX | PHYTO % | 06-07-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 06-07-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 06-07-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SETFA | CON % | 06-21-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 06-21-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | SETFA | CON % | 07-13-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 013 | CHEAL | CON % | 07-13-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 014 | SETFA | CON % | 08-02-2005 | 02 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 015 | CHEAL | CON % | 08-02-2005 | 01 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 016 | ZEAMX | YLD/PLOT | 09-28-2005 | 03 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 03 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = DEKALB 60-19

* USER DEFINED CALCULATIONS

US 005/05/01 001 WC--- 016 -- {RAW}*(3.755)

US 005/05/01 001 WC--- 016 -- {RAW}*(3.755)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WD ALTERNATE ID#: WY 04 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: WREC-2005
 CREATED BY: US RITTER R
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - I
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. MARK SULTENFUSS DATA SOURCE: UNIVERSITY
 LOCATION: WYE RES. & ED. CNTR. TYPE: FIELD TRIAL
 CITY: QUEENSTOWN STATE: MARYLAND
 COUNTY: QUEEN ANNE'S ZIP: 21658
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 21 TILLAGE: COT
 % SILT: 59 PH: 5.8
 % CLAY: 20 CEC: 5.9
 TEXTURE: SIL % OM: 2.0
 SOIL GEN: M
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Early postemergence applications made 05/27/2005.
7. Mid-postemergence applications made 06/09/2005.
8. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-04-05 | 05-27-05 | 06-09-05 | USA |
| TIME - BEGIN | 15:30 | 13:00 | 11:30 | 24H |
| TIME - END | 16:30 | 14:00 | 12:30 | 24H |
| AIR TEMPERATURE | 61 | 65 | 80 | F |
| % REL. HUMIDITY | 30 | 45 | 70 | |
| WIND DIRECTION | SOUTHWEST | SOUTHEAST | SOUTH | |
| WIND SPEED | 3.0 | 5.0 | 5.0 | M/H |
| CLOUD COVER | CLOUDY | PARTCLDY | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | WET/WET | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 68/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPRE / PPREMERGENCE
01 = POSPOS / EARLY POSTEMERGENCE - CORN<5"
02 = MID POS / MID-POSTEMERGENCE - CORN 8-12"

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 05-03-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------------|-------|
| 05-03-2005 | 00 | MED | 26000.00 | IPA | . | . IN | NA | |
| 05-04-2005 | 00 | MED | 26000.00 | IPA | . | . IN | NA | |
| 05-27-2005 | 13 | MED | 26000.00 | IPA | 4.00 | 4.00 IN | --- | |
| 06-09-2005 | 15 | MED | 26000.00 | IPA | 16.00 | 16.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | --- | |
| 05-27-2005 | 14 | MED | 1.00 | SQF | 1.00 | 1.00 IN | TUR | |
| 06-09-2005 | 19 | LOW | 1.00 | SQY | 3.00 | 3.00 IN | TUR | |

03 P SETFA - FOXTAIL, GIANT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | --- | |
| 05-27-2005 | 13 | HGH | 8.00 | SQF | 1.00 | 1.00 IN | TUR | |

04 P DATST - JIMSONWEED
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | NA | |
| 05-27-2005 | 10 | LOW | 1.00 | SQY | 0.50 | 0.50 IN | TUR | |

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED
- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 10 = 1ST LEAF EMERGED; COTYLEDONS UNFOLDED
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- GENERAL GRASS**
- 13 = 3 LEAVES UNFOLDED

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - I
 CREATED: 03-30-2005 REVISD: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|-----------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-----------------------------------|-------------------------|------|
| | RATE | UNIT | TM | 06-01-05 | 06-01-05 | 06-01-05 | 06-07-05 | 06-07-05 | |
| | | | | P ZEAMX | P SETFA | P CHEAL | P ZEAMX | P SETFA | |
| | | | | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A>>LUMAX (3.94 SE) | 2.46 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| B>>ATRAZINE 4L (SC) | 0.75 | LAA | 0 | | | | | | |
| 3A>>DEFINE (4SC) | 0.50 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| B>>BALANCE PRO (4SC) | 0.07 | LAA | 0 | | | | | | |
| 4A HARNESS XTRA (6SC) | 1.80 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| B>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| 5A>>DEGREE XTRA (4 CS) | 2.02 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| B>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| 6A>>DEGREE XTRA (4 CS) | 2.02 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | | |
| 7A>>LUMAX (3.94 SE) | 1.97 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B>>TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 1 | | | | | | |
| 8A>>KEYSTONE (5.25SE) | 1.64 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| B>>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 2 | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | PMW | 2 | | | | | | |
| 9A>>CINCH ATZ (5.5EC) | 1.03 | LAA | 0 | 0 | 95 | 100 | 0 | 100 | |
| B>>STEADFAST (75WDG) | 0.035 | LAA | 2 | | | | | | |
| C>>LUMAX (3.94 SE) | 0.74 | LAA | 2 | | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 10A>>BASIS (75 DF) | 0.015 | LAA | 0 | 0 | 100 | 100 | 7 | 100 | |
| B>>ATRAZINE 4L (SC) | 0.75 | LAA | 0 | | | | | | |
| C>>STEADFAST (75WDG) | 0.035 | LAA | 2 | | | | | | |
| D>>LUMAX (3.94 SE) | 0.74 | LAA | 2 | | | | | | |
| E SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 11A>>BASIS (75 DF) | 0.023 | LAA | 0 | 3 | 100 | 100 | 10 | 100 | |
| B>>CINCH ATZ (5.5EC) | 2.89 | LAA | 0 | | | | | | |
| 12A>>STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B>>CALLISTO (4SC) | 0.063 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 13A>>STEADFAST (75WDG) | 0.035 | LAA | 1 | 0 | 97 | 100 | 0 | 100 | |
| B>>LUMAX (3.94 SE) | 0.985 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 14A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B>>MATRIX (25WG) | 0.0156 | LAA | 1 | | | | | | |
| C>>ACCENT (75WG) | 0.006 | LAA | 1 | | | | | | |
| D>>OTHER | | | 1 | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 15A>>BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| 16A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LS D (0.05) | 2.41 | 3.27 | 0.00 | 2.41 | 0.00 |
| | | | | SIGNIFICANCE OF F | ns | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 1.18 | 1.60 | 0.00 | 1.18 | 0.00 |
| | | | | COEFFICIENT OF VARIANCE | 692.82 | 2.26 | 0.00 | 138.56 | 0.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 28 | 28 | 28 | 34 | 34 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 5 | 5 | 5 | 11 | 11 |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - I
CREATED: 03-30-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | | 007 RAW | | 008 RAW | | 009 RAW | | 010 RAW | |
|-----------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 33 | 33 | 0 | 0 | | | | | |
| 2A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 100 | 100 | 100 | 100 | 100 | | | | | |
| B»ATRAZINE 4L (SC) | 0.75 | LAA | 0 | | | | | | | | | | |
| 3A»DEFINE (4SC) | 0.50 | LAA | 0 | 100 | 100 | 100 | 92 | 100 | | | | | |
| B»BALANCE PRO (4SC) | 0.07 | LAA | 0 | | | | | | | | | | |
| 4A HARNES XTRA (6SC) | 1.80 | LAA | 0 | 100 | 95 | 100 | 85 | 100 | | | | | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | | | | | |
| 5A»DEGREE XTRA (4 CS) | 2.02 | LAA | 0 | 100 | 100 | 100 | 98 | 100 | | | | | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | | | | | |
| 6A»DEGREE XTRA (4 CS) | 2.02 | LAA | 1 | 100 | 100 | 100 | 100 | 100 | | | | | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | | | | | | |
| 7A»LUMAX (3.94 SE) | 1.97 | LAA | 1 | 100 | 100 | 100 | 98 | 100 | | | | | |
| B»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 1 | | | | | | | | | | |
| 8A»KEYSTONE (5.25SE) | 1.64 | LAA | 0 | 100 | 97 | 100 | 90 | 100 | | | | | |
| B»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 2 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | PMW | 2 | | | | | | | | | | |
| 9A»CINCH ATZ (5.5EC) | 1.03 | LAA | 0 | 100 | 100 | 100 | 98 | 100 | | | | | |
| B»STEADFAST (75WDG) | 0.035 | LAA | 2 | | | | | | | | | | |
| C»LUMAX (3.94 SE) | 0.74 | LAA | 2 | | | | | | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| 10A»BASIS (75 DF) | 0.015 | LAA | 0 | 100 | 100 | 100 | 100 | 100 | | | | | |
| B»ATRAZINE 4L (SC) | 0.75 | LAA | 0 | | | | | | | | | | |
| C»STEADFAST (75WDG) | 0.035 | LAA | 2 | | | | | | | | | | |
| D»LUMAX (3.94 SE) | 0.74 | LAA | 2 | | | | | | | | | | |
| E SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| 11A»BASIS (75 DF) | 0.023 | LAA | 0 | 100 | 100 | 100 | 97 | 100 | | | | | |
| B»CINCH ATZ (5.5EC) | 2.89 | LAA | 0 | | | | | | | | | | |
| 12A»STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 100 | 100 | 100 | 90 | 100 | | | | | |
| B»CALLISTO (4SC) | 0.063 | LAA | 1 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 1.00 | PMV | 1 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | | | | | |
| 13A»STEADFAST (75WDG) | 0.035 | LAA | 1 | 100 | 100 | 100 | 95 | 100 | | | | | |
| B»LUMAX (3.94 SE) | 0.985 | LAA | 1 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | | | | | |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 100 | 100 | 100 | 92 | 100 | | | | | |
| B MATRIX (25WG) | 0.0156 | LAA | 1 | | | | | | | | | | |
| C ACCENT (75WG) | 0.006 | LAA | 1 | | | | | | | | | | |
| D OTHER | | | 1 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | | | | | |
| 15A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 100 | 100 | 100 | 100 | 100 | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | | | | LSD (0.05) | 0.00 | 24.11 | 24.07 | 6.81 | 0.00 | | | | |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** | | | | |
| | | | | STANDARD DEVIATION | 0.00 | 11.81 | 11.79 | 3.33 | 0.00 | | | | |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 16.24 | 16.11 | 4.89 | 0.00 | | | | |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 34 | 48 | 48 | 70 | 70 | | | | |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 11 | 25 | 25 | 47 | 47 | | | | |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - I
 CREATED: 03-30-2005 REVISD: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | VAR 01 | VAR 01 | |
|---|--|--|----------------------------|-----------------------------------|----------------|--------------------------------|---------------------------------|-------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | YLD LB 1.00 PL SD | YLD BU 1.00 A SD | |
| 011 RAW 08-02-05 P SETFA | | | | | | 013 RAW 09-28-05 P ZEAMX | 013 CALC 09-28-05 P ZEAMX | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 29.1 | 109.2 | |
| 2A»LUMAX (3.94 SE) B ATRAZINE 4L (SC) | 2.46 0.75 | LAA LAA | 0 0 | 100 | 100 | 53.0 | 199.0 | |
| 3A»DEFINE (4SC) B»BALANCE PRO (4SC) | 0.50 0.07 | LAA LAA | 0 0 | 90 | 100 | 52.2 | 195.9 | |
| 4A HARNES XTRA (6SC) B»ROUNDUP WEATHER MAX (5.5 SL) | 1.80 0.938 | LAA LAA | 0 2 | 77 | 100 | 47.4 | 178.1 | |
| 5A»DEGREE XTRA (4 CS) B»ROUNDUP WEATHER MAX (5.5 SL) | 2.02 0.938 | LAA LAA | 0 2 | 95 | 100 | 49.2 | 184.6 | |
| 6A»DEGREE XTRA (4 CS) B»ROUNDUP WEATHER MAX (5.5 SL) | 2.02 0.938 | LAA LAA | 1 1 | 95 | 98 | 49.1 | 184.2 | |
| 7A»LUMAX (3.94 SE) B»TOUCHDOWN TOTAL (4.17AE) | 1.97 0.78 | LAA LAA | 1 1 | 95 | 100 | 49.4 | 185.4 | |
| 8A»KEYSTONE (5.25SE) B»GLYPHOMAX XRT (4.0AE) C FERTILIZER-21% AMMONIUM SULFATE | 1.64 0.75 2.00 | LAA LAA PMW | 0 2 2 | 80 | 100 | 44.1 | 165.6 | |
| 9A»CINCH ATZ (5.5EC) B»STEADFAST (75WDG) C»LUMAX (3.94 SE) D SURFACTANT - NON-IONIC (SL) E FERTILIZER-21% AMMONIUM SULFATE | 1.03 0.035 0.74 0.25 2.00 | LAA LAA LAA PMV LMA | 0 2 2 2 2 | 97 | 100 | 48.0 | 180.1 | |
| 10A»BASIS (75 DF) B ATRAZINE 4L (SC) C»STEADFAST (75WDG) D»LUMAX (3.94 SE) E SURFACTANT - NON-IONIC (SL) F FERTILIZER-21% AMMONIUM SULFATE | 0.015 0.75 0.035 0.74 0.25 2.00 | LAA LAA LAA LAA PMV LMA | 0 0 2 2 2 2 | 100 | 100 | 50.4 | 189.1 | |
| 11A»BASIS (75 DF) B»CINCH ATZ (5.5EC) | 0.023 2.89 | LAA LAA | 0 0 | 93 | 100 | 54.8 | 205.7 | |
| 12A»STEADFAST ATZ (89.3WG) B»CALLISTO (4SC) C SURFACTANT - NON-IONIC (SL) D FERTILIZER-21% AMMONIUM SULFATE | 0.78 0.063 1.00 2.00 | LAA LAA PMV LMA | 1 1 1 1 | 87 | 100 | 50.8 | 190.9 | |
| 13A»STEADFAST (75WDG) B»LUMAX (3.94 SE) C SURFACTANT - NON-IONIC (SL) D FERTILIZER-21% AMMONIUM SULFATE | 0.035 0.985 0.25 2.00 | LAA LAA PMV LMA | 1 1 1 1 | 93 | 100 | 51.3 | 192.8 | |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) B MATRIX (25WG) C ACCENT (75WG) D OTHER E FERTILIZER-21% AMMONIUM SULFATE | 0.938 0.0156 0.006 1 2.00 | LAA LAA LAA 1 LMA | 1 1 1 1 1 | 87 | 100 | 48.8 | 183.1 | |
| 15A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 98 | 100 | 49.2 | 184.8 | |
| 16A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 19.9 | 74.6 | |
| | | | | LSD (0.05) | 7.93 | 1.20 | 6.57 | 24.67 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 3.88 | 0.589 | 3.22 | 12.08 |
| | | | | COEFFICIENT OF VARIANCE | 5.91 | 0.826 | 8.44 | 8.45 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 90 | 90 | 147 | 147 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 67 | 67 | 124 | 124 |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - I

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PRREEMERGENCE 05-04-2005(1)
01 = POSPOS / EARLY POSTEMERGENCE - CORN<5" 05-27-2005(2)
02 = MID POS / MID-POSTEMERGENCE - CORN 8-12" 06-09-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-01-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-01-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-01-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ZEAMX | PHYTO % | 06-07-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 06-07-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-07-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 06-21-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | SETFA | CON % | 07-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | CHEAL | CON % | 07-13-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 013 | ZEAMX | YLD/PLOT | 09-28-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 60-19

* USER DEFINED CALCULATIONS

US 005/05/01 001 WD--- 013 -- {RAW}*(3.755)

US 005/05/01 001 WD--- 013 -- {RAW}*(3.755)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WE **ALTERNATE ID#:** WY 05 2005
PROTOCOL#: US 005/05/01 **ALTERNATE ID#:** WREC-2005
CREATED BY: US RITTER R
CREATED: 03-30-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - II
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTRY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 21 **TILLAGE:** COT
% SILT: 59 **PH:** 5.8
% CLAY: 20 **CEC:** 5.9
TEXTURE: SIL **% OM:** 2.0
SOIL GEN: M
PREVIOUS CROP: GLXMA - SOYBEAN
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** ---
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 14 **ACTUAL SUB-BLOCKS:** 14



SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Early postemergence applications made 05/27/2005.
7. Mid-postemergence applications made 06/09/2005.
8. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-04-05 | 05-27-05 | 06-09-05 | USA |
| TIME - BEGIN | 17:30 | 13:00 | 11:30 | 24H |
| TIME - END | 18:30 | 14:00 | 12:30 | 24H |
| AIR TEMPERATURE | 62 | 65 | 80 | F |
| % REL. HUMIDITY | 40 | 45 | 70 | |
| WIND DIRECTION | SOUTHWEST | SOUTHEAST | SOUTH | |
| WIND SPEED | 3.0 | 5.0 | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | PARTCLDY | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | WET/WET | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 68/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
 01 = POSPOS / EARLY POSTEMERGENCE - CORN < 5"
 02 = MID POS / MID-POSTEMERGENCE - CORN 8-12"

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
 TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 05-03-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 05-03-2005 | 00 | MED | 26000.00 | IPA | . | . IN | | NA | |
| 05-04-2005 | 00 | MED | 26000.00 | IPA | . | . IN | | NA | |
| 05-27-2005 | 13 | MED | 26000.00 | IPA | 4.00 | 4.00 IN | | TUR | |
| 06-09-2005 | 15 | MED | 26000.00 | IPA | 16.00 | 16.00 IN | | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON PLANTED:
 TARGET: PEST SITE: FG
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | | --- | |
| 05-27-2005 | 14 | MED | 1.00 | SQF | 1.00 | 1.00 IN | | TUR | |
| 06-09-2005 | 19 | LOW | 1.00 | SQY | 3.00 | 3.00 IN | | TUR | |

03 P SETFA - FOXTAIL, GIANT PLANTED:
 TARGET: PEST SITE: FG
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | | --- | |
| 05-27-2005 | 13 | HGH | 8.00 | SQF | 1.00 | 1.00 IN | | TUR | |

04 P DATST - JIMSONWEED PLANTED:
 TARGET: PEST SITE: FG
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | | NA | |
| 05-27-2005 | 10 | LOW | 1.00 | SQY | 0.50 | 0.50 IN | | TUR | |

- * STAGE CODE -- CORN
- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED
- * STAGE CODE -- GENERAL
- 00 = DRY SEED; DORMANCY
- 10 = 1ST LEAF EMERGED; COTYLEDONS UNFOLDED
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * STAGE CODE -- GENERAL GRASS
- 13 = 3 LEAVES UNFOLDED

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - II
CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 | | CON % | | VAR 01 | |
|-----------------------------------|--------|------|----|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| | RATE | UNIT | TM | PHY % PL ALL | CON % PL ALL | CON % PL ALL | PHY % PL ALL | CON % PL ALL | |
| 001 RAW 06-01-05 P ZEAMX | | | | | | | | | |
| 002 RAW 06-01-05 P SETFA | | | | | | | | | |
| 003 RAW 06-01-05 P CHEAL | | | | | | | | | |
| 004 RAW 06-07-05 P ZEAMX | | | | | | | | | |
| 005 RAW 06-07-05 P SETFA | | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 100 | 100 | 0 | 100 | |
| 3A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | | |
| 4A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | | |
| 5A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 0 | 100 | 100 | 7 | 100 | |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | | |
| 6A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | | |
| 7A»CALLISTO (4SC) | 0.094 | LAA | 1 | 0 | 97 | 97 | 0 | 100 | |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | | |
| 8A»OPTION (35WG) | 0.066 | LAA | 1 | 0 | 80 | 73 | 0 | 100 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 9A»EQUIP (32WG) | 0.058 | LAA | 1 | 0 | 83 | 90 | 7 | 100 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 10A»STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 0 | 90 | 100 | 0 | 100 | |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 11A»PROWL H2O (3.8CS) | 1.40 | LAA | 0 | 0 | 98 | 98 | 0 | 100 | |
| B ATRAZINE 4L (SC) | 1.50 | LAA | 0 | | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | | | |
| 12A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 0 | 93 | 98 | 0 | 100 | |
| B»PROWL H2O (3.8CS) | 1.40 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 1.50 | LAA | 1 | | | | | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 0 | 100 | 100 | 0 | 100 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| LSD (0.05) | | | | 0.00 | 4.33 | 4.24 | 3.73 | 0.00 | |
| SIGNIFICANCE OF F | | | | ns | ** | ** | ** | ** | |
| STANDARD DEVIATION | | | | 0.00 | 2.10 | 2.06 | 1.82 | 0.00 | |
| COEFFICIENT OF VARIANCE | | | | 0.00 | 3.16 | 3.05 | 233.49 | 0.00 | |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 28 | 28 | 28 | 34 | 34 | |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 5 | 5 | 5 | 11 | 11 | |
| --- | | | | --- | --- | --- | --- | --- | |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - II
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|-----------------------------------|--------|------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 006 RAW 06-07-05 P CHEAL | | | | | | | | |
| 007 RAW 06-21-05 P SETFA | | | | | | | | |
| 008 RAW 06-21-05 P CHEAL | | | | | | | | |
| 009 RAW 07-13-05 P SETFA | | | | | | | | |
| 010 RAW 07-13-05 P CHEAL | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 100 | 98 | 100 | 97 | 100 |
| 3A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 100 | 92 | 100 | 83 | 100 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 4A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 100 | 97 | 100 | 83 | 100 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 5A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 100 | 100 | 100 | 93 | 100 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 6A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 100 | 98 | 100 | 92 | 100 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 7A»CALLISTO (4SC) | 0.094 | LAA | 1 | 100 | 97 | 100 | 88 | 100 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 8A»OPTION (35WG) | 0.066 | LAA | 1 | 100 | 93 | 100 | 87 | 100 |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | |
| D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | |
| 9A»EQUIP (32WG) | 0.058 | LAA | 1 | 100 | 97 | 100 | 85 | 100 |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | |
| D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | |
| 10A»STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 100 | 97 | 100 | 90 | 100 |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 11A»PROWL H20 (3.8CS) | 1.40 | LAA | 0 | 100 | 98 | 100 | 93 | 100 |
| B ATRAZINE 4L (SC) | 1.50 | LAA | 0 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | | |
| 12A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 100 | 98 | 100 | 93 | 100 |
| B»PROWL H20 (3.8CS) | 1.40 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 1.50 | LAA | 1 | | | | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 100 | 87 | 100 | 70 | 100 |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| LSL (0.05) | | | | 0.00 | 5.46 | 0.00 | 8.16 | 0.00 |
| SIGNIFICANCE OF F | | | | ** | ** | ** | ** | ** |
| STANDARD DEVIATION | | | | 0.00 | 2.66 | 0.00 | 4.00 | 0.00 |
| COEFFICIENT OF VARIANCE | | | | 0.00 | 4.00 | 0.00 | 6.45 | 0.00 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 34 | 48 | 48 | 70 | 70 |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 11 | 25 | 25 | 47 | 47 |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - II
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT NUM | TREATMENT COMPONENT | DOSAGE | | | CON % | | VAR 01 | VAR 01 |
|------------|-----------------------------------|--------|------|----|--------|--------|-----------------|----------------|
| | | RATE | UNIT | TM | PL ALL | PL ALL | YLD LB PL SD | YLD BU A SD |
| | | | | | 0 | 0 | 5.6 | 21.0 |
| 1A | UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 5.6 | 21.0 |
| 2A | BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 93 | 100 | 43.4 | 163.1 |
| 3A | IMPACT (2.8SC) | 0.016 | LAA | 1 | 75 | 100 | 36.2 | 135.9 |
| | B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| | C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| | D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 4A | IMPACT (2.8SC) | 0.022 | LAA | 1 | 75 | 100 | 41.0 | 153.8 |
| | B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| | C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| | D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 5A | IMPACT (2.8SC) | 0.016 | LAA | 1 | 87 | 100 | 43.5 | 163.2 |
| | B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| | C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| | D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| | E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 6A | IMPACT (2.8SC) | 0.022 | LAA | 1 | 83 | 100 | 43.3 | 162.5 |
| | B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| | C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| | D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| | E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 7A | CALLISTO (4SC) | 0.094 | LAA | 1 | 85 | 100 | 44.7 | 168.0 |
| | B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| | C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| | D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| | E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 8A | OPTION (35WG) | 0.066 | LAA | 1 | 78 | 100 | 41.9 | 157.4 |
| | B>>DISTINCT (70WG) | 0.175 | LAA | 1 | | | | |
| | C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | |
| | D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | |
| 9A | EQUIP (32WG) | 0.058 | LAA | 1 | 67 | 100 | 35.3 | 132.5 |
| | B>>DISTINCT (70WG) | 0.175 | LAA | 1 | | | | |
| | C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | |
| | D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | |
| 10A | STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 83 | 100 | 39.7 | 149.2 |
| | B>>DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 1.00 | PMV | 1 | | | | |
| | D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | |
| 11A | PROWL H2O (3.8CS) | 1.40 | LAA | 0 | 88 | 100 | 45.3 | 170.0 |
| | B ATRAZINE 4L (SC) | 1.50 | LAA | 0 | | | | |
| | C>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | |
| 12A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 88 | 100 | 43.4 | 163.1 |
| | B>>PROWL H2O (3.8CS) | 1.40 | LAA | 1 | | | | |
| | C ATRAZINE 4L (SC) | 1.50 | LAA | 1 | | | | |
| 13A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 53 | 100 | 38.6 | 144.8 |
| | B>>DISTINCT (70WG) | 0.175 | LAA | 1 | | | | |
| 14A | UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 1.8 | 6.9 |
| | | | | | 11.05 | 0.00 | 6.63 | 24.88 |
| | | | | | ** | ** | ** | ** |
| | | | | | 5.38 | 0.00 | 3.22 | 12.10 |
| | | | | | 9.64 | 0.00 | 11.00 | 11.00 |
| | | | | | 90 | 90 | 147 | 147 |
| | | | | | 67 | 67 | 124 | 124 |
| | | | | | .. | .. | .. | .. |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL CORN - II

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-04-2005(1)

01 = POSPOS / EARLY POSTEMERGENCE - CORN < 5" 05-27-2005(2)

02 = MID POS / MID-POSTEMERGENCE - CORN 8-12" 06-09-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-01-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-01-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-01-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ZEAMX | PHYTO % | 06-07-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 06-07-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-07-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 06-21-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | SETFA | CON % | 07-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | CHEAL | CON % | 07-13-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 013 | ZEAMX | YLD/PLOT | 09-28-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 60-19

* USER DEFINED CALCULATIONS

US 005/05/01 001 WE--- 013 -- {RAW}*(3.755)

US 005/05/01 001 WE--- 013 -- {RAW}*(3.755)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WF ALTERNATE ID#: WY 06 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: WREC-2005
 CREATED BY: US RITTER R
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 TITLE: ACCENT TANK-MIX/TIMING STUDY
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. MARK SULTENFUSS DATA SOURCE: UNIVERSITY
 LOCATION: WYE RES. & ED. CNTR. TYPE: FIELD TRIAL
 CITY: QUEENSTOWN STATE: MARYLAND
 COUNTY: QUEEN ANNE'S ZIP: 21658
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 21 TILLAGE: COT
 % SILT: 59 PH: 5.8
 % CLAY: 20 CEC: 5.9
 TEXTURE: SIL % OM: 2.0
 SOIL GEN: M
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 24 ACTUAL SUB-BLOCKS: 24

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Early postemergence applications made 05/27/2005.
6. Mid-postemergence applications made 06/09/2005.
7. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|-----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-27-05 | 06-09-05 | USA |
| TIME - BEGIN | 15:00 | 11:30 | 24H |
| TIME - END | 16:00 | 12:30 | 24H |
| AIR TEMPERATURE | 66 | 80 | F |
| % REL. HUMIDITY | 40 | 70 | |
| WIND DIRECTION | SOUTHEAST | SOUTH | |
| WIND SPEED | 5.0 | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | PARTCLDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | WET/WET | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 68/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE - CORN V1 TO V2, 1 TO 2" GRASS
 01 = MID POS / MID-POSTEMERGENCE - CORN V5 TO V6, 4 TO 6" GRASS

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 05-03-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|--------------|---------|---------|----------|------------|-------|
| 05-03-2005 | 00 | MED | 26000.00 IPA | . | . | . IN | NA | |
| 05-27-2005 | 13 | MED | 26000.00 IPA | 4.00 | 4.00 | 4.00 IN | TUR | |
| 06-09-2005 | 15 | MED | 26000.00 IPA | 16.00 | 16.00 | 16.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-03-2005 | 00 | --- | | IND | . | . IN | --- | |
| 05-27-2005 | 14 | MED | 1.00 SQF | 1.00 | 1.00 | 1.00 IN | TUR | |
| 06-09-2005 | 19 | MED | 1.00 SQF | 3.00 | 3.00 | 3.00 IN | TUR | |

03 P SETFA - FOXTAIL, GIANT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-03-2005 | 00 | --- | | IND | . | . IN | --- | |
| 05-27-2005 | 13 | HGH | 4.00 SQF | 1.00 | 1.00 | 1.00 IN | TUR | |
| 06-09-2005 | 13 | HGH | 5.00 SQF | 4.00 | 6.00 | 5.00 IN | TUR | |

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED
- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- GENERAL GRASS**
- 13 = 3 LEAVES UNFOLDED

TITLE: ACCENT TANK-MIX/TIMING STUDY
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW | | 002 RAW | | 003 RAW | | 004 RAW | | 005 RAW | |
|-----------------------------------|------------------------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---|
| | | 06-01-05 | | 06-01-05 | | 06-01-05 | | 06-07-05 | | 06-07-05 | |
| | | P ZEAMX | P SETFA | P ZEAMX | P SETFA | P CHEAL | P ZEAMX | P SETFA | P ZEAMX | P SETFA | |
| | | VAR 01 | | CON % | | CON % | | VAR 01 | | CON % | |
| | | PHY % | | CON % | | CON % | | PHY % | | CON % | |
| | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| | | PL ALL | | PL ALL | | PL ALL | | PL ALL | | PL ALL | |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A ACCENT (75WG) | 0.035 LAA 0 | 0 | 60 | 30 | 0 | 97 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 3A ACCENT (75WG) | 0.0238 LAA 0 | 0 | 60 | 23 | 3 | 97 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 4A ACCENT (75WG) | 0.035 LAA 0 | 0 | 70 | 47 | 3 | 97 | | | | | |
| B»HARMONY GT (75WG) | 0.00263 LAA 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 5A ACCENT (75WG) | 0.0238 LAA 0 | 0 | 67 | 33 | 0 | 100 | | | | | |
| B»HARMONY GT (75WG) | 0.00175 LAA 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 6A ACCENT (75WG) | 0.035 LAA 0 | 0 | 63 | 15 | 0 | 98 | | | | | |
| B»HARMONY GT (75WG) | 0.00194 LAA 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 7A ACCENT (75WG) | 0.0238 LAA 0 | 0 | 70 | 32 | 3 | 98 | | | | | |
| B»HARMONY GT (75WG) | 0.00131 LAA 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 8A ACCENT (75WG) | 0.035 LAA 0 | 0 | 63 | 33 | 8 | 97 | | | | | |
| B»HARMONY GT (75WG) | 0.00263 LAA 0 | | | | | | | | | | |
| C»DISTINCT (70WG) | 0.175 LAA 0 | | | | | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 9A ACCENT (75WG) | 0.035 LAA 0 | 0 | 62 | 30 | 0 | 100 | | | | | |
| B»HARMONY GT (75WG) | 0.00194 LAA 0 | | | | | | | | | | |
| C»DISTINCT (70WG) | 0.175 LAA 0 | | | | | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 10A ACCENT (75WG) | 0.035 LAA 0 | 0 | 60 | 28 | 3 | 97 | | | | | |
| B»PERMIT (75WG) | 0.0206 LAA 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 11A ACCENT (75WG) | 0.035 LAA 0 | 0 | 63 | 25 | 0 | 95 | | | | | |
| B»PERMIT (75WG) | 0.0138 LAA 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 12A»STEADFAST (75WDG) | 0.035 LAA 0 | 0 | 73 | 40 | 0 | 95 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 PMV 0 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 0 | | | | | | | | | | |
| 13A ACCENT (75WG) | 0.035 LAA 1 | 0 | 0 | 0 | 0 | 0 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 PMV 1 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 1 | | | | | | | | | | |
| 14A ACCENT (75WG) | 0.0238 LAA 1 | 0 | 0 | 0 | 0 | 0 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 PMV 1 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 LMA 1 | | | | | | | | | | |

TITLE: ACCENT TANK-MIX/TIMING STUDY

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|-----------------------------------|-----------------------------------|------|----|-----------------------------------|-------------------------|-------------------------|-----------------------------------|-------------------------|
| | RATE | UNIT | TM | 06-01-05 P ZEAMX | 06-01-05 P SETFA | 06-01-05 P CHEAL | 06-07-05 P ZEAMX | 06-07-05 P SETFA |
| | | | | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL |
| 15A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 16A ACCENT (75WG) | 0.0238 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 17A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 18A ACCENT (75WG) | 0.0238 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 19A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 20A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 21A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»PERMIT (75WG) | 0.0206 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 22A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B»PERMIT (75WG) | 0.0138 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 23A»STEADFAST (75WDG) | 0.035 | LAA | 1 | 0 | 0 | 0 | 0 | 0 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 24A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| | LSL (0.05) | | | 0.00 | 7.45 | 11.21 | 4.66 | 4.65 |
| | SIGNIFICANCE OF F | | | ns | ** | ** | ns | ** |
| | STANDARD DEVIATION | | | 0.00 | 3.73 | 5.60 | 2.33 | 2.32 |
| | COEFFICIENT OF VARIANCE | | | 0.00 | 15.39 | 48.92 | 316.00 | 6.39 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 5 | 5 | 5 | 11 | 11 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | NA | NA | NA | NA | NA |

TITLE: ACCENT TANK-MIX/TIMING STUDY
CREATED: 03-30-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | | 007 RAW | | 008 RAW | | 009 RAW | | 010 RAW | |
|-----------------------------------|---------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A ACCENT (75WG) | 0.035 | LAA | 0 | 93 | 0 | 93 | 95 | 92 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 3A ACCENT (75WG) | 0.0238 | LAA | 0 | 93 | 0 | 93 | 97 | 93 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 4A ACCENT (75WG) | 0.035 | LAA | 0 | 98 | 3 | 97 | 100 | 93 | | | | | |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 5A ACCENT (75WG) | 0.0238 | LAA | 0 | 95 | 0 | 97 | 98 | 97 | | | | | |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 6A ACCENT (75WG) | 0.035 | LAA | 0 | 92 | 0 | 95 | 100 | 92 | | | | | |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 7A ACCENT (75WG) | 0.0238 | LAA | 0 | 97 | 0 | 97 | 100 | 97 | | | | | |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 8A ACCENT (75WG) | 0.035 | LAA | 0 | 95 | 0 | 95 | 100 | 93 | | | | | |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 0 | | | | | | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 0 | | | | | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 9A ACCENT (75WG) | 0.035 | LAA | 0 | 95 | 0 | 95 | 100 | 95 | | | | | |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 0 | | | | | | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 0 | | | | | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 10A ACCENT (75WG) | 0.035 | LAA | 0 | 95 | 0 | 95 | 100 | 97 | | | | | |
| B»PERMIT (75WG) | 0.0206 | LAA | 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 11A ACCENT (75WG) | 0.035 | LAA | 0 | 92 | 3 | 97 | 97 | 93 | | | | | |
| B»PERMIT (75WG) | 0.0138 | LAA | 0 | | | | | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 12A»STEADFAST (75WDG) | 0.035 | LAA | 0 | 95 | 0 | 100 | 100 | 100 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | | | | | | |
| 13A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 30 | 7 | 70 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | | | | | |
| 14A ACCENT (75WG) | 0.0238 | LAA | 1 | 0 | 0 | 20 | 7 | 65 | | | | | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | | | | | |

TITLE: ACCENT TANK-MIX/TIMING STUDY

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW | |
|-----------------------------------|---------|------|----|-----------------------------------|-------------------------|---------------------|---------------------|---------------------|-------|
| | RATE | UNIT | TM | 06-07-05 P CHEAL | 06-14-05 P ZEAMX | 06-14-05 P SETFA | 06-14-05 P CHEAL | 06-21-05 P SETFA | |
| | | | | CON % 1.00 | VAR 01 PHY % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 15A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 20 | 20 | 63 | |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 16A ACCENT (75WG) | 0.0238 | LAA | 1 | 0 | 0 | 23 | 13 | 57 | |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 17A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 20 | 23 | 67 | |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 18A ACCENT (75WG) | 0.0238 | LAA | 1 | 0 | 0 | 23 | 23 | 60 | |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 19A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 20 | 60 | 60 | |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 20A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 23 | 60 | 70 | |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 21A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 37 | 27 | 63 | |
| B»PERMIT (75WG) | 0.0206 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 22A ACCENT (75WG) | 0.035 | LAA | 1 | 0 | 0 | 30 | 27 | 55 | |
| B»PERMIT (75WG) | 0.0138 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 23A»STEADFAST (75WDG) | 0.035 | LAA | 1 | 0 | 0 | 60 | 27 | 77 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 24A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSL (0.05) | 4.80 | 2.66 | 4.71 | 7.59 | 10.60 |
| | | | | SIGNIFICANCE OF F | ** | ns | ** | ** | ** |
| | | | | STANDARD DEVIATION | 2.40 | 1.33 | 2.36 | 3.80 | 5.30 |
| | | | | COEFFICIENT OF VARIANCE | 6.79 | 586.81 | 5.09 | 8.08 | 8.91 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 11 | 18 | 18 | 18 | 25 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | NA | 5 | 5 | 5 | 12 |

TITLE: ACCENT TANK-MIX/TIMING STUDY
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|-----------------------------------|---------|------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A ACCENT (75WG) | 0.035 | LAA | 0 | 95 | 85 | 90 | 77 | 87 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 3A ACCENT (75WG) | 0.0238 | LAA | 0 | 97 | 83 | 92 | 77 | 93 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 4A ACCENT (75WG) | 0.035 | LAA | 0 | 100 | 88 | 100 | 83 | 100 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 5A ACCENT (75WG) | 0.0238 | LAA | 0 | 100 | 85 | 100 | 82 | 97 |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 6A ACCENT (75WG) | 0.035 | LAA | 0 | 100 | 80 | 100 | 73 | 100 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 7A ACCENT (75WG) | 0.0238 | LAA | 0 | 100 | 90 | 100 | 82 | 98 |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 8A ACCENT (75WG) | 0.035 | LAA | 0 | 100 | 87 | 100 | 77 | 100 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 0 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 9A ACCENT (75WG) | 0.035 | LAA | 0 | 100 | 90 | 100 | 87 | 100 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 0 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 10A ACCENT (75WG) | 0.035 | LAA | 0 | 100 | 88 | 100 | 78 | 97 |
| B»PERMIT (75WG) | 0.0206 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 11A ACCENT (75WG) | 0.035 | LAA | 0 | 93 | 87 | 85 | 78 | 83 |
| B»PERMIT (75WG) | 0.0138 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 12A»STEADFAST (75WDG) | 0.035 | LAA | 0 | 100 | 95 | 98 | 92 | 93 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | | |
| 13A ACCENT (75WG) | 0.035 | LAA | 1 | 20 | 75 | 37 | 80 | 57 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 14A ACCENT (75WG) | 0.0238 | LAA | 1 | 20 | 70 | 40 | 68 | 40 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |

TITLE: ACCENT TANK-MIX/TIMING STUDY

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 012 RAW | 013 RAW | 014 RAW | 015 RAW |
|-----------------------------------|-----------------------------------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 06-21-05 P CHEAL | 07-06-05 P SETFA | 07-06-05 P CHEAL | 07-19-05 P SETFA | 07-19-05 P CHEAL |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 15A ACCENT (75WG) | 0.035 | LAA | 1 | 37 | 72 | 90 | 62 | 93 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 16A ACCENT (75WG) | 0.0238 | LAA | 1 | 38 | 70 | 53 | 70 | 83 |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 17A ACCENT (75WG) | 0.035 | LAA | 1 | 40 | 70 | 87 | 72 | 87 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 18A ACCENT (75WG) | 0.0238 | LAA | 1 | 33 | 70 | 53 | 68 | 85 |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 19A ACCENT (75WG) | 0.035 | LAA | 1 | 67 | 60 | 100 | 63 | 100 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 20A ACCENT (75WG) | 0.035 | LAA | 1 | 77 | 63 | 100 | 55 | 100 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 21A ACCENT (75WG) | 0.035 | LAA | 1 | 23 | 62 | 40 | 62 | 38 |
| B»PERMIT (75WG) | 0.0206 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 22A ACCENT (75WG) | 0.035 | LAA | 1 | 23 | 65 | 27 | 67 | 32 |
| B»PERMIT (75WG) | 0.0138 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 23A»STEADFAST (75WDG) | 0.035 | LAA | 1 | 52 | 85 | 62 | 82 | 48 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 24A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | | | 21.00 | 13.73 | 26.13 | 15.57 | 14.59 |
| | SIGNIFICANCE OF F | | | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | 10.50 | 6.87 | 13.07 | 7.78 | 7.29 |
| | COEFFICIENT OF VARIANCE | | | 20.37 | 11.73 | 21.90 | 14.00 | 11.83 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 25 | 40 | 40 | 53 | 53 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | 12 | 27 | 27 | 40 | 40 |

TITLE: ACCENT TANK-MIX/TIMING STUDY
 CREATED: 03-30-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 016 RAW | 017 RAW | 018 RAW | 018 CALC |
|-----------------------------------|---------|------|----|-------------------------|-------------------------|-----------------------------------|----------------------------------|
| | RATE | UNIT | TM | 08-02-05 P SETFA | 08-02-05 P CHEAL | 09-28-05 P ZEAMX | 09-28-05 P ZEAMX |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 01 YLD LB 1.00 PL SD | VAR 01 YLD BU 1.00 A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 11.4 | 42.8 |
| 2A ACCENT (75WG) | 0.035 | LAA | 0 | 70 | 87 | 44.2 | 166.1 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 3A ACCENT (75WG) | 0.0238 | LAA | 0 | 75 | 93 | 44.7 | 167.7 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 4A ACCENT (75WG) | 0.035 | LAA | 0 | 77 | 97 | 47.0 | 176.6 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 5A ACCENT (75WG) | 0.0238 | LAA | 0 | 70 | 93 | 43.6 | 163.7 |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 6A ACCENT (75WG) | 0.035 | LAA | 0 | 68 | 97 | 47.5 | 178.5 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 7A ACCENT (75WG) | 0.0238 | LAA | 0 | 78 | 97 | 46.9 | 176.2 |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 8A ACCENT (75WG) | 0.035 | LAA | 0 | 68 | 100 | 42.7 | 160.5 |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 0 | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 0 | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 9A ACCENT (75WG) | 0.035 | LAA | 0 | 80 | 98 | 48.1 | 180.6 |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 0 | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 0 | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 10A ACCENT (75WG) | 0.035 | LAA | 0 | 75 | 97 | 48.2 | 181.0 |
| B»PERMIT (75WG) | 0.0206 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 11A ACCENT (75WG) | 0.035 | LAA | 0 | 70 | 78 | 45.5 | 170.7 |
| B»PERMIT (75WG) | 0.0138 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 12A»STEADFAST (75WDG) | 0.035 | LAA | 0 | 90 | 93 | 43.1 | 161.9 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 0 | | | | |
| 13A ACCENT (75WG) | 0.035 | LAA | 1 | 80 | 40 | 34.0 | 127.7 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | |
| 14A ACCENT (75WG) | 0.0238 | LAA | 1 | 67 | 30 | 34.9 | 130.9 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | |

TITLE: ACCENT TANK-MIX/TIMING STUDY

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | VAR 01 | VAR 01 | |
|-----------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------------|--------|--------|--------|-------|
| | RATE | UNIT | TM | 1.00 | 1.00 | YLD LB | YLD BU | |
| | | | | PL ALL | PL ALL | PL SD | A SD | |
| 016 RAW 08-02-05 P SETFA | 017 RAW 08-02-05 P CHEAL | 018 RAW 09-28-05 P ZEAMX | 018 CALC 09-28-05 P ZEAMX | | | | | |
| 15A ACCENT (75WG) | 0.035 | LAA | 1 | 60 | 93 | 41.3 | 155.1 | |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 16A ACCENT (75WG) | 0.0238 | LAA | 1 | 58 | 75 | 39.0 | 146.6 | |
| B»HARMONY GT (75WG) | 0.00175 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 17A ACCENT (75WG) | 0.035 | LAA | 1 | 70 | 87 | 37.9 | 142.3 | |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 18A ACCENT (75WG) | 0.0238 | LAA | 1 | 65 | 87 | 37.7 | 141.5 | |
| B»HARMONY GT (75WG) | 0.00131 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 19A ACCENT (75WG) | 0.035 | LAA | 1 | 57 | 100 | 38.1 | 142.9 | |
| B»HARMONY GT (75WG) | 0.00263 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 20A ACCENT (75WG) | 0.035 | LAA | 1 | 43 | 100 | 38.1 | 143.1 | |
| B»HARMONY GT (75WG) | 0.00194 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 21A ACCENT (75WG) | 0.035 | LAA | 1 | 53 | 33 | 39.6 | 148.6 | |
| B»PERMIT (75WG) | 0.0206 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 22A ACCENT (75WG) | 0.035 | LAA | 1 | 57 | 22 | 35.2 | 132.3 | |
| B»PERMIT (75WG) | 0.0138 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 23A»STEADFAST (75WDG) | 0.035 | LAA | 1 | 80 | 43 | 39.5 | 148.4 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | |
| 24A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 12.4 | 46.6 | |
| | | | | LSL (0.05) | 18.07 | 20.23 | 8.70 | 32.69 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 9.00 | 10.11 | 4.35 | 16.34 |
| | | | | COEFFICIENT OF VARIANCE | 17.57 | 17.09 | 13.60 | 13.60 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 67 | 67 | 124 | 124 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 54 | 54 | 111 | 111 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE - CORN V1 TO V2, 1 TO 2" GRASS 05-27-2005(1)
01 = MID POS / MID-POSTEMERGENCE - CORN V5 TO V6, 4 TO 6" GRASS 06-09-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV_DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-01-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-01-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-01-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: ACCENT TANK-MIX/TIMING STUDY

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 004 | ZEAMX | PHYTO % | 06-07-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 06-07-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-07-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | ZEAMX | PHYTO % | 06-14-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 06-14-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 06-14-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 06-21-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | SETFA | CON % | 07-06-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 013 | CHEAL | CON % | 07-06-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 014 | SETFA | CON % | 07-19-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 015 | CHEAL | CON % | 07-19-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 016 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 017 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 018 | ZEAMX | YLD/PLOT | 09-28-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 60-19

* USER DEFINED CALCULATIONS

US 005/05/01 001 WF---- 018 -- {RAW}*(3.755)

US 005/05/01 001 WF---- 018 -- {RAW}*(3.755)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WG ALTERNATE ID#: WY 07 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: US 005/01/01
 CREATED BY: US RITTER R
 CREATED: 04-04-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: GLYPHOSATE TIMING STUDY IN CONVENTIONAL CORN

COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. MARK SULTENFUSS DATA SOURCE: UNIVERSITY
 LOCATION: WYE RES. & ED. CNTR. TYPE: FIELD TRIAL
 CITY: QUEENSTOWN STATE: MARYLAND
 COUNTY: QUEEN ANNE'S ZIP: 21658
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 21 TILLAGE: COT
 % SILT: 59 PH: 5.8
 % CLAY: 20 CEC: 5.9
 TEXTURE: SIL % OM: 2.0
 SOIL GEN: M
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 14 ACTUAL SUB-BLOCKS: 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - DeKalb 60-19.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Week-1 application made 05/12/2005.
6. Week-2 application made 05/18/2005.
7. Week-3 application made 05/27/2005.
8. Week-4 application made 06/02/2005.
9. Week-5 application made 06/09/2005.
10. Week-6 application made 06/14/2005.
11. Week-7 application made 06/21/2005.
12. Week-8 application made 06/28/2005.
13. Week-9 application made 07/06/2005.
14. Week-10 application made 07/13/2005.
15. Week-11 application made 07/19/2005.
16. Week-12 application made 07/26/2005.
17. Study harvested 09/28/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | UNIT |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-12-05 | 05-18-05 | 05-27-05 | 06-02-05 | 06-09-05 | 06-14-05 | 06-21-05 | 06-28-05 | USA |
| TIME - BEGIN | 16:30 | 16:45 | 13:00 | 11:15 | 11:30 | 14:30 | 17:00 | 14:00 | 24H |
| TIME - END | 16:45 | 17:00 | 14:00 | 11:30 | 11:45 | 15:00 | 18:00 | 15:00 | 24H |
| AIR TEMPERATURE | 65 | 65 | 65 | 64 | 80 | 90 | 76 | 88 | F |
| % REL. HUMIDITY | 55 | 60 | 45 | 45 | 70 | 75 | 50 | 70 | |
| WIND DIRECTION | SOUTHEAST | SOUTHEAST | SOUTHEAST | SOUTH | SOUTH | SOUTH | SOUTH | SOUTHEAST | M/H |
| WIND SPEED | 5.0 | 3.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.0 | 3.0 | |
| CLOUD COVER | PARTCLDY | PARTCLDY | PARTCLDY | CLOUDY | PARTCLDY | HAZY SUN | HAZY SUN | HAZY SUN | |
| DEW | NO | NO | NO | NO | NO | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | DRY/MOIST | WET/WET | DRY/MOIST | MOIST/MOI | DRY/MOIST | DRY/DRY | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | --- | |
| SOIL TEMP/DEPTH | 65/4.00 | 68/4.00 | 68/4.00 | 64/4.00 | 78/4.00 | 88/4.00 | 77/4.00 | 90/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | | | | | USA |
| INC. START | | | | | | | | | 24H |
| INC. END | | | | | | | | | 24H |
| INC. DEPTH | | | | | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | --- | --- | --- | --- | |

| APPL. NUMBER | 09 | 10 | 11 | 12 | UNIT |
|------------------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 08 | 09 | 10 | 11 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 07-06-05 | 07-13-05 | 07-19-05 | 07-26-05 | USA |
| TIME - BEGIN | 17:30 | 14:00 | 18:30 | 17:00 | 24H |
| TIME - END | 18:00 | 14:30 | 19:00 | 17:30 | 24H |
| AIR TEMPERATURE | 80 | 82 | 88 | 92 | F |
| % REL. HUMIDITY | 35 | 78 | 75 | 80 | |
| WIND DIRECTION | SOUTHEAST | SOUTHEAST | NORTHWEST | SOUTH | |
| WIND SPEED | 3.0 | 3.0 | 3.0 | 3.0 | M/H |
| CLOUD COVER | CLOUDY | CLEAR | CLEAR | HAZY SUN | |
| DEW | NO | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | MOIST/MOI | DRY/MOIST | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 80/4.00 | 80/4.00 | 85/4.00 | 90/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | USA |
| INC. START | | | | | 24H |
| INC. END | | | | | 24H |
| INC. DEPTH | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | |

* TIMING CODES

- 00 = POSPOS / POSTEMERGENCE - 1 WEEK
- 01 = POSPOS / POSTEMERGENCE - 2 WEEK
- 02 = POSPOS / POSTEMERGENCE - 3 WEEK
- 03 = POSPOS / POSTEMERGENCE - 4 WEEK
- 04 = POSPOS / POSTEMERGENCE - 5 WEEK
- 05 = POSPOS / POSTEMERGENCE - 6 WEEK
- 06 = POSPOS / POSTEMERGENCE - 7 WEEK
- 07 = POSPOS / POSTEMERGENCE - 8 WEEK
- 08 = POSPOS / POSTEMERGENCE - 9 WEEK
- 09 = POSPOS / POSTEMERGENCE - 10 WEEK
- 10 = POSPOS / POSTEMERGENCE - 11 WEEK
- 11 = POSPOS / POSTEMERGENCE - 12 WEEK

* NOZZLE DESCRIPTION

- 01 = SS-8003
- 02 = SS-8003
- 03 = SS-8003
- 04 = SS-8003
- 05 = SS-8003
- 06 = SS-8003
- 07 = SS-8003
- 08 = SS-8003
- 09 = SS-8003
- 10 = SS-8003
- 11 = SS-8003
- 12 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
 TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 05-03-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|-------|-------|-------|
| 05-03-2005 | 00 | MED | 26000.00 | IPA | 0.00 | 0.00 | 0.00 | IN | NA |
| 05-12-2005 | 09 | MED | 26000.00 | IPA | . | . | . | IN | TUR |
| 05-18-2005 | 12 | MED | 26000.00 | IPA | 3.00 | 3.00 | 3.00 | IN | TUR |
| 05-27-2005 | 13 | MED | 26000.00 | IPA | 4.00 | 4.00 | 4.00 | IN | TUR |
| 06-02-2005 | 15 | MED | 26000.00 | IPA | 8.00 | 8.00 | 8.00 | IN | TUR |
| 06-09-2005 | 15 | MED | 26000.00 | IPA | 12.00 | 16.00 | 14.00 | IN | TUR |
| 06-14-2005 | 16 | MED | 26000.00 | IPA | 24.00 | 24.00 | 24.00 | IN | TUR |
| 06-21-2005 | 18 | MED | 26000.00 | IPA | 48.00 | 48.00 | 48.00 | IN | TUR |
| 06-28-2005 | 19 | MED | 26000.00 | IPA | 60.00 | 60.00 | 60.00 | IN | TUR |
| 07-06-2005 | 51 | MED | 26000.00 | IPA | 72.00 | 72.00 | 72.00 | IN | TUR |
| 07-13-2005 | 63 | MED | 26000.00 | IPA | 84.00 | 84.00 | 84.00 | IN | TUR |
| 07-19-2005 | 67 | MED | 26000.00 | IPA | 84.00 | 84.00 | 84.00 | IN | TUR |
| 07-26-2005 | 71 | MED | 26000.00 | IPA | 84.00 | 84.00 | 84.00 | IN | TUR |

02 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-03-2005 | 00 | --- | 0.00 | IND | . | . | . | IN | --- |

03 P SETFA - FOXTAIL, GIANT
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|-------|-------|-------|
| 05-03-2005 | 00 | --- | --- | IND | . | . | . | IN | --- |
| 05-12-2005 | 11 | HGH | 10.00 | SQF | 0.25 | 0.25 | 0.25 | IN | TUR |
| 05-18-2005 | 12 | HGH | 10.00 | SQF | 1.00 | 1.00 | 1.00 | IN | TUR |
| 05-27-2005 | 13 | HGH | 10.00 | SQF | 1.00 | 1.00 | 1.00 | IN | TUR |
| 06-02-2005 | 13 | HGH | 10.00 | SQF | 3.00 | 3.00 | 3.00 | IN | TUR |
| 06-09-2005 | 13 | HGH | 10.00 | SQF | 6.00 | 6.00 | 6.00 | IN | TUR |
| 06-14-2005 | 13 | HGH | 10.00 | SQF | 12.00 | 12.00 | 12.00 | IN | TUR |
| 06-21-2005 | 14 | HGH | 10.00 | SQF | 24.00 | 24.00 | 24.00 | IN | TUR |
| 06-28-2005 | 14 | HGH | 10.00 | SQF | 36.00 | 36.00 | 36.00 | IN | TUR |
| 07-06-2005 | 16 | HGH | 10.00 | SQF | 46.00 | 46.00 | 46.00 | IN | TUR |

* STAGE CODE -- CORN

- 00 = DRY SEED (CARYOPSIS)
- 09 = EMERGENCE: COLEOPTILE PENETRATES SOIL SURFACE (CRACKING STAGE)
- 12 = 2 LEAVES UNFOLDED
- 13 = 3 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED
- 16 = 6 LEAVES UNFOLDED
- 18 = 8 LEAVES UNFOLDED
- 19 = 9 OR MORE LEAVES UNFOLDED
- 51 = BEGINNING OF TASSEL EMERGENCE: TASSEL DETECTABLE AT TOP OF STEM
- 63 = (O) BEGINNING OF POLLEN SHEDDING (O) TIPS OF STIGMATA VISIBLE
- 67 = (O) FLOWERING COMPLETED (O) STIGMATA DRYING
- 71 = BEGINNING OF GRAIN DEVELOPMENT: KERNELS AT BLISTER STAGE, ABOUT 16% DRY MATTER

* STAGE CODE -- GENERAL

- 00 = DRY SEED; DORMANCY

* STAGE CODE -- GENERAL GRASS

- 11 = FIRST LEAF UNFOLDED
- 12 = 2 LEAVES UNFOLDED
- 13 = 3 LEAVES UNFOLDED
- 14 = 4 LEAVES UNFOLDED
- 16 = 6 LEAVES UNFOLDED

TITLE: GLYPHOSATE TIMING STUDY IN CONVENTIONAL CORN

CREATED: 04-04-2005 REVISD: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 002 RAW | 003 RAW | 004 RAW | 005 RAW | 001 RAW |
|--------------------------------|-----------------------------------|---------------------------|---------------------|---------------------|---------------------|--------------------------|
| | | 06-21-05 P SETFA 14 | 07-13-05 P SETFA | 08-10-05 P SETFA | 09-13-05 P SETFA | 09-28-05 P ZEAMX |
| | | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | VAR 01 YLD LB 1.00 |
| | | PL ALL | PL ALL | PL ALL | PL ALL | PL SD |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 7.4 |
| 2A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 0 | 17 | 10 | 0 | 0 | 22.9 |
| 3A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 1 | 78 | 50 | 33 | 22 | 41.1 |
| 4A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 2 | 77 | 57 | 57 | 40 | 37.3 |
| 5A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 3 | 83 | 63 | 57 | 45 | 35.7 |
| 6A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 4 | 100 | 98 | 97 | 97 | 42.7 |
| 7A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 5 | 97 | 100 | 100 | 100 | 41.8 |
| 8A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 6 | 0 | 100 | 100 | 100 | 36.1 |
| 9A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 7 | 0 | 93 | 100 | 100 | 27.9 |
| 10A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 8 | 0 | 65 | 98 | 100 | 22.4 |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 9 | 0 | 12 | 100 | 100 | 20.8 |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 10 | 0 | 12 | 100 | 100 | 9.3 |
| 13A»TOUCHDOWN TOTAL (4.17AE) | 0.78 LAA 11 | 0 | 0 | 100 | 100 | 8.1 |
| 14A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 3.0 |
| | LSD (0.05) | 14.26 | 21.36 | 13.73 | 10.61 | 13.33 |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | 6.93 | 10.39 | 6.68 | 5.16 | 6.48 |
| | COEFFICIENT OF VARIANCE | 26.32 | 27.00 | 12.16 | 9.80 | 31.15 |
| | DAT APPLICATION # 01 TIMINGS (00) | 40 | 62 | 90 | 124 | 139 |
| | DAT APPLICATION # 02 TIMINGS (01) | 34 | 56 | 84 | 118 | 133 |
| | DAT APPLICATION # 03 TIMINGS (02) | 25 | 47 | 75 | 109 | 124 |
| | DAT APPLICATION # 04 TIMINGS (03) | 19 | 41 | 69 | 103 | 118 |
| | DAT APPLICATION # 05 TIMINGS (04) | 12 | 34 | 62 | 96 | 111 |
| | DAT APPLICATION # 06 TIMINGS (05) | 7 | 29 | 57 | 91 | 106 |
| | DAT APPLICATION # 07 TIMINGS (06) | 0 | 22 | 50 | 84 | 99 |
| | DAT APPLICATION # 08 TIMINGS (07) | NA | 15 | 43 | 77 | 92 |
| | DAT APPLICATION # 09 TIMINGS (08) | NA | 7 | 35 | 69 | 84 |
| | DAT APPLICATION # 10 TIMINGS (09) | NA | 0 | 28 | 62 | 77 |
| | DAT APPLICATION # 11 TIMINGS (10) | NA | NA | 22 | 56 | 71 |
| | DAT APPLICATION # 12 TIMINGS (11) | NA | NA | 15 | 49 | 64 |

TITLE: GLYPHOSATE TIMING STUDY IN CONVENTIONAL CORN

CREATED: 04-04-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 YLD BU 1.00 A SD |
|--------------------------------|--------|------|----|---------------------------------------|
| | RATE | UNIT | TM | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 27.9 |
| 2A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 0 | 86.1 |
| 3A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 1 | 154.5 |
| 4A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 2 | 140.2 |
| 5A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 3 | 134.2 |
| 6A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 4 | 160.4 |
| 7A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 5 | 157.0 |
| 8A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 6 | 135.7 |
| 9A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 7 | 104.9 |
| 10A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 8 | 84.1 |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 9 | 78.0 |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 10 | 35.0 |
| 13A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 11 | 30.5 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 11.3 |
| | | | | LSD (0.05) 50.00 |
| | | | | SIGNIFICANCE OF F ** |
| | | | | STANDARD DEVIATION 24.34 |
| | | | | COEFFICIENT OF VARIANCE 31.15 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) 139 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) 133 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) 124 |
| | | | | DAT APPLICATION # 04 TIMINGS (03) 118 |
| | | | | DAT APPLICATION # 05 TIMINGS (04) 111 |
| | | | | DAT APPLICATION # 06 TIMINGS (05) 106 |
| | | | | DAT APPLICATION # 07 TIMINGS (06) 99 |
| | | | | DAT APPLICATION # 08 TIMINGS (07) 92 |
| | | | | DAT APPLICATION # 09 TIMINGS (08) 84 |
| | | | | DAT APPLICATION # 10 TIMINGS (09) 77 |
| | | | | DAT APPLICATION # 11 TIMINGS (10) 71 |
| | | | | DAT APPLICATION # 12 TIMINGS (11) 64 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = POSPOS / POSTEMERGENCE - 1 WEEK 05-12-2005 (1)
- 01 = POSPOS / POSTEMERGENCE - 2 WEEK 05-18-2005 (2)
- 02 = POSPOS / POSTEMERGENCE - 3 WEEK 05-27-2005 (3)
- 03 = POSPOS / POSTEMERGENCE - 4 WEEK 06-02-2005 (4)
- 04 = POSPOS / POSTEMERGENCE - 5 WEEK 06-09-2005 (5)
- 05 = POSPOS / POSTEMERGENCE - 6 WEEK 06-14-2005 (6)
- 06 = POSPOS / POSTEMERGENCE - 7 WEEK 06-21-2005 (7)
- 07 = POSPOS / POSTEMERGENCE - 8 WEEK 06-28-2005 (8)
- 08 = POSPOS / POSTEMERGENCE - 9 WEEK 07-06-2005 (9)
- 09 = POSPOS / POSTEMERGENCE - 10 WEEK 07-13-2005 (10)
- 10 = POSPOS / POSTEMERGENCE - 11 WEEK 07-19-2005 (11)
- 11 = POSPOS / POSTEMERGENCE - 12 WEEK 07-26-2005 (12)

TITLE: GLYPHOSATE TIMING STUDY IN CONVENTIONAL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 002 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | 14 | RAW | ALL | CON | % | H | 1.00 FL | NO | 0001 | 0 | N |
| 003 | SETFA | CON % | 07-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | H | 1.00 FL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 08-10-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | H | 1.00 FL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 09-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | H | 1.00 FL | NO | 0001 | 0 | N |
| 001 | ZEAMX | YLD/PLOT | 09-28-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 FL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 60-19

* STAGE CODE

14 = 4 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/05/01 001 WG--- 001 -- {RAW}*(3.755)

US 005/05/01 001 WG--- 001 -- {RAW}*(3.755)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WH ALTERNATE ID#: WY 08 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-04-2005 REVISED: 10-18-2005 COMPLETED: Y
 TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. MARK SULTENFUSS TYPE: FIELD TRIAL
 LOCATION: WYE RES. & ED. CNTR. STATE: MARYLAND
 CITY: QUEENSTOWN ZIP: 21658
 COUNTRY: QUEEN ANNE'S
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 21 TILLAGE: COT
 % SILT: 59 PH: 5.8
 % CLAY: 20 CEC: 5.9
 TEXTURE: SIL % OM: 2.0
 SOIL GEN: M
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - Pioneer 35P15.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Early postemergence applications made 05/27/2005.
7. Study harvested 09/29/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|-----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-04-05 | 05-27-05 | USA |
| TIME - BEGIN | 17:30 | 17:00 | 24H |
| TIME - END | 18:30 | 18:00 | 24H |
| AIR TEMPERATURE | 62 | 64 | F |
| % REL. HUMIDITY | 40 | 30 | |
| WIND DIRECTION | SOUTHWEST | SOUTHEAST | |
| WIND SPEED | 3.0 | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | PARTCLDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | WET/WET | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 68/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
 01 = POSPOS / EARLY POSTEMERGENCE - CORN < 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
CREATED: 04-04-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 | | | | |
|-----------------------------------|--------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 001 RAW 06-01-05 P ZEAMX | | | | | | | | |
| 002 RAW 06-01-05 P SETFA | | | | | | | | |
| 003 RAW 06-07-05 P SETFA | | | | | | | | |
| 004 RAW 06-07-05 P CHEAL | | | | | | | | |
| 005 RAW 06-21-05 P SETFA | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 0 | 100 | 100 | 100 | 97 |
| 3A»GUARDSMAN MAX (5L) | 1.25 | LAA | 0 | 0 | 100 | 100 | 100 | 97 |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 4A»PROWL HTO (3.8CS) | 1.48 | LAA | 0 | 0 | 80 | 98 | 100 | 100 |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 5A»OUTLOOK (6EC) | 0.75 | LAA | 0 | 0 | 93 | 100 | 98 | 100 |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 6A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 0 | 63 | 93 | 98 | 97 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 7A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 0 | 65 | 93 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 8A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 0 | 62 | 92 | 93 | 100 |
| B CLARITY (4SL) | 0.125 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 9A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 0 | 60 | 95 | 95 | 100 |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 10A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 0 | 68 | 92 | 100 | 100 |
| B CLARITY (4SL) | 0.125 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 11A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 0 | 57 | 88 | 100 | 98 |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| LSLSD (0.05) | | | | 0.00 | 10.36 | 5.30 | 4.00 | 3.73 |
| SIGNIFICANCE OF F | | | | ns | ** | ** | ** | ** |
| STANDARD DEVIATION | | | | 0.00 | 5.00 | 2.55 | 1.91 | 1.80 |
| COEFFICIENT OF VARIANCE | | | | 0.00 | 9.81 | 3.94 | 2.86 | 2.68 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 28 | 28 | 34 | 34 | 48 |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 5 | 5 | 11 | 11 | 25 |

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
 CREATED: 04-04-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|--------------------------------|--------|------|----|-----------------------------------|----------------|----------------|----------------|----------------|------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | |
| 006 RAW 06-21-05 P CHEAL | | | | | | | | | |
| 007 RAW 07-13-05 P SETFA | | | | | | | | | |
| 008 RAW 07-13-05 P CHEAL | | | | | | | | | |
| 009 RAW 08-02-05 P SETFA | | | | | | | | | |
| 010 RAW 08-02-05 P CHEAL | | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 90 | 100 | 82 | 100 | |
| 3A»GUARDSMAN MAX (5L) | 1.25 | LAA | 0 | 100 | 97 | 100 | 90 | 100 | |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 4A»PROWL HTO (3.8CS) | 1.48 | LAA | 0 | 100 | 97 | 100 | 97 | 100 | |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 5A»OUTLOOK (6EC) | 0.75 | LAA | 0 | 100 | 98 | 100 | 95 | 100 | |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 6A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 100 | 88 | 100 | 82 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 7A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 100 | 92 | 100 | 88 | 100 | |
| B ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 8A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 100 | 92 | 100 | 88 | 100 | |
| B CLARITY (4SL) | 0.125 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 9A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 100 | 93 | 100 | 88 | 100 | |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 10A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 100 | 93 | 100 | 88 | 100 | |
| B CLARITY (4SL) | 0.125 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| E FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 11A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 100 | 92 | 100 | 90 | 100 | |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| E FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSL (0.05) | 0.00 | 5.69 | 0.00 | 7.86 | 0.00 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 2.74 | 0.00 | 3.79 | 0.00 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 4.33 | 0.00 | 6.27 | 0.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 48 | 70 | 70 | 90 | 90 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 25 | 47 | 47 | 67 | 67 |

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
 CREATED: 04-04-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 011 CALC |
|--------------------------------|--------|------|----|-----------------------------------|---------------------|
| | RATE | UNIT | TM | 09-27-05 P ZEAMX | 09-27-05 P ZEAMX |
| | | | | VAR 01 YLD LB | VAR 01 YLD % |
| | | | | 1.00 PL SD | 1.00 A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 13.8 | 53.8 |
| 2A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 36.1 | 140.3 |
| 3A»GUARDSMAN MAX (5L) | 1.25 | LAA | 0 | 38.9 | 151.3 |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 4A»PROWL HTO (3.8CS) | 1.48 | LAA | 0 | 38.9 | 151.3 |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 5A»OUTLOOK (6EC) | 0.75 | LAA | 0 | 38.6 | 150.3 |
| B»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 6A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 39.0 | 151.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 7A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 40.8 | 158.7 |
| B ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 8A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 36.7 | 142.7 |
| B CLARITY (4SL) | 0.125 | LAA | 1 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 9A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 36.7 | 142.7 |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 10A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 38.2 | 148.6 |
| B CLARITY (4SL) | 0.125 | LAA | 1 | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| E FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 11A»LIGHTNING (70 WDG) | 0.056 | LAA | 1 | 37.4 | 145.4 |
| B»DISTINCT (70WG) | 0.0875 | LAA | 1 | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| E FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 11.5 | 44.9 |
| | | | | LSD (0.05) | 9.80 |
| | | | | SIGNIFICANCE OF F | ** |
| | | | | STANDARD DEVIATION | 4.73 |
| | | | | COEFFICIENT OF VARIANCE | 17.08 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 146 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 123 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-04-2005(1)

* TIMING CODES

01 = POSPOS / EARLY POSTEMERGENCE - CORN < 12 INCHES 05-27-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|-------|----|------|
| 001 | ZEAMX | PHYTO % | 06-01-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-01-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | SETFA | CON % | 06-07-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CHEAL | CON % | 06-07-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-21-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SETFA | CON % | 07-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 07-13-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | ZEAMX | YLD/PLOT | 09-27-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | % | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = PIONEER 35P15 YG/IT

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 35P15 YG/IT

* USER DEFINED CALCULATIONS

US 005/05/01 001 WH--- 011 -- {RAW}*(3.89)

US 005/05/01 001 WH--- 011 -- {RAW}*(3.89)

ABSTRACT

A. Trial Initiation

1. Study planted 05/03/2005. Variety - Pioneer 34M93.
2. 102 lb/a of nitrogen from ammonium nitrate applied preplant.
3. Starter fertilizer of 30-20-0 applied through the planter
4. Estimated carryover from previous soybean crop = 30 lb N/a.
5. Preemergence applications made 05/04/2005.
6. Early postemergence applications made 05/27/2005.
7. Mid-postemergence applications made 06/09/2005.
8. Study harvested 09/29/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-04-05 | 05-27-05 | 06-09-05 | USA |
| TIME - BEGIN | 17:30 | 17:00 | 13:00 | 24H |
| TIME - END | 18:30 | 18:00 | 13:30 | 24H |
| AIR TEMPERATURE | 62 | 64 | 84 | F |
| % REL. HUMIDITY | 40 | 30 | 70 | |
| WIND DIRECTION | SOUTHWEST | SOUTHEAST | SOUTH | |
| WIND SPEED | 3.0 | 5.0 | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | PARTCLDY | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | WET/WET | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 68/4.00 | 80/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
 01 = POSPOS / EARLY POSTEMERGENCE - CORN < 6 INCHES
 02 = MID POS / MID-POSTEMERGENCE - CORN < 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 34M93 YG/LL
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 05-03-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------------|-------|
| 05-03-2005 | 00 | MED | 26000.00 | IPA | . | . IN | NA | |
| 05-04-2005 | 00 | MED | 26000.00 | IPA | . | . IN | NA | |
| 05-27-2005 | 13 | MED | 26000.00 | IPA | 4.00 | 4.00 IN | TUR | |
| 06-09-2005 | 15 | MED | 26000.00 | IPA | 12.00 | 12.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | --- | |
| 05-27-2005 | 14 | MED | 1.00 | SQF | 1.00 | 1.00 IN | TUR | |
| 06-09-2005 | 19 | MED | 3.00 | SQF | 4.00 | 4.00 IN | TUR | |

03 P SETFA - FOXTAIL, GIANT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-04-2005 | 00 | --- | | IND | . | . IN | --- | |
| 05-27-2005 | 13 | HGH | 6.00 | SQF | 1.00 | 1.00 IN | TUR | |

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED
- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- GENERAL GRASS**
- 13 = 3 LEAVES UNFOLDED

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
 CREATED: 04-04-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 | | | | |
|-----------------------------------|--------|------|----|-----------------|-----------------|-----------------|-----------------|-----------------|
| | RATE | UNIT | TM | PHY % PL ALL | CON % PL ALL | CON % PL ALL | CON % PL ALL | CON % PL ALL |
| 001 RAW 06-01-05 P ZEAMX | | | | | | | | |
| 002 RAW 06-01-05 P SETFA | | | | | | | | |
| 003 RAW 06-07-05 P SETFA | | | | | | | | |
| 004 RAW 06-07-05 P CHEAL | | | | | | | | |
| 005 RAW 06-21-05 P SETFA | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 0 | 100 | 100 | 100 | 97 |
| B FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | |
| 3A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 0 | 92 | 100 | 100 | 97 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | |
| 4A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 0 | 95 | 100 | 100 | 98 |
| B ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | |
| 5A»DEFINE (4SC) | 0.375 | LAA | 0 | 0 | 97 | 100 | 88 | 100 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | |
| 6A»DEFINE (4SC) | 0.375 | LAA | 1 | 0 | 95 | 100 | 100 | 100 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | |
| 7A»DEFINE (4SC) | 0.375 | LAA | 0 | 0 | 97 | 100 | 73 | 100 |
| B»OPTION (35WG) | 0.066 | LAA | 2 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 2 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 2 | | | | | |
| E FERTILIZER - 28%UAN | 1.50 | QMA | 2 | | | | | |
| 8A»DEFINE (4SC) | 0.375 | LAA | 1 | 0 | 68 | 100 | 100 | 100 |
| B»OPTION (35WG) | 0.066 | LAA | 1 | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | |
| E FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | |
| 9A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 0 | 98 | 100 | 100 | 100 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | |
| 10A»RADIUS (4SC) | 0.66 | LAA | 0 | 0 | 100 | 100 | 100 | 100 |
| 11A»RADIUS (4SC) | 0.66 | LAA | 0 | 0 | 98 | 100 | 98 | 100 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| LSLSD (0.05) | | | | 0.00 | 3.83 | 0.00 | 7.52 | 2.41 |
| SIGNIFICANCE OF F | | | | ns | ** | ** | ** | ** |
| STANDARD DEVIATION | | | | 0.00 | 1.85 | 0.00 | 3.62 | 1.16 |
| COEFFICIENT OF VARIANCE | | | | 0.00 | 2.89 | 0.00 | 5.55 | 1.72 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 28 | 28 | 34 | 34 | 48 |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 5 | 5 | 11 | 11 | 25 |
| DAT APPLICATION # 03 TIMINGS (02) | | | | NA | NA | NA | NA | 12 |

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
CREATED: 04-04-2005 **REVISED:** 10-18-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|-----------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 100 | 87 | 100 | 82 | 100 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | | |
| 3A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 100 | 90 | 100 | 82 | 100 | |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | | |
| 4A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 100 | 92 | 100 | 83 | 100 | |
| B ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | | |
| 5A»DEFINE (4SC) | 0.375 | LAA | 0 | 100 | 100 | 100 | 98 | 100 | |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | | |
| 6A»DEFINE (4SC) | 0.375 | LAA | 1 | 100 | 100 | 100 | 100 | 100 | |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | | | | | |
| 7A»DEFINE (4SC) | 0.375 | LAA | 0 | 83 | 100 | 100 | 97 | 100 | |
| B»OPTION (35WG) | 0.066 | LAA | 2 | | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 2 | | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 2 | | | | | | |
| E FERTILIZER - 28%UAN | 1.50 | QMA | 2 | | | | | | |
| 8A»DEFINE (4SC) | 0.375 | LAA | 1 | 100 | 100 | 100 | 100 | 100 | |
| B»OPTION (35WG) | 0.066 | LAA | 1 | | | | | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| E FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 9A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 100 | 98 | 100 | 93 | 100 | |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | | |
| 10A»RADIUS (4SC) | 0.66 | LAA | 0 | 98 | 100 | 97 | 98 | 93 | |
| 11A»RADIUS (4SC) | 0.66 | LAA | 0 | 100 | 100 | 100 | 98 | 100 | |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 1.90 | 3.43 | 2.82 | 4.40 | 5.64 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.917 | 1.65 | 1.36 | 2.12 | 2.72 |
| | | | | COEFFICIENT OF VARIANCE | 1.37 | 2.51 | 2.00 | 3.35 | 4.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 413 | 70 | 70 | 90 | 90 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 390 | 47 | 47 | 67 | 67 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 377 | 34 | 34 | 54 | 54 |

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
 CREATED: 04-04-2005 REVISED: 10-18-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 011 CALC |
|-----------------------------------|--------|------|----|-----------------------------------|---------------------|
| | RATE | UNIT | TM | 09-27-05 P ZEAMX | 09-27-05 P ZEAMX |
| | | | | VAR 01 YLD L | VAR 01 YLD BU |
| | | | | 1.00 PL SD | 1.00 PL SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 6.6 | 25.5 |
| 2A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 43.0 | 167.4 |
| B FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | |
| 3A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 40.4 | 157.3 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | |
| 4A»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | 39.4 | 153.4 |
| B ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | |
| 5A»DEFINE (4SC) | 0.375 | LAA | 0 | 41.4 | 161.0 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | |
| 6A»DEFINE (4SC) | 0.375 | LAA | 1 | 39.7 | 154.5 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 1 | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 1 | | |
| 7A»DEFINE (4SC) | 0.375 | LAA | 0 | 44.0 | 171.3 |
| B»OPTION (35WG) | 0.066 | LAA | 2 | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 2 | | |
| D ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 2 | | |
| E FERTILIZER - 28%UAN | 1.50 | QMA | 2 | | |
| 8A»DEFINE (4SC) | 0.375 | LAA | 1 | 39.6 | 154.2 |
| B»OPTION (35WG) | 0.066 | LAA | 1 | | |
| C»DISTINCT (70WG) | 0.175 | LAA | 1 | | |
| D ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | |
| E FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | |
| 9A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 41.5 | 161.3 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | |
| 10A»RADIUS (4SC) | 0.66 | LAA | 0 | 37.2 | 144.7 |
| 11A»RADIUS (4SC) | 0.66 | LAA | 0 | 41.2 | 160.4 |
| B»LIBERTY (1.67 EC) | 0.42 | LAA | 2 | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 3.00 | LMA | 2 | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 6.4 | 25.0 |
| | | | | LSD (0.05) | 5.09 |
| | | | | SIGNIFICANCE OF F | ** |
| | | | | STANDARD DEVIATION | 2.45 |
| | | | | COEFFICIENT OF VARIANCE | 8.57 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 146 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 123 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 110 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-04-2005(1)
 01 = POSPOS / EARLY POSTEMERGENCE - CORN < 6 INCHES 05-27-2005(2)
 02 = MID POS / MID-POSTEMERGENCE - CORN < 12 INCHES 06-09-2005(3)

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-01-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-01-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | SETFA | CON % | 06-07-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CHEAL | CON % | 06-07-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-21-2006 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SETFA | CON % | 07-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 07-13-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | ZEAMX | LB/PLOT | 09-27-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | L | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 PL | | | | |

* VARIETY CODES

VAR 01 = PIONEER 34M93 YG/LL

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 34M93 YG/LL

* USER DEFINED CALCULATIONS

US 005/05/01 001 WI--- 011 -- {RAW}*(3.89)

US 005/05/01 001 WI--- 011 -- {RAW}*(3.89)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 005/05/01 001 WK ALTERNATE ID#: WY 11 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: WYE 2003
 CREATED BY: US RITTER R
 CREATED: 04-04-2005 REVISED: 11-03-2005 COMPLETED: Y
 TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. MARK SULTENFUSS TYPE: FIELD TRIAL
 LOCATION: WYE RES. & ED. CNTR. STATE: MARYLAND
 CITY: QUEENSTOWN ZIP: 21658
 COUNTY: QUEEN ANNE'S
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 26400 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 33 TILLAGE: COT
 % SILT: 47 PH: 5.1
 % CLAY: 20 CEC: 5.4
 TEXTURE: L % OM: 1.9
 SOIL GEN: M
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 14 ACTUAL SUB-BLOCKS: 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/17/2005. Variety - DeKalb 60-19.
2. Starter fertilizer of 30-20-0 applied through the planter.
3. Early postemergence applications made 06/13/2005.
4. Rhizome johnsongrass was evident - 5 leaf stage, 14" tall, 1/SQY.
5. Mid-postemergence applications made 06/21/2005.
6. Study harvested 09/23/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|----------|------|
| TIMINGS | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 06-13-05 | 06-21-05 | USA |
| TIME - BEGIN | 12:30 | 15:30 | 24H |
| TIME - END | 13:30 | 16:30 | 24H |
| AIR TEMPERATURE | 82 | 78 | F |
| % REL. HUMIDITY | 75 | 50 | |
| WIND DIRECTION | SOUTH | SOUTH | |
| WIND SPEED | 3.0 | 3.0 | M/H |
| CLOUD COVER | PARTCLDY | CLOUDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 80/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

*** TIMING CODES**

- 01 = POSPOS / EARLY POSTEMERGENCE - JOHNSONGRASS < 12"
- 02 = MID POS / MID-POSTEMERGENCE - JOHNSONGRASS < 18"

*** NOZZLE DESCRIPTION**

- 01 = SS-8003
- 02 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 05-17-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|--------------|---------|---------|----------|------|-------|-------|
| 05-17-2005 | 00 | MED | 26000.00 IPA | . | . | . IN | | NA | |
| 06-13-2005 | 15 | MED | 26000.00 IPA | 16.00 | 16.00 | 16.00 IN | | TUR | |
| 06-21-2005 | 16 | MED | 26000.00 IPA | 30.00 | 30.00 | 30.00 IN | | TUR | |

02 P SORHA - JOHNSONGRASS, ESTABLISHED, SEEDLING
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 05-17-2005 | 00 | --- | | IND | . | . IN | | NA | |
| 06-13-2005 | 13 | HGH | 12.00 SQF | 4.00 | 4.00 | 4.00 IN | | TUR | |
| 06-21-2005 | 15 | HGH | 12.00 SQY | 36.00 | 36.00 | 36.00 IN | | TUR | |

03 P AMARE - PIGWEED, REDROOT, ROUGH
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-13-2005 | 14 | HGH | 10.00 SQF | 6.00 | 6.00 | 6.00 IN | | TUR | |
| 06-21-2005 | --- | --- | | IND | . | . IN | | --- | |

04 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 06-13-2005 | 19 | MED | 2.00 SQF | 4.00 | 4.00 | 4.00 IN | | TUR | |
| 06-21-2005 | 19 | HGH | 10.00 SQF | 12.00 | 12.00 | 12.00 IN | | TUR | |

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- 15 = 5 LEAVES UNFOLDED
- 16 = 6 LEAVES UNFOLDED
- * **STAGE CODE -- GENERAL**
- = TO BE SELECTED
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- SORGHUM**
- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
 CREATED: 04-04-2005 REVISED: 11-03-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|-----------------------------------|--------|------|----|-----------------------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 06-21-05 P SORHA 15 | 06-21-05 P CHEAL 19 | 06-28-05 P SORHA | 06-28-05 P CHEAL | 07-13-05 P SORHA | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| 2A»OPTION (35WG) | 0.066 | LAA | 1 | 65 | 25 | 65 | 30 | 63 | |
| B ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| C FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 3A»EQUIP (32WG) | 0.058 | LAA | 1 | 67 | 60 | 80 | 72 | 83 | |
| B ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| C FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 4A»OPTION (35WG) | 0.066 | LAA | 1 | 65 | 48 | 70 | 67 | 70 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 5A»EQUIP (32WG) | 0.058 | LAA | 1 | 70 | 57 | 65 | 80 | 47 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 6A ACCENT (75WG) | 0.041 | LAA | 1 | 33 | 20 | 70 | 33 | 80 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| 7A ACCENT (75WG) | 0.041 | LAA | 1 | 50 | 53 | 60 | 75 | 43 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| 8A»STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 60 | 87 | 68 | 90 | 53 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 9A»CELEBRITY PLUS (70WG) | 0.21 | LAA | 1 | 33 | 67 | 58 | 87 | 53 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| 10A»CELEBRITY PLUS (70WG) | 0.21 | LAA | 2 | 0 | 0 | 17 | 23 | 68 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | | |
| 11A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | 0 | 0 | 77 | 40 | 100 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 2 | 0 | 0 | 80 | 63 | 100 | |
| 13A»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 2 | 0 | 0 | 83 | 63 | 100 | |
| 14A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 8.32 | 9.31 | 24.29 | 18.84 | 41.65 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 4.00 | 4.53 | 11.81 | 9.17 | 20.26 |
| | | | | COEFFICIENT OF VARIANCE | 15.64 | 18.64 | 25.53 | 21.73 | 40.32 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 8 | 8 | 15 | 15 | 30 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | 0 | 0 | 7 | 7 | 22 |

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
 CREATED: 04-04-2005 REVISED: 11-03-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW | |
|-----------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 07-13-05 P CHEAL | 07-26-05 P SORHA | 07-26-05 P CHEAL | 08-11-05 P SORHA | 08-11-05 P CHEAL | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| 2A»OPTION (35WG) | 0.066 | LAA | 1 | 40 | 50 | 17 | 47 | 0 | |
| B ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| C FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 3A»EQUIP (32WG) | 0.058 | LAA | 1 | 82 | 75 | 85 | 63 | 80 | |
| B ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| C FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 4A»OPTION (35WG) | 0.066 | LAA | 1 | 93 | 57 | 100 | 40 | 97 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 1.50 | QMA | 1 | | | | | | |
| 5A»EQUIP (32WG) | 0.058 | LAA | 1 | 100 | 20 | 100 | 0 | 100 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.50 | PMA | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 1 | | | | | | |
| 6A ACCENT (75WG) | 0.041 | LAA | 1 | 27 | 60 | 10 | 60 | 0 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| 7A ACCENT (75WG) | 0.041 | LAA | 1 | 97 | 12 | 100 | 0 | 100 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| 8A»STEADFAST ATZ (89.3WG) | 0.78 | LAA | 1 | 98 | 45 | 98 | 35 | 97 | |
| B»DISTINCT (70WG) | 0.175 | LAA | 1 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 1 | | | | | | |
| 9A»CELEBRITY PLUS (70WG) | 0.21 | LAA | 1 | 100 | 50 | 98 | 45 | 98 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| 10A»CELEBRITY PLUS (70WG) | 0.21 | LAA | 2 | 60 | 77 | 75 | 82 | 68 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | | |
| 11A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | 85 | 100 | 83 | 100 | 75 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 2 | 90 | 100 | 90 | 97 | 87 | |
| 13A»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 2 | 85 | 93 | 82 | 90 | 63 | |
| 14A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 12.30 | 43.51 | 14.06 | 41.67 | 12.43 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 6.00 | 21.16 | 6.84 | 20.27 | 6.00 |
| | | | | COEFFICIENT OF VARIANCE | 10.72 | 49.14 | 12.50 | 52.79 | 12.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 30 | 43 | 43 | 59 | 59 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | 22 | 35 | 35 | 51 | 51 |

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
 CREATED: 04-04-2005 REVISED: 11-03-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT | TREATMENT | DOSAGE | RATE | UNIT | TM | 011 RAW | 011 CALC |
|-----|-----------------------------------|--------|-------|------|----|----------|----------|
| | | | | | | 09-23-05 | 09-23-05 |
| NUM | COMPONENT | | | | | P ZEAMX | P ZEAMX |
| | | | | | | VAR 01 | VAR 01 |
| | | | | | | YLD LB | YLD BU |
| | | | | | | 1.00 | 1.00 |
| | | | | | | PL SD | A SD |
| 1A | UNTREATED CHECK | | 0.00 | NA | 1 | 0.1 | 0.5 |
| 2A | »OPTION (35WG) | | 0.066 | LAA | 1 | 8.7 | 65.6 |
| | B ADJUVANT - VEGETABLE OIL | | 1.50 | PMA | 1 | | |
| | C FERTILIZER - 28%UAN | | 1.50 | QMA | 1 | | |
| 3A | »EQUIP (32WG) | | 0.058 | LAA | 1 | 11.7 | 87.9 |
| | B ADJUVANT - VEGETABLE OIL | | 1.50 | PMA | 1 | | |
| | C FERTILIZER - 28%UAN | | 1.50 | QMA | 1 | | |
| 4A | »OPTION (35WG) | | 0.066 | LAA | 1 | 10.2 | 76.6 |
| | B»DISTINCT (70WG) | | 0.175 | LAA | 1 | | |
| | C ADJUVANT - VEGETABLE OIL | | 1.50 | PMA | 1 | | |
| | D FERTILIZER - 28%UAN | | 1.50 | QMA | 1 | | |
| 5A | »EQUIP (32WG) | | 0.058 | LAA | 1 | 7.5 | 56.3 |
| | B»DISTINCT (70WG) | | 0.175 | LAA | 1 | | |
| | C ADJUVANT - VEGETABLE OIL | | 1.50 | PMA | 1 | | |
| | D FERTILIZER - 28%UAN | | 2.00 | QMA | 1 | | |
| 6A | ACCENT (75WG) | | 0.041 | LAA | 1 | 10.3 | 77.6 |
| | B ADJUVANT - COC (EC) | | 1.00 | QMA | 1 | | |
| 7A | ACCENT (75WG) | | 0.041 | LAA | 1 | 7.7 | 57.8 |
| | B»DISTINCT (70WG) | | 0.175 | LAA | 1 | | |
| | C ADJUVANT - COC (EC) | | 1.00 | QMA | 1 | | |
| 8A | »STEADFAST ATZ (89.3WG) | | 0.78 | LAA | 1 | 7.7 | 57.6 |
| | B»DISTINCT (70WG) | | 0.175 | LAA | 1 | | |
| | C SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 1 | | |
| | D FERTILIZER-21% AMMONIUM SULFATE | | 2.00 | LMA | 1 | | |
| 9A | »CELEBRITY PLUS (70WG) | | 0.21 | LAA | 1 | 9.6 | 72.4 |
| | B ADJUVANT - COC (EC) | | 1.00 | QMA | 1 | | |
| 10A | »CELEBRITY PLUS (70WG) | | 0.21 | LAA | 2 | 5.3 | 40.1 |
| | B ADJUVANT - COC (EC) | | 1.00 | QMA | 2 | | |
| 11A | »ROUNDUP WEATHER MAX (5.5 SL) | | 0.773 | LAA | 2 | 12.8 | 96.4 |
| 12A | »TOUCHDOWN TOTAL (4.17AE) | | 0.781 | LAA | 2 | 10.7 | 80.6 |
| 13A | »GLYPHOMAX XRT (4.0AE) | | 0.75 | LAA | 2 | 9.9 | 74.3 |
| 14A | UNTREATED CHECK | | 0.00 | NA | 2 | 0.1 | 0.8 |
| | | | | | | 4.65 | 34.93 |
| | | | | | | ** | ** |
| | | | | | | 2.26 | 17.00 |
| | | | | | | 34.49 | 34.49 |
| | | | | | | 102 | 102 |
| | | | | | | 94 | 94 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

01 = POSPOS / EARLY POSTEMERGENCE - JOHNSONGRASS < 12" 06-13-2005(1)
 02 = MID POS / MID-POSTEMERGENCE - JOHNSONGRASS < 18" 06-21-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | SORHA | CON % | 06-21-2005 | 02 | P | SORHA | 15 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRPT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|-------|----|------|
| 002 | CHEAL | CON % | 06-21-2005 | 04 | P | CHEAL | 19 | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | SORHA | CON % | 06-28-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CHEAL | CON % | 06-28-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SORHA | CON % | 07-13-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 07-13-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SORHA | CON % | 07-26-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 07-26-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | SORHA | CON % | 08-11-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | CHEAL | CON % | 08-11-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | ZEAMX | LB/PLOT | 09-23-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 60-19

* STAGE CODE

15 = 5 LEAVES UNFOLDED

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* USER DEFINED CALCULATIONS

US 005/05/01 001 WK--- 011 -- {RAW}*(7.51)

US 005/05/01 001 WK--- 011 -- {RAW}*(7.51)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WL ALTERNATE ID#: WY 12 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 04-04-2005 REVISED: 11-03-2005 COMPLETED: Y
 TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. MARK SULTENFUSS TYPE: FIELD TRIAL
 LOCATION: WYE RES. & ED. CNTR. STATE: MARYLAND
 CITY: QUEENSTOWN ZIP: 21658
 COUNTY: QUEEN ANNE'S
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 26400 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 33 TILLAGE: COT
 % SILT: 47 PH: 5.1
 % CLAY: 20 CEC: 5.4
 TEXTURE: L % OM: 1.9
 SOIL GEN: M
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/17/2005. Variety - DeKalb 60-19.
2. Starter fertilizer of 30-20-0 applied through the planter.
3. Preemergence applications made 05/18/2005.
4. Early postemergence applications made 06/09/2005.
5. Rhizome johnsongrass was evident - 5 leaf stage, 8" tall, 1/SQY.
6. Mid-postemergence application made 06/21/2005.
7. Study harvested 09/23/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-18-05 | 06-09-05 | 06-21-05 | USA |
| TIME - BEGIN | 16:00 | 14:30 | 15:30 | 24H |
| TIME - END | 16:30 | 15:00 | 16:30 | 24H |
| AIR TEMPERATURE | 65 | 86 | 78 | F |
| % REL. HUMIDITY | 60 | 72 | 50 | |
| WIND DIRECTION | SOUTHEAST | SOUTH | SOUTH | |
| WIND SPEED | 3.0 | 5.0 | 3.0 | M/H |
| CLOUD COVER | PARTCLDY | PARTCLDY | CLOUDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/DRY | MOIST/MOI | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 68/4.00 | 84/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
01 = POSPOS / EARLY POSTEMERGENCE
02 = MID POS / MID-POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 60-19
 TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 05-17-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 05-18-2005 | 00 | MED | 26000.00 | IPA | . | . IN | | NA | |
| 06-09-2005 | 15 | MED | 26000.00 | IPA | 12.00 | 12.00 IN | | TUR | |
| 06-21-2005 | 16 | MED | 26000.00 | IPA | 30.00 | 30.00 IN | | TUR | |

02 P SORHA - JOHNSONGRASS, ESTABLISHED, SEEDLING
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 05-18-2005 | 00 | --- | | IND | . | . IN | | NA | |
| 06-09-2005 | 13 | MED | 6.00 | SQF | 1.50 | 1.50 IN | | TUR | |
| 06-21-2005 | 13 | LOW | 3.00 | SQY | 6.00 | 12.00 IN | | TUR | |

03 P AMARE - PIGWEED, REDROOT, ROUGH
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-18-2005 | 00 | --- | | IND | . | . IN | | NA | |
| 06-09-2005 | 14 | MED | 5.00 | SQF | 1.00 | 1.00 IN | | TUR | |

04 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-18-2005 | 00 | --- | | IND | . | . IN | | NA | |
| 06-09-2005 | 19 | MED | 5.00 | SQF | 3.00 | 3.00 IN | | TUR | |

* STAGE CODE -- CORN
 00 = DRY SEED (CARYOPSIS)
 15 = 5 LEAVES UNFOLDED
 16 = 6 LEAVES UNFOLDED
 * STAGE CODE -- GENERAL
 00 = DRY SEED; DORMANCY
 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 * STAGE CODE -- SORGHUM
 00 = DRY SEED (CARYOPSIS)
 13 = 3 LEAVES UNFOLDED

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
CREATED: 04-04-2005 **REVISED:** 11-03-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|---------------------------------|--------|------|----|-----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | RATE | UNIT | TM | PHY % 1.00 | 06-07-05 P ZEAMX | 06-07-05 P SORHA | 06-07-05 P CHEAL | 06-14-05 P SORHA | 06-14-05 P SORHA |
| | | | | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 100 | 95 | 97 | 10 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 100 | 98 | 97 | 32 | |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 0 | 100 | 100 | 95 | 50 | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 0 | 98 | 90 | 92 | 30 | |
| 6A HARNESS (7EC) | 1.97 | LAA | 0 | 0 | 100 | 95 | 90 | 40 | |
| 7A»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 0 | 97 | 98 | 88 | 42 | |
| 8A»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 0 | 0 | 0 | 90 | 88 | |
| 9A»KIH-485 (60WG) | 0.144 | LAA | 1 | 0 | 0 | 0 | 90 | 87 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 10A»KIH-485 (60WG) | 0.181 | LAA | 1 | 0 | 0 | 0 | 90 | 90 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 11A»KIH-485 (60WG) | 0.217 | LAA | 1 | 0 | 0 | 0 | 90 | 82 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 12A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | 0 | 0 | 0 | 90 | 85 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 13A HARNESS (7EC) | 1.97 | LAA | 1 | 0 | 0 | 0 | 93 | 90 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 14A»PROWL H20 (3.8CS) | 1.50 | LAA | 1 | 0 | 0 | 0 | 90 | 82 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 15A»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 0 | 0 | 0 | 90 | 88 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 2 | | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSL (0.05) | 0.00 | 2.73 | 2.76 | 5.09 | 32.80 |
| | | | | SIGNIFICANCE OF F | ns | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 1.34 | 1.35 | 2.49 | 16.06 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 4.40 | 4.60 | 3.81 | 35.16 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 20 | 20 | 20 | 27 | 27 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | NA | NA | NA | 5 | 5 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | NA | NA | NA | NA | NA |

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
CREATED: 04-04-2005 **REVISED:** 11-03-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW | |
|---------------------------------|--------|------|----|-----------------------------------|---------------------------|---------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 06-14-05 P CHEAL | 06-21-05 P SORHA 13 | 06-21-05 P SORHA 13 | 06-21-05 P CHEAL | 07-06-05 P SORHA | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 97 | 93 | 0 | 92 | 90 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 95 | 93 | 20 | 92 | 90 | |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 100 | 100 | 37 | 95 | 97 | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 80 | 93 | 10 | 68 | 90 | |
| 6A HARNESS (7EC) | 1.97 | LAA | 0 | 83 | 95 | 32 | 75 | 88 | |
| 7A»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 100 | 85 | 30 | 90 | 80 | |
| 8A»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 90 | 100 | 95 | 100 | 88 | |
| 9A»KIH-485 (60WG) | 0.144 | LAA | 1 | 90 | 100 | 95 | 100 | 93 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 10A»KIH-485 (60WG) | 0.181 | LAA | 1 | 95 | 100 | 97 | 100 | 95 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 11A»KIH-485 (60WG) | 0.217 | LAA | 1 | 92 | 100 | 92 | 100 | 93 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 12A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | 92 | 100 | 90 | 100 | 90 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 13A HARNESS (7EC) | 1.97 | LAA | 1 | 95 | 100 | 93 | 100 | 93 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 14A»PROWL H20 (3.8CS) | 1.50 | LAA | 1 | 92 | 100 | 88 | 100 | 93 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 15A»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 90 | 100 | 93 | 100 | 95 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 2 | | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 4.92 | 6.72 | 33.11 | 6.24 | 11.00 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 2.41 | 3.29 | 16.21 | 3.06 | 5.41 |
| | | | | COEFFICIENT OF VARIANCE | 3.66 | 4.74 | 36.45 | 4.57 | 8.30 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 27 | 34 | 34 | 34 | 49 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 5 | 12 | 12 | 12 | 27 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | NA | 0 | 0 | 0 | 15 |

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
 CREATED: 04-04-2005 REVISED: 11-03-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 012 RAW | 013 RAW | 014 RAW | 015 RAW | |
|---------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 07-06-05 P SORHA | 07-06-05 P CHEAL | 07-19-05 P SORHA | 07-19-05 P SORHA | 07-19-05 P CHEAL | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 90 | 80 | 0 | 80 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 90 | 80 | 0 | 82 | |
| 4A»KIH-485 (60WG) | 0.217 | LAA | 0 | 23 | 92 | 88 | 23 | 83 | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 10 | 43 | 77 | 10 | 10 | |
| 6A HARNESS (7EC) | 1.97 | LAA | 0 | 30 | 52 | 80 | 27 | 12 | |
| 7A»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 20 | 88 | 65 | 17 | 70 | |
| 8A»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 82 | 97 | 83 | 72 | 92 | |
| 9A»KIH-485 (60WG) | 0.144 | LAA | 1 | 93 | 100 | 93 | 90 | 100 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 10A»KIH-485 (60WG) | 0.181 | LAA | 1 | 93 | 97 | 90 | 90 | 90 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 11A»KIH-485 (60WG) | 0.217 | LAA | 1 | 90 | 100 | 90 | 83 | 100 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 12A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | 68 | 100 | 87 | 60 | 100 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 13A HARNESS (7EC) | 1.97 | LAA | 1 | 77 | 100 | 90 | 67 | 98 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 14A»PROWL H20 (3.8CS) | 1.50 | LAA | 1 | 68 | 100 | 87 | 60 | 100 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | | |
| 15A»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 97 | 100 | 95 | 95 | 100 | |
| B»ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 2 | | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSLSD (0.05) | 36.25 | 10.37 | 15.70 | 36.07 | 19.12 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 17.75 | 5.08 | 7.69 | 17.67 | 9.36 |
| | | | | COEFFICIENT OF VARIANCE | 46.28 | 8.00 | 12.71 | 49.93 | 16.43 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 49 | 49 | 62 | 62 | 62 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 27 | 27 | 40 | 40 | 40 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 15 | 15 | 28 | 28 | 28 |

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
CREATED: 04-04-2005 **REVISED:** 11-03-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT NUM | TREATMENT COMPONENT | DOSAGE | | | CON % | CON % | CON % | VAR 01 | VAR 01 |
|------------|-----------------------------------|--------|------|----|----------------|----------------|----------------|-------------------------|------------------------|
| | | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | YLD LB 1.00 PL SD | YLD BU 1.00 A SD |
| 1A | UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0.3 | 2.0 |
| 2A | KIH-485 (60WG) | 0.144 | LAA | 0 | 50 | 0 | 53 | 3.9 | 29.5 |
| 3A | KIH-485 (60WG) | 0.181 | LAA | 0 | 57 | 0 | 82 | 4.2 | 31.8 |
| 4A | KIH-485 (60WG) | 0.217 | LAA | 0 | 70 | 23 | 80 | 7.2 | 53.8 |
| 5A | DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 60 | 10 | 10 | 6.6 | 49.6 |
| 6A | HARNES (7EC) | 1.97 | LAA | 0 | 67 | 27 | 10 | 8.6 | 64.6 |
| 7A | PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 53 | 17 | 70 | 9.5 | 71.1 |
| 8A | ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 80 | 70 | 92 | 19.0 | 142.4 |
| 9A | KIH-485 (60WG) | 0.144 | LAA | 1 | 93 | 87 | 100 | 18.0 | 134.9 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | |
| 10A | KIH-485 (60WG) | 0.181 | LAA | 1 | 90 | 90 | 90 | 18.8 | 141.2 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | |
| 11A | KIH-485 (60WG) | 0.217 | LAA | 1 | 90 | 83 | 100 | 15.3 | 115.2 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | |
| 12A | DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | 87 | 60 | 100 | 16.5 | 124.1 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | |
| 13A | HARNES (7EC) | 1.97 | LAA | 1 | 90 | 65 | 98 | 17.9 | 134.7 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | |
| 14A | PROWL H20 (3.8CS) | 1.50 | LAA | 1 | 80 | 48 | 67 | 15.6 | 117.2 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | | | | | |
| 15A | ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 1 | 95 | 95 | 100 | 17.4 | 130.9 |
| | B>ROUNDUP WEATHER MAX (4.5AE) | 0.84 | LAA | 2 | | | | | |
| 16A | UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 3.7 | 28.1 |
| | LS (0.05) | | | | 23.28 | 38.34 | 36.28 | 9.00 | 67.34 |
| | SIGNIFICANCE OF F | | | | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | | 11.40 | 18.78 | 17.76 | 4.39 | 33.00 |
| | COEFFICIENT OF VARIANCE | | | | 21.00 | 54.51 | 33.10 | 47.13 | 47.13 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | | 85 | 85 | 85 | 128 | 128 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | | 63 | 63 | 63 | 106 | 106 |
| | DAT APPLICATION # 03 TIMINGS (02) | | | | 51 | 51 | 51 | 94 | 94 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-18-2005(1)
 01 = POSPOS / EARLY POSTEMERGENCE 06-09-2005(2)
 02 = MID POS / MID-POSTEMERGENCE 06-21-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-07-2005 | 01 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SORHA | CON % | 06-07-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-07-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SORHA | CON % | 06-14-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SORHA | CON % | 06-14-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 006 | CHEAL | CON % | 06-14-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SORHA | CON % | 06-21-2005 | 02 | P | SORHA | 13 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SORHA | CON % | 06-21-2005 | 02 | P | SORHA | 13 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 06-21-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SORHA | CON % | 07-06-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | SORHA | CON % | 07-06-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | CHEAL | CON % | 07-06-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 013 | SORHA | CON % | 07-19-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 014 | SORHA | CON % | 07-19-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 015 | CHEAL | CON % | 07-19-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 016 | SORHA | CON % | 08-11-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 017 | SORHA | CON % | 08-11-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 018 | CHEAL | CON % | 08-11-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 019 | ZEAMX | LB/PLOT | 09-23-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = DEKALB 60-19

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 60-19

* STAGE CODE

13 = 3 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/05/01 001 WL--- 019 -- {RAW}*(7.51)

US 005/05/01 001 WL--- 019 -- {RAW}*(7.51)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 005/05/01 001 WM **ALTERNATE ID#:** WY 13 2005
PROTOCOL#: US 005/05/01 **ALTERNATE ID#:** US 005/04/01
CREATED BY: US RITTER R
CREATED: 04-21-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 26400 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|-------------------|---------------------|------------------------|------------------------------|
| % SAND: 33 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: --- |
| % SILT: 47 | PH: 5.1 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 20 | CEC: 5.4 | ACTUAL TRTS: 14 | ACTUAL SUB-BLOCKS: 14 |
| TEXTURE: L | % OM: 1.9 | | |

SOIL GEN: M
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/17/2005. Variety - DeKalb 44-51RR.
2. Starter fertilizer of 30-20-0 applied through the planter.
3. Early postemergence applications made 06/13/2005.
4. Rhizome johnsongrass was evident - 5 leaf stage, 14" tall, 1/SQY.
5. Mid-postemergence application made 06/21/2005.
6. Study not taken to yield.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 06-13-05 | 06-21-05 | USA |
| TIME - BEGIN | 12:30 | 15:30 | 24H |
| TIME - END | 13:30 | 16:30 | 24H |
| AIR TEMPERATURE | 82 | 78 | F |
| % REL. HUMIDITY | 75 | 50 | |
| WIND DIRECTION | SOUTH | SOUTH | |
| WIND SPEED | 3.0 | 3.0 | M/H |
| CLOUD COVER | PARTCLDY | CLOUDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 80/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.750 | 0.750 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 26.00 | 26.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 38.00 | 38.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE - 3-4 WAP
 01 = MID POS / MID-POSTEMERGENCE - 6-8 WAP

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003

01 P GLXMA - SOYBEAN CULTIVAR: DEKALB 44-51RR
TARGET: CROP **SITE:** FG **POPULATION:** 6.00 FTR **PLANTED:** 05-17-2005
PLANTING DEPTH: 1.0 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 05-17-2005 | 00 | MED | 6.00 FTR | . | . | . IN | | NA | |
| 06-13-2005 | 14 | MED | 6.00 FTR | 7.00 | 7.00 | 7.00 IN | | TUR | |
| 06-21-2005 | 15 | MED | 6.00 FTR | 10.00 | 10.00 | 10.00 IN | | TUR | |

02 P SORHA - JOHNSONGRASS, ESTABLISHED, SEEDLING PLANTED:
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 05-17-2005 | 00 | NA | 0.00 NA | . | . | . IN | | NA | |
| 06-13-2005 | 13 | HGH | 12.00 SQF | 4.00 | 4.00 | 4.00 IN | | TUR | |
| 06-21-2005 | 15 | MED | 1.00 SQY | 12.00 | 12.00 | 12.00 IN | | TUR | |

03 P AMARE - PIGWEED, REDROOT, ROUGH PLANTED:
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-13-2005 | 14 | HGH | 10.00 SQF | 6.00 | 6.00 | 6.00 IN | | TUR | |

04 P CHEAL - LAMBSQUARTERS, COMMON PLANTED:
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 06-13-2005 | 19 | MED | 3.00 SQF | 4.00 | 4.00 | 4.00 IN | | --- | |
| 06-21-2005 | 19 | MED | 6.00 SQF | 12.00 | 12.00 | 12.00 IN | | TUR | |

* STAGE CODE -- GENERAL

14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SORGHUM

00 = DRY SEED (CARYOPSIS)
 13 = 3 LEAVES UNFOLDED
 15 = 5 LEAVES UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED
 14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES
 15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
 CREATED: 04-21-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|---------------------------------|-----------------------------------|---------------------------|---------------------------|-------------------------|-------------------------|-------------------------|
| | | 06-21-05 P SORHA 15 | 06-21-05 P CHEAL 19 | 06-28-05 P SORHA | 06-28-05 P CHEAL | 07-06-05 P SORHA |
| | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 LAA 0 | 100 | 98 | 98 | 100 | 97 |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 LAA 0 | 100 | 100 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 LAA 1 | | | | | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 LAA 1 | 0 | 0 | 83 | 52 | 92 |
| 5A»TOUCHDOWN TOTAL (4.17AE) | 0.781 LAA 0 | 100 | 98 | 97 | 100 | 95 |
| 6A»TOUCHDOWN TOTAL (4.17AE) | 0.781 LAA 0 | 100 | 98 | 98 | 100 | 98 |
| B»TOUCHDOWN TOTAL (4.17AE) | 0.781 LAA 1 | | | | | |
| 7A»TOUCHDOWN TOTAL (4.17AE) | 0.781 LAA 1 | 0 | 0 | 90 | 72 | 100 |
| 8A»GLYPHOMAX XRT (4.0AE) | 0.75 LAA 0 | 100 | 98 | 95 | 100 | 93 |
| 9A»GLYPHOMAX XRT (4.0AE) | 0.75 LAA 0 | 100 | 98 | 100 | 100 | 97 |
| B»GLYPHOMAX XRT (4.0AE) | 0.75 LAA 1 | | | | | |
| 10A»GLYPHOMAX XRT (4.0AE) | 0.75 LAA 1 | 0 | 0 | 80 | 65 | 92 |
| 11A»SELECT (2EC) | 0.156 LAA 0 | 85 | 70 | 93 | 57 | 97 |
| B ADJUVANT - COC (EC) | 1.00 QMA 0 | | | | | |
| C REFLEX 2LC (2SL) | 0.375 LAA 0 | | | | | |
| 12A»SELECT (2EC) | 0.156 LAA 0 | 88 | 73 | 95 | 87 | 100 |
| B ADJUVANT - COC (EC) | 1.00 QMA 0 | | | | | |
| C REFLEX 2LC (2SL) | 0.375 LAA 0 | | | | | |
| D»SELECT (2EC) | 0.125 LAA 1 | | | | | |
| E ADJUVANT - COC (EC) | 1.00 QMA 1 | | | | | |
| F REFLEX 2LC (2SL) | 0.375 LAA 1 | | | | | |
| 13A»SELECT (2EC) | 0.156 LAA 1 | 0 | 0 | 67 | 47 | 87 |
| B ADJUVANT - COC (EC) | 1.00 QMA 1 | | | | | |
| C REFLEX 2LC (2SL) | 0.375 LAA 1 | | | | | |
| 14A UNTREATED CHECK | 0.00 NA 1 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | 2.59 | 8.06 | 9.59 | 15.28 | 11.00 |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | 1.26 | 3.92 | 4.67 | 7.43 | 5.36 |
| | COEFFICIENT OF VARIANCE | 2.79 | 9.15 | 7.29 | 13.00 | 8.00 |
| | DAT APPLICATION # 01 TIMINGS (00) | 8 | 8 | 15 | 15 | 23 |
| | DAT APPLICATION # 02 TIMINGS (01) | 0 | 0 | 7 | 7 | 15 |

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
CREATED: 04-21-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW | |
|---------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 07-06-05 P CHEAL | 07-13-05 P SORHA | 07-13-05 P CHEAL | 07-19-05 P SORHA | 07-19-05 P CHEAL | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 97 | 92 | 90 | 78 | 83 | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 98 | 100 | 100 | 85 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | | | | | | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 85 | 95 | 88 | 87 | 83 | |
| 5A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 100 | 87 | 100 | 73 | 100 | |
| 6A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 100 | 95 | 100 | 78 | 100 | |
| B»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 1 | | | | | | |
| 7A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 1 | 92 | 93 | 95 | 92 | 92 | |
| 8A»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 100 | 87 | 100 | 73 | 95 | |
| 9A»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 100 | 95 | 100 | 83 | 100 | |
| B»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 1 | | | | | | |
| 10A»GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 1 | 92 | 93 | 87 | 82 | 83 | |
| 11A»SELECT (2EC) | 0.156 | LAA | 0 | 40 | 98 | 18 | 90 | 0 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | | |
| C REFLEX 2LC (2SL) | 0.375 | LAA | 0 | | | | | | |
| 12A»SELECT (2EC) | 0.156 | LAA | 0 | 72 | 100 | 47 | 93 | 13 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | | |
| C REFLEX 2LC (2SL) | 0.375 | LAA | 0 | | | | | | |
| D»SELECT (2EC) | 0.125 | LAA | 1 | | | | | | |
| E ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| F REFLEX 2LC (2SL) | 0.375 | LAA | 1 | | | | | | |
| 13A»SELECT (2EC) | 0.156 | LAA | 1 | 67 | 97 | 45 | 83 | 22 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | | |
| C REFLEX 2LC (2SL) | 0.375 | LAA | 1 | | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 10.84 | 11.79 | 15.36 | 15.56 | 16.85 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 5.27 | 5.74 | 7.47 | 7.57 | 8.20 |
| | | | | COEFFICIENT OF VARIANCE | 8.68 | 8.69 | 13.21 | 13.00 | 16.12 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 23 | 30 | 30 | 36 | 36 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 15 | 22 | 22 | 28 | 28 |

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
 CREATED: 04-21-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % |
|----------------------------------|-----------------------------------|------|----|----------------|----------------|----------------|----------------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL |
| 011 RAW 07-26-05 P SORHA | | | | | | | |
| 012 RAW 07-26-05 P CHEAL | | | | | | | |
| 013 RAW 08-11-05 P SORHA | | | | | | | |
| 014 RAW 08-11-05 P CHEAL | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 |
| 2A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 67 | 63 | 60 | 57 |
| 3A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 80 | 100 | 78 | 100 |
| B>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | | | | |
| 4A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 1 | 80 | 67 | 80 | 60 |
| 5A>>TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 63 | 97 | 63 | 97 |
| 6A>>TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 77 | 100 | 70 | 100 |
| B>>TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 1 | | | | |
| 7A>>TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 1 | 88 | 87 | 83 | 82 |
| 8A>>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 58 | 90 | 57 | 90 |
| 9A>>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 70 | 100 | 63 | 100 |
| B>>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 1 | | | | |
| 10A>>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 1 | 77 | 70 | 70 | 53 |
| 11A>>SELECT (2EC) | 0.156 | LAA | 0 | 98 | 0 | 98 | 0 |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | |
| C REFLEX 2LC (2SL) | 0.375 | LAA | 0 | | | | |
| 12A>>SELECT (2EC) | 0.156 | LAA | 0 | 100 | 0 | 100 | 0 |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | |
| C REFLEX 2LC (2SL) | 0.375 | LAA | 0 | | | | |
| D>>SELECT (2EC) | 0.125 | LAA | 1 | | | | |
| E ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | |
| F REFLEX 2LC (2SL) | 0.375 | LAA | 1 | | | | |
| 13A>>SELECT (2EC) | 0.156 | LAA | 1 | 90 | 20 | 85 | 23 |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | |
| C REFLEX 2LC (2SL) | 0.375 | LAA | 1 | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 |
| | LSLSD (0.05) | | | 30.00 | 26.10 | 31.09 | 29.88 |
| | SIGNIFICANCE OF F | | | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | 14.61 | 12.70 | 15.12 | 14.53 |
| | COEFFICIENT OF VARIANCE | | | 26.41 | 27.44 | 28.54 | 32.72 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 43 | 43 | 59 | 59 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | 35 | 35 | 51 | 51 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE - 3-4 WAP 06-13-2005(1)
 01 = MID POS / MID-POSTEMERGENCE - 6-8 WAP 06-21-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | SORHA | CON % | 06-21-2005 | 02 | P | SORHA | 15 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | CHEAL | CON % | 06-21-2005 | 04 | P | CHEAL | 19 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | SORHA | CON % | 06-28-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CHEAL | CON % | 06-28-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SORHA | CON % | 07-06-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 07-06-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 007 | SORHA | CON % | 07-13-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 07-13-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 07-19-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | CHEAL | CON % | 07-19-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 07-26-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | CHEAL | CON % | 07-26-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 013 | CHEAL | CON % | 08-11-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 014 | CHEAL | CON % | 08-11-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

* STAGE CODE

15 = 5 LEAVES UNFOLDED

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WN ALTERNATE ID#: WY 14 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 04-21-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - I

COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. MARK SULTENFUSS DATA SOURCE: UNIVERSITY
 LOCATION: WYE RES. & ED. CNTR. TYPE: FIELD TRIAL
 CITY: QUEENSTOWN STATE: MARYLAND
 COUNTY: QUEEN ANNE'S ZIP: 21658
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 26400 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

| SOIL INFORMATION | | TRIAL INFORMATION | |
|---|--------------|-------------------|-----------------------|
| % SAND: 33 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: --- |
| % SILT: 47 | PH: 5.1 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 20 | CEC: 5.4 | ACTUAL TRTS: 14 | ACTUAL SUB-BLOCKS: 14 |
| TEXTURE: L | % OM: 1.9 | | |
| SOIL GEN: M | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/17/2005. Variety - DeKalb 44-51RR.
2. Starter fertilizer of 30-20-0 applied through the planter.
3. Early postemergence applications made 06/13/2005.
4. Rhizome johnsongrass was evident - 5 leaf stage, 14" tall, 1/SQY.
5. Study not taken to yield.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 06-13-05 | USA |
| TIME - BEGIN | 14:30 | 24H |
| TIME - END | 15:00 | 24H |
| AIR TEMPERATURE | 86 | F |
| % REL. HUMIDITY | 70 | |
| WIND DIRECTION | SOUTH | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | PARTCLDY | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 86/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.750 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 26.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 38.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES

00 = POSPOS / POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003

01 P GLXMA - SOYBEAN CULTIVAR: DEKALB 44-51RR
TARGET: CROP **SITE:** FG **POPULATION:** 6.00 FTR **PLANTED:** 05-17-2005
PLANTING DEPTH: 1.0 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-17-2005 | 00 | MED | 6.00 FTR | . | . | . IN | | NA | |
| 06-13-2005 | 14 | MED | 6.00 FTR | 7.00 | 7.00 | 7.00 IN | | TUR | |

02 P SORHA - JOHNSONGRASS, ESTABLISHED, SEEDLING **PLANTED:**
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-17-2005 | 00 | --- | | IND | . | . IN | | NA | |
| 06-13-2005 | 13 | HGH | 12.00 SQF | 4.00 | 4.00 | 4.00 IN | | TUR | |

03 P AMARE - PIGWEED, REDROOT, ROUGH **PLANTED:**
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-13-2005 | 14 | HGH | 10.00 SQF | 6.00 | 6.00 | 6.00 IN | | TUR | |

04 P CHEAL - LAMBSQUARTERS, COMMON **PLANTED:**
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-13-2005 | 19 | MED | 3.00 SQF | 4.00 | 4.00 | 4.00 IN | | TUR | |

- * **STAGE CODE -- GENERAL**
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- SORGHUM**
- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED
- * **STAGE CODE -- SOYBEAN**
- 00 = DRY SEED
- 14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - I

CREATED: 04-21-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|---------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 06-21-05 P GLXMA | 06-21-05 P SORHA | 06-21-05 P CHEAL | 06-28-05 P SORHA | 06-28-05 P CHEAL | |
| | | | | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 10 | 100 | 97 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 12 | 100 | 97 | 98 | 100 | |
| B CLASSIC (25WG) | 0.005 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 10 | 100 | 97 | 97 | 100 | |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 18 | 100 | 97 | 97 | 100 | |
| B»HARMONY GT (75WG) | 0.004 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 10 | 100 | 95 | 98 | 100 | |
| B RESOURCE (0.86EC) | 0.02 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 7 | 100 | 97 | 98 | 98 | |
| B RESOURCE (0.86EC) | 0.03 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 8A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 10 | 100 | 98 | 97 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 9A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 10 | 100 | 98 | 97 | 100 | |
| B CLASSIC (25WG) | 0.005 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 10A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 10 | 100 | 100 | 97 | 100 | |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 18 | 100 | 95 | 95 | 100 | |
| B»HARMONY GT (75WG) | 0.004 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 10 | 100 | 98 | 98 | 100 | |
| B RESOURCE (0.86EC) | 0.02 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 13A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 13 | 100 | 98 | 95 | 100 | |
| B RESOURCE (0.86EC) | 0.03 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 4.36 | 0.00 | 3.72 | 5.69 | 1.30 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 2.12 | 0.00 | 1.81 | 2.77 | 0.63 |
| | | | | COEFFICIENT OF VARIANCE | 26.26 | 0.00 | 2.66 | 4.07 | 0.901 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 8 | 8 | 8 | 15 | 15 |

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - I

CREATED: 04-21-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT NUM | TREATMENT COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|------------|-------------------------------|--------|------|----|-----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------|
| | | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| | | | | | 006 RAW 07-13-05 P SORHA | 007 RAW 07-13-05 P CHEAL | 008 RAW 07-26-05 P SORHA | 009 RAW 07-26-05 P CHEAL | 010 RAW 08-11-05 P SORHA | |
| 1A | UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 97 | 98 | 92 | 95 | 90 | |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 3A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 95 | 98 | 87 | 98 | 87 | |
| | B CLASSIC (25WG) | 0.005 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 4A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 97 | 98 | 85 | 100 | 85 | |
| | B FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 5A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 87 | 95 | 78 | 97 | 68 | |
| | B HARMONY GT (75WG) | 0.004 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 6A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 92 | 97 | 72 | 90 | 70 | |
| | B RESOURCE (0.86EC) | 0.02 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 7A | ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 92 | 98 | 75 | 98 | 72 | |
| | B RESOURCE (0.86EC) | 0.03 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 8A | TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 88 | 100 | 65 | 97 | 63 | |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 9A | TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 93 | 100 | 68 | 100 | 68 | |
| | B CLASSIC (25WG) | 0.005 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 10A | TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 92 | 98 | 83 | 100 | 78 | |
| | B FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 11A | TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 87 | 100 | 77 | 97 | 75 | |
| | B HARMONY GT (75WG) | 0.004 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 12A | TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 92 | 98 | 83 | 100 | 80 | |
| | B RESOURCE (0.86EC) | 0.02 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 13A | TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 83 | 97 | 73 | 95 | 68 | |
| | B RESOURCE (0.86EC) | 0.03 | LAA | 0 | | | | | | |
| | C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 14A | UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | | LSD (0.05) | 10.61 | 4.36 | 28.00 | 7.39 | 30.50 |
| | | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | | STANDARD DEVIATION | 5.16 | 2.12 | 13.64 | 3.59 | 14.84 |
| | | | | | COEFFICIENT OF VARIANCE | 8.10 | 3.08 | 24.92 | 5.28 | 28.11 |
| | | | | | DAT APPLICATION # 01 TIMINGS (00) | 30 | 30 | 43 | 43 | 59 |

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - I

CREATED: 04-21-2005 REVISED: 10-19-2005 COMPLETED: Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

011 RAW
08-11-05
P CHEAL

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % |
|---------------------------------|--------|-----------------------------------|----|--------|
| | RATE | UNIT | TM | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 95 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 97 |
| B CLASSIC (25WG) | 0.005 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 97 |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 97 |
| B»HARMONY GT (75WG) | 0.004 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 90 |
| B RESOURCE (0.86EC) | 0.02 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 0 | 98 |
| B RESOURCE (0.86EC) | 0.03 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 8A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 97 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 9A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 100 |
| B CLASSIC (25WG) | 0.005 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 10A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 100 |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 97 |
| B»HARMONY GT (75WG) | 0.004 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 97 |
| B RESOURCE (0.86EC) | 0.02 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 13A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA | 0 | 95 |
| B RESOURCE (0.86EC) | 0.03 | LAA | 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 |
| | | LSD (0.05) | | 8.42 |
| | | SIGNIFICANCE OF F | | ** |
| | | STANDARD DEVIATION | | 4.10 |
| | | COEFFICIENT OF VARIANCE | | 6.07 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 59 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-13-2005(1)

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - I

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | GLXMA | PHYTO % | 06-21-2005 | 01 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SORHA | CON % | 06-21-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-21-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SORHA | CON % | 06-28-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 06-28-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SORHA | CON % | 07-13-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 07-13-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SORHA | CON % | 07-26-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 07-26-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SORHA | CON % | 08-11-2005 | 02 | P | SORHA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 08-11-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

* VARIETY CODES

VAR 01 = DEKALB 44-51RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 44-51RR

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WO ALTERNATE ID#: WY 15 2005
 PROTOCOL#: US 005/05/01 ALTERNATE ID#: WREC-2005
 CREATED BY: US RITTER R
 CREATED: 04-21-2005 REVISED: 11-04-2005 COMPLETED: Y
 TITLE: USE OF KIH-485 IN CONVENTIONAL SOYBEANS
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. MARK SULTENFUSS DATA SOURCE: UNIVERSITY
 LOCATION: WYE RES. & ED. CNTR. TYPE: FIELD TRIAL
 CITY: QUEENSTOWN STATE: MARYLAND
 COUNTY: QUEEN ANNE'S ZIP: 21658
 COUNTRY: UNITED STATES
 WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|---|--------------|-----------------|-----------------------|
| % SAND: 21 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: --- |
| % SILT: 59 | PH: 5.8 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 20 | CEC: 5.9 | ACTUAL TRTS: 16 | ACTUAL SUB-BLOCKS: 16 |
| TEXTURE: SIL | % OM: 2.0 | | |
| SOIL GEN: M | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/01/2005. Variety - Asgrow 4502 RR/STS.
2. Preemergence applications made 06/02/2005.
3. Early postemergence applications made 06/14/2005.
4. Study harvested 11/01/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|-----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 06-01-05 | 06-14-05 | USA |
| TIME - BEGIN | 11:00 | 16:00 | 24H |
| TIME - END | 12:00 | 16:30 | 24H |
| AIR TEMPERATURE | 64 | 92 | F |
| % REL. HUMIDITY | 40 | 75 | |
| WIND DIRECTION | SOUTH | SOUTH | |
| WIND SPEED | 5.0 | 5.0 | M/H |
| CLOUD COVER | CLOUDY | HAZY SUN | |
| DEW | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 64/4.00 | 90/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.750 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 26.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 38.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
01 = POSPOS / POSTEMERGENCE - 2-3 LEAF (WEED STAGE)

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003

01 P GLXMA - SOYBEAN
TARGET: CROP **SITE:** FG **POPULATION:** 6.00 FTR **PLANTED:** 06-01-2005
PLANTING DEPTH: 1.0 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-01-2005 | --- | MED | 6.00 FTR | . | . | . IN | NA | |
| 06-02-2005 | --- | MED | 6.00 FTR | . | . | . IN | NA | |
| 06-14-2005 | 12 | MED | 6.00 FTR | 4.00 | 4.00 | 4.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-02-2005 | 00 | --- | IND | . | . | . IN | NA | |

03 P SETFA - FOXTAIL, GIANT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-02-2005 | 00 | --- | IND | . | . | . IN | NA | |
| 06-14-2005 | 13 | HGH | 10.00 SQF | 3.00 | 3.00 | 3.00 IN | TUR | |

04 P ABUTH - VELVETLEAF
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | --- | |

- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- * **STAGE CODE -- GENERAL GRASS**
- 13 = 3 LEAVES UNFOLDED
- * **STAGE CODE -- SOYBEAN**
- = TO BE SELECTED
- 12 = 2 LEAVES (UNIFOLIATE FIRST LEAF PAIR) UNFOLDED, 1 NODE

TITLE: USE OF KIH-485 IN CONVENTIONAL SOYBEANS
CREATED: 04-21-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|----------------------------------|--------|------|----|-----------------------------------|---------------------------|-------------------------|-------------------------|-------------------------|--------|
| | RATE | UNIT | TM | 06-14-05 P GLXMA 12 | 06-14-05 P SETFA 13 | 06-21-05 P GLXMA | 06-21-05 P SETFA | 06-28-05 P GLXMA | |
| | | | | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 100 | 0 | 100 | 0 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 100 | 5 | 100 | 2 | |
| 4A»KIH-485 (60WG) | 0.27 | LAA | 0 | 13 | 100 | 47 | 100 | 10 | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 0 | 100 | 0 | 100 | 0 | |
| 6A»DUAL II MAGNUM (7.64EC) | 3.10 | LAA | 0 | 0 | 100 | 5 | 100 | 0 | |
| 7A»KIH-485 (60WG) | 0.144 | LAA | 1 | 0 | 0 | 18 | 20 | 15 | |
| 8A»KIH-485 (60WG) | 0.27 | LAA | 1 | 0 | 0 | 28 | 7 | 10 | |
| 9A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 0 | 0 | 12 | 100 | 10 | |
| B»KIH-485 (60WG) | 0.072 | LAA | 1 | | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 0 | 0 | 25 | 100 | 10 | |
| B»KIH-485 (60WG) | 0.144 | LAA | 1 | | | | | | |
| 11A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 0 | 0 | 12 | 100 | 10 | |
| B»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 1 | | | | | | |
| 12A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 0 | 0 | 0 | 100 | 0 | |
| B»OUTLOOK (6EC) | 0.83 | LAA | 1 | | | | | | |
| 13A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 100 | 2 | 100 | 2 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 14A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 0 | 100 | 0 | 100 | 0 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 0 | 0 | 0 | 100 | 0 | |
| 16A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 2.41 | 0.00 | 19.80 | 8.54 | 7.54 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 1.18 | 0.00 | 9.70 | 4.18 | 3.69 |
| | | | | COEFFICIENT OF VARIANCE | 173.21 | 0.00 | 123.91 | 6.68 | 105.89 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 13 | 13 | 20 | 20 | 27 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 0 | 0 | 7 | 7 | 14 |

TITLE: USE OF KIH-485 IN CONVENTIONAL SOYBEANS
 CREATED: 04-21-2005 REVISED: 11-04-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|----------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 97 | 93 | 87 | 93 | 78 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 100 | 100 | 98 | 97 | 97 | |
| 4A»KIH-485 (60WG) | 0.27 | LAA | 0 | 100 | 100 | 95 | 95 | 93 | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 97 | 95 | 90 | 10 | 87 | |
| 6A»DUAL II MAGNUM (7.64EC) | 3.10 | LAA | 0 | 100 | 100 | 100 | 50 | 100 | |
| 7A»KIH-485 (60WG) | 0.144 | LAA | 1 | 37 | 33 | 0 | 0 | 0 | |
| 8A»KIH-485 (60WG) | 0.27 | LAA | 1 | 10 | 7 | 0 | 20 | 0 | |
| 9A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 100 | 97 | 100 | 95 | |
| B»KIH-485 (60WG) | 0.072 | LAA | 1 | | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 100 | 100 | 98 | 100 | |
| B»KIH-485 (60WG) | 0.144 | LAA | 1 | | | | | | |
| 11A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 100 | 98 | 98 | 97 | |
| B»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 1 | | | | | | |
| 12A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 100 | 100 | 100 | 98 | |
| B»OUTLOOK (6EC) | 0.83 | LAA | 1 | | | | | | |
| 13A»KIH-485 (60WG) | 0.144 | LAA | 0 | 100 | 100 | 100 | 100 | 98 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 14A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 100 | 100 | 100 | 98 | 100 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | | | | | | |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 95 | 90 | 100 | 85 | |
| 16A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSL (0.05) | 18.34 | 16.00 | 8.06 | 17.65 | 12.35 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 9.00 | 7.81 | 3.95 | 8.64 | 6.00 |
| | | | | COEFFICIENT OF VARIANCE | 14.19 | 12.51 | 6.70 | 16.00 | 10.51 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 27 | 43 | 55 | 55 | 71 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 14 | 30 | 42 | 42 | 58 |

TITLE: USE OF KIH-485 IN CONVENTIONAL SOYBEANS
 CREATED: 04-21-2005 REVISED: 11-04-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | YLD LB | YLD BU | |
|---|---------------|------------|--------|-----------------------------------|--------|--------|-------|
| | RATE | UNIT | TM | PL ALL | PL SD | A SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 9.3 | 33.9 | |
| 2A»KIH-485 (60WG) | 0.144 | LAA | 0 | 90 | 16.4 | 59.5 | |
| 3A»KIH-485 (60WG) | 0.181 | LAA | 0 | 95 | 16.2 | 58.8 | |
| 4A»KIH-485 (60WG) | 0.27 | LAA | 0 | 95 | 15.3 | 55.7 | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.55 | LAA | 0 | 0 | 14.8 | 53.6 | |
| 6A»DUAL II MAGNUM (7.64EC) | 3.10 | LAA | 0 | 40 | 14.1 | 51.3 | |
| 7A»KIH-485 (60WG) | 0.144 | LAA | 1 | 0 | 13.8 | 50.0 | |
| 8A»KIH-485 (60WG) | 0.27 | LAA | 1 | 20 | 11.6 | 42.2 | |
| 9A»ROUNDUP WEATHER MAX (5.5 SL) B»KIH-485 (60WG) | 0.76 0.072 | LAA LAA | 1 1 | 98 | 17.9 | 65.1 | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) B»KIH-485 (60WG) | 0.76 0.144 | LAA LAA | 1 1 | 98 | 18.4 | 66.8 | |
| 11A»ROUNDUP WEATHER MAX (5.5 SL) B»DUAL II MAGNUM (7.64EC) | 0.76 1.55 | LAA LAA | 1 1 | 97 | 17.8 | 64.5 | |
| 12A»ROUNDUP WEATHER MAX (5.5 SL) B»OUTLOOK (6EC) | 0.76 0.83 | LAA LAA | 1 1 | 98 | 17.6 | 63.7 | |
| 13A»KIH-485 (60WG) B»ROUNDUP WEATHER MAX (5.5 SL) | 0.144 0.76 | LAA LAA | 0 1 | 100 | 17.3 | 62.8 | |
| 14A»DUAL II MAGNUM (7.64EC) B»ROUNDUP WEATHER MAX (5.5 SL) | 1.55 0.76 | LAA LAA | 0 1 | 97 | 17.1 | 61.9 | |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.76 | LAA | 1 | 100 | 17.5 | 63.4 | |
| 16A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 7.0 | 25.3 | |
| | | | | LSD (0.05) | 21.26 | 3.30 | 12.00 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** |
| | | | | STANDARD DEVIATION | 10.41 | 1.62 | 5.87 |
| | | | | COEFFICIENT OF VARIANCE | 19.84 | 13.10 | 13.10 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 71 | 153 | 153 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 58 | 140 | 140 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 06-01-2005(1)
 01 = POSPOS / POSTEMERGENCE - 2-3 LEAF (WEED STAGE) 06-14-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | GLXMA | PHYTO % | 06-14-2005 | 01 | P | GLXMA | 12 | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-14-2005 | 03 | P | SETFA | 13 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | GLXMA | PHYTO % | 06-21-2005 | 01 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | GLXMA | PHYTO % | 06-28-2005 | 01 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 06-28-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SETFA | CON % | 07-14-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 07-26-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: USE OF KIH-485 IN CONVENTIONAL SOYBEANS

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR1 | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 009 | CHEAL | CON % | 07-26-2005 | 04 | P | ABUTH | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | SETFA | CON % | 08-11-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 08-11-2005 | 04 | P | ABUTH | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | GLXMA | LB/PLOT | 11-01-2005 | 01 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* STAGE CODE

12 = 2 LEAVES (UNIFOLIATE FIRST LEAF PAIR) UNFOLDED, 1 NODE
13 = 3 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/05/01 001 WO--- 012 -- {RAW} * (3.63)

US 005/05/01 001 WO--- 012 -- {RAW} * (3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WP **ALTERNATE ID#:** WY 16 2005
PROTOCOL#: US 005/05/01 **ALTERNATE ID#:** WREC-2005
CREATED BY: US RITTER R
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL AND ROUNDUP-READY SOYBEANS
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTRY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 21 **TILLAGE:** COT
% SILT: 59 **PH:** 5.8
% CLAY: 20 **CEC:** 5.9
TEXTURE: SIL **% OM:** 2.0
SOIL GEN: M
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** ---
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 14 **ACTUAL SUB-BLOCKS:** 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/01/2005. Variety - Asgrow 4502 RR/STS.
2. Preemergence applications made 06/02/2005.
3. Early postemergence applications made 06/14/2005.
4. Mid-postemergence applications made 06/28/2005.
5. Study harvested 11/01/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 06-02-05 | 06-14-05 | 06-28-05 | USA |
| TIME - BEGIN | 11:00 | 16:00 | 14:00 | 24H |
| TIME - END | 12:00 | 16:30 | 15:00 | 24H |
| AIR TEMPERATURE | 64 | 92 | 88 | F |
| % REL. HUMIDITY | 40 | 75 | 70 | |
| WIND DIRECTION | SOUTH | SOUTH | SOUTHEAST | |
| WIND SPEED | 5.0 | 5.0 | 3.0 | M/H |
| CLOUD COVER | CLOUDY | HAZY SUN | HAZY SUN | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | DRY/MOIST | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 64/4.00 | 90/4.00 | 90/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.750 | 0.750 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 26.00 | 26.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 38.00 | 38.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
01 = POSPOS / EARLY POSTEMERGENCE - 2 TO 3 WAP
02 = MID POS / MID-POSTEMERGENCE - 4 TO 5 WAP

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = SS-8003

01 P GLXMA - SOYBEAN

TARGET: CROP SITE: FG POPULATION: 6.00 FTR PLANTED: 06-01-2005

PLANTING DEPTH: 1.0 IN ROW WIDTH: 30.0 IN

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-01-2005 | 00 | MED | 6.00 FTR | . | . | . IN | NA | |
| 06-02-2005 | 00 | MED | 6.00 FTR | . | . | . IN | NA | |
| 06-14-2005 | 12 | MED | 6.00 FTR | 4.00 | 4.00 | 4.00 IN | TUR | |
| 06-28-2005 | 15 | MED | 6.00 FTR | 6.00 | 6.00 | 6.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON

TARGET: PEST SITE: FG PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-02-2005 | 00 | --- | IND | . | . | . IN | NA | |
| 06-28-2005 | 19 | LOW | 3.00 SQY | 2.00 | 2.00 | 2.00 IN | TUR | |

03 P SETFA - FOXTAIL, GIANT

TARGET: PEST SITE: FG PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-02-2005 | 00 | --- | IND | . | . | . IN | NA | |
| 06-14-2005 | 13 | HGH | 10.00 SQF | 3.00 | 3.00 | 3.00 IN | TUR | |
| 06-28-2005 | 13 | LOW | 1.00 SQY | 6.00 | 6.00 | 6.00 IN | TUR | |

04 P ABUTH - VELVETLEAF

TARGET: PEST SITE: FG PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-28-2005 | 00 | --- | IND | . | . | . IN | --- | |

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

13 = 3 LEAVES UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED
12 = 2 LEAVES (UNIFOLIATE FIRST LEAF PAIR) UNFOLDED, 1 NODE
15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL AND ROUNDUP-READY SOYBEANS
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | PHY % | CON % | PHY % | CON % | CON % |
|----------------------------------|--------|-----------------------------------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A>>VALOR SX (51WG) | 0.05 | LAA | 0 | 0 | 95 | 0 | 92 | 75 |
| B>>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | |
| 3A>>VALOR SX (51WG) | 0.06 | LAA | 0 | 0 | 98 | 0 | 95 | 67 |
| B>>FIRSTRATE (84 WG) | 0.021 | LAA | 0 | | | | | |
| 4A>>VALOR SX (51WG) | 0.08 | LAA | 0 | 7 | 98 | 3 | 97 | 73 |
| B>>FIRSTRATE (84 WG) | 0.026 | LAA | 0 | | | | | |
| 5A>>VALOR SX (51WG) | 0.10 | LAA | 0 | 10 | 97 | 7 | 98 | 80 |
| B>>FIRSTRATE (84 WG) | 0.031 | LAA | 0 | | | | | |
| 6A>>VALOR SX (51WG) | 0.06 | LAA | 0 | 3 | 95 | 0 | 95 | 100 |
| B>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 7A>>VALOR SX (51WG) | 0.05 | LAA | 0 | 0 | 95 | 0 | 92 | 100 |
| B>>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | |
| C>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 8A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | 0 | 0 | 0 | 0 | 100 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 9A>>SEQUENCE (5.25SL) | 1.64 | LAA | 1 | 0 | 0 | 8 | 100 | 98 |
| 10A>>SEQUENCE (5.25SL) | 2.30 | LAA | 1 | 0 | 0 | 10 | 100 | 100 |
| 11A>>A14972A (5.3EC) | 1.30 | LAA | 0 | 0 | 100 | 0 | 100 | 95 |
| 12A>>A14972A (5.3EC) | 1.30 | LAA | 0 | 0 | 100 | 0 | 100 | 97 |
| B LOROX DF (50WG) | 0.50 | LAA | 0 | | | | | |
| 13A>>A14972A (5.3EC) | 1.30 | LAA | 0 | 0 | 100 | 0 | 100 | 100 |
| B>>TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 2 | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| | | LSL (0.05) | | 3.59 | 4.43 | 3.92 | 4.79 | 12.06 |
| | | SIGNIFICANCE OF F | | ** | ** | ** | ** | ** |
| | | STANDARD DEVIATION | | 1.75 | 2.15 | 1.91 | 2.33 | 5.87 |
| | | COEFFICIENT OF VARIANCE | | 149.79 | 4.20 | 115.34 | 3.74 | 9.27 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 12 | 12 | 19 | 19 | 34 |
| | | DAT APPLICATION # 02 TIMINGS (01) | | 0 | 0 | 7 | 7 | 22 |
| | | DAT APPLICATION # 03 TIMINGS (02) | | NA | NA | NA | NA | 8 |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL AND ROUNDUP-READY SOYBEANS
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | YLD LB |
|-----------------------------------|--------|------|----|----------------|----------------|----------------|----------------|---------------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL SD |
| 006 RAW 07-14-05 P SETFA | | | | | | | | |
| 007 RAW 07-26-05 P SETFA | | | | | | | | |
| 008 RAW 08-11-05 P SETFA | | | | | | | | |
| 009 RAW 08-11-05 P ABUTH | | | | | | | | |
| 010 RAW 11-01-05 P GLXMA | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 7.6 |
| 2A»VALOR SX (51WG) | 0.05 | LAA | 0 | 43 | 28 | 27 | 100 | 13.6 |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | |
| 3A»VALOR SX (51WG) | 0.06 | LAA | 0 | 37 | 10 | 10 | 100 | 11.2 |
| B»FIRSTRATE (84 WG) | 0.021 | LAA | 0 | | | | | |
| 4A»VALOR SX (51WG) | 0.08 | LAA | 0 | 55 | 10 | 10 | 100 | 11.1 |
| B»FIRSTRATE (84 WG) | 0.026 | LAA | 0 | | | | | |
| 5A»VALOR SX (51WG) | 0.10 | LAA | 0 | 70 | 30 | 20 | 100 | 12.8 |
| B»FIRSTRATE (84 WG) | 0.031 | LAA | 0 | | | | | |
| 6A»VALOR SX (51WG) | 0.06 | LAA | 0 | 100 | 97 | 97 | 100 | 17.7 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 7A»VALOR SX (51WG) | 0.05 | LAA | 0 | 100 | 95 | 95 | 100 | 17.3 |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 8A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | 98 | 95 | 95 | 72 | 18.7 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 9A»SEQUENCE (5.25SL) | 1.64 | LAA | 1 | 100 | 100 | 100 | 100 | 18.6 |
| 10A»SEQUENCE (5.25SL) | 2.30 | LAA | 1 | 100 | 100 | 100 | 100 | 17.8 |
| 11A»A14972A (5.3EC) | 1.30 | LAA | 0 | 93 | 83 | 77 | 60 | 16.2 |
| 12A»A14972A (5.3EC) | 1.30 | LAA | 0 | 97 | 92 | 90 | 60 | 15.4 |
| B LOROX DF (50WG) | 0.50 | LAA | 0 | | | | | |
| 13A»A14972A (5.3EC) | 1.30 | LAA | 0 | 100 | 98 | 98 | 100 | 17.6 |
| B»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 2 | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 13.3 |
| LSD (0.05) | | | | 25.83 | 25.74 | 26.37 | 37.40 | 3.15 |
| SIGNIFICANCE OF F | | | | ** | ** | ** | ** | ** |
| STANDARD DEVIATION | | | | 12.56 | 12.52 | 12.83 | 18.19 | 1.53 |
| COEFFICIENT OF VARIANCE | | | | 21.68 | 25.60 | 26.87 | 28.58 | 12.60 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 42 | 54 | 70 | 70 | 152 |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 30 | 42 | 58 | 58 | 140 |
| DAT APPLICATION # 03 TIMINGS (02) | | | | 16 | 28 | 44 | 44 | 126 |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL AND ROUNDUP-READY SOYBEANS
 CREATED: 04-25-2005 REVISED: 11-04-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

010 CALC
11-01-05
P GLXMA

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | YLD BU | |
|---------------------------------|--------|-----------------------------------|----|--------|----|
| | RATE | UNIT | TM | A | SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 27.7 | |
| 2A»VALOR SX (51WG) | 0.05 | LAA | 0 | 49.3 | |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | |
| 3A»VALOR SX (51WG) | 0.06 | LAA | 0 | 40.5 | |
| B»FIRSTRATE (84 WG) | 0.021 | LAA | 0 | | |
| 4A»VALOR SX (51WG) | 0.08 | LAA | 0 | 40.2 | |
| B»FIRSTRATE (84 WG) | 0.026 | LAA | 0 | | |
| 5A»VALOR SX (51WG) | 0.10 | LAA | 0 | 46.5 | |
| B»FIRSTRATE (84 WG) | 0.031 | LAA | 0 | | |
| 6A»VALOR SX (51WG) | 0.06 | LAA | 0 | 64.1 | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 7A»VALOR SX (51WG) | 0.05 | LAA | 0 | 62.7 | |
| B»FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | | |
| D SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 8A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA | 2 | 67.9 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 9A»SEQUENCE (5.25SL) | 1.64 | LAA | 1 | 67.5 | |
| 10A»SEQUENCE (5.25SL) | 2.30 | LAA | 1 | 64.7 | |
| 11A»A14972A (5.3EC) | 1.30 | LAA | 0 | 58.9 | |
| 12A»A14972A (5.3EC) | 1.30 | LAA | 0 | 55.8 | |
| B LOROX DF (50WG) | 0.50 | LAA | 0 | | |
| 13A»A14972A (5.3EC) | 1.30 | LAA | 0 | 64.0 | |
| B»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 2 | | |
| 14A UNTREATED CHECK | 0.00 | NA | 1 | 48.2 | |
| | | LSD (0.05) | | 11.45 | |
| | | SIGNIFICANCE OF F | | ** | |
| | | STANDARD DEVIATION | | 5.57 | |
| | | COEFFICIENT OF VARIANCE | | 12.60 | |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 152 | |
| | | DAT APPLICATION # 02 TIMINGS (01) | | 140 | |
| | | DAT APPLICATION # 03 TIMINGS (02) | | 126 | |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 06-02-2005(1)
 01 = POSPOS / EARLY POSTEMERGENCE - 2 TO 3 WAP 06-14-2005(2)
 02 = MID POS / MID-POSTEMERGENCE - 4 TO 5 WAP 06-28-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | GLXMA | PHYTO % | 06-14-2005 | 01 | P | GLXMA | 12 | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-14-2005 | 03 | P | SETFA | 13 | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | GLXMA | PHYTO % | 06-21-2005 | 01 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 06-21-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: PRE AND POST PROGRAMS FOR CONVENTIONAL AND ROUNDUP-READY SOYBEANS

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 005 | SETFA | CON % | 07-06-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 07-14-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | SETFA | CON % | 07-26-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 08-11-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | ABUTH | CON % | 08-11-2005 | 04 | P | ABUTH | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | GLXMA | LB/PLOT | 11-01-2005 | 01 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* STAGE CODE

12 = 2 LEAVES (UNIFOLIATE FIRST LEAF PAIR) UNFOLDED, 1 NODE
13 = 3 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/05/01 001 WP--- 010 -- {RAW} * (3.63)

US 005/05/01 001 WP--- 010 -- {RAW} * (3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WQ **ALTERNATE ID#:** WY 17 2005
PROTOCOL#: US 005/05/01 **ALTERNATE ID#:** US 005/04/01
CREATED BY: US RITTER R
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|--|---------------------|------------------------|------------------------------|
| % SAND: 21 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: --- |
| % SILT: 59 | PH: 5.8 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 20 | CEC: 5.9 | ACTUAL TRTS: 14 | ACTUAL SUB-BLOCKS: 14 |
| TEXTURE: SIL | % OM: 2.0 | | |
| SOIL GEN: M | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/01/2005. Variety - Asgrow 4502 RR/STS.
2. Postemergence applications made 06/21/2005.
3. Study harvested 11/01/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 06-21-05 | USA |
| TIME - BEGIN | 17:00 | 24H |
| TIME - END | 18:00 | 24H |
| AIR TEMPERATURE | 76 | F |
| % REL. HUMIDITY | 50 | |
| WIND DIRECTION | SOUTH | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | HAZY SUN | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 77/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.750 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 26.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 38.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = POSPOS / POSTEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P GLXMA - SOYBEAN CULTIVAR: ASGROW 4502
TARGET: CROP **SITE:** FG **POPULATION:** 6.00 FTR **PLANTED:** 06-01-2005
PLANTING DEPTH: 1.0 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-01-2005 | 00 | MED | 6.00 FTR | . | . | . IN | NA | |
| 06-21-2005 | 14 | MED | 6.00 FTR | 5.00 | 5.00 | 5.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON PLANTED:
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | NA | |
| 06-21-2005 | 19 | MED | 3.00 SQY | 2.00 | 2.00 | 2.00 IN | TUR | |

03 P SETFA - FOXTAIL, GIANT PLANTED:
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | NA | |
| 06-21-2005 | 13 | HGH | 10.00 SQF | 2.00 | 5.00 | 3.50 IN | TUR | |

04 P GLXMA - SOYBEAN
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|----------|------------|----------|------------|---------|---------|---------|------------|-------|
| - - | 01 | --- | IND | . | . | . IN | --- | |

- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- GENERAL GRASS**
- 13 = 3 LEAVES UNFOLDED
- * **STAGE CODE -- SOYBEAN**
- 00 = DRY SEED
- 01 = BEGINNING OF SEED IMBIBITION
- 14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|--|------------------------|-------------------|-------------|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 06-28-05 P GLXMA | 06-28-05 P SETFA | 06-28-05 P CHEAL | 07-06-05 P SETFA | 07-06-05 P CHEAL | |
| | | | | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) B SURFACTANT - NON-IONIC (SL) | 0.773 0.25 | LAA PMV | 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) B CLASSIC (25WG) C SURFACTANT - NON-IONIC (SL) | 0.773 0.005 0.25 | LAA LAA PMV | 0 0 0 | 0 | 100 | 100 | 100 | 97 | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) B»FIRSTRATE (84 WG) C SURFACTANT - NON-IONIC (SL) | 0.773 0.016 0.25 | LAA LAA PMV | 0 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) B»HARMONY GT (75WG) C SUREFACTANT - NON-IONIC (SL) | 0.773 0.004 0.25 | LAA LAA PMV | 0 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.773 0.02 0.25 | LAA LAA PMV | 0 0 0 | 13 | 100 | 100 | 100 | 100 | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.773 0.03 0.25 | LAA LAA PMV | 0 0 0 | 17 | 100 | 100 | 100 | 100 | |
| 8A»TOUCHDOWN TOTAL (4.17AE) B SURFACTANT - NON-IONIC (SL) | 0.781 0.25 | LAA PMV | 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 9A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG) C SURFACTANT - NON-IONIC (SL) | 0.781 0.005 0.25 | LAA LAA PMV | 0 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 10A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG) C SURFACTANT - NON-IONIC (SL) | 0.781 0.016 0.25 | LAA LAA PMV | 0 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 11A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG) C SURFACTANT - NON-IONIC (SL) | 0.781 0.004 0.25 | LAA LAA PMV | 0 0 0 | 0 | 100 | 100 | 100 | 100 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.781 0.02 0.25 | LAA LAA PMV | 0 0 0 | 10 | 100 | 100 | 100 | 100 | |
| 13A»TOUCHDOWN TOTAL (4.17AE) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.781 0.03 0.25 | LAA LAA PMV | 0 0 0 | 17 | 100 | 100 | 100 | 100 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 3.92 | 0.00 | 0.00 | 0.00 | 1.30 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 1.91 | 0.00 | 0.00 | 0.00 | 0.63 |
| | | | | COEFFICIENT OF VARIANCE | 57.67 | 0.00 | 0.00 | 0.00 | 0.903 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 7 | 7 | 7 | 15 | 15 |

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | YLD LB |
|---|------------------------|-----------------------------------|-------------|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 10.6 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) B SURFACTANT - NON-IONIC (SL) | 0.773 0.25 | LAA PMV | 0 0 | 88 | 100 | 78 | 93 | 15.4 |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) B CLASSIC (25WG) C SURFACTANT - NON-IONIC (SL) | 0.773 0.005 0.25 | LAA LAA PMV | 0 0 0 | 90 | 98 | 78 | 100 | 13.4 |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) B»FIRSTRATE (84 WG) C SURFACTANT - NON-IONIC (SL) | 0.773 0.016 0.25 | LAA LAA PMV | 0 0 0 | 90 | 100 | 85 | 100 | 13.4 |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) B»HARMONY GT (75WG) C SURFACTANT - NON-IONIC (SL) | 0.773 0.004 0.25 | LAA LAA PMV | 0 0 0 | 88 | 100 | 75 | 100 | 13.4 |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.773 0.02 0.25 | LAA LAA PMV | 0 0 0 | 82 | 100 | 65 | 100 | 13.8 |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.773 0.03 0.25 | LAA LAA PMV | 0 0 0 | 85 | 100 | 67 | 100 | 14.9 |
| 8A»TOUCHDOWN TOTAL (4.17AE) B SURFACTANT - NON-IONIC (SL) | 0.781 0.25 | LAA PMV | 0 0 | 90 | 100 | 78 | 100 | 15.4 |
| 9A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG) C SURFACTANT - NON-IONIC (SL) | 0.781 0.005 0.25 | LAA LAA PMV | 0 0 0 | 95 | 100 | 90 | 100 | 15.5 |
| 10A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG) C SURFACTANT - NON-IONIC (SL) | 0.781 0.016 0.25 | LAA LAA PMV | 0 0 0 | 95 | 100 | 88 | 100 | 15.8 |
| 11A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG) C SURFACTANT - NON-IONIC (SL) | 0.781 0.004 0.25 | LAA LAA PMV | 0 0 0 | 90 | 100 | 82 | 100 | 15.1 |
| 12A»TOUCHDOWN TOTAL (4.17AE) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.781 0.02 0.25 | LAA LAA PMV | 0 0 0 | 87 | 100 | 73 | 98 | 13.4 |
| 13A»TOUCHDOWN TOTAL (4.17AE) B RESOURCE (0.86EC) C SURFACTANT - NON-IONIC (SL) | 0.781 0.03 0.25 | LAA LAA PMV | 0 0 0 | 85 | 100 | 70 | 100 | 13.1 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 8.8 |
| | | LSD (0.05) | | 8.43 | 1.30 | 12.81 | 3.00 | 2.51 |
| | | SIGNIFICANCE OF F | | ** | ** | ** | ** | ** |
| | | STANDARD DEVIATION | | 4.10 | 0.63 | 6.23 | 1.45 | 1.22 |
| | | COEFFICIENT OF VARIANCE | | 6.60 | 0.901 | 11.48 | 2.09 | 10.91 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 28 | 28 | 42 | 42 | 133 |

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II
CREATED: 04-25-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

010 CALC
11-01-05
P GLXMA

| TRT TREATMENT NUM COMPONENT | DOSAGE | | YLD BU 1.00 A SD |
|---------------------------------|--------|-----------------------------------|------------------------|
| | RATE | UNIT TM | |
| 1A UNTREATED CHECK | 0.00 | NA 0 | 38.5 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA 0 | 55.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA 0 | 48.6 |
| B CLASSIC (25WG) | 0.005 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA 0 | 48.5 |
| B»FIRSTRATE (84 WG) | 0.016 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA 0 | 48.8 |
| B»HARMONY GT (75WG) | 0.004 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA 0 | 50.2 |
| B RESOURCE (0.86EC) | 0.02 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) | 0.773 | LAA 0 | 54.0 |
| B RESOURCE (0.86EC) | 0.03 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 8A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA 0 | 56.0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 9A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA 0 | 56.2 |
| B CLASSIC (25WG) | 0.005 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 10A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA 0 | 57.3 |
| B»FIRSTRATE (84 WG) | 0.016 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA 0 | 54.8 |
| B»HARMONY GT (75WG) | 0.004 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA 0 | 48.5 |
| B RESOURCE (0.86EC) | 0.02 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 13A»TOUCHDOWN TOTAL (4.17AE) | 0.781 | LAA 0 | 47.6 |
| B RESOURCE (0.86EC) | 0.03 | LAA 0 | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV 0 | |
| 14A UNTREATED CHECK | 0.00 | NA 0 | 31.9 |
| | | LSD (0.05) | 9.12 |
| | | SIGNIFICANCE OF F | ** |
| | | STANDARD DEVIATION | 4.43 |
| | | COEFFICIENT OF VARIANCE | 10.91 |
| | | DAT APPLICATION # 01 TIMINGS (00) | 133 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-21-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | GLXMA | PHYTO % | 06-28-2005 | 01 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|-------|----|------|
| 002 | SETFA | CON % | 06-28-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-28-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 07-06-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 07-06-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 07-19-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 07-19-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | GLXMA | LB/PLOT | 11-01-2005 | 04 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = ASGROW 4502

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = ASGROW 4502

* USER DEFINED CALCULATIONS

US 005/05/01 001 WQ--- 010 -- {RAW} * (3.63)

US 005/05/01 001 WQ--- 010 -- {RAW} * (3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WR ALTERNATE ID#: WY 18 2005
PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/01/01
CREATED BY: US RITTER R
CREATED: 04-25-2005 REVISED: 11-04-2005 COMPLETED: Y
TITLE: GLYPHOSATE TIMING STUDY IN SOYBEAN

COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS
LOCATION: WYE RES. & ED. CNTR.
CITY: QUEENSTOWN
COUNTRY: QUEEN ANNE'S
COUNTRY: UNITED STATES

CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
DATA SOURCE: UNIVERSITY
TYPE: FIELD TRIAL
STATE: MARYLAND
ZIP: 21658

WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 21 TILLAGE: COT
% SILT: 59 PH: 5.8
% CLAY: 20 CEC: 5.9
TEXTURE: SIL % OM: 2.0

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
ACTUAL REPS: 3 ACTUAL BLOCKS: 1
ACTUAL TRTS: 14 ACTUAL SUB-BLOCKS: 14

SOIL GEN: M
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/01/2005. Variety - Asgrow 4502 RR/STS.
2. Week-1 application made 06/09/2005.
3. Week-2 application made 06/14/2005.
4. Week-3 application made 06/21/2005.
5. Week-4 application made 06/28/2005.
6. Week-5 application made 07/06/2005.
7. Week-6 application made 07/13/2005.
8. Week-7 application made 07/19/2005.
9. Week-8 application made 07/26/2005.
10. Week-9 application made 08/03/2005.
11. Week-10 application made 08/10/2005.
12. Week-11 application made 08/17/2005.
13. Week-12 application made 08/23/2005.
14. Study harvested 11/01/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | UNIT |
|-------------------------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 06-09-05 | 06-14-05 | 06-21-05 | 06-28-05 | 07-06-05 | 07-13-05 | 07-19-05 | 07-26-05 | USA |
| TIME - BEGIN | 11:31 | 14:30 | 17:00 | 14:00 | 17:30 | 14:00 | 18:30 | 17:00 | 24H |
| TIME - END | 14:50 | 15:00 | 18:00 | 15:00 | 18:00 | 14:30 | 19:00 | 17:30 | 24H |
| AIR TEMPERATURE | 80 | 90 | 76 | 88 | 80 | 82 | 88 | 92 | F |
| % REL. HUMIDITY | 70 | 75 | 50 | 70 | 35 | 78 | 75 | 80 | |
| WIND DIRECTION | SOUTH | SOUTH | SOUTH | SOUTHEAST | SOUTHEAST | SOUTHEAST | NORTHWEST | SOUTH | |
| WIND SPEED | 5.0 | 5.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | M/H |
| CLOUD COVER | PARTCLDY | HAZY SUN | HAZY SUN | HAZY SUN | CLOUDY | CLEAR | CLEAR | HAZY SUN | |
| DEW | NO | NO | NO | NO | NO | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/MOIST | DRY/DRY | DRY/DRY | MOIST/MOI | MOIST/MOI | DRY/MOIST | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 78/4.00 | 88/4.00 | 77/4.00 | 90/4.00 | 80/4.00 | 80/4.00 | 85/4.00 | 90/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | | | | | USA |
| INC. START | | | | | | | | | 24H |
| INC. END | | | | | | | | | 24H |
| INC. DEPTH | | | | | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | --- | --- | --- | --- | |

| APPL. NUMBER | 09 | 10 | 11 | 12 | UNIT |
|-------------------------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 08 | 09 | 10 | 11 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 08-03-05 | 08-10-05 | 08-17-05 | 08-23-05 | USA |
| TIME - BEGIN | 14:00 | 15:00 | 15:30 | 16:00 | 24H |
| TIME - END | 14:30 | 15:30 | 16:00 | 16:30 | 24H |
| AIR TEMPERATURE | 92 | 90 | 90 | 85 | F |
| % REL. HUMIDITY | 80 | 80 | 80 | 45 | |
| WIND DIRECTION | WEST | SOUTHEAST | SOUTHEAST | NORTHWEST | |
| WIND SPEED | 3.0 | 3.0 | 3.0 | 3.0 | M/H |
| CLOUD COVER | HAZY SUN | CLEAR | CLEAR | CLEAR | |
| DEW | NO | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | MOIST/MOI | MOIST/MOI | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 90/4.00 | 90/4.00 | 90/4.00 | 84/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | USA |
| INC. START | | | | | 24H |
| INC. END | | | | | 24H |
| INC. DEPTH | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | |

*** TIMING CODES**

- 00 = POSPOS / POSTEMERGENCE - 1 WEEK
- 01 = POSPOS / POSTEMERGENCE - 2 WEEK
- 02 = POSPOS / POSTEMERGENCE - 3 WEEK
- 03 = POSPOS / POSTEMERGENCE - 4 WEEK
- 04 = POSPOS / POSTEMERGENCE - 5 WEEK
- 05 = POSPOS / POSTEMERGENCE - 6 WEEK
- 06 = POSPOS / POSTEMERGENCE - 7 WEEK
- 07 = POSPOS / POSTEMERGENCE - 8 WEEK
- 08 = POSPOS / POSTEMERGENCE - 9 WEEK
- 09 = POSPOS / POSTEMERGENCE - 10 WEEK
- 10 = POSPOS / POSTEMERGENCE - 11 WEEK
- 11 = POSPOS / POSTEMERGENCE - 12 WEEK

*** NOZZLE DESCRIPTION**

- 01 = SS-8003
- 02 = SS-8003
- 03 = SS-8003
- 04 = SS-8003
- 05 = SS-8003
- 06 = SS-8003
- 07 = SS-8003
- 08 = SS-8003
- 09 = SS-8003
- 10 = SS-8003
- 11 = SS-8003
- 12 = SS-8003

01 P GLXMA - SOYBEAN

CULTIVAR: ASGROW 4502

TARGET: CROP SITE: FG

POPULATION: 6.00 FTR

PLANTED: 06-01-2005

PLANTING DEPTH: 1.0 IN

ROW WIDTH: 30.0 IN

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 06-01-2005 | 00 | MED | 6.00 FTR | . | . | . IN | | NA | |
| 06-09-2005 | 10 | MED | 6.00 FTR | 1.00 | 1.00 | 1.00 IN | | TUR | |
| 06-14-2005 | 12 | MED | 6.00 FTR | 4.00 | 4.00 | 4.00 IN | | TUR | |
| 06-21-2005 | 14 | MED | 6.00 FTR | 5.00 | 5.00 | 5.00 IN | | TUR | |
| 06-28-2005 | 15 | MED | 6.00 FTR | 6.00 | 6.00 | 6.00 IN | | --- | |
| 07-06-2005 | 17 | MED | 6.00 FTR | 9.00 | 9.00 | 9.00 IN | | TUR | |
| 07-13-2005 | 18 | MED | 6.00 FTR | 16.00 | 16.00 | 16.00 IN | | TUR | |
| 07-19-2005 | 59 | MED | 6.00 FTR | 24.00 | 24.00 | 24.00 IN | | TUR | |
| 07-26-2005 | 61 | MED | 6.00 FTR | 24.00 | 24.00 | 24.00 IN | | TUR | |
| 08-03-2005 | 65 | MED | 6.00 FTR | 24.00 | 24.00 | 24.00 IN | | TUR | |
| 08-10-2005 | 69 | MED | 6.00 FTR | 36.00 | 36.00 | 36.00 IN | | TUR | |
| 08-17-2005 | 71 | MED | 6.00 FTR | 36.00 | 36.00 | 36.00 IN | | TUR | |
| 08-23-2005 | 75 | MED | 6.00 FTR | 40.00 | 40.00 | 40.00 IN | | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON

TARGET: PEST SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | | NA | |
| 06-09-2005 | 14 | LOW | 1.00 SQY | 0.50 | 0.50 | 0.50 IN | | TUR | |

03 P SETFA - FOXTAIL, GIANT

TARGET: PEST SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | | NA | |
| 06-09-2005 | 11 | HGH | 10.00 SQF | 0.25 | 0.25 | 0.25 IN | | TUR | |
| 06-14-2005 | 13 | HGH | 10.00 SQF | 3.00 | 3.00 | 3.00 IN | | TUR | |
| 06-21-2005 | 13 | HGH | 10.00 SQF | 2.00 | 5.00 | 3.50 IN | | TUR | |
| 06-28-2005 | 13 | HGH | 10.00 SQF | 6.00 | 6.00 | 6.00 IN | | TUR | |
| 07-06-2005 | 14 | HGH | 10.00 SQF | 12.00 | 12.00 | 12.00 IN | | TUR | |
| 07-13-2005 | 15 | HGH | 10.00 SQF | 20.00 | 20.00 | 20.00 IN | | TUR | |
| 07-19-2005 | 15 | HGH | 10.00 SQF | 26.00 | 26.00 | 26.00 IN | | TUR | |
| 07-26-2005 | 51 | HGH | 10.00 SQF | 30.00 | 30.00 | 30.00 IN | | TUR | |
| 08-03-2005 | 55 | HGH | 10.00 SQF | 30.00 | 30.00 | 30.00 IN | | TUR | |
| 08-10-2005 | 61 | HGH | 10.00 SQF | 36.00 | 36.00 | 36.00 IN | | TUR | |
| 08-17-2005 | 69 | HGH | 10.00 SQF | 45.00 | 45.00 | 45.00 IN | | TUR | |
| 08-23-2005 | 73 | HGH | 10.00 SQF | 50.00 | 50.00 | 50.00 IN | | TUR | |

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY
14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

11 = FIRST LEAF UNFOLDED
13 = 3 LEAVES UNFOLDED
15 = 5 LEAVES UNFOLDED
51 = BEGINNING OF HEADING: TIP OF INFLORESCENCE EMERGED FROM SHEATH, FIRST SPIKELET J
55 = MIDDLE OF HEADING: HALF OF INFLORESCENCE EMERGED
61 = BEGINNING OF FLOWERING: FIRST ANTHEAS VISIBLE
69 = END OF FLOWERING: ALL SPIKELETS HAVE COMPLETED FLOWERING BUT SOME DEHYDRATED ANT
73 = EARLY MILK

* STAGE CODE -- SOYBEAN

00 = DRY SEED
10 = COTYLEDONS COMPLETELY UNFOLDED
12 = 2 LEAVES (UNIFOLIATE FIRST LEAF PAIR) UNFOLDED, 1 NODE
14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES
15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES
17 = 7TH LEAF (5TH TRIFOLIATE LEAF) UNFOLDED, 6 NODES
18 = 8TH LEAF (6TH TRIFOLIATE LEAF) UNFOLDED, 7 NODES
59 = FIRST FLOWER PETALS VISIBLE; FLOWER BUDS STILL ENCLOSED
61 = 10% OF FLOWERS OPEN (DETERMINATE); BEGINNING OF FLOWERING (INDETERM.)
65 = 50% OF FLOWERS OPEN (DETERMINATE); MAIN FLOWERING PERIOD (INDETERM.)
69 = END OF FLOWERING, FIRST PODS VISIBLE
71 = 10% OF PODS FINAL SIZE (DETERMINATE); BEGIN POD DEVELOPMENT (INDETERM.)
75 = 50% OF PODS FINAL SIZE (DETERMINATE); MAIN POD DEVELOPMENT PERIOD (INDETERM.)

TITLE: GLYPHOSATE TIMING STUDY IN SOYBEAN

CREATED: 04-25-2005 REVISED: 11-04-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 004 CALC | |
|--------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-----------------------------------|----------------------------------|-------|
| | RATE | UNIT | TM | 07-14-05 P SETFA | 08-10-05 P SETFA | 09-13-05 P SETFA | 11-01-05 P GLXMA | 11-01-05 P GLXMA | |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 01 YLD LB 1.00 PL SD | VAR 01 YLD BU 1.00 A SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 7.1 | 25.6 | |
| 2A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 0 | 55 | 22 | 20 | 11.3 | 41.0 | |
| 3A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 1 | 88 | 63 | 57 | 15.8 | 57.5 | |
| 4A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 2 | 93 | 83 | 83 | 15.6 | 56.8 | |
| 5A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 3 | 93 | 78 | 78 | 16.7 | 60.6 | |
| 6A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 4 | 100 | 92 | 95 | 14.5 | 52.5 | |
| 7A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 5 | 0 | 100 | 100 | 16.5 | 59.8 | |
| 8A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 6 | 0 | 100 | 100 | 15.3 | 55.5 | |
| 9A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 7 | 0 | 97 | 100 | 13.7 | 49.9 | |
| 10A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 8 | 0 | 80 | 100 | 13.7 | 49.7 | |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 9 | 0 | 0 | 100 | 11.0 | 39.8 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 10 | 0 | 0 | 100 | 11.2 | 40.7 | |
| 13A»TOUCHDOWN TOTAL (4.17AE) | 0.78 | LAA | 11 | 0 | 0 | 100 | 12.0 | 43.4 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 7.4 | 27.0 | |
| | | | | LSL (0.05) | 11.25 | 19.11 | 18.11 | 2.87 | 10.40 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 5.47 | 9.29 | 8.81 | 1.39 | 5.06 |
| | | | | COEFFICIENT OF VARIANCE | 21.82 | 22.28 | 14.62 | 13.15 | 13.15 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 35 | 62 | 96 | 145 | 145 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 30 | 57 | 91 | 140 | 140 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 23 | 50 | 84 | 133 | 133 |
| | | | | DAT APPLICATION # 04 TIMINGS (03) | 16 | 43 | 77 | 126 | 126 |
| | | | | DAT APPLICATION # 05 TIMINGS (04) | 8 | 35 | 69 | 118 | 118 |
| | | | | DAT APPLICATION # 06 TIMINGS (05) | 1 | 28 | 62 | 111 | 111 |
| | | | | DAT APPLICATION # 07 TIMINGS (06) | NA | 22 | 56 | 105 | 105 |
| | | | | DAT APPLICATION # 08 TIMINGS (07) | NA | 15 | 49 | 98 | 98 |
| | | | | DAT APPLICATION # 09 TIMINGS (08) | NA | 7 | 41 | 90 | 90 |
| | | | | DAT APPLICATION # 10 TIMINGS (09) | NA | 0 | 34 | 83 | 83 |
| | | | | DAT APPLICATION # 11 TIMINGS (10) | NA | NA | 27 | 76 | 76 |
| | | | | DAT APPLICATION # 12 TIMINGS (11) | NA | NA | 21 | 70 | 70 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = POSPOS / POSTEMERGENCE - 1 WEEK 06-09-2005(1)
- 01 = POSPOS / POSTEMERGENCE - 2 WEEK 06-14-2005(2)
- 02 = POSPOS / POSTEMERGENCE - 3 WEEK 06-21-2005(3)
- 03 = POSPOS / POSTEMERGENCE - 4 WEEK 06-28-2005(4)
- 04 = POSPOS / POSTEMERGENCE - 5 WEEK 07-06-2005(5)
- 05 = POSPOS / POSTEMERGENCE - 6 WEEK 07-13-2005(6)
- 06 = POSPOS / POSTEMERGENCE - 7 WEEK 07-19-2005(7)
- 07 = POSPOS / POSTEMERGENCE - 8 WEEK 07-26-2005(8)
- 08 = POSPOS / POSTEMERGENCE - 9 WEEK 08-03-2005(9)
- 09 = POSPOS / POSTEMERGENCE - 10 WEEK 08-10-2005(10)
- 10 = POSPOS / POSTEMERGENCE - 11 WEEK 08-17-2005(11)
- 11 = POSPOS / POSTEMERGENCE - 12 WEEK 08-23-2005(12)

TITLE: GLYPHOSATE TIMING STUDY IN SOYBEAN

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | SETFA | CON % | 07-14-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | H | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 08-10-2005 | 03 | P | SETFA | 61 | RAW | ALL | CON | % | H | 1.00 PL | NO | 0001 | 0 | N |
| 003 | SETFA | CON % | 09-13-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | H | 1.00 PL | NO | 0001 | 0 | N |
| 004 | GLXMA | YLD/PLOT | 11-01-2005 | 01 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | CON % | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = ASGROW 4502

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = ASGROW 4502

* STAGE CODE

61 = BEGINNING OF FLOWERING: FIRST ANTHERS VISIBLE

* USER DEFINED CALCULATIONS

US 005/04/01 001 WR--- 004 -- {RAW}*(3.63)

US 005/04/01 001 WR--- 004 -- {RAW}*(3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/05/01 001 WT **ALTERNATE ID#:** WY 20 2005
PROTOCOL#: US 005/05/01 **ALTERNATE ID#:** WREC-2005
CREATED BY: US RITTER R
CREATED: 05-02-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
TITLE: KNOCKOUT EXTRA COMPARISONS IN ROUNDUP-READY SOYBEANS
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. MARK SULTENFUSS **DATA SOURCE:** UNIVERSITY
LOCATION: WYE RES. & ED. CNTR. **TYPE:** FIELD TRIAL
CITY: QUEENSTOWN **STATE:** MARYLAND
COUNTY: QUEEN ANNE'S **ZIP:** 21658
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 21 **TILLAGE:** COT
% SILT: 59 **PH:** 5.8
% CLAY: 20 **CEC:** 5.9
TEXTURE: SIL **% OM:** 2.0
SOIL GEN: M
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** ---
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 12 **ACTUAL SUB-BLOCKS:** 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/01/2005. Variety - Asgrow 4502 RR/STS.
2. Postemergence applications made 06/21/2005.
3. Study harvested 11/01/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 06-21-05 | USA |
| TIME - BEGIN | 17:00 | 24H |
| TIME - END | 18:00 | 24H |
| AIR TEMPERATURE | 76 | F |
| % REL. HUMIDITY | 50 | |
| WIND DIRECTION | SOUTH | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | HAZY SUN | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 77/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.750 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 26.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 38.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = POSPOS / POSTEMERGENCE - 3 TO 5 WAP

* NOZZLE DESCRIPTION
01 = SS-8003

01 P GLXMA - SOYBEAN CULTIVAR: ASGROW 4502
TARGET: CROP **SITE:** FG **POPULATION:** 6.00 FTR **PLANTED:** 06-01-2005
PLANTING DEPTH: 1.0 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-01-2005 | 00 | MED | 6.00 FTR | . | . | . IN | | NA | |
| 06-21-2005 | 14 | MED | 6.00 FTR | 5.00 | 5.00 | 5.00 IN | | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | | NA | |
| 06-21-2005 | 19 | MED | 3.00 SQY | 2.00 | 2.00 | 2.00 IN | | TUR | |

03 P SETFA - FOXTAIL, GIANT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-01-2005 | 00 | --- | IND | . | . | . IN | | NA | |
| 06-21-2005 | 13 | HGH | 10.00 SQF | 2.00 | 5.00 | 3.50 IN | | TUR | |

04 P GLXMA - SOYBEAN
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|----------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| - - | 01 | --- | IND | . | . | . IN | | --- | |

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

13 = 3 LEAVES UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED
01 = BEGINNING OF SEED IMBIBITION
14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES

TITLE: KNOCKOUT EXTRA COMPARISONS IN ROUNDUP-READY SOYBEANS
 CREATED: 05-02-2005 REVISED: 11-04-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|----------------------------------|--------|------|----|-----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | RATE | UNIT | TM | PHY % 1.00 | 06-28-05 P GLXMA | 06-28-05 P SETFA | 06-28-05 P CHEAL | 07-06-05 P SETFA | 07-06-05 P CHEAL |
| | | | | PL ALL | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 0 | 97 | 88 | 100 | 93 | |
| 3A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 0 | 98 | 97 | 100 | 98 | |
| 4A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 0 | 100 | 100 | 100 | 100 | |
| 5A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 0 | 100 | 100 | 100 | 100 | |
| 6A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 0 | 98 | 95 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 7A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 0 | 100 | 100 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 8A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 0 | 100 | 100 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 9A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 0 | 100 | 100 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.94 | LAA | 0 | 0 | 97 | 97 | 100 | 98 | |
| 11A»CLEAROUT PLUS (4.0SL) | 0.75 | LAA | 0 | 0 | 97 | 92 | 100 | 95 | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 0.00 | 3.27 | 8.68 | 0.00 | 3.61 |
| | | | | SIGNIFICANCE OF F | ns | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 1.58 | 4.18 | 0.00 | 1.74 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 2.35 | 6.35 | 0.00 | 2.60 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 7 | 7 | 7 | 15 | 15 |

TITLE: KNOCKOUT EXTRA COMPARISONS IN ROUNDUP-READY SOYBEANS
 CREATED: 05-02-2005 REVISED: 11-04-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: WYE RES. & ED. CNTR. RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | YLD LB | |
|----------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 10.4 | |
| 2A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 92 | 95 | 80 | 95 | 16.6 | |
| 3A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 88 | 100 | 70 | 100 | 16.3 | |
| 4A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 92 | 100 | 78 | 100 | 17.0 | |
| 5A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 90 | 100 | 77 | 97 | 17.9 | |
| 6A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 85 | 100 | 70 | 93 | 16.8 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 7A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 87 | 100 | 73 | 93 | 17.2 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 8A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 87 | 100 | 75 | 98 | 16.1 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 9A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 88 | 100 | 75 | 93 | 17.0 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.94 | LAA | 0 | 90 | 100 | 78 | 100 | 16.0 | |
| 11A»CLEAROUT PLUS (4.0SL) | 0.75 | LAA | 0 | 83 | 98 | 73 | 98 | 16.5 | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 12.3 | |
| | | | | LSD (0.05) | 4.28 | 2.82 | 10.24 | 7.13 | 3.51 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 2.06 | 1.36 | 4.94 | 3.44 | 1.69 |
| | | | | COEFFICIENT OF VARIANCE | 3.44 | 2.00 | 9.67 | 5.22 | 13.07 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 28 | 28 | 42 | 42 | 133 |

TITLE: KNOCKOUT EXTRA COMPARISONS IN ROUNDUP-READY SOYBEANS
CREATED: 05-02-2005 **REVISED:** 11-04-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: WYE RES. & ED. CNTR. **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

010 CALC
11-01-05
P GLXMA

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | YLD BU A SD |
|-----------------------------------|--------|------|----|----------------|
| | RATE | UNIT | TM | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 37.9 |
| 2A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 60.2 |
| 3A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 59.3 |
| 4A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 61.7 |
| 5A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 65.1 |
| 6A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 61.1 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 7A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 62.4 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 8A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 58.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 9A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 61.7 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.94 | LAA | 0 | 58.1 |
| 11A»CLEAROUT PLUS (4.0SL) | 0.75 | LAA | 0 | 59.8 |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 44.7 |
| LSD (0.05) | | | | 12.74 |
| SIGNIFICANCE OF F | | | | ** |
| STANDARD DEVIATION | | | | 6.14 |
| COEFFICIENT OF VARIANCE | | | | 13.08 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 133 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - 3 TO 5 WAP 06-21-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | GLXMA | PHYTO % | 06-28-2005 | 01 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-28-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-28-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 07-06-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 07-06-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 07-19-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 07-19-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 08-02-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 08-02-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | GLXMA | LB/PLOT | 11-01-2005 | 04 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = ASGROW 4502

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = ASGROW 4502

* USER DEFINED CALCULATIONS

US 005/05/01 001 WT--- 010 -- {RAW} * (3.63)

* USER DEFINED CALCULATIONS
US 005/05/01 001 WT--- 010 -- {RAW} * (3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HA **ALTERNATE ID#:** HF 01 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** US 003/04/01
CREATED BY: US RITTER_R
CREATED: 10-06-04 **REVISED:** 10-20-05 **COMPLETED:** Y
TITLE: WINTER COVER CROPS - I - BURNDOWN CONTROL OF BARLEY IN THE SPRING
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER **DATA SOURCE:** UNIVERSITY
LOCATION: HAYDEN FARM **TYPE:** FIELD TRIAL
CITY: BELTSVILLE **STATE:** MARYLAND
COUNTY: PRINCE GEORGE'S **ZIP:** 20705
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|--|---------------------|------------------------|------------------------------|
| % SAND: 70 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 20 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 10 | CEC: 5.4 | ACTUAL TRTS: 28 | ACTUAL SUB-BLOCKS: 28 |
| TEXTURE: SL | % OM: 1.5 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/28/2004. Variety - Nomini.
2. 100 lb/acre of 30-0-0 UAN broadcast on 10/18/2004.
3. First application made 03/15/2005.
4. Second application made 04/01/2005.
5. Third application made 04/14/2005.
6. Fourth application made 04/29/2005.
7. Study planted to corn on 05/10/2005. Variety - Pioneer 33B54.
8. Kernal Guard added to hopper boxes.
9. Broadcast 133 lb/acre of 0-0-60 in the Spring.
10. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
11. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
12. Study harvested 09/20/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | UNIT |
|------------------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 01 | 02 | 03 | 04 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 03-15-05 | 04-01-05 | 04-14-05 | 04-29-05 | USA |
| TIME - BEGIN | 15:00 | 13:00 | 13:00 | 15:00 | 24H |
| TIME - END | 16:00 | 14:00 | 14:00 | 16:00 | 24H |
| AIR TEMPERATURE | 45 | 62 | 62 | 62 | F |
| % REL. HUMIDITY | 25 | 35 | 20 | 30 | |
| WIND DIRECTION | NORTHWEST | SOUTHEAST | NORTHEAST | WEST | |
| WIND SPEED | 6.0 | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | OVERCAST | CLEAR | PARTCLDY | |
| DEW | NO | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | MOIST/MOI | MOIST/MOI | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 40/4.00 | 55/4.00 | 55/4.00 | 59/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | USA |
| INC. START | | | | | 24H |
| INC. END | | | | | 24H |
| INC. DEPTH | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | |

* TIMING CODES

01 = POSPOS / POSTEMERGENCE - MARCH 15
 02 = POSPOS / POSTEMERGENCE - APRIL 1
 03 = POSPOS / POSTEMERGENCE - APRIL 15
 04 = POSPOS / POSTEMERGENCE - MAY 1

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003
 04 = SS-8003

TITLE: WINTER COVER CROPS - I - BURNDOWN CONTROL OF BARLEY IN THE SPRING
CREATED: 10-06-2004 **REVISED:** 10-20-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|---|--------------|------------|--------|--|--|--|--|--|
| | RATE | UNIT | TM | 03-31-05 P HORVW 24 VAR 01 PHY % 1.00 PL ALL | 04-14-05 P HORVW 24 VAR 01 PHY % 1.00 PL ALL | 04-28-05 P HORVW 24 VAR 01 PHY % 1.00 PL ALL | 05-10-05 P HORVW 24 VAR 01 PHY % 1.00 PL ALL | 05-10-05 P SETFA 24 CON % 1.00 PL ALL |
| 1A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 1 1 | 92 | 90 | 87 | 73 | 42 |
| 2A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 2 2 | 0 | 48 | 62 | 50 | 13 |
| 3A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 3 3 | 0 | 0 | 53 | 58 | 3 |
| 4A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 4 4 | 0 | 0 | 0 | 93 | 0 |
| 5A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 1 1 | 93 | 95 | 93 | 88 | 57 |
| 6A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 2 2 | 0 | 63 | 60 | 47 | 17 |
| 7A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 3 3 | 0 | 0 | 57 | 65 | 0 |
| 8A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 4 4 | 0 | 0 | 0 | 97 | 0 |
| 9A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 1 1 | 95 | 97 | 97 | 98 | 27 |
| 10A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 2 2 | 0 | 77 | 75 | 63 | 18 |
| 11A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 3 3 | 0 | 0 | 68 | 70 | 0 |
| 12A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 4 4 | 0 | 0 | 0 | 98 | 0 |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 92 | 100 | 100 | 100 | 28 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 0 | 32 | 62 | 28 | 20 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 0 | 0 | 83 | 98 | 8 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 0 | 0 | 0 | 92 | 0 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 93 | 100 | 100 | 100 | 43 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 0 | 68 | 90 | 93 | 37 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 0 | 0 | 90 | 100 | 3 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 0 | 0 | 0 | 100 | 0 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 93 | 100 | 100 | 100 | 63 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 0 | 78 | 97 | 98 | 37 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 0 | 0 | 90 | 100 | 7 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 0 | 0 | 0 | 100 | 0 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 0 | 0 | 0 | 0 |

TITLE: WINTER COVER CROPS - I - BURNDOWN CONTROL OF BARLEY IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|--------------------------------|-----------------------------------|--|--|--|--|--|
| | | 03-31-05 P HORVW VAR 01 PHY % 1.00 PL ALL | 04-14-05 P HORVW VAR 01 PHY % 1.00 PL ALL | 04-28-05 P HORVW VAR 01 PHY % 1.00 PL ALL | 05-10-05 P HORVW VAR 01 PHY % 1.00 PL ALL | 05-10-05 P SETFA CON % 1.00 PL ALL |
| 27A UNTREATED CHECK | 0.00 NA 3 | 0 | 0 | 0 | 0 | 0 |
| 28A UNTREATED CHECK | 0.00 NA 4 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | 2.00 | 6.32 | 7.82 | 11.78 | 20.79 |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | 1.00 | 3.16 | 3.91 | 5.89 | 10.40 |
| | COEFFICIENT OF VARIANCE | 6.21 | 11.43 | 9.16 | 10.00 | 84.23 |
| | DAT APPLICATION # 01 TIMINGS (01) | 16 | 30 | 44 | 56 | 56 |
| | DAT APPLICATION # 02 TIMINGS (02) | NA | 13 | 27 | 39 | 39 |
| | DAT APPLICATION # 03 TIMINGS (03) | NA | 0 | 14 | 26 | 26 |
| | DAT APPLICATION # 04 TIMINGS (04) | NA | NA | NA | 11 | 11 |

TITLE: WINTER COVER CROPS - I - BURNDOWN CONTROL OF BARLEY IN THE SPRING
CREATED: 10-06-2004 **REVISED:** 10-20-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE | UNIT | TM | 006 RAW | 006 CALC |
|----------------------------------|----------------|------|----|---------------------|---------------------|
| | | | | 09-20-05 P ZEAMX | 09-20-05 P ZEAMX |
| | | | | VAR 02 YLD LB | VAR 02 YLD BU |
| | | | | 1.00 PL SD | 1.00 A SD |
| 1A»GRAMOXONE MAX (3L) | 0.50 | LAA | 1 | 23.4 | 170.1 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 2A»GRAMOXONE MAX (3L) | 0.50 | LAA | 2 | 23.9 | 173.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 3A»GRAMOXONE MAX (3L) | 0.50 | LAA | 3 | 21.4 | 155.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 4A»GRAMOXONE MAX (3L) | 0.50 | LAA | 4 | 22.2 | 161.4 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 5A»GRAMOXONE MAX (3L) | 0.75 | LAA | 1 | 23.1 | 167.7 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 6A»GRAMOXONE MAX (3L) | 0.75 | LAA | 2 | 26.3 | 191.2 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 7A»GRAMOXONE MAX (3L) | 0.75 | LAA | 3 | 25.0 | 181.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 8A»GRAMOXONE MAX (3L) | 0.75 | LAA | 4 | 23.4 | 169.9 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 9A»GRAMOXONE MAX (3L) | 1.00 | LAA | 1 | 22.3 | 162.2 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 10A»GRAMOXONE MAX (3L) | 1.00 | LAA | 2 | 25.6 | 185.9 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 11A»GRAMOXONE MAX (3L) | 1.00 | LAA | 3 | 25.1 | 182.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 12A»GRAMOXONE MAX (3L) | 1.00 | LAA | 4 | 22.0 | 159.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 25.7 | 186.6 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 22.3 | 161.9 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 23.5 | 170.6 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 23.0 | 167.0 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 26.9 | 195.1 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 31.0 | 224.8 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 27.6 | 200.1 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 27.1 | 196.7 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 24.4 | 176.9 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 25.2 | 182.9 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 23.7 | 172.3 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 24.4 | 177.4 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 22.9 | 166.3 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 23.5 | 170.4 |

TITLE: WINTER COVER CROPS - I - BURNDOWN CONTROL OF BARLEY IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 006 CALC |
|--------------------------------|--------|------|----|-----------------------------------|-------------|
| | RATE | UNIT | TM | YLD LB | YLD BU |
| 27A UNTREATED CHECK | 0.00 | NA | 3 | 22.5 | 163.1 |
| 28A UNTREATED CHECK | 0.00 | NA | 4 | 20.2 | 146.7 |
| | | | | VAR 02 | VAR 02 |
| | | | | 1.00 | 1.00 |
| | | | | PL SD | A SD |
| | | | | LSD (0.05) | 6.07 44.00 |
| | | | | SIGNIFICANCE OF F | ns ns |
| | | | | STANDARD DEVIATION | 3.00 22.00 |
| | | | | COEFFICIENT OF VARIANCE | 15.36 15.35 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 189 189 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | 172 172 |
| | | | | DAT APPLICATION # 03 TIMINGS (03) | 159 159 |
| | | | | DAT APPLICATION # 04 TIMINGS (04) | 144 144 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 01 = POSPOS / POSTEMERGENCE - MARCH 15 03-15-2005(1)
- 02 = POSPOS / POSTEMERGENCE - APRIL 1 04-01-2005(2)
- 03 = POSPOS / POSTEMERGENCE - APRIL 15 04-14-2005(3)
- 04 = POSPOS / POSTEMERGENCE - MAY 1 04-29-2005(4)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | HORVW | PHYTO % | 03-31-2005 | 01 | P | HORVW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | HORVW | PHYTO % | 04-14-2005 | 01 | P | HORVW | 24 | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | HORVW | PHYTO % | 04-28-2005 | 01 | P | HORVW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | HORVW | PHYTO % | 05-10-2005 | 01 | P | HORVW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 05-10-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | ZEAMX | YLD/PLOT | 09-20-2005 | 02 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

- VAR 01 = NOMINI
- VAR 02 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

- 01 = NOMINI
- 02 = PIONEER 33B54

* STAGE CODE

- 24 = 4 TILLERS DETECTABLE

* USER DEFINED CALCULATIONS

- US 003/05/01 001 HA--- 006 -- {RAW}*(7.26)
- US 003/05/01 001 HA--- 006 -- {RAW}*(7.26)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HB **ALTERNATE ID#:** HF 02 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** US 003/04/01
CREATED BY: US RITTER R
CREATED: 10-06-2004 **REVISED:** 10-20-2005 **COMPLETED:** Y
TITLE: WINTER COVER CROPS - II - BURNDOWN CONTROL OF RYE IN THE SPRING
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter **DATA SOURCE:** UNIVERSITY
COOPERATOR: MR. KEVIN CONOVER **TYPE:** FIELD TRIAL
LOCATION: HAYDEN FARM **STATE:** MARYLAND
CITY: BELTSVILLE **ZIP:** 20705
COUNTY: PRINCE GEORGE'S
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|--|---------------------|------------------------|------------------------------|
| % SAND: 70 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 20 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 10 | CEC: 5.4 | ACTUAL TRTS: 28 | ACTUAL SUB-BLOCKS: 28 |
| TEXTURE: SL | % OM: 1.5 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____ **REVIEWED BY:** _____
DATE: _____ **DATE:** _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/29/2004. Variety - Earligrazer.
2. 100 lb/acre of 30-0-0 UAN broadcast on 10/18/2004.
3. First application made 03/15/2005.
4. Second application made 04/01/2005.
5. Third application made 04/14/2005.
6. Fourth application made 04/29/2005.
7. Study planted to corn on 05/10/2005. Variety - Pioneer 33B54.
8. Kernal Guard added to hopper boxes.
9. Broadcast 133 lb/acre of 0-0-60 in the Spring.
10. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
11. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
12. Study harvested 09/21/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | UNIT |
|------------------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 01 | 02 | 03 | 04 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 03-15-05 | 04-01-05 | 04-14-05 | 04-29-05 | USA |
| TIME - BEGIN | 15:00 | 13:00 | 13:00 | 15:00 | 24H |
| TIME - END | 16:00 | 14:00 | 14:00 | 16:00 | 24H |
| AIR TEMPERATURE | 45 | 62 | 62 | 62 | F |
| % REL. HUMIDITY | 25 | 35 | 20 | 30 | |
| WIND DIRECTION | NORTHWEST | SOUTHEAST | NORTHEAST | WEST | |
| WIND SPEED | 6.0 | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | OVERCAST | CLEAR | PARTCLDY | |
| DEW | NO | NO | NO | --- | |
| SOIL MOISTURE | MOIST/MOI | MOIST/MOI | MOIST/MOI | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 40/4.00 | 55/4.00 | 55/4.00 | 59/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | USA |
| INC. START | | | | | 24H |
| INC. END | | | | | 24H |
| INC. DEPTH | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | |

- * TIMING CODES
- 01 = POSPOS / POSTEMERGENCE - MARCH 15
 - 02 = POSPOS / POSTEMERGENCE - APRIL 1
 - 03 = POSPOS / POSTEMERGENCE - APRIL 15
 - 04 = POSPOS / POSTEMERGENCE - MAY 1

- * NOZZLE DESCRIPTION
- 01 = SS-8003
 - 02 = SS-8003
 - 03 = SS-8003
 - 04 = SS-8003

TITLE: WINTER COVER CROPS - II - BURNDOWN CONTROL OF RYE IN THE SPRING
CREATED: 10-06-2004 **REVISED:** 10-20-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|---|--------------|------------|--------|--|--|--|--|--|
| | RATE | UNIT | TM | 03-13-05 P SECCW VAR 01 PHY % 1.00 PL ALL | 04-14-05 P SECCW 24 VAR 01 PHY % 1.00 PL ALL | 04-28-05 P SECCW VAR 01 PHY % 1.00 PL ALL | 05-10-05 P SECCW VAR 01 PHY % 1.00 PL ALL | 05-10-05 P SETFA CON % 1.00 PL ALL |
| 1A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 1 1 | 85 | 95 | 93 | 93 | 43 |
| 2A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 2 2 | 0 | 90 | 95 | 92 | 27 |
| 3A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 3 3 | 0 | 0 | 78 | 80 | 0 |
| 4A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.50 0.25 | LAA PMV | 4 4 | 0 | 0 | 0 | 88 | 0 |
| 5A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 1 1 | 90 | 95 | 98 | 97 | 20 |
| 6A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 2 2 | 0 | 90 | 95 | 92 | 15 |
| 7A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 3 3 | 0 | 0 | 82 | 85 | 2 |
| 8A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 0.75 0.25 | LAA PMV | 4 4 | 0 | 0 | 0 | 90 | 0 |
| 9A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 1 1 | 62 | 100 | 100 | 100 | 30 |
| 10A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 2 2 | 0 | 90 | 97 | 97 | 13 |
| 11A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 3 3 | 0 | 0 | 85 | 90 | 2 |
| 12A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL) | 1.00 0.25 | LAA PMV | 4 4 | 0 | 0 | 0 | 90 | 0 |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 85 | 100 | 100 | 100 | 20 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 0 | 40 | 70 | 67 | 8 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 0 | 0 | 88 | 100 | 0 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 0 | 0 | 0 | 95 | 0 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 90 | 100 | 100 | 100 | 15 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 0 | 82 | 97 | 97 | 12 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 0 | 0 | 90 | 100 | 33 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 0 | 0 | 0 | 93 | 0 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 87 | 100 | 100 | 100 | 15 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 0 | 83 | 98 | 100 | 7 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 0 | 0 | 88 | 100 | 33 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 0 | 0 | 0 | 97 | 0 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 0 | 0 | 0 | 0 |

TITLE: WINTER COVER CROPS - II - BURNDOWN CONTROL OF RYE IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|--------------------------------|--------|------|----|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|--------|
| | RATE | UNIT | TM | 03-13-05 P SECCW | 04-14-05 P SECCW | 04-28-05 P SECCW | 05-10-05 P SECCW | 05-10-05 P SETFA | |
| 27A UNTREATED CHECK | 0.00 | NA | 3 | 0 | 0 | 0 | 0 | 0 | |
| 28A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 | |
| | | | | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | |
| | | | | 24 | | | | | |
| | | | | LSD (0.05) | 16.65 | 3.36 | 3.62 | 6.40 | 26.86 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | * |
| | | | | STANDARD DEVIATION | 8.32 | 1.68 | 1.81 | 3.20 | 13.43 |
| | | | | COEFFICIENT OF VARIANCE | 57.28 | 5.40 | 3.76 | 4.90 | 156.11 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | NA | 30 | 44 | 56 | 56 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | NA | 13 | 27 | 39 | 39 |
| | | | | DAT APPLICATION # 03 TIMINGS (03) | NA | 0 | 14 | 26 | 26 |
| | | | | DAT APPLICATION # 04 TIMINGS (04) | NA | NA | NA | 11 | 11 |

TITLE: WINTER COVER CROPS - II - BURNDOWN CONTROL OF RYE IN THE SPRING
 CREATED: 10-06-2004 REVISED: 10-20-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 006 CALC |
|----------------------------------|--------|------|----|--------------------------|--------------------------|
| | RATE | UNIT | TM | 09-21-05 P ZEAMX | 09-21-05 P ZEAMX |
| | | | | VAR 02 YLD LB 1.00 | VAR 02 YLD BU 1.00 |
| | | | | PL SD | A SD |
| 1A»GRAMOXONE MAX (3L) | 0.50 | LAA | 1 | 26.4 | 191.4 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 2A»GRAMOXONE MAX (3L) | 0.50 | LAA | 2 | 29.8 | 216.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 3A»GRAMOXONE MAX (3L) | 0.50 | LAA | 3 | 22.7 | 164.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 4A»GRAMOXONE MAX (3L) | 0.50 | LAA | 4 | 29.1 | 211.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 5A»GRAMOXONE MAX (3L) | 0.75 | LAA | 1 | 25.0 | 181.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 6A»GRAMOXONE MAX (3L) | 0.75 | LAA | 2 | 30.5 | 221.2 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 7A»GRAMOXONE MAX (3L) | 0.75 | LAA | 3 | 27.2 | 197.7 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 8A»GRAMOXONE MAX (3L) | 0.75 | LAA | 4 | 20.9 | 152.0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 9A»GRAMOXONE MAX (3L) | 1.00 | LAA | 1 | 25.1 | 182.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 10A»GRAMOXONE MAX (3L) | 1.00 | LAA | 2 | 28.2 | 204.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 11A»GRAMOXONE MAX (3L) | 1.00 | LAA | 3 | 27.6 | 200.2 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 12A»GRAMOXONE MAX (3L) | 1.00 | LAA | 4 | 26.8 | 194.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 25.5 | 185.3 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 25.4 | 184.2 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 26.1 | 189.3 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 27.6 | 200.6 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 27.2 | 197.5 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 26.6 | 192.9 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 30.0 | 217.6 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 26.3 | 190.9 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 27.4 | 199.2 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 32.8 | 237.9 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 23.6 | 171.6 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 22.2 | 161.4 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 20.3 | 147.1 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 16.9 | 122.7 |

TITLE: WINTER COVER CROPS - II - BURNDOWN CONTROL OF RYE IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 006 CALC |
|--------------------------------|--------|------|----|-----------------------------------|---------------------|
| | RATE | UNIT | TM | 09-21-05 P ZEAMX | 09-21-05 P ZEAMX |
| 27A UNTREATED CHECK | 0.00 | NA | 3 | 23.4 | 169.9 |
| 28A UNTREATED CHECK | 0.00 | NA | 4 | 21.0 | 152.5 |
| | | | | VAR 02 YLD LB | VAR 02 YLD BU |
| | | | | 1.00 | 1.00 |
| | | | | PL SD | A SD |
| | | | | LSD (0.05) | 6.75 49.00 |
| | | | | SIGNIFICANCE OF F | ** ** |
| | | | | STANDARD DEVIATION | 3.38 24.51 |
| | | | | COEFFICIENT OF VARIANCE | 16.00 16.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 190 190 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | 173 173 |
| | | | | DAT APPLICATION # 03 TIMINGS (03) | 160 160 |
| | | | | DAT APPLICATION # 04 TIMINGS (04) | 145 145 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 01 = POSPOS / POSTEMERGENCE - MARCH 15 03-15-2005(1)
- 02 = POSPOS / POSTEMERGENCE - APRIL 1 04-01-2005(2)
- 03 = POSPOS / POSTEMERGENCE - APRIL 15 04-14-2005(3)
- 04 = POSPOS / POSTEMERGENCE - MAY 1 04-29-2005(4)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | SECCW | PHYTO % | 03-13-2005 | 01 | P | SECCW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | ZEAMX | PHYTO % | 04-14-2005 | 01 | P | SECCW | 24 | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | SECCW | PHYTO % | 04-28-2005 | 01 | P | SECCW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SECCW | PHYTO % | 05-10-2005 | 01 | P | SECCW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 05-10-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | ZEAMX | YLD/ELOT | 09-21-2005 | 02 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

- VAR 01 = EARLIGRAZER
- VAR 02 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

- 01 = EARLIGRAZER
- 02 = PIONEER 33B54

* STAGE CODE

- 24 = 4 TILLERS DETECTABLE

* USER DEFINED CALCULATIONS

US 003/05/01 001 HB--- 006 -- {RAW}*(7.26)

US 003/05/01 001 HB--- 006 -- {RAW}*(7.26)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HC ALTERNATE ID#: HF 03 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R REVISED: 10-19-2005 COMPLETED: Y
 CREATED: 10-06-2004
 TITLE: WINTER COVER CROPS - III - BURNDOWN CONTROL OF TRITICALE IN THE SPRING
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. KEVIN CONOVER TYPE: FIELD TRIAL
 LOCATION: HAYDEN FARM STATE: MARYLAND
 CITY: BELTSVILLE ZIP: 20705
 COUNTY: PRINCE GEORGE'S
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 70 TILLAGE: COT
 % SILT: 20 PH: 6.3
 % CLAY: 10 CEC: 5.4
 TEXTURE: SL % OM: 1.5
 SOIL GEN: C
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 28 ACTUAL SUB-BLOCKS: 28

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/29/2004. Variety - Trecal 498.
2. 100 lb/acre of 30-0-0 UAN broadcast on 10/18/2004.
3. First application made 03/15/2005.
4. Second application made 04/01/2005.
5. Third application made 04/14/2005.
6. Fourth application made 04/29/2005.
7. Study planted to corn on 05/10/2005. Variety - Pioneer 33B54.
8. Kernal Guard added to hopper boxes.
9. Broadcast 133 lb/acre of 0-0-60 in the Spring.
10. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
11. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
12. Study harvested 09/21/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | UNIT |
|------------------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 01 | 02 | 03 | 04 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 03-15-05 | 04-01-05 | 04-14-05 | 04-29-05 | USA |
| TIME - BEGIN | 15:00 | 13:00 | 13:00 | 15:00 | 24H |
| TIME - END | 16:00 | 14:00 | 14:00 | 16:00 | 24H |
| AIR TEMPERATURE | 45 | 62 | 62 | 62 | F |
| % REL. HUMIDITY | 25 | 35 | 20 | 30 | |
| WIND DIRECTION | NORTHWEST | SOUTHEAST | NORTHEAST | WEST | |
| WIND SPEED | 6.0 | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | OVERCAST | CLEAR | PARTCLDY | |
| DEW | NO | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | MOIST/MOI | MOIST/MOI | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | --- | FRIABLE | |
| SOIL TEMP/DEPTH | 40/4.00 | 55/4.00 | 55/4.00 | 59/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | USA |
| INC. START | | | | | 24H |
| INC. END | | | | | 24H |
| INC. DEPTH | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | |

* TIMING CODES

01 = POSPOS / POSTEMERGENCE - MARCH 15
 02 = POSPOS / POSTEMERGENCE - APRIL 1
 03 = POSPOS / POSTEMERGENCE - APRIL 15
 04 = POSPOS / POSTEMERGENCE - MAY 1

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003
 04 = SS-8003

TITLE: WINTER COVER CROPS - III - BURNDOWN CONTROL OF TRITICALE IN THE SPRING
 CREATED: 10-06-2004 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|----------------------------------|--------|------|----|--|--|--|--|--|
| | RATE | UNIT | TM | 03-31-05 P TTLWI VAR 01 PHY % 1.00 PL ALL | 04-14-05 P TTLWI 26 VAR 01 PHY % 1.00 PL ALL | 04-28-05 P TTLWI VAR 01 PHY % 1.00 PL ALL | 05-10-05 P TTLWI VAR 01 PHY % 1.00 PL ALL | 05-10-05 P SETFA CON % 1.00 PL ALL |
| 1A»GRAMOXONE MAX (3L) | 0.50 | LAA | 1 | 95 | 100 | 100 | 100 | 23 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| 2A»GRAMOXONE MAX (3L) | 0.50 | LAA | 2 | 0 | 88 | 92 | 93 | 23 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 3A»GRAMOXONE MAX (3L) | 0.50 | LAA | 3 | 0 | 0 | 68 | 73 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | | | | |
| 4A»GRAMOXONE MAX (3L) | 0.50 | LAA | 4 | 0 | 0 | 0 | 58 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | | | | |
| 5A»GRAMOXONE MAX (3L) | 0.75 | LAA | 1 | 97 | 100 | 100 | 100 | 23 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| 6A»GRAMOXONE MAX (3L) | 0.75 | LAA | 2 | 0 | 88 | 93 | 92 | 30 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 7A»GRAMOXONE MAX (3L) | 0.75 | LAA | 3 | 0 | 0 | 77 | 82 | 5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | | | | |
| 8A»GRAMOXONE MAX (3L) | 0.75 | LAA | 4 | 0 | 0 | 0 | 88 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | | | | |
| 9A»GRAMOXONE MAX (3L) | 1.00 | LAA | 1 | 98 | 100 | 100 | 100 | 23 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| 10A»GRAMOXONE MAX (3L) | 1.00 | LAA | 2 | 0 | 92 | 98 | 100 | 18 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| 11A»GRAMOXONE MAX (3L) | 1.00 | LAA | 3 | 0 | 0 | 82 | 87 | 2 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | | | | |
| 12A»GRAMOXONE MAX (3L) | 1.00 | LAA | 4 | 0 | 0 | 0 | 92 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | | | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 83 | 100 | 100 | 100 | 20 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 0 | 58 | 83 | 87 | 32 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 0 | 0 | 82 | 100 | 10 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 0 | 0 | 0 | 92 | 0 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 83 | 100 | 100 | 100 | 17 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 0 | 72 | 98 | 100 | 18 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 0 | 0 | 93 | 100 | 2 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 0 | 0 | 0 | 100 | 0 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 83 | 100 | 100 | 100 | 32 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 0 | 87 | 98 | 98 | 10 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 0 | 0 | 97 | 100 | 5 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 0 | 0 | 0 | 100 | 0 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 0 | 0 | 0 | 0 |

TITLE: WINTER COVER CROPS - III - BURNDOWN CONTROL OF TRITICALE IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|--------------------------------|--------|------|----|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------|
| | RATE | UNIT | TM | 03-31-05 P TTLWI | 04-14-05 P TTLWI | 04-28-05 P TTLWI | 05-10-05 P TTLWI | 05-10-05 P SETFA | |
| 27A UNTREATED CHECK | 0.00 | NA | 3 | 0 | 0 | 0 | 0 | 0 | |
| 28A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 | |
| | | | | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | |
| | | | | 26 | | | | | |
| | | | | LSD (0.05) | 2.41 | 3.10 | 4.47 | 16.25 | 16.64 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 1.20 | 1.55 | 2.24 | 8.12 | 8.32 |
| | | | | COEFFICIENT OF VARIANCE | 7.64 | 4.90 | 4.61 | 12.43 | 97.24 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 16 | 30 | 44 | 56 | 56 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | NA | 13 | 27 | 39 | 39 |
| | | | | DAT APPLICATION # 03 TIMINGS (03) | NA | 0 | 14 | 26 | 26 |
| | | | | DAT APPLICATION # 04 TIMINGS (04) | NA | NA | NA | 11 | 11 |

TITLE: WINTER COVER CROPS - III - BURNDOWN CONTROL OF TRITICALE IN THE SPRING
CREATED: 10-06-2004 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 006 CALC |
|----------------------------------|--------|------|----|-----------------------------------|----------------------------------|
| | RATE | UNIT | TM | 09-21-05 P ZEAMX | 09-21-05 P ZEAMX |
| | | | | VAR 02 YLD LB 1.00 PL SD | VAR 02 YLD BU 1.00 A SD |
| 1A»GRAMOXONE MAX (3L) | 0.50 | LAA | 1 | 15.5 | 114.4 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 2A»GRAMOXONE MAX (3L) | 0.50 | LAA | 2 | 22.4 | 165.1 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 3A»GRAMOXONE MAX (3L) | 0.50 | LAA | 3 | 16.7 | 123.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 4A»GRAMOXONE MAX (3L) | 0.50 | LAA | 4 | 17.8 | 131.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 5A»GRAMOXONE MAX (3L) | 0.75 | LAA | 1 | 16.2 | 119.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 6A»GRAMOXONE MAX (3L) | 0.75 | LAA | 2 | 16.6 | 122.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 7A»GRAMOXONE MAX (3L) | 0.75 | LAA | 3 | 15.7 | 116.1 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 8A»GRAMOXONE MAX (3L) | 0.75 | LAA | 4 | 19.7 | 145.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 9A»GRAMOXONE MAX (3L) | 1.00 | LAA | 1 | 15.3 | 112.9 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 10A»GRAMOXONE MAX (3L) | 1.00 | LAA | 2 | 16.3 | 120.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 11A»GRAMOXONE MAX (3L) | 1.00 | LAA | 3 | 20.5 | 151.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 12A»GRAMOXONE MAX (3L) | 1.00 | LAA | 4 | 17.2 | 126.9 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 15.6 | 115.4 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 12.8 | 94.5 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 20.7 | 153.0 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 23.2 | 171.2 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 18.6 | 137.0 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 15.3 | 112.6 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 19.3 | 142.7 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 16.3 | 120.3 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 21.8 | 160.9 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 12.6 | 93.2 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 15.8 | 116.8 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 14.4 | 106.0 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 18.3 | 134.8 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 17.0 | 125.7 |

TITLE: WINTER COVER CROPS - III - BURNDOWN CONTROL OF TRITICALE IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 006 RAW | | 006 CALC | |
|--------------------------------|-----------------------------------|---------|----|----------|----|
| | | PL | SD | PL | SD |
| 27A UNTREATED CHECK | 0.00 NA 3 | 16.9 | | 124.5 | |
| 28A UNTREATED CHECK | 0.00 NA 4 | 15.8 | | 116.8 | |
| | LSD (0.05) | 7.51 | | 55.40 | |
| | SIGNIFICANCE OF F | ns | | ns | |
| | STANDARD DEVIATION | 3.75 | | 27.70 | |
| | COEFFICIENT OF VARIANCE | 26.57 | | 26.57 | |
| | DAT APPLICATION # 01 TIMINGS (01) | 190 | | 190 | |
| | DAT APPLICATION # 02 TIMINGS (02) | 173 | | 173 | |
| | DAT APPLICATION # 03 TIMINGS (03) | 160 | | 160 | |
| | DAT APPLICATION # 04 TIMINGS (04) | 145 | | 145 | |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 01 = POSPOS / POSTEMERGENCE - MARCH 15 03-15-2005 (1)
- 02 = POSPOS / POSTEMERGENCE - APRIL 1 04-01-2005 (2)
- 03 = POSPOS / POSTEMERGENCE - APRIL 15 04-14-2005 (3)
- 04 = POSPOS / POSTEMERGENCE - MAY 1 04-29-2005 (4)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 001 | TTLWI | PHYTO % | 03-31-2005 | 01 | P | TTLWI | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | TTLWI | PHYTO % | 04-14-2005 | 01 | P | TTLWI | 26 | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | TTLWI | PHYTO % | 04-28-2005 | 01 | P | TTLWI | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | TTLWI | PHYTO % | 05-10-2005 | 01 | P | TTLWI | | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 05-10-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | ZEAMX | YLD/PLOT | 09-21-2005 | 02 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

- VAR 01 = TRICAL 498
- VAR 02 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

- 01 = TRICAL 498
- 02 = PIONEER 33B54

* STAGE CODE

- 26 = 6 SIDE SHOOTS/TILLERS VISIBLE

* USER DEFINED CALCULATIONS

US 003/05/01 001 HC--- 006 -- {RAW}*(7.38)

US 003/05/01 001 HC--- 006 -- {RAW}*(7.38)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HD ALTERNATE ID#: HF 04 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R
 CREATED: 10-06-2004 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: WINTER COVER CROPS - IV - BURNDOWN CONTROL OF WHEAT IN THE SPRING
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. KEVIN CONOVER TYPE: FIELD TRIAL
 LOCATION: HAYDEN FARM STATE: MARYLAND
 CITY: BELTSVILLE ZIP: 20705
 COUNTY: PRINCE GEORGE'S
 COUNTRY: UNITED STATES DISTANCE TO TRIAL: 5280.0 FT
 WEATHER SITE: HF -- HAYDEN FARM WEEKS AFTER LAST APPLICATION: 4
 WEEKS PRIOR TO FIRST APPLICATION: 4 LATE WEATHER: NA
 EARLY WEATHER: NA MID WEATHER: NA

SOIL INFORMATION

% SAND: 70 TILLAGE: COT
 % SILT: 20 PH: 6.3
 % CLAY: 10 CEC: 5.4
 TEXTURE: SL % OM: 1.5
 SOIL GEN: C
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 28 ACTUAL SUB-BLOCKS: 28

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/31/2004. Variety - Southern States 520.
2. 100 lb/acre of 30-0-0 UAN broadcast on 10/18/2004.
3. First application made 03/15/2005.
4. Second application made 04/01/2005.
5. Third application made 04/14/2005.
6. Fourth application made 04/29/2005.
7. Study planted to corn on 05/10/2005. Variety - Pioneer 33B54.
8. Kernal Guard added to hopper boxes.
9. Broadcast 133 lb/acre of 0-0-60 in the Spring.
10. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
11. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
12. Study harvested 09/21/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | UNIT |
|------------------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 01 | 02 | 03 | 04 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 03-15-05 | 04-01-05 | 04-14-05 | 04-29-05 | USA |
| TIME - BEGIN | 15:00 | 13:00 | 13:00 | 15:00 | 24H |
| TIME - END | 16:00 | 14:00 | 14:00 | 16:00 | 24H |
| AIR TEMPERATURE | 45 | 62 | 62 | 62 | F |
| % REL. HUMIDITY | 25 | 35 | 20 | 30 | |
| WIND DIRECTION | WEST | SOUTHEAST | NORTHEAST | WEST | |
| WIND SPEED | 6.0 | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | OVERCAST | CLEAR | PARTCLDY | |
| DEW | NO | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | MOIST/MOI | MOIST/MOI | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | --- | FRIABLE | |
| SOIL TEMP/DEPTH | 40/4.00 | 55/4.00 | 55/4.00 | 59/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | USA |
| INC. START | | | | | 24H |
| INC. END | | | | | 24H |
| INC. DEPTH | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | |

* TIMING CODES

01 = POSPOS / POSTEMERGENCE - MARCH 15
 02 = POSPOS / POSTEMERGENCE - APRIL 1
 03 = POSPOS / POSTEMERGENCE - APRIL 15
 04 = POSPOS / POSTEMERGENCE - MAY 1

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003
 04 = SS-8003

01 P TRZAW - WHEAT, WINTER **CULTIVAR:** SS 520
TARGET: CROP **SITE:** FG **POPULATION:** 120.00 LPA **PLANTED:** 10-31-2004
PLANTING DEPTH: 1.0 IN **ROW WIDTH:** 7.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------|-------|-------|
| 10-31-2004 | 00 | MED | 120.00 LPA | . | . | . IN | | NA | |
| 03-15-2005 | 23 | MED | 120.00 LPA | 3.00 | 3.00 | 3.00 IN | | TUR | |
| 04-01-2005 | 23 | MED | 120.00 LPA | 3.00 | 3.00 | 3.00 IN | | TUR | |
| 04-14-2005 | 23 | MED | 120.00 LPA | 8.00 | 8.00 | 8.00 IN | | TUR | |
| 04-29-2005 | 30 | MED | 120.00 LPA | 12.00 | 12.00 | 12.00 IN | | TUR | |

02 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** PIONEER 33B54
TARGET: CROP **SITE:** FG **POPULATION:** 27000.00 IPA **PLANTED:** 05-10-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|--------------|---------|---------|---------|------|-------|-------|
| 05-10-2005 | 00 | MED | 27000.00 IPA | . | . | . IN | | NA | |

03 P SETFA - FOXTAIL, GIANT
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MK SIZE | AV SIZE | CROP | VIGOR | NOTES |
|----------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| - - | 01 | --- | IND | . | . | . IN | | --- | |

*** STAGE CODE -- CEREALS**

- 00 = DRY SEED (CARYOPSIS)
- 23 = 3 TILLERS DETECTABLE
- 30 = BEGINNING OF STEM ELONGATION:PSEUDOSTEM ANDTILLERS ERECT, FIRST INTERNODE BEGINS

*** STAGE CODE -- CORN**

- 00 = DRY SEED (CARYOPSIS)

*** STAGE CODE -- GENERAL GRASS**

- 01 = BEGINNING OF IMIBIBITION

TITLE: WINTER COVER CROPS - IV - BURNDOWN CONTROL OF WHEAT IN THE SPRING
 CREATED: 10-06-2004 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|----------------------------------|------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| | | 03-31-05 P TRZAW | 04-14-05 P TRZAW 23 | 04-28-05 P TRZAW | 05-10-05 P TRZAW | 05-10-05 P SETFA |
| | | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A»GRAMOXONE MAX (3L) | 0.50 LAA 1 | 83 | 92 | 93 | 93 | 35 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 1 | | | | | |
| 2A»GRAMOXONE MAX (3L) | 0.50 LAA 2 | 0 | 82 | 85 | 80 | 27 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 2 | | | | | |
| 3A»GRAMOXONE MAX (3L) | 0.50 LAA 3 | 0 | 0 | 67 | 52 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 3 | | | | | |
| 4A»GRAMOXONE MAX (3L) | 0.50 LAA 4 | 0 | 0 | 0 | 87 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 4 | | | | | |
| 5A»GRAMOXONE MAX (3L) | 0.75 LAA 1 | 87 | 93 | 98 | 97 | 33 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 1 | | | | | |
| 6A»GRAMOXONE MAX (3L) | 0.75 LAA 2 | 0 | 88 | 93 | 93 | 27 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 2 | | | | | |
| 7A»GRAMOXONE MAX (3L) | 0.75 LAA 3 | 0 | 0 | 72 | 72 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 3 | | | | | |
| 8A»GRAMOXONE MAX (3L) | 0.75 LAA 4 | 0 | 0 | 0 | 85 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 4 | | | | | |
| 9A»GRAMOXONE MAX (3L) | 1.00 LAA 1 | 90 | 97 | 98 | 100 | 33 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 1 | | | | | |
| 10A»GRAMOXONE MAX (3L) | 1.00 LAA 2 | 0 | 87 | 92 | 95 | 18 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 2 | | | | | |
| 11A»GRAMOXONE MAX (3L) | 1.00 LAA 3 | 0 | 0 | 75 | 75 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 3 | | | | | |
| 12A»GRAMOXONE MAX (3L) | 1.00 LAA 4 | 0 | 0 | 0 | 95 | 0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 PMV 4 | | | | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 LAA 1 | 80 | 97 | 100 | 100 | 37 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 LAA 2 | 0 | 62 | 85 | 83 | 40 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 LAA 3 | 0 | 0 | 77 | 92 | 0 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 LAA 4 | 0 | 0 | 0 | 77 | 0 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 LAA 1 | 85 | 98 | 100 | 100 | 53 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 LAA 2 | 0 | 72 | 95 | 97 | 27 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 LAA 3 | 0 | 0 | 92 | 100 | 0 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 LAA 4 | 0 | 0 | 0 | 98 | 0 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 LAA 1 | 85 | 100 | 100 | 100 | 45 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 LAA 2 | 0 | 72 | 93 | 97 | 17 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 LAA 3 | 0 | 0 | 92 | 100 | 7 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 LAA 4 | 0 | 0 | 0 | 98 | 0 |
| 25A UNTREATED CHECK | 0.00 NA 1 | 0 | 0 | 0 | 0 | 0 |
| 26A UNTREATED CHECK | 0.00 NA 2 | 0 | 0 | 0 | 0 | 0 |

TITLE: WINTER COVER CROPS - IV - BURNDOWN CONTROL OF WHEAT IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|--------------------------------|--------|------|----|-----------------------------------|----------|----------|----------|----------|-------|
| | RATE | UNIT | TM | 03-31-05 | 04-14-05 | 04-28-05 | 05-10-05 | 05-10-05 | |
| | | | | P TRZAW | P TRZAW | P TRZAW | P TRZAW | P SETFA | |
| | | | | VAR 01 | VAR 01 | VAR 01 | VAR 01 | CON % | |
| | | | | PHY % | PHY % | PHY % | PHY % | 1.00 | |
| | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 27A UNTREATED CHECK | 0.00 | NA | 3 | 0 | 0 | 0 | 0 | 0 | |
| 28A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 2.55 | 3.59 | 5.95 | 7.89 | 12.33 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 1.27 | 1.80 | 3.00 | 3.95 | 6.16 |
| | | | | COEFFICIENT OF VARIANCE | 8.57 | 5.93 | 6.35 | 6.25 | 53.06 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 16 | 30 | 44 | 56 | 56 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | NA | 13 | 27 | 39 | 39 |
| | | | | DAT APPLICATION # 03 TIMINGS (03) | NA | 0 | 14 | 26 | 26 |
| | | | | DAT APPLICATION # 04 TIMINGS (04) | NA | NA | NA | 11 | 11 |

TITLE: WINTER COVER CROPS - IV - BURNDOWN CONTROL OF WHEAT IN THE SPRING
 CREATED: 10-06-2004 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 006 CALC |
|----------------------------------|--------|------|----|-----------------------------------|----------------------------------|
| | RATE | UNIT | TM | 09-21-05 P ZEAMX | 09-21-05 P ZEAMX |
| | | | | VAR 02 YLD LB 1.00 PL SD | VAR 02 YLD BU 1.00 A SD |
| 1A»GRAMOXONE MAX (3L) | 0.50 | LAA | 1 | 22.2 | 160.9 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 2A»GRAMOXONE MAX (3L) | 0.50 | LAA | 2 | 22.8 | 165.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 3A»GRAMOXONE MAX (3L) | 0.50 | LAA | 3 | 17.5 | 126.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 4A»GRAMOXONE MAX (3L) | 0.50 | LAA | 4 | 18.3 | 133.1 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 5A»GRAMOXONE MAX (3L) | 0.75 | LAA | 1 | 15.4 | 112.0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 6A»GRAMOXONE MAX (3L) | 0.75 | LAA | 2 | 16.5 | 120.0 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 7A»GRAMOXONE MAX (3L) | 0.75 | LAA | 3 | 14.3 | 103.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 8A»GRAMOXONE MAX (3L) | 0.75 | LAA | 4 | 12.6 | 91.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 9A»GRAMOXONE MAX (3L) | 1.00 | LAA | 1 | 20.8 | 150.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | |
| 10A»GRAMOXONE MAX (3L) | 1.00 | LAA | 2 | 20.3 | 147.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | |
| 11A»GRAMOXONE MAX (3L) | 1.00 | LAA | 3 | 15.4 | 111.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 3 | | |
| 12A»GRAMOXONE MAX (3L) | 1.00 | LAA | 4 | 17.5 | 127.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 4 | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 1 | 19.2 | 139.4 |
| 14A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 2 | 18.1 | 131.6 |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 3 | 15.3 | 111.3 |
| 16A»ROUNDUP WEATHER MAX (5.5 SL) | 0.50 | LAA | 4 | 20.1 | 146.2 |
| 17A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 1 | 21.4 | 155.4 |
| 18A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 2 | 18.3 | 132.6 |
| 19A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 3 | 12.8 | 93.2 |
| 20A»ROUNDUP WEATHER MAX (5.5 SL) | 1.00 | LAA | 4 | 21.1 | 153.2 |
| 21A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 1 | 13.6 | 99.0 |
| 22A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 2 | 15.9 | 115.4 |
| 23A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 3 | 16.6 | 120.7 |
| 24A»ROUNDUP WEATHER MAX (5.5 SL) | 1.50 | LAA | 4 | 17.6 | 127.5 |
| 25A UNTREATED CHECK | 0.00 | NA | 1 | 18.9 | 136.9 |
| 26A UNTREATED CHECK | 0.00 | NA | 2 | 19.1 | 138.4 |

TITLE: WINTER COVER CROPS - IV - BURNDOWN CONTROL OF WHEAT IN THE SPRING

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 006 CALC |
|--------------------------------|--------|------|----|-----------------------------------|---------------------|
| | RATE | UNIT | TM | 09-21-05 P ZEAMX | 09-21-05 P ZEAMX |
| 27A UNTREATED CHECK | 0.00 | NA | 3 | 21.5 | 155.8 |
| 28A UNTREATED CHECK | 0.00 | NA | 4 | 13.8 | 99.9 |
| | | | | VAR 02 YLD LB | VAR 02 YLD BU |
| | | | | 1.00 | 1.00 |
| | | | | PL SD | A SD |
| | | | | LSD (0.05) | 7.44 54.00 |
| | | | | SIGNIFICANCE OF F | ns ns |
| | | | | STANDARD DEVIATION | 3.72 27.00 |
| | | | | COEFFICIENT OF VARIANCE | 25.68 25.68 |
| | | | | DAT APPLICATION # 01 TIMINGS (01) | 190 190 |
| | | | | DAT APPLICATION # 02 TIMINGS (02) | 173 173 |
| | | | | DAT APPLICATION # 03 TIMINGS (03) | 160 160 |
| | | | | DAT APPLICATION # 04 TIMINGS (04) | 145 145 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 01 = POSPOS / POSTEMERGENCE - MARCH 15 03-15-2005 (1)
- 02 = POSPOS / POSTEMERGENCE - APRIL 1 04-01-2005 (2)
- 03 = POSPOS / POSTEMERGENCE - APRIL 15 04-14-2005 (3)
- 04 = POSPOS / POSTEMERGENCE - MAY 1 04-29-2005 (4)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|--------|-----|-----|---------|-----|------|----|------|
| 001 | TRZAW | PHYTO % | 03-31-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | TRZAW | PHYTO % | 04-14-2005 | 01 | P | TRZAW | 23 | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | TRZAW | PHYTO % | 04-28-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | TRZAW | PHYTO % | 05-10-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 05-10-2005 | 03 | P | SETFA | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | ZEAMX | YLD/PLOT | 09-21-2005 | 02 | P | ZEAMX | | RAW | SD | YLD LB | H | | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD BU | H | | 1.00 A | | | | |

* VARIETY CODES

- VAR 01 = SS 520
- VAR 02 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

- 01 = SS 520
- 02 = PIONEER 33B54

* STAGE CODE

- 23 = 3 TILLERS DETECTABLE

* USER DEFINED CALCULATIONS

- US 003/05/01 001 HD--- 006 -- {RAW}*(7.26)
- US 003/05/01 001 HD--- 006 -- {RAW}*(7.26)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HE ALTERNATE ID#: HF 05 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R
 CREATED: 10-06-2004 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: USE OF KIH-485 FOR CONTROL OF ITALIAN RYEGRASS IN WHEAT
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 66 TILLAGE: COT
 % SILT: 18 PH: 5.2
 % CLAY: 16 CEC: 6.1
 TEXTURE: SL % OM: 3.4
 SOIL GEN: C
 PREVIOUS CROP: NA - NONE
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/31/2004. Variety - Southern States 520.
2. Preemergence applications made 11/01/2004.
3. 100 lb/acre of 30-0-0 UAN broadcast on 10/18/2004.
4. 181.8 lb/acre of 22-0-0-5S broadcast on 03/13/2005 (40-0-0-9S).
5. 131 lb/acre of 30-0-0 broadcast on 04/07/2005 (40-0-0).
6. Early post applications made 03/07/2005.
7. Study harvested 07/08/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|-----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 11-01-04 | 03-07-05 | USA |
| TIME - BEGIN | 16:00 | 16:00 | 24H |
| TIME - END | 17:00 | 17:00 | 24H |
| AIR TEMPERATURE | 67 | 65 | F |
| % REL. HUMIDITY | 20 | 20 | |
| WIND DIRECTION | NORTHWEST | SOUTH | |
| WIND SPEED | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | PARTCLDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 65/4.00 | 53/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
01 = POSPOS / EARLY POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003

01 P TRZAW - WHEAT, WINTER
 TARGET: CROP SITE: FG POPULATION: 120.00 LPA PLANTED: 10-31-2004
 PLANTING DEPTH: 1.0 IN ROW WIDTH: 7.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 10-31-2004 00 MED 120.00 LPA . . . IN NA
 03-07-2005 23 MED 120.00 LPA 4.00 4.00 4.00 IN TUR

02 P LOLMU - RYEGRASS, ITALIAN
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 10-31-2004 00 --- IND . . . IN ---
 11-01-2004 00 --- IND . . . IN ---
 03-07-2005 22 MED 12.00 SQF 1.50 1.50 1.50 IN TUR

* STAGE CODE -- CEREALS

00 = DRY SEED (CARYOPSIS)
 23 = 3 TILLERS DETECTABLE

* STAGE CODE -- GENERAL GRASS

00 = DRY SEED (CARYOPSIS)
 22 = 2 TILLERS DETECTABLE

TITLE: USE OF KIH-485 FOR CONTROL OF ITALIAN RYEGRASS IN WHEAT
CREATED: 10-06-2004 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW | | 002 RAW | | 003 RAW | | 004 RAW | | 005 RAW | |
|--------------------------------|-----------------------------------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|
| | | 03-15-05 | | 03-15-05 | | 03-22-05 | | 03-22-05 | | 04-05-05 | |
| | | P | TRZAW | P | LOLMU | P | TRZAW | P | LOLMU | P | TRZAW |
| | | VAR 01 PHY % | CON % | VAR 01 PHY % | CON % | VAR 01 PHY % | CON % | VAR 01 PHY % | CON % | VAR 01 PHY % | CON % |
| | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»KIH-485 (60WG) | 0.036 LAA 0 | 10 | 100 | 15 | 100 | 15 | 100 | 20 | 100 | 20 | 100 |
| 3A»KIH-485 (60WG) | 0.072 LAA 0 | 17 | 100 | 28 | 100 | 28 | 100 | 33 | 100 | 33 | 100 |
| 4A»KIH-485 (60WG) | 0.108 LAA 0 | 45 | 100 | 60 | 100 | 60 | 100 | 60 | 100 | 60 | 100 |
| 5A»KIH-485 (60WG) | 0.144 LAA 0 | 67 | 100 | 75 | 100 | 75 | 100 | 78 | 100 | 78 | 100 |
| 6A»HOELON (3EC) | 0.75 LAA 0 | 7 | 100 | 7 | 100 | 7 | 100 | 7 | 100 | 7 | 100 |
| 7A»KIH-485 (60WG) | 0.036 LAA 1 | 3 | 7 | 7 | 22 | 7 | 22 | 7 | 22 | 7 | 22 |
| 8A»KIH-485 (60WG) | 0.072 LAA 1 | 0 | 20 | 3 | 23 | 3 | 23 | 3 | 23 | 3 | 23 |
| 9A»KIH-485 (60WG) | 0.108 LAA 1 | 7 | 20 | 10 | 30 | 10 | 30 | 10 | 30 | 10 | 30 |
| 10A»KIH-485 (60WG) | 0.144 LAA 1 | 7 | 23 | 7 | 27 | 7 | 27 | 7 | 27 | 7 | 27 |
| 11A»HOELON (3EC) | 0.75 LAA 1 | 3 | 30 | 0 | 32 | 0 | 32 | 3 | 32 | 3 | 32 |
| B ADJUVANT - COC (EC) | 1.00 QMA 1 | | | | | | | | | | |
| 12A UNTREATED CHECK | 0.00 NA 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | 9.32 | 3.90 | 9.37 | 4.08 | 11.00 | | | | | |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** | | | | | |
| | STANDARD DEVIATION | 4.49 | 1.88 | 4.52 | 2.00 | 5.30 | | | | | |
| | COEFFICIENT OF VARIANCE | 40.00 | 4.61 | 31.37 | 4.57 | 34.13 | | | | | |
| | DAT APPLICATION # 01 TIMINGS (00) | 134 | 134 | 141 | 141 | 155 | | | | | |
| | DAT APPLICATION # 02 TIMINGS (01) | 8 | 8 | 15 | 15 | 29 | | | | | |

TITLE: USE OF KIH-485 FOR CONTROL OF ITALIAN RYEGRASS IN WHEAT
CREATED: 10-06-2004 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 006 RAW 04-05-05 P LOLMU | | 007 RAW 04-26-05 P TRZAW | | 008 RAW 04-26-05 P LOLMU | | 009 RAW 05-12-05 P TRZAW | | 010 RAW 05-12-05 P LOLMU | |
|--------------------------------|-----------------------------------|--------------------------------|-------------------------|--------------------------------|-------------------------|--------------------------------|-------------------------|--------------------------------|-------------------------|--------------------------------|-----|
| | | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | PHY % 1.00 PL ALL | | |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»KIH-485 (60WG) | 0.036 LAA 0 | 100 | 8 | 100 | 8 | 100 | 0 | 100 | 0 | 100 | 100 |
| 3A»KIH-485 (60WG) | 0.072 LAA 0 | 100 | 12 | 100 | 12 | 100 | 7 | 100 | 7 | 100 | 100 |
| 4A»KIH-485 (60WG) | 0.108 LAA 0 | 100 | 35 | 100 | 35 | 100 | 25 | 100 | 25 | 100 | 100 |
| 5A»KIH-485 (60WG) | 0.144 LAA 0 | 100 | 58 | 100 | 58 | 100 | 42 | 100 | 42 | 100 | 100 |
| 6A»HOELON (3EC) | 0.75 LAA 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 100 |
| 7A»KIH-485 (60WG) | 0.036 LAA 1 | 60 | 0 | 32 | 0 | 32 | 0 | 20 | 0 | 20 | 20 |
| 8A»KIH-485 (60WG) | 0.072 LAA 1 | 62 | 0 | 67 | 0 | 67 | 0 | 43 | 0 | 43 | 43 |
| 9A»KIH-485 (60WG) | 0.108 LAA 1 | 65 | 3 | 83 | 3 | 83 | 0 | 78 | 0 | 78 | 78 |
| 10A»KIH-485 (60WG) | 0.144 LAA 1 | 67 | 3 | 100 | 3 | 100 | 3 | 92 | 3 | 92 | 92 |
| 11A»HOELON (3EC) | 0.75 LAA 1 | 85 | 0 | 100 | 0 | 100 | 0 | 97 | 0 | 97 | 97 |
| B ADJUVANT - COC (EC) | 1.00 QMA 1 | | | | | | | | | | |
| 12A UNTREATED CHECK | 0.00 NA 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | LSLSD (0.05) | 1.90 | 11.28 | 8.13 | 8.33 | 12.66 | | | | | |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** | | | | | |
| | STANDARD DEVIATION | 0.917 | 5.44 | 3.92 | 4.00 | 6.10 | | | | | |
| | COEFFICIENT OF VARIANCE | 1.61 | 67.00 | 6.53 | 77.00 | 10.81 | | | | | |
| | DAT APPLICATION # 01 TIMINGS (00) | 155 | 176 | 176 | 192 | 192 | | | | | |
| | DAT APPLICATION # 02 TIMINGS (01) | 29 | 50 | 50 | 66 | 66 | | | | | |

TITLE: USE OF KIH-485 FOR CONTROL OF ITALIAN RYEGRASS IN WHEAT
 CREATED: 10-06-2004 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | VAR 01 | VAR 01 |
|--------------------------------|--------|------|----|-----------------------------------|-----------------|----------------|
| | RATE | UNIT | TM | PL ALL | YLD LB PL SD | YLD BU A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 5.9 | 26.6 |
| 2A»KIH-485 (60WG) | 0.036 | LAA | 0 | 93 | 14.2 | 64.5 |
| 3A»KIH-485 (60WG) | 0.072 | LAA | 0 | 98 | 14.3 | 65.1 |
| 4A»KIH-485 (60WG) | 0.108 | LAA | 0 | 98 | 13.0 | 59.0 |
| 5A»KIH-485 (60WG) | 0.144 | LAA | 0 | 100 | 10.9 | 49.4 |
| 6A»HOELON (3EC) | 0.75 | LAA | 0 | 100 | 14.7 | 66.9 |
| 7A»KIH-485 (60WG) | 0.036 | LAA | 1 | 7 | 9.6 | 43.6 |
| 8A»KIH-485 (60WG) | 0.072 | LAA | 1 | 45 | 9.8 | 44.5 |
| 9A»KIH-485 (60WG) | 0.108 | LAA | 1 | 75 | 11.4 | 51.9 |
| 10A»KIH-485 (60WG) | 0.144 | LAA | 1 | 85 | 12.7 | 57.5 |
| 11A»HOELON (3EC) | 0.75 | LAA | 1 | 92 | 13.1 | 59.6 |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 4.9 | 22.4 |
| | | | | LSD (0.05) | 14.21 | 2.45 |
| | | | | SIGNIFICANCE OF F | ** | ** |
| | | | | STANDARD DEVIATION | 6.85 | 1.18 |
| | | | | COEFFICIENT OF VARIANCE | 12.69 | 12.90 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 219 | 249 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 93 | 123 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 11-01-2004(1)
 01 = POSPOS / EARLY POSTEMERGENCE 03-07-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|--------|-----|-----|---------|-----|------|----|------|
| 001 | TRZAW | PHYTO % | 03-15-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | LOLMU | CON % | 03-15-2005 | 02 | P | LOLMU | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | TRZAW | PHYTO % | 03-22-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | LOLMU | CON % | 03-22-2005 | 02 | P | LOLMU | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | TRZAW | PHYTO % | 04-05-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | LOLMU | CON % | 04-05-2005 | 02 | P | LOLMU | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | TRZAW | PHYTO % | 04-26-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | LOLMU | CON % | 04-26-2005 | 02 | P | LOLMU | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | TRZAW | PHYTO % | 05-12-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | LOLMU | CON % | 05-12-2005 | 02 | P | LOLMU | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | LOLMU | CON % | 06-08-2005 | 02 | P | LOLMU | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | TRZAW | YLD/PLOT | 07-08-2005 | 01 | P | TRZAW | | RAW | SD | YLD LB | H | | 1.00 PL | UDC | 0001 | 0 | N |
| | TRZAW | YLD/ACRE | | | | | | CALC | SD | YLD BU | H | | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = SS 520

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = SS 520

* USER DEFINED CALCULATIONS

US 003/05/01 001 HE--- 012 -- {RAW}*(4.54)

* USER DEFINED CALCULATIONS
US 003/05/01 001 HE--- 012 -- {RAW}*(4.54)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HG ALTERNATE ID#: HF 07 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R REVISED: 10-19-2005 COMPLETED: Y
 TITLE: WEED CONTROL SYSTEMS IN NO-TILL WHEAT
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 66 TILLAGE: COT
 % SILT: 18 PH: 5.2
 % CLAY: 16 CEC: 6.1
 TEXTURE: SL % OM: 3.4
 SOIL GEN: C
 PREVIOUS CROP: NA - NONE
 % RESIDUE: 100
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 11/01/2004. Variety - Pioneer 26R58.
2. Early preplant applications made 10/12/2004.
3. Preemergence applications made 11/01/2004.
4. 428 lb/acre of 7-18-36 broadcast on 10/14/2004.
5. 181.8 lb/acre of 22-0-0-5S broadcast on 03/13/2005 (40-0-0-9S).
6. 131 lb/acre of 30-0-0 broadcast on 04/07/2005 (40-0-0).
7. Early post applications made 03/07/2005.
8. Study harvested 07/08/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 10-12-04 | 11-01-04 | 03-07-05 | USA |
| TIME - BEGIN | 17:00 | 16:00 | 16:00 | 24H |
| TIME - END | 17:30 | 17:00 | 17:00 | 24H |
| AIR TEMPERATURE | 65 | 67 | 65 | F |
| % REL. HUMIDITY | 35 | 20 | 20 | |
| WIND DIRECTION | NORTH | NORTHWEST | SOUTH | |
| WIND SPEED | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | CLEAR | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/MOIST | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 65/4.00 | 53/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

- 00 = PREPLA / PREPLANT - 2 TO 4 WEEKS PREPLANT
- 01 = PREPRE / PREEMERGENCE
- 02 = MID POS / POSTEMERGENCE - 1 TO 2-TILLER GRASSY WEEDS

* NOZZLE DESCRIPTION

- 01 = SS-8003
- 02 = SS-8003
- 03 = SS-8003

01 P TRZAW - WHEAT, WINTER CULTIVAR: PIONEER 26R58
 TARGET: CROP SITE: FG POPULATION: 131.00 LPA PLANTED: 11-01-2004
 PLANTING DEPTH: 1.0 IN ROW WIDTH: 7.0 IN

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 10-12-2004 | 00 | --- | IND | . | . | . IN | --- | |
| 11-01-2004 | 00 | MED | 131.00 LPA | . | . | . IN | NA | |
| 03-07-2005 | 23 | MED | 131.00 LPA | 4.00 | 4.00 | 4.00 IN | TUR | |

02 P LOLMU - RYEGRASS, ITALIAN

TARGET: PEST SITE: FG PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 10-12-2004 | 00 | --- | IND | . | . | . IN | --- | |
| 11-01-2004 | 00 | --- | IND | . | . | . IN | --- | |
| 03-07-2005 | 22 | MED | 12.00 SQF | 1.50 | 1.50 | 1.50 IN | TUR | |

* STAGE CODE -- CEREALS

00 = DRY SEED (CARYOPSIS)
 23 = 3 TILLERS DETECTABLE

* STAGE CODE -- GENERAL GRASS

00 = DRY SEED (CARYOPSIS)
 22 = 2 TILLERS DETECTABLE

TITLE: WEED CONTROL SYSTEMS IN NO-TILL WHEAT
 CREATED: 10-07-2004 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|-----------------------------------|--------|------|----|-----------------------------------|----------|----------|----------|----------|-------|
| | RATE | UNIT | | 03-22-05 | 03-22-05 | 04-05-05 | 04-26-05 | 05-12-05 | |
| | | | | P TRZAW | P LOLMU | P LOLMU | P LOLMU | P LOLMU | |
| | | | | VAR 01 | CON % | CON % | CON % | CON % | |
| | | | | PHY % | 1.00 | 1.00 | 1.00 | 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 1A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 0 | 0 | 0 | 0 | 0 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 0 | | | | | | |
| 2A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 0 | 0 | 0 | 0 | 0 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 0 | | | | | | |
| C»PROWL H2O (3.8CS) | 0.75 | LAA | 0 | | | | | | |
| 3A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 0 | 50 | 33 | 10 | 7 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 0 | | | | | | |
| C»PROWL H2O (3.8CS) | 1.50 | LAA | 0 | | | | | | |
| 4A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 88 | 87 | 77 | 58 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 1 | | | | | | |
| C»PROWL H2O (3.8CS) | 0.75 | LAA | 1 | | | | | | |
| 5A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 93 | 93 | 82 | 72 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 1 | | | | | | |
| C»PROWL H2O (3.8CS) | 1.50 | LAA | 1 | | | | | | |
| 6A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 92 | 92 | 85 | 78 | |
| B»DUAL II MAGNUM (7.64EC) | 0.48 | LAA | 1 | | | | | | |
| 7A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 100 | 100 | 80 | 68 | |
| B»DUAL II MAGNUM (7.64EC) | 0.96 | LAA | 1 | | | | | | |
| 8A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 98 | 97 | 87 | 70 | |
| B»AXIOM (68 DF) | 0.255 | LAA | 1 | | | | | | |
| 9A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 93 | 98 | 87 | 75 | |
| B»AXIOM (68 DF) | 0.255 | LAA | 1 | | | | | | |
| C»OSPREY (4.5G) | 0.013 | LAA | 2 | | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 2 | | | | | | |
| 10A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 90 | 97 | 83 | 72 | |
| B»OSPREY (4.5G) | 0.013 | LAA | 2 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 2 | | | | | | |
| 11A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 90 | 98 | 83 | 67 | |
| B»OSPREY (4.5G) | 0.013 | LAA | 2 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 2 | | | | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 2 | | | | | | |
| 12A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 0.00 | 6.42 | 7.26 | 16.32 | 20.74 |
| | | | | SIGNIFICANCE OF F | ns | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 3.10 | 3.50 | 7.87 | 10.00 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 5.73 | 6.47 | 17.18 | 25.93 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 161 | 161 | 175 | 196 | 212 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 141 | 141 | 155 | 176 | 192 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 15 | 15 | 29 | 50 | 66 |

TITLE: WEED CONTROL SYSTEMS IN NO-TILL WHEAT
 CREATED: 10-07-2004 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | | | 006 RAW | 007 RAW | 007 CALC |
|-----------------------------------|------------------------|-----|---|----------|----------|----------|
| | | | | 06-08-05 | 07-08-05 | 07-08-05 |
| | | | | P LOLMU | P TRZAW | P TRZAW |
| | | | | CON % | VAR 01 | VAR 01 |
| | | | | 1.00 | YLD LB | YLD BU |
| | | | | PL ALL | PL SD | A SD |
| 1A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 0 | 2.3 | 10.3 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 0 | | | |
| 2A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 0 | 1.8 | 8.0 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 0 | | | |
| C>>PROWL H20 (3.8CS) | 0.75 | LAA | 0 | | | |
| 3A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 7 | 2.4 | 10.9 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 0 | | | |
| C>>PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | |
| 4A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 35 | 5.3 | 23.9 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 1 | | | |
| C>>PROWL H20 (3.8CS) | 0.75 | LAA | 1 | | | |
| 5A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 67 | 6.6 | 30.0 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LAA | 1 | | | |
| C>>PROWL H20 (3.8CS) | 1.50 | LAA | 1 | | | |
| 6A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 62 | 7.5 | 34.0 |
| B>>DUAL II MAGNUM (7.64EC) | 0.48 | LAA | 1 | | | |
| 7A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 65 | 6.4 | 29.2 |
| B>>DUAL II MAGNUM (7.64EC) | 0.96 | LAA | 1 | | | |
| 8A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 65 | 6.4 | 29.1 |
| B>>AXIOM (68 DF) | 0.255 | LAA | 1 | | | |
| 9A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 80 | 9.0 | 40.9 |
| B>>AXIOM (68 DF) | 0.255 | LAA | 1 | | | |
| C>>OSPREY (4.5G) | 0.013 | LAA | 2 | | | |
| D ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 2 | | | |
| 10A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 67 | 6.2 | 28.2 |
| B>>OSPREY (4.5G) | 0.013 | LAA | 2 | | | |
| C ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 2 | | | |
| 11A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 60 | 6.7 | 30.4 |
| B>>OSPREY (4.5G) | 0.013 | LAA | 2 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 2 | | | |
| D FERTILIZER - 28%UAN | 2.00 | QMA | 2 | | | |
| 12A>>ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 1 | 0 | 4.8 | 21.9 |
| LSD (0.05) | | | | 25.80 | 2.48 | 11.24 |
| SIGNIFICANCE OF F | | | | ** | ** | ** |
| STANDARD DEVIATION | | | | 12.44 | 1.19 | 5.42 |
| COEFFICIENT OF VARIANCE | | | | 36.09 | 26.84 | 26.84 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 239 | 269 | 269 |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 219 | 249 | 249 |
| DAT APPLICATION # 03 TIMINGS (02) | | | | 93 | 123 | 123 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / PREPLANT - 2 TO 4 WEEKS PREPLANT 10-12-2004(1)
 01 = PREPRE / PREEMERGENCE 11-01-2004(2)
 02 = MID POS / POSTEMERGENCE - 1 TO 2-TILLER GRASSY WEEDS 03-07-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-------|-----|-----|---------|-----|------|----|------|
| 001 | TRZAW | PHYTO % | 03-22-2005 | 01 | P | TRZAW | | RAW | ALL | PHY % | | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: WEED CONTROL SYSTEMS IN NO-TILL WHEAT

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 002 | LOLMU | CON % | 03-22-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | LOLMU | CON % | 04-05-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | LOLMU | CON % | 04-26-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | LOLMU | CON % | 05-12-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | LOLMU | CON % | 06-08-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | TRZAW | YLD/PLOT | 07-08-2005 | 01 | P | TRZAW | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | TRZAW | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = PIONEER 26R58

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 26R58

* USER DEFINED CALCULATIONS

US 003/05/01 001 HG--- 007 -- {RAW}*(4.54)

US 003/05/01 001 HG--- 007 -- {RAW}*(4.54)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HH ALTERNATE ID#: HF 08 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R
 CREATED: 10-07-2004 REVISED: 11-22-2005 COMPLETED: Y
 TITLE: FALL APPLICATIONS OF CANOPY EX
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|---|--------------|-----------------|-----------------------|
| % SAND: 73 | TILLAGE: COT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 18 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 9 | CEC: 4.8 | ACTUAL TRTS: 14 | ACTUAL SUB-BLOCKS: 14 |
| TEXTURE: SL | % OM: 1.3 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 100 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study sprayed 11/03/2004.
2. Study planted 05/28/2005. Variety - Pioneer 93M94 - stacked RR/STS.
3. Study oversprayed with Roundup Weather Max (32oz/acre) on 06/19/2005.
4. Study harvested 11/19/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 11-03-04 | USA |
| TIME - BEGIN | 16:30 | 24H |
| TIME - END | 17:00 | 24H |
| AIR TEMPERATURE | 60 | F |
| % REL. HUMIDITY | 25 | |
| WIND DIRECTION | NORTHWEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / FALL BURNDOWN

* NOZZLE DESCRIPTION
01 = SS-8003

01 P STEME - CHICKWEED, COMMON

TARGET: PEST SITE: FG PLANTED:
INFESTATION DATE: - - METHOD: NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
11-03-2004 19 LOW 1.00 SQY 4.00 4.00 4.00 IN TUR

02 P LAMAM - HENBIT

TARGET: PEST SITE: FG PLANTED:
INFESTATION DATE: - - METHOD: NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
11-03-2004 19 LOW 3.00 SQY 2.00 2.00 2.00 IN TUR

03 P ERICA - HORSEWEED

TARGET: PEST SITE: FG PLANTED:
INFESTATION DATE: - - METHOD: NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
11-03-2004 19 LOW 1.00 SQY 1.00 1.00 1.00 IN TUR

04 P CHEAL - LAMBSQUARTERS, COMMON

TARGET: PEST SITE: FG PLANTED:
INFESTATION DATE: - - METHOD: NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
11-03-2004 00 --- IND . . . IN NA

05 P GLXMA - SOYBEAN

TARGET: CROP SITE: FG PLANTED: 05-28-2005
POPULATION: 4.50 FTR CULTIVAR: PIONEER 93M94
PLANTING DEPTH: 1.2 IN ROW WIDTH: 15.0 IN
INFESTATION DATE: - - METHOD: NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
11-03-2004 00 --- IND . . . IN NA
05-28-2005 00 MED 4.50 FTR . . . IN NA

* STAGE CODE -- GENERAL

- 00 = DRY SEED; DORMANCY
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SOYBEAN

- 00 = DRY SEED

TITLE: FALL APPLICATIONS OF CANOPY EX
CREATED: 10-07-2004 **REVISED:** 11-22-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|-----------------------------------|--------|------|----|----------------|----------------|----------------|----------------|----------------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A CLASSIC (25WG) | 0.03 | LAA | 0 | 100 | 100 | 98 | 100 | 98 |
| B»EXPRESS (75 WG) | 0.009 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 3A CLASSIC (25WG) | 0.023 | LAA | 0 | 97 | 100 | 100 | 97 | 97 |
| B»EXPRESS (75 WG) | 0.007 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 4A CLASSIC (25WG) | 0.016 | LAA | 0 | 98 | 100 | 93 | 98 | 95 |
| B»EXPRESS (75 WG) | 0.005 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 5A»BASIS (75 DF) | 0.016 | LAA | 0 | 93 | 97 | 97 | 92 | 88 |
| B»EXPRESS (75 WG) | 0.006 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 6A»MATRIX (25 WG) | 0.016 | LAA | 0 | 93 | 98 | 95 | 92 | 95 |
| B»HARMONY GT (75WG) | 0.016 | LAA | 0 | | | | | |
| C»EXPRESS (75 WG) | 0.008 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 7A»MATRIX (25 WG) | 0.063 | LAA | 0 | 97 | 100 | 98 | 95 | 97 |
| B»HARMONY GT (75WG) | 0.063 | LAA | 0 | | | | | |
| C»EXPRESS (75 WG) | 0.031 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 8A CLASSIC (25WG) | 0.047 | LAA | 0 | 98 | 100 | 100 | 97 | 97 |
| B»EXPRESS (75 WG) | 0.014 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 9A CLASSIC (25WG) | 0.02 | LAA | 0 | 100 | 100 | 100 | 100 | 95 |
| B»EXPRESS (75 WG) | 0.007 | LAA | 0 | | | | | |
| C»AUTHORITY (75DF) | 0.103 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 10A CLASSIC (25WG) | 0.015 | LAA | 0 | 95 | 100 | 97 | 95 | 98 |
| B»EXPRESS (75 WG) | 0.005 | LAA | 0 | | | | | |
| C»AUTHORITY (75DF) | 0.073 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 11A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 95 | 100 | 98 | 95 | 98 |
| B FERTILIZER-21% AMMONIUM SULFATE | 17.00 | PMG | 0 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 12A»ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 97 | 100 | 92 | 97 | 100 |
| B SCEPTER (1.5SL) | 0.09 | LAA | 0 | | | | | |
| C FERTILIZER-21% AMMONIUM SULFATE | 17.00 | PMG | 0 | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| E SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 13A ADJUVANT - COC (EC) | 1.00 | PMV | 0 | 20 | 20 | 20 | 0 | 0 |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |

TITLE: FALL APPLICATIONS OF CANOPY EX

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|--------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 9.44 | 8.40 | 8.45 | 4.60 | 5.00 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 4.59 | 4.09 | 4.11 | 2.24 | 2.45 |
| | | | | COEFFICIENT OF VARIANCE | 7.27 | 6.28 | 6.47 | 3.63 | 4.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 149 | 149 | 149 | 188 | 188 |

TITLE: FALL APPLICATIONS OF CANOPY EX
 CREATED: 10-07-2004 REVISED: 11-22-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT NUM | TREATMENT COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 009 CALC |
|------------|-----------------------------------|--------|------|---------------|---------------------|-------------------------|--------------------------|--------------------------|---------------------|
| | | RATE | UNIT | TM | 05-10-05 P LAMAM | 05-26-05 P CHEAL | 06-14-05 P GLXMA | 11-19-05 P GLXMA | 11-19-05 P GLXMA |
| | | | | CON % 1.00 | CON % 1.00 | VAR 05 PHY % 1.00 | VAR 05 YLD LB 1.00 | VAR 05 YLD BU 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL SD | A SD | |
| 1A | UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 13.1 | 38.0 |
| 2A | CLASSIC (25WG) | 0.03 | LAA | 0 | 97 | 95 | 0 | 15.0 | 44.0 |
| | B»EXPRESS (75 WG) | 0.009 | LAA | 0 | | | | | |
| | C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 3A | CLASSIC (25WG) | 0.023 | LAA | 0 | 100 | 97 | 0 | 16.2 | 47.0 |
| | B»EXPRESS (75 WG) | 0.007 | LAA | 0 | | | | | |
| | C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 4A | CLASSIC (25WG) | 0.016 | LAA | 0 | 92 | 95 | 0 | 14.8 | 43.0 |
| | B»EXPRESS (75 WG) | 0.005 | LAA | 0 | | | | | |
| | C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 5A» | BASIS (75 DF) | 0.016 | LAA | 0 | 95 | 22 | 0 | 14.7 | 42.0 |
| | B»EXPRESS (75 WG) | 0.006 | LAA | 0 | | | | | |
| | C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 6A» | MATRIX (25 WG) | 0.016 | LAA | 0 | 95 | 40 | 0 | 16.2 | 47.0 |
| | B»HARMONY GT (75WG) | 0.016 | LAA | 0 | | | | | |
| | C»EXPRESS (75 WG) | 0.008 | LAA | 0 | | | | | |
| | D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 7A» | MATRIX (25 WG) | 0.063 | LAA | 0 | 98 | 80 | 3 | 15.4 | 45.0 |
| | B»HARMONY GT (75WG) | 0.063 | LAA | 0 | | | | | |
| | C»EXPRESS (75 WG) | 0.031 | LAA | 0 | | | | | |
| | D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 8A | CLASSIC (25WG) | 0.047 | LAA | 0 | 100 | 98 | 3 | 16.3 | 48.0 |
| | B»EXPRESS (75 WG) | 0.014 | LAA | 0 | | | | | |
| | C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 9A | CLASSIC (25WG) | 0.02 | LAA | 0 | 100 | 92 | 0 | 11.3 | 32.0 |
| | B»EXPRESS (75 WG) | 0.007 | LAA | 0 | | | | | |
| | C»AUTHORITY (75DF) | 0.103 | LAA | 0 | | | | | |
| | D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 10A | CLASSIC (25WG) | 0.015 | LAA | 0 | 97 | 95 | 0 | 13.9 | 40.0 |
| | B»EXPRESS (75 WG) | 0.005 | LAA | 0 | | | | | |
| | C»AUTHORITY (75DF) | 0.073 | LAA | 0 | | | | | |
| | D ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| | E (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 11A» | ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 97 | 12 | 0 | 13.5 | 39.0 |
| | B FERTILIZER-21% AMMONIUM SULFATE | 17.00 | PMG | 0 | | | | | |
| | C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| 12A» | ROUNDUP WEATHER MAX (4.5AE) | 0.773 | LAA | 0 | 87 | 42 | 0 | 14.6 | 43.0 |
| | B SCEPTER (1.5SL) | 0.09 | LAA | 0 | | | | | |
| | C FERTILIZER-21% AMMONIUM SULFATE | 17.00 | PMG | 0 | | | | | |
| | D (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| | E SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 13A | ADJUVANT - COC (EC) | 1.00 | PMV | 0 | 0 | 0 | 0 | 11.8 | 35.0 |
| | B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |

TITLE: FALL APPLICATIONS OF CANOPY EX

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 006 RAW 05-10-05 P LAMAM | 007 RAW 05-26-05 P CHEAL | 008 RAW 06-14-05 P GLXMA | 009 RAW 11-19-05 P GLXMA | 009 CALC 11-19-05 P GLXMA |
|--------------------------------|-----------------------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 05 PHY % 1.00 PL ALL | VAR 05 YLD LB 1.00 PL SD | VAR 05 YLD BU 1.00 A SD |
| 14A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 15.3 | 45.0 |
| | LSD (0.05) | 5.69 | 18.00 | 3.52 | 4.12 | 11.91 |
| | SIGNIFICANCE OF F | ** | ** | ns | ns | ns |
| | STANDARD DEVIATION | 2.77 | 8.75 | 1.71 | 2.00 | 5.79 |
| | COEFFICIENT OF VARIANCE | 4.49 | 19.56 | 440.28 | 17.00 | 16.90 |
| | DAT APPLICATION # 01 TIMINGS (00) | 188 | 204 | 223 | 381 | 381 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / FALL BURNDOWN 11-03-2004(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | STEME | CON % | 04-01-2005 | 01 | P | STEME | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | ERICA | CON % | 04-01-2005 | 03 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | LAMAM | CON % | 04-01-2005 | 02 | P | LAMAM | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | STEME | CON % | 05-10-2005 | 01 | P | STEME | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 05-10-2005 | 03 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | LAMAM | CON % | 05-10-2005 | 02 | P | LAMAM | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | ERICA | CON % | 05-26-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | GLXMA | PHYTO% | 06-14-2005 | 05 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | GLXMA | LB/PLOT | 11-19-2005 | 05 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 05 = PIONEER 93M94

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

05 = PIONEER 93M94

* USER DEFINED CALCULATIONS

US 003/05/01 001 HH--- 009 -- {RAW} * (3.69)

US 003/05/01 001 HH--- 009 -- {RAW} * (3.69)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HI ALTERNATE ID#: HF 09 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: 2003 HF PROTOCOL
 CREATED BY: US RITTER R
 CREATED: 10-07-2004 REVISED: 11-03-2005 COMPLETED: Y
 TITLE: HERBICIDE PROGRAMS FOR NEWLY SEEDED ALFALFA - DORMANT APPLICATIONS
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTRY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 70 TILLAGE: COT
 % SILT: 20 PH: 6.3
 % CLAY: 10 CEC: 8.0
 TEXTURE: SL % OM: 2.3
 SOIL GEN: C
 PREVIOUS CROP: -
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 08/25/2004. Variety - Pioneer 54H91.
2. Dormant applications made 03/07/2005. Alfalfa had broken dormancy with 1 inch of new growth showing.
3. Will receive 0-0-60 after first cutting.
4. First cutting - 05/13/2005.
5. Second cutting - 06/16/2005.
6. Third cutting - 07/20/2005.
7. Fourth cutting - 09/12/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 03-07-05 | USA |
| TIME - BEGIN | 14:30 | 24H |
| TIME - END | 15:30 | 24H |
| AIR TEMPERATURE | 68 | F |
| % REL. HUMIDITY | 20 | |
| WIND DIRECTION | SOUTH | |
| WIND SPEED | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 55/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = POSPOS / POSTEMERGENCE - DORMANT

* NOZZLE DESCRIPTION
01 = SS-8003

TITLE: HERBICIDE PROGRAMS FOR NEWLY SEEDED ALFALFA - DORMANT APPLICATIONS
CREATED: 10-07-2004 **REVISED:** 11-03-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 004 CALC | |
|--------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|--------------------------|---------------------------|-------|
| | RATE | UNIT | TM | 03-15-05 P MEDSA | 03-22-05 P MEDSA | 04-05-05 P MEDSA | 05-13-05 P MEDSA | 05-13-05 P MEDSA | |
| | | | | VAR 01 PHY % 1.00 | VAR 01 PHY % 1.00 | VAR 01 PHY % 1.00 | VAR 01 YLD LB 1.00 | VAR 01 YLD TNS 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | A ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 36.0 | 4.3 | |
| 2A PURSUIT DG (70WG) | 0.047 | LAA | 0 | 0 | 0 | 0 | 32.2 | 3.9 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 3A PURSUIT DG (70WG) | 0.063 | LAA | 0 | 0 | 0 | 0 | 31.5 | 3.8 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 4A PURSUIT DG (70WG) | 0.095 | LAA | 0 | 0 | 0 | 0 | 32.0 | 3.8 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 5A»RAPTOR (1AS) | 0.03 | LAA | 0 | 0 | 0 | 0 | 31.8 | 3.8 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 6A»RAPTOR (1AS) | 0.039 | LAA | 0 | 0 | 0 | 0 | 31.3 | 3.7 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 7A»RAPTOR (1AS) | 0.047 | LAA | 0 | 0 | 0 | 0 | 33.7 | 4.0 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 8A SENCOR DF (75WG) | 0.25 | LAA | 0 | 0 | 0 | 0 | 31.8 | 3.8 | |
| 9A SENCOR DF (75WG) | 0.375 | LAA | 0 | 0 | 0 | 0 | 32.5 | 3.9 | |
| 10A SENCOR DF (75WG) | 0.50 | LAA | 0 | 0 | 0 | 0 | 31.3 | 3.8 | |
| 11A»GRAMOXONE MAX (3L) | 0.28 | LAA | 0 | 80 | 50 | 0 | 31.8 | 3.8 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 12A»GRAMOXONE MAX (3L) | 0.49 | LAA | 0 | 90 | 63 | 0 | 30.5 | 3.7 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 13A»HARMONY GT (75WG) | 0.015 | LAA | 0 | 0 | 0 | 0 | 33.3 | 4.0 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 14A»HARMONY GT (75WG) | 0.023 | LAA | 0 | 0 | 0 | 0 | 33.3 | 4.0 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 15A»HARMONY GT (75WG) | 0.031 | LAA | 0 | 0 | 0 | 0 | 33.3 | 4.0 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 33.7 | 4.0 | |
| | | | | LSD (0.05) | 0.00 | 1.20 | 0.00 | 3.46 | 0.426 |
| | | | | SIGNIFICANCE OF F | ** | ** | ns | ns | ns |
| | | | | STANDARD DEVIATION | 0.00 | 0.589 | 0.00 | 1.70 | 0.209 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 10.19 | 0.00 | 6.39 | 6.55 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 8 | 15 | 29 | 67 | 67 |

TITLE: HERBICIDE PROGRAMS FOR NEWLY SEEDED ALFALFA - DORMANT APPLICATIONS
CREATED: 10-07-2004 **REVISED:** 11-03-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT | TREATMENT | DOSAGE | TM | 005 RAW | 005 CALC | 006 RAW | 006 CALC | 007 RAW | |
|-----|-------------------------------|--------|------|----------|-----------------------------------|----------|----------|----------|-------|
| | | | | 06-16-05 | 06-16-05 | 07-20-05 | 07-20-05 | 09-12-05 | |
| NUM | COMPONENT | RATE | UNIT | VAR 01 | VAR 01 | VAR 01 | VAR 01 | VAR 01 | |
| | | | | YLD LB | YLD TNS | YLD LB | YLD TNS | YLD LB | |
| | | | | PL ALL | A ALL | PL ALL | A ALL | PL ALL | |
| 1A | UNTREATED CHECK | 0.00 | NA | 0 | 18.8 | 2.2 | 15.0 | 1.8 | 11.5 |
| 2A | PURSUIT DG (70WG) | 0.047 | LAA | 0 | 19.0 | 2.3 | 13.7 | 1.7 | 10.8 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 3A | PURSUIT DG (70WG) | 0.063 | LAA | 0 | 17.7 | 2.1 | 12.8 | 1.5 | 10.5 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 4A | PURSUIT DG (70WG) | 0.095 | LAA | 0 | 18.7 | 2.3 | 14.8 | 1.8 | 11.5 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 5A | RAPTOR (1AS) | 0.03 | LAA | 0 | 18.0 | 2.2 | 13.0 | 1.6 | 10.7 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 6A | RAPTOR (1AS) | 0.039 | LAA | 0 | 18.5 | 2.2 | 13.0 | 1.6 | 9.0 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 7A | RAPTOR (1AS) | 0.047 | LAA | 0 | 19.3 | 2.3 | 14.0 | 1.7 | 10.3 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 8A | SENCOR DF (75WG) | 0.25 | LAA | 0 | 18.3 | 2.2 | 13.3 | 1.6 | 9.7 |
| 9A | SENCOR DF (75WG) | 0.375 | LAA | 0 | 17.7 | 2.1 | 14.5 | 1.7 | 12.0 |
| 10A | SENCOR DF (75WG) | 0.50 | LAA | 0 | 18.3 | 2.2 | 13.8 | 1.7 | 10.0 |
| 11A | GRAMOXONE MAX (3L) | 0.28 | LAA | 0 | 18.7 | 2.2 | 15.5 | 1.9 | 11.8 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 12A | GRAMOXONE MAX (3L) | 0.49 | LAA | 0 | 17.2 | 2.1 | 13.5 | 1.6 | 10.3 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 13A | HARMONY GT (75WG) | 0.015 | LAA | 0 | 18.5 | 2.2 | 12.5 | 1.5 | 10.8 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 14A | HARMONY GT (75WG) | 0.023 | LAA | 0 | 18.7 | 2.3 | 13.5 | 1.6 | 11.2 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 15A | HARMONY GT (75WG) | 0.031 | LAA | 0 | 18.2 | 2.2 | 14.3 | 1.7 | 11.2 |
| | B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 16A | UNTREATED CHECK | 0.00 | NA | 0 | 18.5 | 2.2 | 14.2 | 1.7 | 11.8 |
| | | | | | LSL (0.05) | | | | |
| | | | | | 2.17 | 0.261 | 2.35 | 0.281 | 1.80 |
| | | | | | SIGNIFICANCE OF F | | | | |
| | | | | | ns | ns | ns | ns | ns |
| | | | | | STANDARD DEVIATION | | | | |
| | | | | | 1.06 | 0.128 | 1.15 | 0.138 | 0.883 |
| | | | | | COEFFICIENT OF VARIANCE | | | | |
| | | | | | 7.08 | 7.10 | 10.17 | 10.11 | 10.00 |
| | | | | | DAT APPLICATION # 01 TIMINGS (00) | | | | |
| | | | | | 101 | 101 | 135 | 135 | 189 |

TITLE: HERBICIDE PROGRAMS FOR NEWLY SEEDED ALFALFA - DORMANT APPLICATIONS
CREATED: 10-07-2004 **REVISED:** 11-03-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT | TREATMENT | NUM COMPONENT | DOSAGE | | | A ALL |
|------|-------------------------------|---------------|--------|------|----|---|
| | | | RATE | UNIT | TM | |
| | | | | | | 007 CALC 09-12-05 P MEDSA |
| | | | | | | VAR 01 YLD TNS 1.00 |
| 1A | UNTREATED CHECK | | 0.00 | NA | 0 | 1.4 |
| 2A | PURSUIT DG (70WG) | | 0.047 | LAA | 0 | 1.3 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 3A | PURSUIT DG (70WG) | | 0.063 | LAA | 0 | 1.2 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 4A | PURSUIT DG (70WG) | | 0.095 | LAA | 0 | 1.4 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 5A» | RAPTOR (1AS) | | 0.03 | LAA | 0 | 1.3 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 6A» | RAPTOR (1AS) | | 0.039 | LAA | 0 | 1.1 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 7A» | RAPTOR (1AS) | | 0.047 | LAA | 0 | 1.2 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 8A | SENCOR DF (75WG) | | 0.25 | LAA | 0 | 1.2 |
| 9A | SENCOR DF (75WG) | | 0.375 | LAA | 0 | 1.5 |
| 10A | SENCOR DF (75WG) | | 0.50 | LAA | 0 | 1.2 |
| 11A» | GRAMOXONE MAX (3L) | | 0.28 | LAA | 0 | 1.4 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 12A» | GRAMOXONE MAX (3L) | | 0.49 | LAA | 0 | 1.2 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 13A» | HARMONY GT (75WG) | | 0.015 | LAA | 0 | 1.3 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 14A» | HARMONY GT (75WG) | | 0.023 | LAA | 0 | 1.3 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 15A» | HARMONY GT (75WG) | | 0.031 | LAA | 0 | 1.3 |
| | B SURFACTANT - NON-IONIC (SL) | | 0.25 | PMV | 0 | |
| 16A | UNTREATED CHECK | | 0.00 | NA | 0 | 1.4 |
| | | | | | | LSD (0.05) 0.214 SIGNIFICANCE OF F ns STANDARD DEVIATION 0.105 COEFFICIENT OF VARIANCE 9.87 DAT APPLICATION # 01 TIMINGS (00) 189 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - DORMANT 03-07-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | MEDSA | PHYTO % | 03-15-2005 | 01 | P | MEDSA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | MEDSA | PHYTO % | 03-22-2005 | 01 | P | MEDSA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | MEDSA | PHYTO % | 04-05-2005 | 01 | P | MEDSA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | MEDSA | LB/PLOT | 05-13-2005 | 01 | P | MEDSA | | RAW | ALL | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | MEDSA | TONS/A | | | | | | CALC | ALL | YLD | TNS | H | 1.00 A | | | | |

TITLE: HERBICIDE PROGRAMS FOR NEWLY SEEDED ALFALFA - DORMANT APPLICATIONS

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 005 | MEDSA | LB/PLOT | 06-16-2005 | 01 | P | MEDSA | | RAW | ALL | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | MEDSA | TONS/A | | | | | | CALC | ALL | YLD | TNS | H | 1.00 A | | | | |
| 006 | MEDSA | LB/PLOT | 07-20-2005 | 01 | P | MEDSA | | RAW | ALL | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | MEDSA | TONS/A | | | | | | CALC | ALL | YLD | TNS | H | 1.00 A | | | | |
| 007 | MEDSA | LB/PLOT | 09-12-2005 | 01 | P | MEDSA | | RAW | ALL | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | MEDSA | TONS/A | | | | | | CALC | ALL | YLD | TNS | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = PIONEER 54H91

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 54H91

* USER DEFINED CALCULATIONS

US 003/05/01 001 HI--- 004 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 004 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 005 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 005 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 006 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 006 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 007 -- {RAW}*(0.12)

US 003/05/01 001 HI--- 007 -- {RAW}*(0.12)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HJ ALTERNATE ID#: HF 10 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R
 CREATED: 02-01-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: USE OF CGA-185072 (0.83EC) (also coded A12303) ON CONTROL OF ITALIAN
 RYEGRASS IN WHEAT
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 82 TILLAGE: COT
 % SILT: 13 PH: 6.7
 % CLAY: 5 CEC: 9.3
 TEXTURE: SL % OM: 1.9
 SOIL GEN: C
 PREVIOUS CROP: TRZAW -- WHEAT, WINTER
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. This is a non-crop (replicated) trial.
2. Post applications made 04/14/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 04-14-05 | USA |
| TIME - BEGIN | 15:00 | 24H |
| TIME - END | 16:00 | 24H |
| AIR TEMPERATURE | 64 | F |
| % REL. HUMIDITY | 30 | |
| WIND DIRECTION | NORTHEAST | |
| WIND SPEED | 5.0 | M/H |
| CLOUD COVER | CLEAR | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 55/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES

00 = POSPOS / POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003

01 P LOLMU - RYEGRASS, ITALIAN

TARGET: PEST SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 04-14-2005 | 23 | LOW | 1.00 SQF | 4.00 | 4.00 | 4.00 IN | TUR | |

02 P POATR - BLUEGRASS, ROUGHSTALK

TARGET: PEST SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 04-14-2005 | 23 | LOW | 1.00 SQY | 4.00 | 4.00 | 4.00 IN | TUR | |

* STAGE CODE -- GENERAL GRASS

23 = 3 TILLERS DETECTABLE

TITLE: USE OF CGA-185072 (0.83EC) (also coded A12303) ON CONTROL OF ITALIAN RYEGRASS IN WHEAT

CREATED: 02-01-2005 REVISED: 10-19-2005

COMPLETED: Y

PROJECT TYPE: HERBICIDE

LOCATION: HAYDEN FARM

RESEARCHED BY: RITTER AND MENBERE

DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN

PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG

REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | |
|--------------------------------|--------|------|----|-----------------------------------|----------------|----------------|-------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | |
| 2A»CGA-185072 (0.83EC) | 0.053 | LAA | 0 | 53 | 85 | 83 | |
| B»A12127 (4SL) - ADJUVANT | 0.30 | LAA | 0 | | | | |
| 3A»DISCOVER (0.5EC) | 0.06 | LAA | 0 | 17 | 72 | 78 | |
| B ADJUVANT - VEGETABLE OIL | 0.25 | PMV | 0 | | | | |
| 4A»OSPREY (4.5G) | 0.013 | LAA | 0 | 17 | 50 | 60 | |
| B ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 0 | | | | |
| 5A»OSPREY (4.5G) | 0.013 | LAA | 0 | 17 | 50 | 80 | |
| B ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| 6A»OSPREY (4.5G) | 0.013 | LAA | 0 | 13 | 45 | 72 | |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMA | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| 7A HOELON 3EC | 0.75 | LAA | 0 | 27 | 90 | 87 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | |
| 8A»CGA-185072 (0.83EC) | 0.053 | LAA | 0 | 28 | 73 | 80 | |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | |
| 9A»CGA-185072 (0.83EC) | 0.053 | LAA | 0 | 32 | 80 | 73 | |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | |
| 10A»CGA-185072 (0.83EC) | 0.053 | LAA | 0 | 28 | 82 | 77 | |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| 11A»CGA-185072 (0.83EC) | 0.053 | LAA | 0 | 38 | 85 | 80 | |
| B»A12127 (4SL) - ADJUVANT | 0.30 | LAA | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | |
| | | | | LS D (0.05) | 13.81 | 7.75 | 17.17 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** |
| | | | | STANDARD DEVIATION | 6.66 | 3.74 | 8.28 |
| | | | | COEFFICIENT OF VARIANCE | 36.24 | 7.72 | 15.80 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 12 | 28 | 55 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 04-14-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-------|-----|-----|---------|-----|------|----|------|
| 001 | LOLMU | CON % | 04-26-2005 | 01 | P | LOLMU | | RAW | ALL | CON % | --- | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | LOLMU | CON % | 05-12-2005 | 01 | P | LOLMU | | RAW | ALL | CON % | --- | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | LOLMU | CON % | 06-08-2005 | 01 | P | LOLMU | | RAW | ALL | CON % | --- | --- | 1.00 PL | NO | 0001 | 0 | N |

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HM ALTERNATE ID#: HF 13 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R
 CREATED: 03-23-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: ITALIAN RYEGRASS CONTROL IN WINTER WHEAT
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. KEVIN CONOVER TYPE: FIELD TRIAL
 LOCATION: HAYDEN FARM STATE: MARYLAND
 CITY: BELTSVILLE ZIP: 20705
 COUNTY: PRINCE GEORGE'S
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 84 TILLAGE: COT
 % SILT: 9 PH: 6.4
 % CLAY: 7 CEC: 7.2
 TEXTURE: SL % OM: 1.8
 SOIL GEN: C
 PREVIOUS CROP: NA - NONE
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 15.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 7 ACTUAL SUB-BLOCKS: 7

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/31/2004. Variety - Southern States 520.
2. 100 lb/acre of 30-0-0 UAN broadcast on 10/18/2004.
3. 181.8 lb/acre of 22-0-0-5S broadcast on 03/13/2005 (40-0-0-9S).
4. 131 lb/acre of 30-0-0 broadcast on 04/07/2005 (40-0-0).
5. Early post applications made 03/31/2005.
6. Study harvested 07/08/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 03-31-05 | USA |
| TIME - BEGIN | 13:30 | 24H |
| TIME - END | 14:00 | 24H |
| AIR TEMPERATURE | 55 | F |
| % REL. HUMIDITY | 40 | |
| WIND DIRECTION | NORTHWEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 49/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES

00 = POSPOS / POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003

01 P TRZAW - WHEAT, WINTER
 TARGET: CROP SITE: FG POPULATION: 120.00 LPA PLANTED: 10-31-2004
 PLANTING DEPTH: 1.0 IN ROW WIDTH: 7.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MK SIZE AV SIZE CROP VIGOR NOTES
 03-31-2005 23 MED 120.00 LPA 5.00 5.00 5.00 IN TUR

02 P LOLMU - RYEGRASS, ITALIAN
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MK SIZE AV SIZE CROP VIGOR NOTES
 03-31-2005 23 MED 12.00 SQF 3.00 3.00 3.00 IN TUR

* STAGE CODE -- CEREALS
 23 = 3 TILLERS DETECTABLE
 * STAGE CODE -- GENERAL GRASS
 23 = 3 TILLERS DETECTABLE

TITLE: ITALIAN RYEGRASS CONTROL IN WINTER WHEAT
 CREATED: 03-23-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|--------------------------------|--------|-----------------------------------|----|-----------------------------------|-------------------------|-----------------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 04-06-05 P TRZAW | 04-06-05 P LOLMU | 04-14-05 P TRZAW | 04-14-05 P LOLMU | 04-26-05 P LOLMU |
| | | | | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 01 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»CGA-185072 (0.83EC) | 0.052 | LAA | 0 | 0 | 43 | 0 | 77 | 100 |
| B»A12127 (4SL) - ADJUVANT | 0.60 | PMA | 0 | | | | | |
| 3A»CGA-185072 (0.83EC) | 0.052 | LAA | 0 | 0 | 35 | 0 | 73 | 97 |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | | |
| 4A HOELON 3EC | 0.75 | LAA | 0 | 0 | 30 | 0 | 63 | 100 |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 5A»OSPNEY (4.5G) | 0.013 | LAA | 0 | 7 | 33 | 0 | 33 | 75 |
| B ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 0 | | | | | |
| 6A»OSPNEY (4.5G) | 0.013 | LAA | 0 | 13 | 38 | 0 | 33 | 77 |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | | |
| 7A»OLYMPUS FLEX (11.25 DF) | 0.021 | LAA | 0 | 10 | 32 | 0 | 43 | 78 |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | | |
| | | LSL (0.05) | | 5.26 | 12.73 | 0.00 | 7.09 | 5.93 |
| | | SIGNIFICANCE OF F | | ** | ** | ns | ** | ** |
| | | STANDARD DEVIATION | | 2.41 | 5.84 | 0.00 | 3.25 | 2.72 |
| | | COEFFICIENT OF VARIANCE | | 68.94 | 23.66 | 0.00 | 8.63 | 4.43 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 6 | 6 | 14 | 14 | 26 |

TITLE: ITALIAN RYEGRASS CONTROL IN WINTER WHEAT
CREATED: 03-23-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | VAR 01 | VAR 01 |
|--------------------------------|--------|------|----|----------------|----------------|-----------------|----------------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | YLD LB PL SD | YLD BU A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 2.7 | 16.1 |
| 2A>>CGA-185072 (0.83EC) | 0.052 | LAA | 0 | 100 | 92 | 5.9 | 35.9 |
| B>>AL2127 (4SL) - ADJUVANT | 0.60 | PMA | 0 | | | | |
| 3A>>CGA-185072 (0.83EC) | 0.052 | LAA | 0 | 100 | 97 | 5.7 | 34.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| 4A HOELON 3EC | 0.75 | LAA | 0 | 100 | 90 | 6.5 | 39.3 |
| B ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | |
| 5A>>OSPREY (4.5G) | 0.013 | LAA | 0 | 88 | 88 | 5.6 | 34.1 |
| B ADJUVANT - VEGETABLE OIL | 1.30 | PMA | 0 | | | | |
| 6A>>OSPREY (4.5G) | 0.013 | LAA | 0 | 87 | 93 | 6.5 | 39.1 |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| 7A>>OLYMPUS FLEX (11.25 DF) | 0.021 | LAA | 0 | 95 | 95 | 6.6 | 39.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.50 | PMV | 0 | | | | |
| C FERTILIZER - 28%UAN | 2.00 | QMA | 0 | | | | |
| | | | | 4.00 | 4.19 | 1.40 | 8.44 |
| | | | | ** | ** | ** | ** |
| | | | | 1.85 | 1.92 | 0.641 | 3.87 |
| | | | | 2.79 | 3.00 | 13.93 | 13.91 |
| | | | | 42 | 69 | 99 | 99 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 03-31-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | TRZAW | PHYTO % | 04-06-2005 | 01 | P | TRZAW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | LOLMU | CON % | 04-06-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | TRZAW | PHYTO % | 04-14-2005 | 01 | P | TRZAW | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | LOLMU | CON % | 04-14-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | LOLMU | CON % | 04-26-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | LOLMU | CON % | 05-12-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | LOLMU | CON % | 06-08-2005 | 02 | P | LOLMU | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | TRZAW | YLD/PLOT | 07-08-2005 | 01 | P | TRZAW | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | TRZAW | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = SS 520

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = SS 520

* USER DEFINED CALCULATIONS

US 003/05/01 001 HM--- 008 -- {RAW}*(6.05)

US 003/05/01 001 HM--- 008 -- {RAW}*(6.05)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HN ALTERNATE ID#: HF 14 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R
 CREATED: 03-23-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 76 TILLAGE: NOT
 % SILT: 17 PH: 6.9
 % CLAY: 7 CEC: 14.9
 TEXTURE: SL % OM: 2.1
 SOIL GEN: C
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 30
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 20 ACTUAL SUB-BLOCKS: 20

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 30 day preplant applications made 04/14/2005.
2. Study planted 05/10/2005. Variety - Pioneer 33B54.
3. Kernal Guard added to hopper boxes.
4. Broadcast 133 lb/acre of 0-0-60 in the Spring.
5. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
6. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
7. Preemergence applications made 05/10/2005.
8. Postemergence applications made 05/30/2005.
9. Study harvested 09/17/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 04-14-05 | 05-10-05 | 05-30-05 | USA |
| TIME - BEGIN | 16:00 | 18:00 | 12:00 | 24H |
| TIME - END | 16:30 | 19:00 | 13:00 | 24H |
| AIR TEMPERATURE | 65 | 63 | 70 | F |
| % REL. HUMIDITY | 30 | 35 | 60 | |
| WIND DIRECTION | NORTHEAST | SOUTHWEST | WEST | |
| WIND SPEED | 5.0 | 5.0 | 3.0 | M/H |
| CLOUD COVER | CLEAR | CLEAR | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/DRY | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 55/4.00 | 70/4.00 | 68/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPLA / 30 DAYS PREPLANT
01 = PREPRE / PREEMERGENCE
02 = MID POS / MID-POSTEMERGENCE - V2-V4

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = SS-8003

01 P STEME - CHICKWEED, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-14-2005 65 MED 3.00 SQF 8.00 8.00 8.00 IN TUR
 05-10-2005 90 MED 3.00 SQF 8.00 8.00 8.00 IN TUR

02 P LAMAM - HENBIT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-14-2005 65 MED 3.00 SQF 6.00 6.00 6.00 IN TUR
 05-10-2005 90 MED 3.00 SQF 6.00 6.00 6.00 IN TUR

03 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** PIONEER 33B54
TARGET: CROP **SITE:** FG **POPULATION:** 27000.00 IPA **PLANTED:** 05-10-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-10-2005 00 MED 27000.00 IPA . . . IN NA
 05-30-2005 13 MED 27000.00 IPA 6.00 6.00 6.00 IN TUR

04 P ERICA - HORSEWEED
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-30-2005 19 LOW 1.00 SQY 10.00 10.00 10.00 IN TUR

05 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-30-2005 19 MED 1.00 SQF 3.00 3.00 3.00 IN TUR

06 P AMBEL - RAGWEED, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-30-2005 19 MED 1.00 SQF 4.00 4.00 4.00 IN TUR

07 P IPOHE - MORNINGGLORY, IVYLEAF, ANNUAL
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-14-2005 00 --- IND . . . IN ---

*** STAGE CODE -- CORN**

- 00 = DRY SEED (CARYOPSIS)
- 13 = 3 LEAVES UNFOLDED

*** STAGE CODE -- GENERAL**

- 00 = DRY SEED; DORMANCY
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 65 = FULL FLOWERING; 50% OF FLOWERS OPEN, FIRST PETALS CAN FALL OR DRY
- 90 = SENESCENCE/ DORMANCY BEGINS

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN
 CREATED: 03-23-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|-----------------------------------|--------|------|----|----------|----------|----------|----------|----------|
| | RATE | UNIT | TM | 06-02-05 | 06-02-05 | 06-02-05 | 06-14-05 | 06-14-05 |
| | | | | P ZEAMX | P ERICA | P CHEAL | P ERICA | P CHEAL |
| | | | | VAR 03 | CON % | CON % | CON % | CON % |
| | | | | PHY % | 1.00 | 1.00 | 1.00 | 1.00 |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 30 | 30 | 83 | 100 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 30 | 30 | 90 | 93 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | |
| D OTHER | | | 2 | | | | | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 30 | 30 | 83 | 93 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | |
| D OTHER | | | 2 | | | | | |
| E»HARMONY GT (75WG) | 0.003 | LAA | 2 | | | | | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 30 | 52 | 62 | 90 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | |
| D OTHER | | | 2 | | | | | |
| E CLARITY (4SL) | 0.125 | LAA | 2 | | | | | |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 30 | 30 | 75 | 100 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | |
| D OTHER | | | 2 | | | | | |
| E ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 30 | 30 | 82 | 87 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| C HARNESS (7EC) | 1.31 | LAA | 2 | | | | | |
| 8A»STEADFAST (75WDG) | 0.035 | LAA | 2 | 0 | 0 | 0 | 37 | 67 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| C»CALLISTO (4SC) | 0.047 | LAA | 2 | | | | | |
| D ATRAZINE 4L (SC) | 0.75 | LAA | 2 | | | | | |
| 9A»BASIS (75 DF) | 0.0156 | LAA | 1 | 3 | 97 | 100 | 100 | 100 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| D»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 10A»BASIS (75 DF) | 0.0313 | LAA | 1 | 5 | 97 | 100 | 97 | 100 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| D»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 11A»BASIS (75 DF) | 0.0469 | LAA | 1 | 23 | 100 | 100 | 100 | 100 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| D»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 12A»BASIS (75 DF) | 0.0156 | LAA | 1 | 10 | 100 | 100 | 100 | 100 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|-----------------------------------|--------|------|----|-----------------------------------|---------------------|---------------------|---------------------|---------------------|-------|
| | RATE | UNIT | TM | 06-02-05 P ZEAMX | 06-02-05 P ERICA | 06-02-05 P CHEAL | 06-14-05 P ERICA | 06-14-05 P CHEAL | |
| | | | | VAR 03 PHY % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 13A>>BASIS (75 DF) | 0.0313 | LAA | 1 | 10 | 100 | 100 | 100 | 100 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | | |
| E>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 14A>>BASIS (75 DF) | 0.0469 | LAA | 1 | 15 | 97 | 100 | 100 | 100 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | | |
| E>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 15A>>BASIS (75 DF) | 0.0156 | LAA | 0 | 3 | 100 | 100 | 100 | 100 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | | | | |
| E>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 16A>>BASIS (75 DF) | 0.0313 | LAA | 0 | 5 | 100 | 100 | 100 | 100 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | | | | |
| E>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 17A>>BASIS (75 DF) | 0.0469 | LAA | 0 | 10 | 100 | 100 | 100 | 100 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | | | | |
| E>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 18A HARNESS XTRA (6SC) | 2.25 | LAA | 1 | 2 | 100 | 100 | 100 | 100 | |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | |
| C>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| 19A>>BICEP II MAGNUM (5.5SC) | 1.03 | LAA | 1 | 0 | 100 | 100 | 100 | 100 | |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | |
| C>>STEADFAST (75WDG) | 0.035 | LAA | 2 | | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | |
| E>>CALLISTO (4SC) | 0.047 | LAA | 2 | | | | | | |
| F ATRAZINE 4L (SC) | 0.75 | LAA | 2 | | | | | | |
| G ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | | | |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 4.11 | 3.69 | 13.85 | 21.31 | 24.18 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 2.00 | 1.83 | 6.85 | 10.55 | 12.00 |
| | | | | COEFFICIENT OF VARIANCE | 57.49 | 3.52 | 12.89 | 16.06 | 16.94 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 49 | 49 | 49 | 61 | 61 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 23 | 23 | 23 | 35 | 35 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 3 | 3 | 3 | 15 | 15 |

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN
CREATED: 03-23-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | | 007 RAW | | 008 RAW | | 009 RAW | | 010 RAW | |
|-----------------------------------|--------|------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| | RATE | UNIT | TM | PL | ALL | PL | ALL | PL | ALL | PL | ALL | PL | ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 1 | 0 | | 0 | | 0 | | 0 | | 0 | |
| 2A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 100 | | 83 | | 0 | | 75 | | 0 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| 3A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 100 | | 98 | | 82 | | 98 | | 65 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| C>>DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | | | | | | |
| D OTHER | | | 2 | | | | | | | | | | |
| 4A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 98 | | 100 | | 67 | | 100 | | 43 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| C>>DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | | | | | | |
| D OTHER | | | 2 | | | | | | | | | | |
| E>>HARMONY GT (75WG) | 0.003 | LAA | 2 | | | | | | | | | | |
| 5A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 100 | | 93 | | 75 | | 93 | | 58 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| C>>DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | | | | | | |
| D OTHER | | | 2 | | | | | | | | | | |
| E CLARITY (4SL) | 0.125 | LAA | 2 | | | | | | | | | | |
| 6A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 98 | | 98 | | 85 | | 98 | | 75 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| C>>DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | | | | | | |
| D OTHER | | | 2 | | | | | | | | | | |
| E ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | | | | | | |
| 7A>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 100 | | 87 | | 0 | | 87 | | 0 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| C HARNESS (7EC) | 1.31 | LAA | 2 | | | | | | | | | | |
| 8A>>STEADFAST (75WDG) | 0.035 | LAA | 2 | 67 | | 100 | | 90 | | 98 | | 83 | |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| C>>CALLISTO (4SC) | 0.047 | LAA | 2 | | | | | | | | | | |
| D ATRAZINE 4L (SC) | 0.75 | LAA | 2 | | | | | | | | | | |
| 9A>>BASIS (75 DF) | 0.0156 | LAA | 1 | 100 | | 80 | | 10 | | 77 | | 10 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | | | | | |
| D>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| 10A>>BASIS (75 DF) | 0.0313 | LAA | 1 | 100 | | 77 | | 0 | | 77 | | 0 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | | | | | |
| D>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| 11A>>BASIS (75 DF) | 0.0469 | LAA | 1 | 100 | | 90 | | 55 | | 90 | | 42 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | | | | | |
| D>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |
| 12A>>BASIS (75 DF) | 0.0156 | LAA | 1 | 100 | | 90 | | 38 | | 90 | | 37 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | | | | | | |
| E>>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | | | | | | |

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW |
|-----------------------------------|-----------------------------------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 06-14-05 P AMBEL | 07-08-05 P AMBEL | 07-08-05 P IPOHE | 07-25-05 P AMBEL | 07-25-05 P IPOHE |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 13A»BASIS (75 DF) | 0.0313 | LAA | 1 | 100 | 100 | 68 | 100 | 57 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 14A»BASIS (75 DF) | 0.0469 | LAA | 1 | 100 | 90 | 68 | 88 | 47 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 15A»BASIS (75 DF) | 0.0156 | LAA | 0 | 97 | 77 | 0 | 73 | 0 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 16A»BASIS (75 DF) | 0.0313 | LAA | 0 | 100 | 73 | 42 | 70 | 33 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 17A»BASIS (75 DF) | 0.0469 | LAA | 0 | 100 | 80 | 45 | 75 | 42 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 18A HARNES XTRA (6SC) | 2.25 | LAA | 1 | 100 | 88 | 40 | 85 | 20 |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| 19A»BICEP II MAGNUM (5.5SC) | 1.03 | LAA | 1 | 100 | 100 | 92 | 100 | 83 |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | | | |
| C»STEADFAST (75WDG) | 0.035 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | | | |
| E»CALLISTO (4SC) | 0.047 | LAA | 2 | | | | | |
| F ATRAZINE 4L (SC) | 0.75 | LAA | 2 | | | | | |
| G ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | | |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | | | 21.32 | 10.00 | 29.53 | 11.69 | 26.71 |
| | SIGNIFICANCE OF F | | | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | 10.55 | 4.94 | 14.61 | 5.78 | 13.21 |
| | COEFFICIENT OF VARIANCE | | | 14.68 | 7.54 | 41.78 | 9.00 | 46.58 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 61 | 85 | 85 | 102 | 102 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | 35 | 59 | 59 | 76 | 76 |
| | DAT APPLICATION # 03 TIMINGS (02) | | | 15 | 39 | 39 | 56 | 56 |

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN
CREATED: 03-23-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 011 CALC |
|-----------------------------------|--------|------|----|---------------------|---------------------|
| | RATE | UNIT | TM | 09-17-05 P ZEAMX | 09-17-05 P ZEAMX |
| | | | | VAR 03 YLD LB | VAR 03 YLD BU |
| | | | | 1.00 PL SD | 1.00 A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 1 | 3.7 | 26.2 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 22.1 | 155.3 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 22.3 | 156.4 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | |
| D OTHER | | | 2 | | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 21.1 | 148.3 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | |
| D OTHER | | | 2 | | |
| E»HARMONY GT (75WG) | 0.003 | LAA | 2 | | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 21.0 | 147.5 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | |
| D OTHER | | | 2 | | |
| E CLARITY (4SL) | 0.125 | LAA | 2 | | |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 26.3 | 184.8 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| C»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | |
| D OTHER | | | 2 | | |
| E ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 18.2 | 128.1 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| C HARNESS (7EC) | 1.31 | LAA | 2 | | |
| 8A»STEADFAST (75WDG) | 0.035 | LAA | 2 | 23.7 | 166.3 |
| B FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| C»CALLISTO (4SC) | 0.047 | LAA | 2 | | |
| D ATRAZINE 4L (SC) | 0.75 | LAA | 2 | | |
| 9A»BASIS (75 DF) | 0.0156 | LAA | 1 | 18.2 | 128.1 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | |
| D»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| 10A»BASIS (75 DF) | 0.0313 | LAA | 1 | 21.6 | 151.5 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | |
| D»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| 11A»BASIS (75 DF) | 0.0469 | LAA | 1 | 24.3 | 170.5 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | |
| D»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |
| 12A»BASIS (75 DF) | 0.0156 | LAA | 1 | 24.7 | 173.3 |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | |

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 011 CALC | |
|-----------------------------------|--------|------|----|-----------------------------------|----------------------------------|-------|
| | RATE | UNIT | TM | 09-17-05 P ZEAMX | 09-17-05 P ZEAMX | |
| | | | | VAR 03 YLD LB 1.00 PL SD | VAR 03 YLD BU 1.00 A SD | |
| 13A»BASIS (75 DF) | 0.0313 | LAA | 1 | 29.1 | 204.4 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| 14A»BASIS (75 DF) | 0.0469 | LAA | 1 | 24.6 | 172.9 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 1 | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| 15A»BASIS (75 DF) | 0.0156 | LAA | 0 | 21.4 | 150.6 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| 16A»BASIS (75 DF) | 0.0313 | LAA | 0 | 18.9 | 132.8 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| 17A»BASIS (75 DF) | 0.0469 | LAA | 0 | 24.9 | 175.2 | |
| B ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 0 | | | |
| D ATRAZINE 4L (SC) | 1.00 | LAA | 0 | | | |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| F FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| 18A HARNES XTRA (6SC) | 2.25 | LAA | 1 | 24.2 | 170.3 | |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| 19A»BICEP II MAGNUM (5.5SC) | 1.03 | LAA | 1 | 28.1 | 197.4 | |
| B (G)2,4-D-ESTER (4EC) | 0.25 | LAA | 1 | | | |
| C»STEADFAST (75WDG) | 0.035 | LAA | 2 | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.00 | LMA | 2 | | | |
| E»CALLISTO (4SC) | 0.047 | LAA | 2 | | | |
| F ATRAZINE 4L (SC) | 0.75 | LAA | 2 | | | |
| G ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | |
| 20A UNTREATED CHECK | 0.00 | NA | 1 | 5.0 | 35.4 | |
| | | | | LSD (0.05) | 6.27 | 44.08 |
| | | | | SIGNIFICANCE OF F | ** | ** |
| | | | | STANDARD DEVIATION | 3.10 | 21.81 |
| | | | | COEFFICIENT OF VARIANCE | 18.00 | 18.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 156 | 156 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 130 | 130 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 110 | 110 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = PREPLA / 30 DAYS PREPLANT 04-14-2005(1)
- 01 = PREPRE / PREEMERGENCE 05-10-2005(2)
- 02 = MID POS / MID-POSTEMERGENCE - V2-V4 05-30-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-02-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: PREPLANT PROGRAMS FOR NO-TILL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-------|-----|-----|---------|-----|------|----|------|
| 002 | ERICA | CON % | 06-02-2005 | 04 | P | ERICA | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-02-2005 | 05 | P | CHEAL | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ERICA | CON % | 06-14-2005 | 04 | P | ERICA | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 06-14-2005 | 05 | P | CHEAL | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | AMBEL | CON % | 06-14-2005 | 06 | P | AMBEL | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | AMBEL | CON % | 07-08-2005 | 06 | P | AMBEL | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | IPOHE | CON % | 07-08-2005 | 07 | P | IPOHE | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | AMBEL | CON % | 07-25-2005 | 06 | P | AMBEL | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | IPOHE | CON % | 07-25-2005 | 07 | P | IPOHE | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | ZEAMX | YLD/PLOT | 09-17-2005 | 03 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES
VAR 03 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)
03 = PIONEER 33B54

* USER DEFINED CALCULATIONS
US 003/05/01 001 HN--- 011 -- {RAW}*(7.026)
US 003/05/01 001 HN--- 011 -- {RAW}*(7.026)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HO ALTERNATE ID#: HF 15 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R
 CREATED: 03-23-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 76 TILLAGE: NOT
 % SILT: 17 PH: 6.9
 % CLAY: 7 CEC: 14.9
 TEXTURE: SL % OM: 2.1
 SOIL GEN: C
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 30
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 20 ACTUAL SUB-BLOCKS: 20

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 4 week preplant application made 04/14/2005.
2. 3 week preplant application made 04/20/2005.
3. 2 week preplant application made 04/27/2005.
4. 1 week preplant application made 05/05/2005.
5. 1 day preplant application made 05/09/2005.
6. Study planted 05/10/2005. Variety - Pioneer 33B54.
7. Kernal Guard added to hopper boxes.
8. Broadcast 133 lb/acre of 0-0-60 in the Spring.
9. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
10. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
11. Study harvested 09/18/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | 05 | UNIT |
|------------------|-----------|-----------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | 03 | 04 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 04-14-05 | 04-20-05 | 04-27-05 | 05-05-05 | 05-09-05 | USA |
| TIME - BEGIN | 16:00 | 13:00 | 18:00 | 15:00 | 18:00 | 24H |
| TIME - END | 16:30 | 13:30 | 18:30 | 15:30 | 19:00 | 24H |
| AIR TEMPERATURE | 65 | 80 | 68 | 65 | 63 | F |
| % REL. HUMIDITY | 30 | 45 | 35 | 30 | 35 | |
| WIND DIRECTION | NORTHEAST | SOUTHEAST | WEST | SOUTHEAST | SOUTHWEST | |
| WIND SPEED | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | M/H |
| CLOUD COVER | CLEAR | OVERCAST | PARTCLDY | OVERCAST | CLEAR | |
| DEW | NO | NO | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/MOIST | DRY/MOIST | DRY/MOIST | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 55/4.00 | 60/4.00 | 60/4.00 | 61/4.00 | 70/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | | USA |
| INC. START | | | | | | 24H |
| INC. END | | | | | | 24H |
| INC. DEPTH | | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | --- | |

* TIMING CODES

00 = PREPLA / 4 WEEKS PREPLANT
 01 = PREPLA / 3 WEEKS PREPLANT
 02 = PREPLA / 2 WEEKS PREPLANT
 03 = PREPLA / 1 WEEK PREPLANT
 04 = PREPLA / 1 DAY PREPLANT

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003
 04 = SS-8003
 05 = SS-8003

01 P STEME - CHICKWEED, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-14-2005 65 MED 3.00 SQF 8.00 8.00 8.00 IN TUR
 04-20-2005 70 MED 3.00 SQF 12.00 12.00 12.00 IN TUR
 04-27-2005 91 MED 3.00 SQF 12.00 12.00 12.00 IN TUR
 05-05-2005 91 MED 3.00 SQF 12.00 12.00 12.00 IN TUR
 05-09-2005 91 MED 3.00 SQF 8.00 8.00 8.00 IN TUR

02 P LAMAM - HENBIT
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-14-2005 65 MED 3.00 SQF 6.00 6.00 6.00 IN TUR
 04-20-2005 70 MED 3.00 SQF 8.00 8.00 8.00 IN TUR
 04-27-2005 91 MED 3.00 SQF 8.00 8.00 8.00 IN TUR
 05-05-2005 91 MED 3.00 SQF 8.00 8.00 8.00 IN TUR
 05-09-2005 91 MED 3.00 SQF 6.00 6.00 6.00 IN TUR

03 P ZEAMX - CORN, VOLUNTEER, FIELD
TARGET: CROP **SITE:** FG **POPULATION:** 27000.00 IPA **PLANTED:** 05-10-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-10-2005 00 MED 27000.00 IPA . . . IN NA

04 P ERICA - HORSEWEED
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-20-2005 00 --- IND . . . IN ---

05 P AMBEL - RAGWEED, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-20-2005 00 --- IND . . . IN ---

06 P CHEAL - LAMBSQUARTERS, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-20-2005 00 --- IND . . . IN ---

07 P XANST - COCKLEBUR, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 04-20-2005 00 --- IND . . . IN ---

08 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** PIONEER 33B54
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 - - 01 --- IND . . . IN ---

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- 01 = BEGINNING OF IMBIBITION
- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 65 = FULL FLOWERING; 50% OF FLOWERS OPEN, FIRST PETALS CAN FALL OR DRY
- 70 = FRUIT DEVELOPMENT
- 91 = SHOOT DEVELOPMENT COMPLETED, FOLIAGE STILL GREEN

TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN
CREATED: 03-23-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
|--------------------------------|--------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | | | | | |
| 001 RAW 06-02-05 P ZEAMX | | | | | | | | |
| 002 RAW 06-02-05 P ERICA | | | | | | | | |
| 003 RAW 06-02-05 P AMBEL | | | | | | | | |
| 004 RAW 06-02-05 P CHEAL | | | | | | | | |
| 005 RAW 06-14-05 P ERICA | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 |
| 2A»VALOR SX (51WG) | 0.064 | LAA | 0 | 8 | 98 | 93 | 98 | 98 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 3A»VALOR SX (51WG) | 0.064 | LAA | 0 | 7 | 100 | 88 | 98 | 100 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 4A»VALOR SX (51WG) | 0.064 | LAA | 0 | 5 | 100 | 97 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 5A»VALOR SX (51WG) | 0.064 | LAA | 1 | 5 | 100 | 93 | 97 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | |
| 6A»VALOR SX (51WG) | 0.064 | LAA | 1 | 3 | 100 | 98 | 100 | 100 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | |
| 7A»VALOR SX (51WG) | 0.064 | LAA | 1 | 7 | 100 | 98 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 1 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | |
| 8A»VALOR SX (51WG) | 0.064 | LAA | 2 | 8 | 100 | 93 | 98 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | |
| 9A»VALOR SX (51WG) | 0.064 | LAA | 2 | 8 | 100 | 93 | 100 | 100 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 2 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | |
| 10A»VALOR SX (51WG) | 0.064 | LAA | 2 | 8 | 100 | 100 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 2 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | |
| 11A»VALOR SX (51WG) | 0.064 | LAA | 3 | 10 | 100 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | | | |
| 12A»VALOR SX (51WG) | 0.064 | LAA | 3 | 8 | 100 | 100 | 100 | 100 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 3 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | | | |
| 13A»VALOR SX (51WG) | 0.064 | LAA | 3 | 7 | 100 | 100 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 3 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | | | |
| 14A»VALOR SX (51WG) | 0.064 | LAA | 4 | 7 | 100 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |

TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | PHY % | CON % | CON % | CON % | CON % |
|--------------------------------|--------|------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 001 RAW 06-02-05 P ZEAMX | | | | | | | | |
| 002 RAW 06-02-05 P ERICA | | | | | | | | |
| 003 RAW 06-02-05 P AMBEL | | | | | | | | |
| 004 RAW 06-02-05 P CHEAL | | | | | | | | |
| 005 RAW 06-14-05 P ERICA | | | | | | | | |
| 15A»VALOR SX (51WG) | 0.064 | LAA | 4 | 7 | 100 | 100 | 100 | 98 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 4 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 16A»VALOR SX (51WG) | 0.064 | LAA | 4 | 7 | 100 | 100 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 4 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 17A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 4 | 5 | 100 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 18A ATRAZINE 4L (SC) | 1.25 | LAA | 4 | 3 | 100 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 19A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 4 | 5 | 100 | 100 | 100 | 100 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 20A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 |
| | | | | 6.45 | 1.07 | 6.72 | 2.85 | 1.53 |
| | | | | ns | ** | ** | ** | ** |
| | | | | 3.19 | 0.527 | 3.33 | 1.41 | 0.755 |
| | | | | 66.08 | 0.718 | 4.64 | 1.93 | 1.00 |
| | | | | 49 | 49 | 49 | 49 | 61 |
| | | | | 43 | 43 | 43 | 43 | 55 |
| | | | | 36 | 36 | 36 | 36 | 48 |
| | | | | 28 | 28 | 28 | 28 | 40 |
| | | | | 24 | 24 | 24 | 24 | 36 |

TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN
 CREATED: 03-23-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW |
|--------------------------------|--------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 06-14-05 P AMBEL | 06-14-05 P CHEAL | 06-14-05 P XANST | 07-08-05 P AMBEL | 07-25-05 P AMBEL |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 |
| 2A»VALOR SX (51WG) | 0.064 | LAA | 0 | 77 | 88 | 83 | 17 | 10 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 3A»VALOR SX (51WG) | 0.064 | LAA | 0 | 43 | 90 | 75 | 0 | 0 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 4A»VALOR SX (51WG) | 0.064 | LAA | 0 | 82 | 100 | 62 | 40 | 37 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | | | |
| 5A»VALOR SX (51WG) | 0.064 | LAA | 1 | 75 | 97 | 17 | 0 | 0 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | |
| 6A»VALOR SX (51WG) | 0.064 | LAA | 1 | 83 | 100 | 27 | 30 | 30 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | |
| 7A»VALOR SX (51WG) | 0.064 | LAA | 1 | 92 | 100 | 43 | 73 | 68 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 1 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | | | |
| 8A»VALOR SX (51WG) | 0.064 | LAA | 2 | 83 | 93 | 40 | 37 | 32 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | |
| 9A»VALOR SX (51WG) | 0.064 | LAA | 2 | 70 | 97 | 37 | 10 | 10 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 2 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | |
| 10A»VALOR SX (51WG) | 0.064 | LAA | 2 | 97 | 100 | 38 | 93 | 93 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 2 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | | | |
| 11A»VALOR SX (51WG) | 0.064 | LAA | 3 | 87 | 100 | 83 | 67 | 55 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | | | |
| 12A»VALOR SX (51WG) | 0.064 | LAA | 3 | 90 | 100 | 65 | 80 | 68 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 3 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | | | |
| 13A»VALOR SX (51WG) | 0.064 | LAA | 3 | 100 | 100 | 70 | 98 | 95 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 3 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | | | |
| 14A»VALOR SX (51WG) | 0.064 | LAA | 4 | 97 | 100 | 78 | 80 | 72 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |

TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW |
|--------------------------------|--------|-----------------------------------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 06-14-05 P AMBEL | 06-14-05 P CHEAL | 06-14-05 P XANST | 07-08-05 P AMBEL | 07-25-05 P AMBEL |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 15A»VALOR SX (51WG) | 0.064 | LAA | 4 | 97 | 100 | 40 | 90 | 90 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 4 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 16A»VALOR SX (51WG) | 0.064 | LAA | 4 | 100 | 100 | 82 | 97 | 95 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 4 | | | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 17A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 4 | 93 | 100 | 50 | 63 | 62 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 18A ATRAZINE 4L (SC) | 1.25 | LAA | 4 | 100 | 100 | 68 | 92 | 92 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 19A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 4 | 100 | 100 | 88 | 98 | 98 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | | | |
| 20A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 |
| | | LSD (0.05) | | 15.79 | 10.28 | 37.93 | 25.20 | 25.67 |
| | | SIGNIFICANCE OF F | | ** | ** | ** | ** | ** |
| | | STANDARD DEVIATION | | 7.81 | 5.09 | 18.77 | 12.47 | 12.70 |
| | | COEFFICIENT OF VARIANCE | | 12.23 | 7.06 | 43.92 | 28.68 | 30.90 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 61 | 61 | 61 | 85 | 102 |
| | | DAT APPLICATION # 02 TIMINGS (01) | | 55 | 55 | 55 | 79 | 96 |
| | | DAT APPLICATION # 03 TIMINGS (02) | | 48 | 48 | 48 | 72 | 89 |
| | | DAT APPLICATION # 04 TIMINGS (03) | | 40 | 40 | 40 | 64 | 81 |
| | | DAT APPLICATION # 05 TIMINGS (04) | | 36 | 36 | 36 | 60 | 77 |

TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN
CREATED: 03-23-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 012 RAW | 012 CALC |
|--------------------------------|--------|------|----|---------------------|--------------------------|--------------------------|
| | RATE | UNIT | TM | 07-25-05 P XANST | 09-18-05 P ZEAMX | 09-18-05 P ZEAMX |
| | | | | CON % 1.00 | VAR 08 YLD LB 1.00 | VAR 08 YLD BU 1.00 |
| | | | | PL ALL | PL SD | A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 1.1 | 7.7 |
| 2A»VALOR SX (51WG) | 0.064 | LAA | 0 | 67 | 8.4 | 59.3 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | |
| 3A»VALOR SX (51WG) | 0.064 | LAA | 0 | 60 | 5.6 | 39.1 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | |
| 4A»VALOR SX (51WG) | 0.064 | LAA | 0 | 43 | 15.2 | 106.5 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 0 | | | |
| 5A»VALOR SX (51WG) | 0.064 | LAA | 1 | 0 | 8.3 | 58.3 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | |
| 6A»VALOR SX (51WG) | 0.064 | LAA | 1 | 10 | 8.1 | 56.9 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 1 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | |
| 7A»VALOR SX (51WG) | 0.064 | LAA | 1 | 20 | 14.5 | 101.9 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 1 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 1 | | | |
| 8A»VALOR SX (51WG) | 0.064 | LAA | 2 | 23 | 8.4 | 58.8 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | |
| 9A»VALOR SX (51WG) | 0.064 | LAA | 2 | 0 | 8.5 | 59.7 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 2 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | |
| 10A»VALOR SX (51WG) | 0.064 | LAA | 2 | 10 | 12.8 | 89.7 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 2 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 2 | | | |
| 11A»VALOR SX (51WG) | 0.064 | LAA | 3 | 50 | 13.3 | 93.2 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | |
| 12A»VALOR SX (51WG) | 0.064 | LAA | 3 | 47 | 11.8 | 83.1 |
| B»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 3 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | |
| 13A»VALOR SX (51WG) | 0.064 | LAA | 3 | 63 | 16.7 | 117.1 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 3 | | | |
| C»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 3 | | | |
| 14A»VALOR SX (51WG) | 0.064 | LAA | 4 | 32 | 17.5 | 122.9 |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | |

TITLE: PREPLANT APPLICATIONS OF VALOR IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 011 RAW | 012 RAW | 012 CALC |
|--------------------------------|--------|------|----|-----------------------------------|-----------------------------------|----------------------------------|
| | RATE | UNIT | TM | 07-25-05 P XANST | 09-18-05 P ZEAMX | 09-18-05 P ZEAMX |
| | | | | CON % 1.00 PL ALL | VAR 08 YLD LB 1.00 PL SD | VAR 08 YLD BU 1.00 A SD |
| 15A>VALOR SX (51WG) | 0.064 | LAA | 4 | 10 | 11.1 | 78.2 |
| B>DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 4 | | | |
| C>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | |
| 16A>VALOR SX (51WG) | 0.064 | LAA | 4 | 47 | 19.9 | 139.8 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 4 | | | |
| C>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | |
| D ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | |
| 17A>DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 4 | 17 | 11.6 | 81.3 |
| B>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | |
| 18A ATRAZINE 4L (SC) | 1.25 | LAA | 4 | 45 | 18.9 | 132.6 |
| B>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | |
| 19A>BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 4 | 62 | 18.3 | 128.5 |
| B>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 4 | | | |
| C ADJUVANT - COC (EC) | 1.00 | QMA | 4 | | | |
| 20A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 1.4 | 9.6 |
| | | | | LSL (0.05) | 43.54 | 8.41 |
| | | | | SIGNIFICANCE OF F | ** | ** |
| | | | | STANDARD DEVIATION | 21.54 | 4.16 |
| | | | | COEFFICIENT OF VARIANCE | 87.22 | 44.10 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 102 | 157 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 96 | 151 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 89 | 144 |
| | | | | DAT APPLICATION # 04 TIMINGS (03) | 81 | 136 |
| | | | | DAT APPLICATION # 05 TIMINGS (04) | 77 | 132 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = PREPLA / 4 WEEKS PREPLANT 04-14-2005(1)
- 01 = PREPLA / 3 WEEKS PREPLANT 04-20-2005(2)
- 02 = PREPLA / 2 WEEKS PREPLANT 04-27-2005(3)
- 03 = PREPLA / 1 WEEK PREPLANT 05-05-2005(4)
- 04 = PREPLA / 1 DAY PREPLANT 05-09-2005(5)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMX | PHYTO % | 06-02-2005 | 03 | P | ZEAMX | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | ERICA | CON % | 06-02-2005 | 04 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | AMBEL | CON % | 06-02-2005 | 05 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CHEAL | CON % | 06-02-2005 | 06 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 06-14-2005 | 04 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | AMBEL | CON % | 06-14-2005 | 05 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 06-14-2005 | 06 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | XANST | CON % | 06-14-2005 | 07 | P | XANST | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | AMBEL | CON % | 07-08-2005 | 05 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | AMBEL | CON % | 07-25-2005 | 05 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | XANST | CON % | 07-25-2005 | 07 | P | XANST | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | ZEAMX | YLD/PLOT | 09-18-2005 | 08 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 08 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

08 = PIONEER 33B54

* USER DEFINED CALCULATIONS

US 003/05/01 001 HO--- 012 -- {RAW}*(7.026)

*** USER DEFINED CALCULATIONS**

US 003/05/01 001 HO--- 012 -- {RAW}*(7.026)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HP ALTERNATE ID#: HF 16 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 03-24-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|---|--------------|-----------------|-----------------------|
| % SAND: 73 | TILLAGE: NOT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 18 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 9 | CEC: 4.8 | ACTUAL TRTS: 14 | ACTUAL SUB-BLOCKS: 14 |
| TEXTURE: SL | % OM: 1.3 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2005. Variety - Pioneer 33B54.
2. Kernal Guard added to hopper boxes.
3. Broadcast 133 lb/acre of 0-0-60 in the Spring.
4. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
5. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
6. Preemergence applications made 05/11/2005.
7. Study harvested 09/18/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-11-05 | USA |
| TIME - BEGIN | 09:00 | 24H |
| TIME - END | 10:00 | 24H |
| AIR TEMPERATURE | 64 | F |
| % REL. HUMIDITY | 90 | |
| WIND DIRECTION | SOUTHEAST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 03-24-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW 002 RAW 003 RAW 004 RAW 005 RAW 06-02-05 06-14-05 06-14-05 07-08-05 07-08-05 P DIGSA P DIGSA P CHEAL P DIGSA P CHEAL | | | | |
|--------------------------------|-----------------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»DUAL II MAGNUM (7.64EC) | 1.59 LAA 0 | 100 | 97 | 30 | 93 | 10 |
| 3A»OUTLOOK (6EC) | 0.75 LAA 0 | 100 | 98 | 10 | 97 | 0 |
| 4A»DEFINE (4SC) | 0.50 LAA 0 | 100 | 100 | 10 | 100 | 10 |
| 5A HARNESS (7EC) | 1.97 LAA 0 | 100 | 95 | 70 | 90 | 37 |
| 6A»DEGREE (3.8CS) | 2.00 LAA 0 | 98 | 97 | 40 | 93 | 27 |
| 7A»TOPNOTCH (3.2CS) | 2.00 LAA 0 | 100 | 100 | 40 | 97 | 37 |
| 8A»BALANCE PRO (4SC) | 0.07 LAA 0 | 100 | 88 | 100 | 63 | 97 |
| 9A»PROWL H20 (3.8CS) | 1.50 LAA 0 | 100 | 95 | 100 | 88 | 100 |
| 10A»PROWL H20 (3.8CS) | 2.00 LAA 0 | 100 | 97 | 100 | 93 | 100 |
| 11A»KIH-485 (60WG) | 0.144 LAA 0 | 100 | 98 | 70 | 97 | 22 |
| 12A»KIH-485 (60WG) | 0.181 LAA 0 | 100 | 97 | 90 | 95 | 60 |
| 13A PRINCEP 4L (SC) | 1.25 LAA 0 | 100 | 88 | 10 | 80 | 0 |
| 14A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 |
| | LSD (0.05) | 1.30 | 6.42 | 24.91 | 13.60 | 19.70 |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | STANDARD DEVIATION | 0.63 | 3.12 | 12.12 | 6.62 | 9.58 |
| | COEFFICIENT OF VARIANCE | 0.901 | 4.65 | 31.00 | 10.44 | 33.00 |
| | DAT APPLICATION # 01 TIMINGS (00) | 22 | 34 | 34 | 58 | 58 |

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
 CREATED: 03-24-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW | 010 RAW | VAR 01 |
|--------------------------------|--------|------|----|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------|
| | RATE | UNIT | TM | 07-08-05 P AMBEL | 07-26-05 P DIGSA | 07-26-05 P CHEAL | 07-26-05 P AMBEL | 09-18-05 P ZEAMX | YLD LB |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | 1.00 PL SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 3.6 |
| 2A»DUAL II MAGNUM (7.64EC) | 1.59 | LAA | 0 | 17 | 93 | 10 | 0 | 0 | 5.7 |
| 3A»OUTLOOK (6EC) | 0.75 | LAA | 0 | 23 | 97 | 0 | 20 | 0 | 2.4 |
| 4A»DEFINE (4SC) | 0.50 | LAA | 0 | 43 | 100 | 10 | 40 | 0 | 6.5 |
| 5A HARNES (7EC) | 1.97 | LAA | 0 | 45 | 90 | 37 | 33 | 0 | 12.5 |
| 6A»DEGREE (3.8CS) | 2.00 | LAA | 0 | 43 | 93 | 17 | 37 | 0 | 13.9 |
| 7A»TOPNOTCH (3.2CS) | 2.00 | LAA | 0 | 35 | 97 | 37 | 20 | 0 | 16.5 |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 93 | 48 | 97 | 90 | 0 | 16.2 |
| 9A»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | 0 | 87 | 100 | 0 | 0 | 6.1 |
| 10A»PROWL H20 (3.8CS) | 2.00 | LAA | 0 | 10 | 93 | 100 | 0 | 0 | 10.6 |
| 11A»KIH-485 (60WG) | 0.144 | LAA | 0 | 43 | 97 | 10 | 28 | 0 | 11.7 |
| 12A»KIH-485 (60WG) | 0.181 | LAA | 0 | 80 | 95 | 33 | 80 | 0 | 14.9 |
| 13A PRINCEP 4L (SC) | 1.25 | LAA | 0 | 90 | 78 | 0 | 90 | 0 | 11.6 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 |
| | | | | LSD (0.05) | 39.65 | 15.00 | 24.27 | 35.56 | 5.65 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 19.29 | 7.31 | 11.80 | 17.30 | 2.75 |
| | | | | COEFFICIENT OF VARIANCE | 63.19 | 11.73 | 45.00 | 67.66 | 35.32 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 58 | 76 | 76 | 76 | 130 |

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 03-24-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | YLD BU 1.00 A SD |
|-----------------------------------|------------------------|------------------------|
| 1A UNTREATED CHECK | 0.00 NA 0 | 25.1 |
| 2A»DUAL II MAGNUM (7.64EC) | 1.59 LAA 0 | 40.3 |
| 3A»OUTLOOK (6EC) | 0.75 LAA 0 | 16.6 |
| 4A»DEFINE (4SC) | 0.50 LAA 0 | 45.4 |
| 5A HARNES (7EC) | 1.97 LAA 0 | 88.1 |
| 6A»DEGREE (3.8CS) | 2.00 LAA 0 | 97.9 |
| 7A»TOPNOTCH (3.2CS) | 2.00 LAA 0 | 116.0 |
| 8A»BALANCE PRO (4SC) | 0.07 LAA 0 | 114.1 |
| 9A»PROWL H20 (3.8CS) | 1.50 LAA 0 | 42.8 |
| 10A»PROWL H20 (3.8CS) | 2.00 LAA 0 | 74.5 |
| 11A»KIH-485 (60WG) | 0.144 LAA 0 | 82.0 |
| 12A»KIH-485 (60WG) | 0.181 LAA 0 | 104.5 |
| 13A PRINCEP 4L (SC) | 1.25 LAA 0 | 81.3 |
| 14A UNTREATED CHECK | 0.00 NA 0 | 9.6 |
| LSD (0.05) | | 39.72 |
| SIGNIFICANCE OF F | | ** |
| STANDARD DEVIATION | | 19.32 |
| COEFFICIENT OF VARIANCE | | 35.32 |
| DAT APPLICATION # 01 TIMINGS (00) | | 130 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-11-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | DIGSA | CON % | 06-02-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | DIGSA | CON % | 06-14-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-14-2005 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | DIGSA | CON % | 07-08-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 07-08-2005 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | AMBEL | CON % | 07-08-2005 | 04 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | DIGSA | CON % | 07-26-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 07-26-2005 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | AMBEL | CON % | 07-26-2005 | 04 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | ZEAMX | YLD/PLOT | 09-18-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | NO | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 33B54

* USER DEFINED CALCULATIONS

US 003/05/01 001 HP--- 010 -- {RAW}*(7.026)

*** USER DEFINED CALCULATIONS**

US 003/05/01 001 HF--- 010 -- {RAW}*(7.026)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HQ ALTERNATE ID#: HF 17 2005
PROTOCOL#: US 003/05/01 ALTERNATE ID#: US 005/02/01
CREATED BY: US RITTER R
CREATED: 03-24-2005 REVISED: 10-19-2005 COMPLETED: Y
TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN -
PREEMERGENCE

COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
CITY: BELTSVILLE STATE: MARYLAND
COUNTY: PRINCE GEORGE'S ZIP: 20705
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 73 TILLAGE: NOT
% SILT: 18 PH: 6.3
% CLAY: 9 CEC: 4.8
TEXTURE: SL % OM: 1.3

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
ACTUAL REPS: 3 ACTUAL BLOCKS: 1
ACTUAL TRTS: 14 ACTUAL SUB-BLOCKS: 14

SOIL GEN: C
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2005. Variety - Pioneer 33B54.
2. Kernal Guard added to hopper boxes.
3. Broadcast 133 lb/acre of 0-0-60 in the Spring.
4. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
5. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
6. Preemergence applications made 05/11/2005.
7. Study harvested 09/18/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-11-05 | USA |
| TIME - BEGIN | 09:00 | 24H |
| TIME - END | 10:00 | 24H |
| AIR TEMPERATURE | 64 | F |
| % REL. HUMIDITY | 90 | |
| WIND DIRECTION | SOUTHEAST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

| | | | | | | | | | |
|---|------------|----------|--------------|---------|---------|---------|------------|-------|--|
| 01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54 | | | | | | | | | |
| TARGET: CROP SITE: FG POPULATION: 27000.00 IPA PLANTED: 05-10-2005 | | | | | | | | | |
| PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN | | | | | | | | | |
| INFESTATION DATE: - - METHOD: NA | | | | | | | | | |
| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES | |
| 05-11-2005 | 00 | MED | 27000.00 IPA | . | . | . IN | NA | | |
| 02 P DIGSA - CRABGRASS, LARGE, SOUTHERN | | | | | | | | | |
| TARGET: PEST SITE: FG | | | | | | | | | |
| INFESTATION DATE: - - METHOD: NA | | | | | | | | | |
| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES | |
| - - | 01 | --- | IND | . | . | . IN | --- | | |
| 03 P CHEAL - LAMBSQUARTERS, COMMON | | | | | | | | | |
| TARGET: PEST SITE: FG | | | | | | | | | |
| INFESTATION DATE: - - METHOD: NA | | | | | | | | | |
| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES | |
| - - | 00 | --- | IND | . | . | . IN | --- | | |
| 04 P AMBEL - RAGWEED, COMMON | | | | | | | | | |
| TARGET: PEST SITE: FG | | | | | | | | | |
| INFESTATION DATE: - - METHOD: NA | | | | | | | | | |
| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES | |
| - - | 00 | --- | IND | . | . | . IN | --- | | |
| 05 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DKC58-53 RR | | | | | | | | | |
| TARGET: PEST SITE: FG | | | | | | | | | |
| INFESTATION DATE: - - METHOD: NA | | | | | | | | | |
| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES | |
| - - | 01 | --- | IND | . | . | . IN | --- | | |
| * STAGE CODE -- CORN | | | | | | | | | |
| 00 = DRY SEED (CARYOPSIS) | | | | | | | | | |
| 01 = BEGINNING OF IMBIBITION | | | | | | | | | |
| * STAGE CODE -- GENERAL | | | | | | | | | |
| 00 = DRY SEED; DORMANCY | | | | | | | | | |
| * STAGE CODE -- GENERAL GRASS | | | | | | | | | |
| 01 = BEGINNING OF IMBIBITION | | | | | | | | | |

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - PREEMERGENCE

CREATED: 03-24-2005 REVISD: 10-19-2005 COMPLETED: Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|--------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 100 | 100 | 88 | 95 | 77 | |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 100 | 97 | 88 | 77 | |
| 4A HARNES XTRA 5.6(SC) | 3.36 | LAA | 0 | 100 | 100 | 97 | 87 | 93 | |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 100 | 100 | 97 | 100 | 87 | |
| 6A»FULLTIME (4CS) | 3.30 | LAA | 0 | 100 | 100 | 97 | 92 | 95 | |
| 7A»DEFINE (4SC) | 0.56 | LAA | 0 | 100 | 100 | 97 | 95 | 93 | |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 100 | 95 | 98 | 82 | 100 | |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 100 | 98 | 98 | 90 | 95 | |
| 10A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 100 | 100 | 95 | 100 | |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | | | | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 100 | 100 | 97 | 100 | |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 100 | 100 | 100 | 98 | 100 | |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 100 | 100 | 100 | 93 | 98 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 0.00 | 2.51 | 5.94 | 5.58 | 13.84 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 1.22 | 2.89 | 2.71 | 6.73 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 1.76 | 4.24 | 4.18 | 10.35 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 22 | 34 | NA | 58 | 58 |

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - PREEMERGENCE

CREATED: 03-24-2005 REVISD: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | VAR 05 | |
|--------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|-----------------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | YLD LB PL SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 2.0 | |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 100 | 95 | 68 | 100 | 17.7 | |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 87 | 65 | 100 | 17.7 | |
| 4A HARNES XTRA 5.6(SC) | 3.36 | LAA | 0 | 100 | 82 | 90 | 100 | 23.8 | |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 100 | 98 | 85 | 100 | 21.1 | |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 98 | 87 | 90 | 98 | 18.6 | |
| 7A»DEFINE (4SC) | 0.56 | LAA | 0 | 100 | 90 | 92 | 100 | 21.7 | |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 100 | 73 | 100 | 100 | 21.9 | |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 98 | 87 | 87 | 98 | 22.0 | |
| 10A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 95 | 98 | 100 | 20.7 | |
| B»PROWL H2O (3.8CS) | 1.50 | LAA | 0 | | | | | | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 93 | 100 | 100 | 21.2 | |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 100 | 95 | 100 | 100 | 22.2 | |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 100 | 93 | 97 | 100 | 21.6 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 2.0 | |
| | | | | LSD (0.05) | 1.87 | 9.24 | 22.69 | 1.87 | 4.43 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.908 | 4.49 | 11.00 | 0.908 | 2.15 |
| | | | | COEFFICIENT OF VARIANCE | 1.30 | 7.16 | 17.66 | 1.30 | 14.53 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 58 | 76 | 76 | 76 | 130 |

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - PREEMERGENCE

CREATED: 03-24-2005 REVISED: 10-19-2005 COMPLETED: Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | TM | A | SD |
|---|--------------|------------|--------|-------|--|
| | RATE | UNIT | | | |
| | | | | | 010 CALC 09-18-05 P ZEAMX |
| | | | | | VAR 05 YLD BU 1.00 |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 14.0 | |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 124.1 | |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 124.1 | |
| 4A HARNESS XTRA 5.6(SC) | 3.36 | LAA | 0 | 167.5 | |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 148.5 | |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 130.7 | |
| 7A»DEFINE (4SC) B ATRAZINE 4L (SC) | 0.56 1.25 | LAA LAA | 0 0 | 152.5 | |
| 8A»BALANCE PRO (4SC) B ATRAZINE 4L (SC) | 0.07 1.25 | LAA LAA | 0 0 | 154.1 | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 154.6 | |
| 10A»GUARDSMAN MAX (5L) B»PROWL H20 (3.8CS) | 2.50 1.50 | LAA LAA | 0 0 | 145.2 | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 148.7 | |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 155.7 | |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 151.5 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 14.3 | |
| | | | | | LSD (0.05) 31.11 SIGNIFICANCE OF F ** STANDARD DEVIATION 15.13 COEFFICIENT OF VARIANCE 14.53 DAT APPLICATION # 01 TIMINGS (00) 130 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-11-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | DIGSA | CON % | 06-02-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | DIGSA | CON % | 06-14-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-14-2004 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | DIGSA | CON % | 07-08-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 07-08-2005 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | AMBEL | CON % | 07-08-2005 | 04 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | DIGSA | CON % | 07-26-2005 | 02 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | CHEAL | CON % | 07-26-2005 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | AMBEL | CON % | 07-26-2005 | 04 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | ZEAMX | YLD/PLOT | 09-18-2005 | 05 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES
VAR 05 = DKC58-53 RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)
05 = DKC58-53 RR

*** USER DEFINED CALCULATIONS**

US 003/05/01 001 HQ--- 010 -- {RAW}*(7.026)

US 003/05/01 001 HQ--- 010 -- {RAW}*(7.026)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 003/05/01 001 HR **ALTERNATE ID#:** HF 18 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** US 005/02/01
CREATED BY: US RITTER R
CREATED: 03-24-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - EARLY
 POSTEMERGENCE
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER **DATA SOURCE:** UNIVERSITY
LOCATION: HAYDEN FARM **TYPE:** FIELD TRIAL
CITY: BELTSVILLE **STATE:** MARYLAND
COUNTY: PRINCE GEORGE'S **ZIP:** 20705
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

| | | | |
|---|--------------|--------------------------|-----------------------|
| SOIL INFORMATION | | TRIAL INFORMATION | |
| % SAND: 73 | TILLAGE: NOT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 18 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 9 | CEC: 4.8 | ACTUAL TRTS: 14 | ACTUAL SUB-BLOCKS: 14 |
| TEXTURE: SL | % OM: 1.3 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2005. Variety - Pioneer 33B54.
2. Kernal Guard added to hopper boxes.
3. Broadcast 133 lb/acre of 0-0-60 in the Spring.
4. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
5. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
6. Early post applications made 05/19/2005.
7. Study harvested 09/18/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-19-05 | USA |
| TIME - BEGIN | 17:00 | 24H |
| TIME - END | 18:00 | 24H |
| AIR TEMPERATURE | 62 | F |
| % REL. HUMIDITY | 45 | |
| WIND DIRECTION | WEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 62/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = POSPOS / EARLY POSTEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54
 TARGET: CROP SITE: FG POPULATION: 27000.00 IPA PLANTED: 05-10-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-10-2005 00 MED 27000.00 IPA . . IN NA
 05-19-2005 12 MED 27000.00 IPA 2.00 2.00 2.00 IN TUR

02 P DIGSA - CRABGRASS, LARGE, SOUTHERN
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 12 MED 6.00 SQF 0.50 0.50 0.50 IN TUR

03 P ABUTH - VELVETLEAF
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 12 LOW 1.00 SQY 0.50 0.50 0.50 IN TUR

04 P AMBEL - RAGWEED, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 11 LOW 1.00 SQY 0.25 0.25 0.25 IN TUR

05 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 00 --- IND . . IN ---

06 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DKC58-53 RR
 TARGET: PEST SITE: FG
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 - - 01 --- IND . . IN ---

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)
 01 = BEGINNING OF IMBIBITION
 12 = 2 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY
 11 = 1ST TRUE LEAF/LEAF PAIR/WHORL UNFOLDED

* STAGE CODE -- GENERAL GRASS

12 = 2 LEAVES UNFOLDED

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - EARLY POSTEMERGENCE
CREATED: 03-24-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|--------------------------------|--------|-----------------------------------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 100 | 100 | 95 | 95 | 98 |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 98 | 100 | 88 | 95 | 100 |
| 4A HARNESX XTRA 5.6(SC) | 3.36 | LAA | 0 | 100 | 100 | 95 | 97 | 100 |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 100 | 97 | 95 | 98 | 100 |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 100 | 100 | 97 | 100 | 100 |
| 7A»DEFINE (4SC) | 0.56 | LAA | 0 | 100 | 100 | 97 | 95 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 100 | 100 | 98 | 100 | 100 |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 100 | 100 | 92 | 95 | 100 |
| 10A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 100 | 100 | 100 | 98 | 100 |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | | | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 100 | 100 | 98 | 100 | 100 |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 100 | 100 | 97 | 100 | 100 |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 100 | 100 | 97 | 98 | 100 |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 33 | 0 | 0 | 0 |
| | | LSD (0.05) | | 1.30 | 26.00 | 5.05 | 6.29 | 1.30 |
| | | SIGNIFICANCE OF F | | ** | ** | ** | ** | ** |
| | | STANDARD DEVIATION | | 0.63 | 12.64 | 2.46 | 3.06 | 0.63 |
| | | COEFFICIENT OF VARIANCE | | 0.901 | 17.62 | 3.67 | 4.48 | 0.901 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 14 | 26 | 50 | 50 | 50 |

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - EARLY POSTEMERGENCE
CREATED: 03-24-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | VAR 06 | VAR 06 | |
|--------------------------------|--------|------|----|-----------------------------------|--------|--------|-----------------|----------------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | YLD LB PL SD | YLD BU A SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 5.8 | 41.0 | |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 95 | 92 | 98 | 23.1 | 162.3 | |
| 3A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 77 | 95 | 100 | 22.5 | 158.1 | |
| 4A HARNES XTRA 5.6(SC) | 3.36 | LAA | 0 | 90 | 95 | 100 | 21.2 | 148.7 | |
| 5A»DEGREE XTRA (4 CS) | 3.70 | LAA | 0 | 90 | 95 | 100 | 22.2 | 155.7 | |
| 6A»FULTIME (4CS) | 3.30 | LAA | 0 | 90 | 100 | 100 | 21.8 | 153.4 | |
| 7A»DEFINE (4SC) | 0.56 | LAA | 0 | 92 | 93 | 100 | 19.9 | 139.6 | |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | | |
| 8A»BALANCE PRO (4SC) | 0.07 | LAA | 0 | 93 | 100 | 100 | 23.0 | 161.4 | |
| B ATRAZINE 4L (SC) | 1.25 | LAA | 0 | | | | | | |
| 9A»KEYSTONE (5.25SE) | 3.67 | LAA | 0 | 80 | 92 | 100 | 17.6 | 123.6 | |
| 10A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 98 | 98 | 100 | 21.9 | 153.6 | |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | | | | |
| 11A»KIH-485/ATRAZINE (57.8WG) | 1.34 | LAA | 0 | 93 | 100 | 100 | 18.3 | 128.3 | |
| 12A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 93 | 100 | 100 | 22.6 | 158.6 | |
| 13A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 93 | 98 | 100 | 18.8 | 132.3 | |
| 14A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 4.9 | 34.6 | |
| | | | | LSL (0.05) | 7.86 | 8.37 | 1.30 | 4.50 | 31.59 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 3.82 | 4.07 | 0.63 | 2.19 | 15.36 |
| | | | | COEFFICIENT OF VARIANCE | 6.00 | 6.00 | 0.901 | 14.23 | 14.23 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 68 | 68 | 68 | 122 | 122 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE 05-19-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|--------|-----|------|---------|-----|------|----|------|
| 001 | DIGSA | CON % | 06-02-2005 | 02 | P | DIGSA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | DIGSA | CON % | 06-14-2005 | 02 | P | DIGSA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | DIGSA | CON % | 07-08-2005 | 02 | P | DIGSA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CHEAL | CON % | 07-08-2005 | 05 | P | CHEAL | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | AMBEL | CON % | 07-08-2005 | 04 | P | AMBEL | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | DIGSA | CON % | 07-26-2005 | 02 | P | DIGSA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 07-26-2005 | 05 | P | CHEAL | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | AMBEL | CON % | 07-26-2005 | 04 | P | AMBEL | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | ZEAMX | YLD/PLOT | 09-18-2005 | 06 | P | ZEAMX | | RAW | SD | YLD LB | H | | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD BU | H | | 1.00 A | | | | |

* VARIETY CODES

VAR 06 = DKC58-53 RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

06 = DKC58-53 RR

* USER DEFINED CALCULATIONS

*** CONTINUE ON NEXT PAGE

* USER DEFINED CALCULATIONS*** CONTINUED
US 003/05/01 001 HR--- 009 -- {RAW}*(7.026)
US 003/05/01 001 HR--- 009 -- {RAW}*(7.026)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 003/05/01 001 HS **ALTERNATE ID#:** HF 19 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** HF 2005
CREATED BY: US RITTER R
CREATED: 03-25-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
TITLE: USE OF GRAMOXONE INTEON IN NO-TILL CORN
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER **DATA SOURCE:** UNIVERSITY
LOCATION: HAYDEN FARM **TYPE:** FIELD TRIAL
CITY: BELTSVILLE **STATE:** MARYLAND
COUNTY: PRINCE GEORGE'S **ZIP:** 20705
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|--|---------------------|------------------------|------------------------------|
| % SAND: 73 | TILLAGE: NOT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 18 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 9 | CEC: 4.8 | ACTUAL TRTS: 12 | ACTUAL SUB-BLOCKS: 12 |
| TEXTURE: SL | % OM: 1.3 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 50 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2005. Variety - Pioneer 33B54.
2. Kernal Guard added to hopper boxes.
3. Broadcast 133 lb/acre of 0-0-60 in the Spring.
4. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
5. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
6. Preemergence applications made 05/11/2005.
7. Early post applications were made 05/19/2005.
8. Study harvested 09/20/2005.

| APPL. NUMBER | 01 | 02 | UNIT |
|------------------|-----------|----------|------|
| TIMINGS | 00 | 01 | |
| TYPE | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-11-05 | 05-19-05 | USA |
| TIME - BEGIN | 11:30 | 17:00 | 24H |
| TIME - END | 12:30 | 18:00 | 24H |
| AIR TEMPERATURE | 65 | 62 | F |
| % REL. HUMIDITY | 60 | 45 | |
| WIND DIRECTION | SOUTHEAST | WEST | |
| WIND SPEED | 3.0 | 3.0 | M/H |
| CLOUD COVER | OVERCAST | CLOUDY | |
| DEW | NO | NO | |
| SOIL MOISTURE | DRY/DRY | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 68/4.00 | 62/4.00 | F / |
| METHOD | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | |
| INC. DATE | | | USA |
| INC. START | | | 24H |
| INC. END | | | 24H |
| INC. DEPTH | | | IN |
| INC. EQUIPMENT | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
01 = POSPOS / POSTEMERGENCE - SPIKE TO 5' CORN

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54
 TARGET: CROP SITE: FG POPULATION: 27000.00 IPA PLANTED: 05-10-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-11-2005 00 MED 27000.00 IPA . . . IN TUR
 05-19-2005 12 MED 27000.00 IPA 2.00 2.00 2.00 IN TUR

02 P ERICA - HORSEWEED
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-11-2005 19 MED 1.00 SQF 6.00 6.00 6.00 IN TUR

03 P STEME - CHICKWEED, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-11-2005 91 MED 1.00 SQF 8.00 8.00 8.00 IN TUR

04 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 14 LOW 1.00 SQY 1.00 1.00 1.00 IN TUR

05 P SETFA - FOXTAIL, GIANT
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 12 LOW 1.00 SQY 0.50 0.50 0.50 IN TUR

06 P AMBEL - RAGWEED, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-19-2005 12 LOW 1.00 SQY 1.00 1.00 1.00 IN TUR

07 P DIGSA - CRABGRASS, LARGE, SOUTHERN
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-10-2005 00 --- IND . . . IN ---

- * STAGE CODE -- CORN
- 00 = DRY SEED (CARYOPSIS)
- 12 = 2 LEAVES UNFOLDED
- * STAGE CODE -- GENERAL
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 91 = SHOOT DEVELOPMENT COMPLETED, FOLIAGE STILL GREEN
- * STAGE CODE -- GENERAL GRASS
- 00 = DRY SEED (CARYOPSIS)
- 12 = 2 LEAVES UNFOLDED

TITLE: USE OF GRAMOXONE INTEON IN NO-TILL CORN
 CREATED: 03-25-2005 REVISIED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|---------------------------------|--------|------|----|-----------------------------------|--------|--------|--------|--------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 72 | 88 | 93 | 92 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | | | |
| 3A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 75 | 88 | 93 | 92 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | | | |
| 4A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 80 | 87 | 88 | 82 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | | | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 100 | 40 | 77 | 93 | 93 | |
| B»DEGREE XTRA (4 CS) | 2.95 | LAA | 0 | | | | | | |
| 6A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 58 | 68 | 93 | 82 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | |
| 7A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 50 | 70 | 83 | 80 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | |
| 8A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 73 | 78 | 88 | 85 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | |
| 9A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 72 | 82 | 93 | 93 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| D»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | |
| 10A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 80 | 80 | 83 | 77 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| D»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | |
| 11A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 83 | 95 | 97 | 98 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| D»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LS (0.05) | 0.00 | 6.24 | 15.83 | 14.32 | 19.49 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 3.00 | 7.63 | 6.91 | 9.40 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 6.47 | 13.80 | 11.19 | 15.82 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 8 | 8 | 15 | 28 | 1140 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 0 | 0 | 7 | 20 | 1132 |

TITLE: USE OF GRAMOXONE INTEON IN NO-TILL CORN
 CREATED: 03-25-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | | 007 RAW | | 008 RAW | | 009 RAW | | 010 RAW | |
|---------------------------------|--------|------|----|-----------------------------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 97 | 87 | 100 | 100 | 73 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C>LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | | | | | | | |
| 3A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 83 | 97 | 100 | 65 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C>LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | | | | | | | |
| 4A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 97 | 82 | 83 | 97 | 67 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C>LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | | | | | | | |
| 5A>ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 67 | 83 | 100 | 38 | 68 | | | | | |
| B>DEGREE XTRA (4 CS) | 2.95 | LAA | 0 | | | | | | | | | | |
| 6A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 97 | 82 | 73 | 100 | 72 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C>LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | | | | | |
| 7A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 98 | 90 | 80 | 100 | 73 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C>LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | | | | | |
| 8A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 88 | 87 | 100 | 77 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C>LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | | | | | |
| 9A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 98 | 87 | 100 | 97 | 68 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| D>LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | | | | | |
| 10A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 92 | 82 | 60 | 77 | 68 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| D>LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | | | | | |
| 11A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 87 | 95 | 100 | 73 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| D>LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | | | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | | | | LSD (0.05) | 18.80 | 12.00 | 35.31 | 27.41 | 9.64 | | | | |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** | | | | |
| | | | | STANDARD DEVIATION | 9.07 | 5.77 | 17.00 | 13.22 | 4.65 | | | | |
| | | | | COEFFICIENT OF VARIANCE | 14.10 | 10.00 | 28.59 | 21.39 | 9.69 | | | | |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 44 | 44 | 57 | 57 | 57 | | | | |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 36 | 36 | 49 | 49 | 49 | | | | |

TITLE: USE OF GRAMOXONE INTEON IN NO-TILL CORN
 CREATED: 03-25-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | VAR 01 | VAR 01 | |
|---------------------------------|--------|------|----|-----------------------------------|-------------------------|------------------------|-------|
| | RATE | UNIT | TM | 1.00 PL ALL | YLD LB 1.00 PL SD | YLD BU 1.00 A SD | |
| 011 RAW | | | | | 012 RAW | 012 CALC | |
| 07-25-05 | | | | | 09-20-05 | 09-20-05 | |
| P DIGSA | | | | | P ZEAMX | P ZEAMX | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 1.2 | 9.0 | |
| 2A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 60 | 11.7 | 85.0 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | |
| 3A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 57 | 12.6 | 91.5 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | |
| 4A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 60 | 16.3 | 118.1 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 0 | | | | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 57 | 12.3 | 89.5 | |
| B»DEGREE XTRA (4 CS) | 2.95 | LAA | 0 | | | | |
| 6A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 60 | 14.0 | 101.9 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | |
| 7A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 63 | 10.1 | 73.1 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | |
| 8A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 65 | 12.9 | 93.9 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | |
| 9A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 60 | 12.8 | 92.7 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| D»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | |
| 10A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 62 | 9.3 | 67.8 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| D»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | |
| 11A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 62 | 13.4 | 97.1 | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| D»LEXAR (3.7SC) | 2.69 | LAA | 1 | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 2.5 | 17.9 | |
| | | | | LSD (0.05) | 11.25 | 5.52 | 40.07 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** |
| | | | | STANDARD DEVIATION | 5.42 | 2.66 | 19.32 |
| | | | | COEFFICIENT OF VARIANCE | 13.18 | 30.29 | 30.29 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 75 | 132 | 132 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 67 | 124 | 124 |

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-11-2005(1)
 01 = POSPOS / POSTEMERGENCE - SPIKE TO 5' CORN 05-19-2005(2)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | STEME | CON % | 05-19-2005 | 03 | P | STEME | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: USE OF GRAMOXONE INTEON IN NO-TILL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 002 | ERICA | CON % | 05-19-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | ERICA | CON % | 05-26-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ERICA | CON % | 06-08-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 06-24-2008 | 02 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | CHEAL | CON % | 06-24-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | DIGSA | CON % | 06-24-2005 | 07 | P | DIGSA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | ERICA | CON % | 07-07-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 07-07-2005 | 04 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | DIGSA | CON % | 07-07-2005 | 07 | P | DIGSA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | DIGSA | CON % | 07-25-2005 | 07 | P | DIGSA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 012 | ZEAMX | YLD/PLOT | 09-20-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 33B54

* USER DEFINED CALCULATIONS

US 003/05/01 001 HS--- 012 -- {RAW}*(7.26)

US 003/05/01 001 HS--- 012 -- {RAW}*(7.26)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HT ALTERNATE ID#: HF 20 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R REVISED: 10-19-2005 COMPLETED: Y
 TITLE: GLYPHOSATE TANK-MIX TIMING STUDY IN CONVENTIONAL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter DATA SOURCE: UNIVERSITY
 COOPERATOR: MR. KEVIN CONOVER TYPE: FIELD TRIAL
 LOCATION: HAYDEN FARM STATE: MARYLAND
 CITY: BELTSVILLE ZIP: 20705
 COUNTY: PRINCE GEORGE'S
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

TRIAL INFORMATION

| | | | |
|---|--------------|-----------------|-----------------------|
| % SAND: 73 | TILLAGE: NOT | DESIGN: RCB | RESIDUE TRIAL: EFF |
| % SILT: 18 | PH: 6.3 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 9 | CEC: 4.8 | ACTUAL TRTS: 16 | ACTUAL SUB-BLOCKS: 16 |
| TEXTURE: SL | % OM: 1.3 | | |
| SOIL GEN: C | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 0 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 20.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2005. Variety - Pioneer 33B54.
2. Kernal Guard added to hopper boxes.
3. Broadcast 133 lb/acre of 0-0-60 in the Spring.
4. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
5. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
6. Preemergence applications made 05/10/2005.
7. 3 WAP application made 05/30/2005.
8. 4 WAP application made 06/06/2005.
9. 5 WAP application made 06/16/2005.
10. 6 WAP application made 06/20/2005.
11. Study harvested 09/18/2005.

| APPL. NUMBER | 01 | 02 | 03 | 04 | 05 | UNIT |
|------------------|-----------|-----------|-----------|----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | 03 | 04 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-30-05 | 06-06-05 | 06-16-05 | 06-20-05 | 05-10-05 | USA |
| TIME - BEGIN | 12:00 | 16:00 | 11:30 | 17:30 | 18:00 | 24H |
| TIME - END | 13:00 | 16:15 | 12:00 | 18:00 | 19:00 | 24H |
| AIR TEMPERATURE | 70 | 78 | 74 | 74 | 63 | F |
| % REL. HUMIDITY | 60 | 70 | 50 | 50 | 35 | |
| WIND DIRECTION | WEST | SOUTH | SOUTH | WEST | SOUTHWEST | |
| WIND SPEED | 3.0 | 3.0 | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | OVERCAST | PARTCLDY | PARTCLDY | CLEAR | |
| DEW | NO | NO | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | MOIST/MOI | DRY/MOIST | DRY/DRY | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | --- | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 68/4.00 | 80/4.00 | 70/4.00 | 74/4.00 | 70/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | WATER | WATER | |
| INC. DATE | | | | | | USA |
| INC. START | | | | | | 24H |
| INC. END | | | | | | 24H |
| INC. DEPTH | | | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | --- | --- | |

* TIMING CODES
 00 = POSPOS / POSTEMERGENCE - 3 WAP
 01 = POSPOS / POSTEMERGENCE - 4 WAP
 02 = POSPOS / POSTEMERGENCE - 5 WAP
 03 = POSPOS / POSTEMERGENCE - 6 WAP
 04 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION
 01 = SS-8003
 02 = SS-8003
 03 = SS-8003
 04 = SS-8003
 05 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54
 TARGET: CROP SITE: FG POPULATION: 27000.00 IPA PLANTED: 05-10-2005
 INFESTATION DATE: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------------|-------|
| 05-10-2005 | 00 | MED | 27000.00 | IPA | . | . IN | NA | |
| 05-30-2005 | 13 | MED | 27000.00 | IPA | 6.00 | 6.00 IN | TUR | |
| 06-06-2005 | 15 | MED | 27000.00 | IPA | 12.00 | 12.00 IN | TUR | |
| 06-10-2005 | 16 | MED | 27000.00 | IPA | 22.00 | 22.00 IN | TUR | |
| 06-20-2005 | 17 | MED | 27000.00 | IPA | 24.00 | 24.00 IN | TUR | |

02 P XANST - COCKLEBUR, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------------|-------|
| 05-30-2005 | 14 | HGH | 4.00 | SQF | 3.00 | 3.00 IN | TUR | |
| 06-06-2005 | 14 | HGH | 4.00 | SQF | 7.00 | 7.00 IN | TUR | |
| 06-16-2005 | 18 | HGH | 4.00 | SQF | 16.00 | 16.00 IN | TUR | |
| 06-20-2005 | 19 | HGH | 4.00 | SQF | 18.00 | 18.00 IN | TUR | |

03 P AMBEL - RAGWEED, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|----------|------------|-------|
| 05-30-2005 | 14 | MED | 2.00 | SQF | 1.00 | 1.00 IN | TUR | |
| 06-06-2005 | 16 | MED | 2.00 | SQF | 6.00 | 6.00 IN | TUR | |
| 06-16-2005 | 18 | MED | 2.00 | SQF | 12.00 | 12.00 IN | --- | |
| 06-20-2005 | 19 | MED | 2.00 | SQF | 15.00 | 15.00 IN | TUR | |

04 P IPOHE - MORNINGGLORY, IVYLEAF, ANNUAL
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-30-2005 | 10 | MED | 1.00 | SQF | 1.00 | 1.00 IN | TUR | |
| 06-06-2005 | 12 | MED | 1.00 | SQF | 2.00 | 2.00 IN | TUR | |

05 P SETFA - FOXTAIL, GIANT
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-30-2005 | 12 | MED | 3.00 | SQF | 0.50 | 0.50 IN | TUR | |
| 06-06-2005 | 13 | MED | 3.00 | SQF | 3.00 | 3.00 IN | TUR | |

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)
 13 = 3 LEAVES UNFOLDED
 15 = 5 LEAVES UNFOLDED
 16 = 6 LEAVES UNFOLDED
 17 = 7 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

10 = 1ST LEAF EMERGED; COTYLEDONS UNFOLDED
 12 = 2ND TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 16 = 6TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 18 = 8TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

13 = 3 LEAVES UNFOLDED

TITLE: GLYPHOSATE TANK-MIX TIMING STUDY IN CONVENTIONAL CORN
CREATED: 03-25-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|-----------------------------------|--------|------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 |
| 2A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 82 | 90 | 28 | 90 | 27 |
| 3A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 93 | 100 | 70 | 100 | 60 |
| B»DPX-E9636 (25DF) | 0.0156 | LAA | 0 | | | | | |
| C»HARMONY GT (75WG) | 0.006 | LAA | 0 | | | | | |
| D OTHER | | | 0 | | | | | |
| 4A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 92 | 100 | 73 | 97 | 67 |
| B»DPX-E9636 (25DF) | 0.023 | LAA | 0 | | | | | |
| C»HARMONY GT (75WG) | 0.009 | LAA | 0 | | | | | |
| D OTHER | | | 0 | | | | | |
| 5A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 90 | 100 | 43 | 100 | 33 |
| 6A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 92 | 100 | 97 | 100 | 97 |
| B»DPX-E9636 (25DF) | 0.0156 | LAA | 1 | | | | | |
| C»HARMONY GT (75WG) | 0.006 | LAA | 1 | | | | | |
| D OTHER | | | 1 | | | | | |
| 7A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 93 | 98 | 100 | 98 | 93 |
| B»DPX-E9636 (25DF) | 0.023 | LAA | 1 | | | | | |
| C»HARMONY GT (75WG) | 0.009 | LAA | 1 | | | | | |
| D OTHER | | | 1 | | | | | |
| 8A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 100 | 100 | 97 | 97 |
| 9A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 100 | 100 | 100 | 100 |
| B»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | | |
| C»HARMONY GT (75WG) | 0.006 | LAA | 2 | | | | | |
| D OTHER | | | 2 | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 0 | 100 | 100 | 100 | 100 |
| B»DPX-E9636 (25DF) | 0.023 | LAA | 2 | | | | | |
| C»HARMONY GT (75WG) | 0.009 | LAA | 2 | | | | | |
| D OTHER | | | 2 | | | | | |
| 11A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | 0 | 100 | 100 | 100 | 100 |
| 12A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | 0 | 98 | 100 | 100 | 97 |
| B»DPX-E9636 (25DF) | 0.0156 | LAA | 3 | | | | | |
| C»HARMONY GT (75WG) | 0.006 | LAA | 3 | | | | | |
| D OTHER | | | 3 | | | | | |
| 13A»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | 0 | 100 | 100 | 97 | 100 |
| B»DPX-E9636 (25DF) | 0.023 | LAA | 3 | | | | | |
| C»HARMONY GT (75WG) | 0.009 | LAA | 3 | | | | | |
| D OTHER | | | 3 | | | | | |
| 14A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 4 | 57 | 100 | 42 | 100 | 22 |
| 15A»BICEP II MAGNUM (5.5SC) | 1.45 | LAA | 4 | 93 | 100 | 70 | 100 | 58 |
| E»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 4 | 0 | 0 | 0 | 0 | 0 |
| LSD (0.05) | | | | 21.23 | 4.00 | 21.43 | 5.77 | 15.67 |
| SIGNIFICANCE OF F | | | | ** | ** | ** | ** | ** |
| STANDARD DEVIATION | | | | 10.39 | 2.00 | 10.50 | 2.83 | 7.67 |
| COEFFICIENT OF VARIANCE | | | | 29.45 | 2.80 | 18.31 | 4.00 | 14.32 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 15 | 39 | 39 | 56 | 56 |
| DAT APPLICATION # 02 TIMINGS (01) | | | | 8 | 32 | 32 | 49 | 49 |
| DAT APPLICATION # 03 TIMINGS (02) | | | | NA | 22 | 22 | 39 | 39 |
| DAT APPLICATION # 04 TIMINGS (03) | | | | NA | 18 | 18 | 35 | 35 |
| DAT APPLICATION # 05 TIMINGS (04) | | | | 35 | 59 | 59 | 76 | 76 |

TITLE: GLYPHOSATE TANK-MIX TIMING STUDY IN CONVENTIONAL CORN
CREATED: 03-25-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT | TREATMENT | DOSAGE | | | CON % | 006 RAW | 007 RAW | 007 CALC |
|-----|-----------------------------------|--------|------|----|-------------------------|----------|----------|----------|
| | | RATE | UNIT | TM | | 07-25-05 | 09-18-05 | 09-18-05 |
| NUM | COMPONENT | | | | P IPOHE | P ZEAMX | P ZEAMX | |
| | | | | | | VAR 01 | VAR 01 | |
| | | | | | PL ALL | YLD LB | YLD BU | |
| | | | | | | PL SD | A SD | |
| 1A | UNTREATED CHECK | 0.00 | NA | 4 | 0 | 4.5 | 31.4 | |
| 2A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 25 | 26.7 | 187.3 | |
| 3A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 60 | 25.6 | 179.9 | |
| | B»DPX-E9636 (25DF) | 0.0156 | LAA | 0 | | | | |
| | C»HARMONY GT (75WG) | 0.006 | LAA | 0 | | | | |
| | D OTHER | | | 0 | | | | |
| 4A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 0 | 50 | 22.7 | 159.5 | |
| | B»DPX-E9636 (25DF) | 0.023 | LAA | 0 | | | | |
| | C»HARMONY GT (75WG) | 0.009 | LAA | 0 | | | | |
| | D OTHER | | | 0 | | | | |
| 5A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 17 | 21.6 | 151.8 | |
| 6A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 28 | 25.9 | 181.7 | |
| | B»DPX-E9636 (25DF) | 0.0156 | LAA | 1 | | | | |
| | C»HARMONY GT (75WG) | 0.006 | LAA | 1 | | | | |
| | D OTHER | | | 1 | | | | |
| 7A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | 43 | 20.0 | 140.3 | |
| | B»DPX-E9636 (25DF) | 0.023 | LAA | 1 | | | | |
| | C»HARMONY GT (75WG) | 0.009 | LAA | 1 | | | | |
| | D OTHER | | | 1 | | | | |
| 8A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 10 | 14.2 | 99.8 | |
| 9A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 17 | 22.9 | 160.9 | |
| | B»DPX-E9636 (25DF) | 0.0156 | LAA | 2 | | | | |
| | C»HARMONY GT (75WG) | 0.006 | LAA | 2 | | | | |
| | D OTHER | | | 2 | | | | |
| 10A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 2 | 40 | 19.1 | 134.0 | |
| | B»DPX-E9636 (25DF) | 0.023 | LAA | 2 | | | | |
| | C»HARMONY GT (75WG) | 0.009 | LAA | 2 | | | | |
| | D OTHER | | | 2 | | | | |
| 11A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | 23 | 19.7 | 138.2 | |
| 12A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | 27 | 15.5 | 108.9 | |
| | B»DPX-E9636 (25DF) | 0.0156 | LAA | 3 | | | | |
| | C»HARMONY GT (75WG) | 0.006 | LAA | 3 | | | | |
| | D OTHER | | | 3 | | | | |
| 13A | »ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 3 | 43 | 17.6 | 123.4 | |
| | B»DPX-E9636 (25DF) | 0.023 | LAA | 3 | | | | |
| | C»HARMONY GT (75WG) | 0.009 | LAA | 3 | | | | |
| | D OTHER | | | 3 | | | | |
| 14A | »BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 4 | 90 | 18.9 | 132.8 | |
| 15A | »BICEP II MAGNUM (5.5SC) | 1.45 | LAA | 4 | 78 | 22.9 | 160.7 | |
| | B»ROUNDUP WEATHER MAX (5.5 SL) | 0.938 | LAA | 1 | | | | |
| 16A | UNTREATED CHECK | 0.00 | NA | 4 | 0 | 6.2 | 43.8 | |
| | | | | | LSD (0.05) | 34.87 | 7.76 | 54.54 |
| | | | | | SIGNIFICANCE OF F | ** | ** | ** |
| | | | | | STANDARD DEVIATION | 17.07 | 3.80 | 26.71 |
| | | | | | COEFFICIENT OF VARIANCE | 60.65 | 24.52 | 24.52 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | | | 56 | 111 | 111 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | | | 49 | 104 | 104 |
| | DAT APPLICATION # 03 TIMINGS (02) | | | | | 39 | 94 | 94 |
| | DAT APPLICATION # 04 TIMINGS (03) | | | | | 35 | 90 | 90 |
| | DAT APPLICATION # 05 TIMINGS (04) | | | | | 76 | 131 | 131 |

TITLE: GLYPHOSATE TANK-MIX TIMING STUDY IN CONVENTIONAL CORN
» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - 3 WAP 05-30-2005(1)
01 = POSPOS / POSTEMERGENCE - 4 WAP 06-06-2005(2)
02 = POSPOS / POSTEMERGENCE - 5 WAP 06-16-2005(3)
03 = POSPOS / POSTEMERGENCE - 6 WAP 06-20-2005(4)
04 = PREPRE / PREEMERGENCE 05-10-2005(5)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR1 | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 001 | KANST | CON % | 06-14-2005 | 02 | P | KANST | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | AMBEL | CON % | 07-08-2005 | 03 | P | AMBEL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | KANST | CON % | 07-08-2005 | 02 | P | KANST | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | AMBEL | CON % | 07-25-2005 | 03 | P | AMBEL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | KANST | CON % | 07-25-2005 | 02 | P | KANST | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | IPOHE | CON % | 07-25-2005 | 04 | P | IPOHE | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | ZEAMX | YLD/PLOT | 09-18-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 01 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 33B54

* USER DEFINED CALCULATIONS

US 003/05/01 001 HT--- 007 -- {RAW}*(7.026)

US 003/05/01 001 HT--- 007 -- {RAW}*(7.026)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 003/05/01 001 HU ALTERNATE ID#: HF 21 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R
 CREATED: 04-11-2005 REVISED: 11-22-2005 COMPLETED: Y
 TITLE: EARLY PREPLANT APPLICATIONS OF CANOPY EX AND SYNCHRONY XP FOR FULL SEASON
 NO-TILL SOYBEANS
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 73 TILLAGE: NOT
 % SILT: 18 PH: 6.3
 % CLAY: 9 CEC: 4.8
 TEXTURE: SL % OM: 1.3
 SOIL GEN: C
 PREVIOUS CROP: GLXMA - SOYBEAN
 % RESIDUE: 30
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 15.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 14 ACTUAL SUB-BLOCKS: 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 30 day preplant applications made 04/27/2005.
2. 15 day preplant applications made 05/11/2005.
3. Study planted 05/28/2005. Variety - Pioneer 93M94 - stacked RR./STS.
4. Preemergence applications made 05/28/2005.
5. Study harvested 11/18/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 04-27-05 | 05-11-05 | 05-28-05 | USA |
| TIME - BEGIN | 17:30 | 13:00 | 13:00 | 24H |
| TIME - END | 18:00 | 14:00 | 13:30 | 24H |
| AIR TEMPERATURE | 68 | 65 | 70 | F |
| % REL. HUMIDITY | 35 | 45 | 40 | |
| WIND DIRECTION | WEST | SOUTHEAST | SOUTH | |
| WIND SPEED | 3.0 | 3.0 | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | OVERCAST | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | DRY/DRY | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | 65/4.00 | 72/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPLA / 30 DAYS PREPLANT
01 = PREPLA / 15 DAYS PREPLANT
02 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = SS-8003

01 P ERICA - HORSEWEED

TARGET: PEST SITE: FG PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 04-27-2005 | 18 | HGH | 10.00 SQF | 1.00 | 1.00 | 1.00 IN | TUR | |
| 05-11-2005 | 19 | HGH | 10.00 SQF | 2.00 | 2.00 | 2.00 IN | TUR | |
| 05-28-2005 | 19 | HGH | 10.00 SQF | 5.00 | 5.00 | 5.00 IN | TUR | |

02 P GLXMA - SOYBEAN

CULTIVAR: PIONEER 93M94

TARGET: CROP SITE: FG POPULATION: 4.50 FTR PLANTED: 05-28-2005

PLANTING DEPTH: 1.2 IN ROW WIDTH: 15.0 IN

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 04-27-2005 | 00 | --- | | IND | . | . IN | NA | |
| 05-11-2005 | 00 | --- | | IND | . | . IN | NA | |
| 05-28-2005 | 00 | MED | 4.50 FTR | . | . | . IN | NA | |

* STAGE CODE -- GENERAL

18 = 8TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED

TITLE: EARLY PREPLANT APPLICATIONS OF CANOPY EX AND SYNCHRONY XP FOR FULL SEASON NO-TILL SOYBEANS

CREATED: 04-11-2005 REVISED: 11-22-2005

COMPLETED: Y

PROJECT TYPE: HERBICIDE

LOCATION: HAYDEN FARM

RESEARCHED BY: RITTER AND MENBERE

DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN

PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG

REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | | | | | |
|--------------------------------|--------|------|----|-------------------------|-----------------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PHY % PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 001 RAW 06-02-05 P ERICA | | | | | | | | | |
| 002 RAW 06-08-05 P GLXMA | | | | | | | | | |
| 003 RAW 06-08-05 P ERICA | | | | | | | | | |
| 004 RAW 06-23-05 P ERICA | | | | | | | | | |
| 005 RAW 07-07-05 P ERICA | | | | | | | | | |
| | | | | | VAR 02 PHY % | | | | |
| | | | | | CON % | | | | |
| | | | | | CON % | | | | |
| | | | | | CON % | | | | |
| | | | | | CON % | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A CLASSIC (25WG) | 0.0156 | LAA | 0 | 62 | 0 | 60 | 18 | 0 | |
| B»EXPRESS (75 WG) | 0.005 | LAA | 0 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 3A CLASSIC (25WG) | 0.0312 | LAA | 0 | 75 | 0 | 67 | 25 | 13 | |
| B»EXPRESS (75 WG) | 0.009 | LAA | 0 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 4A CLASSIC (25WG) | 0.0468 | LAA | 0 | 83 | 0 | 82 | 57 | 38 | |
| B»EXPRESS (75 WG) | 0.014 | LAA | 0 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 5A CLASSIC (25WG) | 0.0156 | LAA | 1 | 58 | 0 | 72 | 45 | 32 | |
| B»EXPRESS (75 WG) | 0.005 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | | | |
| 6A CLASSIC (25WG) | 0.0312 | LAA | 1 | 67 | 3 | 80 | 58 | 38 | |
| B»EXPRESS (75 WG) | 0.009 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | | | |
| 7A CLASSIC (25WG) | 0.0468 | LAA | 1 | 77 | 0 | 87 | 62 | 37 | |
| B»EXPRESS (75 WG) | 0.014 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | | | |
| 8A CLASSIC (25WG) | 0.013 | LAA | 1 | 60 | 0 | 70 | 43 | 25 | |
| B»HARMONY GT (75WG) | 0.004 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | | | |
| 9A CLASSIC (25WG) | 0.027 | LAA | 1 | 75 | 0 | 82 | 53 | 37 | |
| B»HARMONY GT (75WG) | 0.009 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | | | |
| 10A CLASSIC (25WG) | 0.04 | LAA | 1 | 87 | 0 | 87 | 75 | 57 | |
| B»HARMONY GT (75WG) | 0.013 | LAA | 1 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | | | |
| 11A CLASSIC (25WG) | 0.013 | LAA | 2 | 7 | 0 | 25 | 20 | 10 | |
| B»HARMONY GT (75WG) | 0.004 | LAA | 2 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | | | |
| 12A CLASSIC (25WG) | 0.027 | LAA | 2 | 13 | 0 | 32 | 22 | 13 | |
| B»HARMONY GT (75WG) | 0.009 | LAA | 2 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | | | |
| 13A CLASSIC (25WG) | 0.04 | LAA | 2 | 13 | 0 | 35 | 30 | 27 | |
| B»HARMONY GT (75WG) | 0.013 | LAA | 2 | | | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 12.68 | 2.07 | 13.49 | 23.53 | 26.28 |
| | | | | SIGNIFICANCE OF F | ** | ns | ** | ** | ** |
| | | | | STANDARD DEVIATION | 6.17 | 1.00 | 6.56 | 11.44 | 12.78 |
| | | | | COEFFICIENT OF VARIANCE | 15.63 | 648.07 | 14.49 | 38.60 | 67.10 |

TITLE: EARLY PREPLANT APPLICATIONS OF CANOPY EX AND SYNCHRONY XP FOR FULL SEASON NO-TILL SOYBEANS

| | | | | | |
|-----------------------------------|----|----|----|----|----|
| DAT APPLICATION # 02 TIMINGS (01) | 22 | 28 | 28 | 43 | 57 |
| DAT APPLICATION # 03 TIMINGS (02) | 5 | 11 | 11 | 26 | 40 |

TITLE: EARLY PREPLANT APPLICATIONS OF CANOPY EX AND SYNCHRONY XP FOR FULL SEASON NO-TILL SOYBEANS

CREATED: 04-11-2005 REVISED: 11-22-2005

COMPLETED: Y

PROJECT TYPE: HERBICIDE

LOCATION: HAYDEN FARM

RESEARCHED BY: RITTER AND MENBERE

DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN

PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG

REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | TM | 006 RAW | 007 RAW | 007 CALC |
|--------------------------------|--------|-------------------------|--------|---------------|---------------------------|--------------------------|---------------------|
| | RATE | UNIT | PL ALL | | 07-25-05 P ERICA | 11-18-05 P GLXMA | 11-18-05 P GLXMA |
| | | | | CON % 1.00 | VAR 02 YLD LB PL SD | VAR 02 YLD BU A SD | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 2.1 | 10.1 | |
| 2A CLASSIC (25WG) | 0.0156 | LAA | 0 | 0 | 2.0 | 9.8 | |
| B»EXPRESS (75 WG) | 0.005 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 3A CLASSIC (25WG) | 0.0312 | LAA | 0 | 7 | 2.2 | 10.5 | |
| B»EXPRESS (75 WG) | 0.009 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 4A CLASSIC (25WG) | 0.0468 | LAA | 0 | 35 | 2.9 | 14.2 | |
| B»EXPRESS (75 WG) | 0.014 | LAA | 0 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 0 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 5A CLASSIC (25WG) | 0.0156 | LAA | 1 | 23 | 2.2 | 10.8 | |
| B»EXPRESS (75 WG) | 0.005 | LAA | 1 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | |
| 6A CLASSIC (25WG) | 0.0312 | LAA | 1 | 28 | 1.9 | 9.2 | |
| B»EXPRESS (75 WG) | 0.009 | LAA | 1 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | |
| 7A CLASSIC (25WG) | 0.0468 | LAA | 1 | 30 | 2.4 | 11.6 | |
| B»EXPRESS (75 WG) | 0.014 | LAA | 1 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | |
| 8A CLASSIC (25WG) | 0.013 | LAA | 1 | 18 | 3.2 | 15.7 | |
| B»HARMONY GT (75WG) | 0.004 | LAA | 1 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | |
| 9A CLASSIC (25WG) | 0.027 | LAA | 1 | 33 | 4.3 | 20.6 | |
| B»HARMONY GT (75WG) | 0.009 | LAA | 1 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | |
| 10A CLASSIC (25WG) | 0.04 | LAA | 1 | 50 | 4.8 | 23.2 | |
| B»HARMONY GT (75WG) | 0.013 | LAA | 1 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 1 | | | | |
| 11A CLASSIC (25WG) | 0.013 | LAA | 2 | 0 | 2.1 | 10.0 | |
| B»HARMONY GT (75WG) | 0.004 | LAA | 2 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | |
| 12A CLASSIC (25WG) | 0.027 | LAA | 2 | 7 | 3.0 | 14.4 | |
| B»HARMONY GT (75WG) | 0.009 | LAA | 2 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | |
| 13A CLASSIC (25WG) | 0.04 | LAA | 2 | 10 | 1.9 | 9.0 | |
| B»HARMONY GT (75WG) | 0.013 | LAA | 2 | | | | |
| C ADJUVANT - COC (EC) | 1.00 | PMV | 2 | | | | |
| 14A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 1.1 | 5.2 | |
| | | LSD (0.05) | | 25.94 | 1.50 | 7.29 | |
| | | SIGNIFICANCE OF F | | ** | ** | ** | |
| | | STANDARD DEVIATION | | 12.61 | 0.732 | 3.55 | |
| | | COEFFICIENT OF VARIANCE | | 89.50 | 34.82 | 34.88 | |

TITLE: EARLY PREPLANT APPLICATIONS OF CANOPY EX AND SYNCHRONY XP FOR FULL SEASON NO-TILL SOYBEANS

DAT APPLICATION # 02 TIMINGS (01) 75 191 191
 DAT APPLICATION # 03 TIMINGS (02) 58 174 174

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / 30 DAYS PREPLANT 04-27-2005(1)
 01 = PREPLA / 15 DAYS PREPLANT 05-11-2005(2)
 02 = PREPRE / PREEMERGENCE 05-28-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|-------|----|------|
| 001 | ERICA | CON % | 06-02-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | GLXMA | PHYTO % | 06-08-2005 | 02 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | ERICA | CON % | 06-08-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ERICA | CON % | 06-23-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 07-07-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | ERICA | CON % | 07-25-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | GLXMA | LB/PLOT | 11-18-2005 | 02 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 02 = PIONEER 93M94

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = PIONEER 93M94

* USER DEFINED CALCULATIONS

US 003/05/01 001 HU--- 007 -- {RAW} * (4.84)

US 003/05/01 001 HU--- 007 -- {RAW} * (4.84)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 003/05/01 001 HV **ALTERNATE ID#:** HF 22 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** HF 2005
CREATED BY: US RITTER R
CREATED: 04-11-2005 **REVISED:** 11-22-2005 **COMPLETED:** Y
TITLE: USE OF GRAMOXONE INTEON FOR FULL SEASON NO-TILL SOYBEANS
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER **DATA SOURCE:** UNIVERSITY
LOCATION: HAYDEN FARM **TYPE:** FIELD TRIAL
CITY: BELTSVILLE **STATE:** MARYLAND
COUNTY: PRINCE GEORGE'S **ZIP:** 20705
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 73 **TILLAGE:** NOT
% SILT: 18 **PH:** 6.3
% CLAY: 9 **CEC:** 4.8
TEXTURE: SL **% OM:** 1.3
SOIL GEN: C
PREVIOUS CROP: GLXMA - SOYBEAN
% RESIDUE: 35
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** EFF
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 16 **ACTUAL SUB-BLOCKS:** 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 7 day preplant applications made 05/18/2005.
2. Study planted 05/28/2005. Variety - Pioneer 93M94 - stacked RR/STS.
3. Early postemergence applications made 06/16/2005.
4. Mid-postemergence applications made 06/27/2005.
5. Study harvested 11/13/2005.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|-----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-18-05 | 06-16-05 | 06-27-05 | USA |
| TIME - BEGIN | 11:00 | 12:30 | 12:00 | 24H |
| TIME - END | 12:00 | 13:00 | 13:00 | 24H |
| AIR TEMPERATURE | 66 | 74 | 80 | F |
| % REL. HUMIDITY | 70 | 50 | 60 | |
| WIND DIRECTION | NORTHWEST | SOUTH | NORTHEAST | |
| WIND SPEED | 2.0 | 3.0 | 3.0 | M/H |
| CLOUD COVER | CLOUDY | CLOUDY | CLOUDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | DRY/MOIST | DRY/MOIST | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 63/4.00 | 70/4.00 | 78/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPLA / 7 DAYS PREPLANT
01 = POSPOS / EARLY POSTEMERGENCE - V3
02 = MID POS / MID-POSTEMERGENCE - WEEDS 4 TO 6 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = SS-8003

01 P ERICA - HORSEWEED
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MK SIZE AV SIZE CROP VIGOR NOTES
 05-18-2005 19 LOW 1.00 SQY 6.00 6.00 6.00 IN TUR

02 P GLXMA - SOYBEAN **CULTIVAR:** PIONEER 93M94
TARGET: CROP **SITE:** FG **POPULATION:** 4.50 FTR **PLANTED:** 05-28-2005
PLANTING DEPTH: 1.2 IN **ROW WIDTH:** 15.0 IN
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MK SIZE AV SIZE CROP VIGOR NOTES
 05-18-2005 00 --- IND . . . IN NA
 05-28-2005 00 MED 4.50 FTR . . . IN NA
 06-16-2005 14 MED 4.50 FTR 5.00 5.00 5.00 IN TUR
 06-27-2005 15 MED 4.50 FTR 7.00 7.00 7.00 IN TUR

03 P SETFA - FOXTAIL, GIANT **PLANTED:**
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MK SIZE AV SIZE CROP VIGOR NOTES
 06-16-2005 13 HGH 10.00 SQF 6.00 6.00 6.00 IN TUR
 06-27-2005 14 HGH 10.00 SQF 7.00 7.00 7.00 IN TUR

04 P AMBEL - RAGWEED, COMMON **PLANTED:**
TARGET: PEST **SITE:** FG
INFESTATION DATE: - - **METHOD:** NA
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MK SIZE AV SIZE CROP VIGOR NOTES
 05-18-2005 00 --- IND . . . IN ---

- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- GENERAL GRASS**
- 13 = 3 LEAVES UNFOLDED
- 14 = 4 LEAVES UNFOLDED
- * **STAGE CODE -- SOYBEAN**
- 00 = DRY SEED
- 14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES
- 15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES

TITLE: USE OF GRAMOXONE INTEON FOR FULL SEASON NO-TILL SOYBEANS
CREATED: 04-11-2005 **REVISED:** 11-22-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|-----------------------------------|--------|------|----|--------|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 92 | 93 | 92 | 92 | 98 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| C>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 3A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 93 | 93 | 93 | 97 | 100 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| C>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 4A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 92 | 95 | 95 | 97 | 100 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| C>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 5A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 98 | 100 | 100 | 100 | 93 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 6A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 97 | 97 | 98 | 98 | 98 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 7A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 100 | 100 | 100 | 100 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 8A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 93 | 92 | 90 | 93 | 100 |
| B>A14972A (5.3EC) | 1.30 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 9A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 97 | 95 | 93 | 93 | 100 |
| B>A14972A (5.3EC) | 1.30 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 10A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 97 | 97 | 97 | 98 | 100 |
| B>A14972A (5.3EC) | 1.30 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 11A>GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 93 | 95 | 98 | 98 | 100 |
| B>BOUNDARY (6.5EC) | 1.58 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |
| 12A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 100 | 100 | 100 | 97 |
| B>BOUNDARY (6.5EC) | 1.58 | LAA | 0 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | | |

TITLE: USE OF GRAMOXONE INTEON FOR FULL SEASON NO-TILL SOYBEANS

| TRT TREATMENT NUM COMPONENT | DOSAGE | | CON % | | CON % | | CON % | | CON % | |
|-----------------------------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| | RATE | UNIT TM | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL |
| 001 RAW | | | | | | | | | | |
| 002 RAW | | | | | | | | | | |
| 003 RAW | | | | | | | | | | |
| 004 RAW | | | | | | | | | | |
| 005 RAW | | | | | | | | | | |
| 06-02-05 | | | | | | | | | | |
| 06-08-05 | | | | | | | | | | |
| 06-23-05 | | | | | | | | | | |
| 07-07-05 | | | | | | | | | | |
| 07-25-05 | | | | | | | | | | |
| P ERICA | | | | | | | | | | |
| P ERICA | | | | | | | | | | |
| P ERICA | | | | | | | | | | |
| P ERICA | | | | | | | | | | |
| P SETFA | | | | | | | | | | |
| 1.00 | | | | | | | | | | |
| 1.00 | | | | | | | | | | |
| 1.00 | | | | | | | | | | |
| 1.00 | | | | | | | | | | |
| 1.00 | | | | | | | | | | |
| 13A»GRAMOXONE INTEON (2SL) | 0.97 | LAA 0 | 93 | 98 | 98 | 100 | 97 | | | |
| B»BOUNDARY (6.5EC) | 1.58 | LAA 0 | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV 0 | | | | | | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA 2 | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA 2 | | | | | | | | |
| 14A»GRAMOXONE INTEON (2SL) | 0.73 | LAA 0 | 90 | 93 | 92 | 100 | 100 | | | |
| B (G) 2,4-D-ESTER (4EC) | 0.50 | LAA 0 | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV 0 | | | | | | | | |
| D»SEQUENCE (5.25SL) | 1.60 | LAA 1 | | | | | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA 1 | | | | | | | | |
| 15A»ROUNDUP WEATHER MAX (5.5 SL) | 0.75 | LAA 0 | 97 | 98 | 100 | 100 | 100 | | | |
| B»ROUNDUP WEATHER MAX (5.5 SL) | 0.75 | LAA 2 | | | | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA 2 | 0 | 0 | 0 | 0 | 0 | | | |
| LSL (0.05) | | | 5.75 | 6.55 | 7.27 | 6.00 | 4.35 | | | |
| SIGNIFICANCE OF F | | | ** | ** | ** | ** | ** | | | |
| STANDARD DEVIATION | | | 2.82 | 3.21 | 3.56 | 2.94 | 2.13 | | | |
| COEFFICIENT OF VARIANCE | | | 4.15 | 4.67 | 5.18 | 4.21 | 3.00 | | | |
| DAT APPLICATION # 01 TIMINGS (00) | | | 15 | 21 | 36 | 50 | 68 | | | |
| DAT APPLICATION # 02 TIMINGS (01) | | | NA | NA | 7 | 21 | 39 | | | |
| DAT APPLICATION # 03 TIMINGS (02) | | | NA | NA | NA | 10 | 28 | | | |

TITLE: USE OF GRAMOXONE INTEON FOR FULL SEASON NO-TILL SOYBEANS
CREATED: 04-11-2005 **REVISED:** 11-22-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 007 CALC |
|-----------------------------------|--------|------|----|-------------------------|---------------------------|--------------------------|
| | RATE | UNIT | TM | 07-25-05 P AMBEL | 11-13-05 P GLXMA | 11-13-05 P GLXMA |
| | | | | CON % 1.00 PL ALL | VAR 02 YLD LB PL SD | VAR 02 YLD BU A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 7.9 | 28.7 |
| 2A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 17.2 | 62.3 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| C»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 3A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 15.6 | 56.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| C»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 4A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 16.8 | 61.0 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| C»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| D FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 5A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 17.4 | 63.3 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 6A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 18.7 | 67.9 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 7A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 18.2 | 66.2 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 8A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 15.6 | 56.6 |
| B»A14972A (5.3EC) | 1.30 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 9A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 18.2 | 66.2 |
| B»A14972A (5.3EC) | 1.30 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 10A»GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 16.4 | 59.6 |
| B»A14972A (5.3EC) | 1.30 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 11A»GRAMOXONE INTEON (2SL) | 0.61 | LAA | 0 | 100 | 17.2 | 62.6 |
| B»BOUNDARY (6.5EC) | 1.58 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |
| 12A»GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 17.0 | 61.8 |
| B»BOUNDARY (6.5EC) | 1.58 | LAA | 0 | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | |
| D»TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | |

TITLE: USE OF GRAMOXONE INTEON FOR FULL SEASON NO-TILL SOYBEANS

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | VAR 02 | VAR 02 | |
|-----------------------------------|--------|------|----|-----------------------------------|-----------------|----------------|-------|
| | RATE | UNIT | TM | PL ALL | YLD LB PL SD | YLD BU A SD | |
| 13A>GRAMOXONE INTEON (2SL) | 0.97 | LAA | 0 | 100 | 18.3 | 66.3 | |
| B>BOUNDARY (6.5EC) | 1.58 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| D>TOUCHDOWN TOTAL (4.17AE) | 0.763 | LAA | 2 | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 2 | | | | |
| 14A>GRAMOXONE INTEON (2SL) | 0.73 | LAA | 0 | 100 | 18.2 | 65.9 | |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| D>SEQUENCE (5.25SL) | 1.60 | LAA | 1 | | | | |
| E FERTILIZER-21% AMMONIUM SULFATE | 2.50 | LMA | 1 | | | | |
| 15A>ROUNDUP WEATHER MAX (5.5 SL) | 0.75 | LAA | 0 | 100 | 17.7 | 64.4 | |
| B>ROUNDUP WEATHER MAX (5.5 SL) | 0.75 | LAA | 2 | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 2 | 0 | 7.2 | 26.0 | |
| | | | | LSD (0.05) | 0.00 | 2.93 | 10.63 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 1.43 | 5.21 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 10.91 | 10.91 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 68 | 179 | 179 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 39 | 150 | 150 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 28 | 139 | 139 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / 7 DAYS PREPLANT 05-18-2005(1)
 01 = POSPOS / EARLY POSTEMERGENCE - V3 06-16-2005(2)
 02 = MID POS / MID-POSTEMERGENCE - WEEDS 4 TO 6 INCHES 06-27-2005(3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|------|---------|-----|------|----|------|
| 001 | ERICA | CON % | 06-02-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | ERICA | CON % | 06-08-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | ERICA | CON % | 06-23-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ERICA | CON % | 07-07-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | SETFA | CON % | 07-25-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | AMBEL | CON % | 07-25-2005 | 04 | P | AMBEL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | GLXMA | LB/PLOT | 11-13-2005 | 02 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

* VARIETY CODES

VAR 02 = PIONEER 93M94

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = PIONEER 93M94

* USER DEFINED CALCULATIONS

US 003/05/01 001 HV--- 007 -- {RAW} * (3.63)

US 003/05/01 001 HV--- 007 -- {RAW} * (3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HW ALTERNATE ID#: HF 23 2005
 PROTOCOL#: US 003/05/01 ALTERNATE ID#: HF 2005
 CREATED BY: US RITTER R REVISED: 10-19-2005 COMPLETED: Y
 TITLE: KNOCKOUT EXTRA COMPARISONS IN NO-TILL CORN
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. KEVIN CONOVER DATA SOURCE: UNIVERSITY
 LOCATION: HAYDEN FARM TYPE: FIELD TRIAL
 CITY: BELTSVILLE STATE: MARYLAND
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 73 TILLAGE: NOT
 % SILT: 18 PH: 6.3
 % CLAY: 9 CEC: 4.8
 TEXTURE: SL % OM: 1.3
 SOIL GEN: C
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 50
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: EFF
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2005. Variety - Pioneer 33B54.
2. Kernal Guard added to hopper boxes.
3. Broadcast 133 lb/acre of 0-0-60 in the Spring.
4. 5 gal/acre of 9-18-19-1S applied as pop-up fertilizer.
5. 10 gal/acre of 22-0-0-5S applied as starter fertilizer solution.
6. Preemergence applications made 05/11/2005.
7. Study harvested 09/20/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-11-05 | USA |
| TIME - BEGIN | 11:30 | 24H |
| TIME - END | 12:30 | 24H |
| AIR TEMPERATURE | 65 | F |
| % REL. HUMIDITY | 60 | |
| WIND DIRECTION | SOUTHEAST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | OVERCAST | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 68/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54
TARGET: CROP **SITE:** FG **POPULATION:** 27000.00 IPA **PLANTED:** 05-10-2005
PLANTING DEPTH: 1.5 IN **ROW WIDTH:** 30.0 IN
INFESTATION DATE: - - **METHOD:** NA
STAGE ON **STAGE CODE** **POP.GEN.** **POPULATION** **MN SIZE** **MX SIZE** **AV SIZE** **CROP VIGOR** **NOTES**
05-11-2005 00 MED 27000.00 IPA . . . IN NA

02 P ERICA - HORSEWEED
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON **STAGE CODE** **POP.GEN.** **POPULATION** **MN SIZE** **MX SIZE** **AV SIZE** **CROP VIGOR** **NOTES**
05-11-2005 19 LOW 1.00 SQY 6.00 6.00 6.00 IN TUR

03 P STEME - CHICKWEED, COMMON
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON **STAGE CODE** **POP.GEN.** **POPULATION** **MN SIZE** **MX SIZE** **AV SIZE** **CROP VIGOR** **NOTES**
05-11-2005 91 MED 1.00 SQF 8.00 8.00 8.00 IN TUR

04 P DIGSA - CRABGRASS, LARGE, SOUTHERN
TARGET: PEST **SITE:** FG **PLANTED:**
INFESTATION DATE: - - **METHOD:** NA
STAGE ON **STAGE CODE** **POP.GEN.** **POPULATION** **MN SIZE** **MX SIZE** **AV SIZE** **CROP VIGOR** **NOTES**
05-10-2005 00 --- IND . . . IN ---

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- * **STAGE CODE -- GENERAL**
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 91 = SHOOT DEVELOPMENT COMPLETED, FOLIAGE STILL GREEN
- * **STAGE CODE -- GENERAL GRASS**
- 00 = DRY SEED (CARYOPSIS)

TITLE: KNOCKOUT EXTRA COMPARISONS IN NO-TILL CORN
 CREATED: 05-02-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % | |
|----------------------------------|--------|------|----|-----------------------------------|----------------|----------------|----------------|----------------|------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | |
| 001 RAW 05-19-05 P STEME | | | | | | | | | |
| 002 RAW 05-19-05 P ERICA | | | | | | | | | |
| 003 RAW 05-26-05 P ERICA | | | | | | | | | |
| 004 RAW 06-08-05 P ERICA | | | | | | | | | |
| 005 RAW 06-24-05 P ERICA | | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 100 | 63 | 92 | 100 | 100 | |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 3A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 100 | 62 | 98 | 100 | 100 | |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 4A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 100 | 78 | 97 | 100 | 100 | |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 5A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 100 | 72 | 97 | 100 | 100 | |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 6A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 100 | 62 | 95 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 7A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 100 | 67 | 98 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 8A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 100 | 68 | 98 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 9A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 100 | 67 | 100 | 100 | 100 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.94 | LAA | 0 | 100 | 63 | 100 | 100 | 100 | |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 11A»TOUCHDOWN TOTAL (5.1SL) | 0.96 | LAA | 0 | 100 | 67 | 98 | 100 | 100 | |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 0.00 | 7.36 | 5.60 | 0.00 | 0.00 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 3.55 | 2.70 | 0.00 | 0.00 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 7.80 | 4.07 | 0.00 | 0.00 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 8 | 8 | 15 | 28 | 44 |

TITLE: KNOCKOUT EXTRA COMPARISONS IN NO-TILL CORN
 CREATED: 05-02-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | VAR 01 |
|----------------------------------|--------|-----------------------------------|----|--------|--------|--------|--------|-----------------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | YLD LB PL SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 3.5 |
| 2A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 75 | 100 | 62 | 55 | 17.9 |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 3A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 80 | 100 | 67 | 63 | 18.2 |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 4A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 85 | 100 | 72 | 65 | 19.3 |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 5A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 85 | 100 | 72 | 67 | 15.4 |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 6A»KNOCKOUT EXTRA (4SL) | 0.75 | LAA | 0 | 90 | 100 | 78 | 68 | 20.2 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 7A»KNOCKOUT EXTRA (4SL) | 1.00 | LAA | 0 | 87 | 100 | 77 | 65 | 18.5 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 8A»KNOCKOUT EXTRA (4SL) | 1.50 | LAA | 0 | 83 | 100 | 68 | 60 | 20.6 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 9A»KNOCKOUT EXTRA (4SL) | 2.00 | LAA | 0 | 85 | 100 | 77 | 72 | 16.8 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| C»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) | 0.94 | LAA | 0 | 80 | 100 | 70 | 67 | 21.2 |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 11A»TOUCHDOWN TOTAL (5.1SL) | 0.96 | LAA | 0 | 80 | 100 | 65 | 57 | 17.0 |
| B»LUMAX (3.94 SE) | 2.46 | LAA | 0 | | | | | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 3.2 |
| | | LSD (0.05) | | 13.83 | 0.00 | 18.20 | 13.58 | 4.81 |
| | | SIGNIFICANCE OF F | | ** | ** | ** | ** | ** |
| | | STANDARD DEVIATION | | 6.67 | 0.00 | 8.77 | 6.55 | 2.32 |
| | | COEFFICIENT OF VARIANCE | | 11.80 | 0.00 | 18.25 | 15.08 | 17.79 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 44 | 57 | 57 | 75 | 132 |

TITLE: KNOCKOUT EXTRA COMPARISONS IN NO-TILL CORN
 CREATED: 05-02-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | VAR 01 YLD BU 1.00 A SD |
|---|--|----------------------------------|
| 1A UNTREATED CHECK | 0.00 NA 0 | 25.2 |
| 2A»KNOCKOUT EXTRA (4SL) B»LUMAX (3.94 SE) | 0.75 LAA 0 2.46 LAA 0 | 129.7 |
| 3A»KNOCKOUT EXTRA (4SL) B»LUMAX (3.94 SE) | 1.00 LAA 0 2.46 LAA 0 | 132.4 |
| 4A»KNOCKOUT EXTRA (4SL) B»LUMAX (3.94 SE) | 1.50 LAA 0 2.46 LAA 0 | 140.4 |
| 5A»KNOCKOUT EXTRA (4SL) B»LUMAX (3.94 SE) | 2.00 LAA 0 2.46 LAA 0 | 111.6 |
| 6A»KNOCKOUT EXTRA (4SL) B SURFACTANT - NON-IONIC (SL) C»LUMAX (3.94 SE) | 0.75 LAA 0 0.25 PMV 0 2.46 LAA 0 | 146.9 |
| 7A»KNOCKOUT EXTRA (4SL) B SURFACTANT - NON-IONIC (SL) C»LUMAX (3.94 SE) | 1.00 LAA 0 0.25 PMV 0 2.46 LAA 0 | 134.0 |
| 8A»KNOCKOUT EXTRA (4SL) B SURFACTANT - NON-IONIC (SL) C»LUMAX (3.94 SE) | 1.50 LAA 0 0.25 PMV 0 2.46 LAA 0 | 149.8 |
| 9A»KNOCKOUT EXTRA (4SL) B SURFACTANT - NON-IONIC (SL) C»LUMAX (3.94 SE) | 2.00 LAA 0 0.25 PMV 0 2.46 LAA 0 | 122.2 |
| 10A»ROUNDUP WEATHER MAX (5.5 SL) B»LUMAX (3.94 SE) | 0.94 LAA 0 2.46 LAA 0 | 153.7 |
| 11A»TOUCHDOWN TOTAL (5.1SL) B»LUMAX (3.94 SE) | 0.96 LAA 0 2.46 LAA 0 | 123.2 |
| 12A UNTREATED CHECK | 0.00 NA 0 | 23.2 |
| | LSD (0.05) | 34.94 |
| | SIGNIFICANCE OF F | ** |
| | STANDARD DEVIATION | 16.85 |
| | COEFFICIENT OF VARIANCE | 17.79 |
| | DAT APPLICATION # 01 TIMINGS (00) | 132 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-11-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | STEME | CON % | 05-19-2005 | 03 | P | STEME | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | ERICA | CON % | 05-19-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | ERICA | CON % | 05-26-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | ERICA | CON % | 06-08-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 06-24-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | DIGSA | CON % | 06-24-2005 | 04 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | ERICA | CON % | 07-07-2005 | 02 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | DIGSA | CON % | 07-07-2005 | 04 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | DIGSA | CON % | 07-25-2005 | 04 | P | DIGSA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 010 | ZEAMX | YLD/PLOT | 09-20-2005 | 01 | P | ZEAMX | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | ZEAMX | YLD/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

*** VARIETY CODES**

VAR 01 = PIONEER 33B54

*** SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)**

01 = PIONEER 33B54

*** USER DEFINED CALCULATIONS**

US 003/05/01 001 HW--- 010 -- {RAW}*(7.26)

US 003/05/01 001 HW--- 010 -- {RAW}*(7.26)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 003/05/01 001 HX ALTERNATE ID#: HF 24 2005
PROTOCOL#: US 003/05/01 ALTERNATE ID#: OF-2005
CREATED BY: US RITTER R
CREATED: 05-13-2005 REVISED: 11-22-2005 COMPLETED: Y
TITLE: MARESTAIL CONTROL IN NO-TILL SOYBEAN

COORDINATOR: US 000 Not Applicable
TRIAL TYPE: HERBICIDE
PROJECT#2:

RESEARCHER: RITTER AND MENBERE
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER

CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA

LOCATION: HAYDEN FARM
CITY: BELTSVILLE

DATA SOURCE: UNIVERSITY
TYPE: FIELD TRIAL
STATE: MARYLAND
ZIP: 20705

COUNTY: PRINCE GEORGE'S
COUNTRY: UNITED STATES

WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 5280.0 FT

WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4

EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 73 TILLAGE: NOT
% SILT: 18 PH: 6.3
% CLAY: 9 CEC: 4.8
TEXTURE: SL % OM: 1.3
SOIL GEN: C

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
ACTUAL REPS: 3 ACTUAL BLOCKS: 1
ACTUAL TRTS: 16 ACTUAL SUB-BLOCKS: 16

PREVIOUS CROP: GLXMA - SOYBEAN

% RESIDUE: 50
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 15.00 FT

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 15 day preplant applications made 05/13/2005.
2. Study planted 05/28/2005. Variety - Pioneer 93M94 - stacked RR/STS.
3. Study oversprayed with Touchdown Total at 24 oz/acre on 06/27/2005.
4. Study harvested 11/19/2005.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-13-05 | USA |
| TIME - BEGIN | 15:00 | 24H |
| TIME - END | 16:00 | 24H |
| AIR TEMPERATURE | 60 | F |
| % REL. HUMIDITY | 60 | |
| WIND DIRECTION | SOUTHEAST | |
| WIND SPEED | 5.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 60/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SERBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES

00 = PREPLA / 15 DAYS PREPLANT

* NOZZLE DESCRIPTION

01 = SS-8003

01 P ERICA - HORSEWEED

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-13-2005 | 19 | MED | 1.00 SQF | 2.00 | 2.00 | 2.00 IN | | TUR | |

02 P GLXMA - SOYBEAN

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-13-2005 | 00 | --- | IND | . | . | . IN | | NA | |
| 05-28-2005 | 00 | MED | 4.50 FTR | . | . | . IN | | NA | |

* STAGE CODE -- GENERAL

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED

TITLE: MARESTAIL CONTROL IN NO-TILL SOYBEAN

CREATED: 05-13-2005 REVISED: 11-22-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
|---|---|-------------------------|-----------------------------------|-------------------------|-----------------------------------|-------------------------|-------------------------|-------------------------|
| | | | | | | | | |
| 1A UNTREATED CHECK | 0.00 NA 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»GRAMOXONE INTEON (2SL) B SURFACTANT - NON-IONIC (SL) | 0.75 LAA 0 0.125 PMV 0 | 93 | 0 | 95 | 0 | 0 | 57 | |
| 3A»GRAMOXONE INTEON (2SL) B (G)2,4-D-ESTER (4EC) C SURFACTANT - NON-IONIC (SL) | 0.75 LAA 0 1.00 LAA 0 0.125 PMV 0 | 100 | 0 | 100 | 7 | 0 | 98 | |
| 4A»GRAMOXONE INTEON (2SL) B (G)2,4-D-ESTER (4EC) C SURFACTANT - NON-IONIC (SL) | 0.75 LAA 0 0.50 LAA 0 0.125 PMV 0 | 97 | 0 | 98 | 0 | 0 | 98 | |
| 5A»GRAMOXONE INTEON (2SL) B CLARITY (4SL) C SURFACTANT - NON-IONIC (SL) | 0.75 LAA 0 1.00 LAA 0 0.125 PMV 0 | 100 | 0 | 100 | 3 | 0 | 100 | |
| 6A»GRAMOXONE INTEON (2SL) B CLARITY (4SL) C SURFACTANT - NON-IONIC (SL) | 0.75 LAA 0 0.50 LAA 0 0.125 PMV 0 | 100 | 0 | 100 | 7 | 0 | 100 | |
| 7A»GRAMOXONE INTEON (2SL) B CLARITY (4SL) C SURFACTANT - NON-IONIC (SL) | 0.75 LAA 0 0.25 LAA 0 0.125 PMV 0 | 100 | 0 | 100 | 3 | 0 | 100 | |
| 8A»GLYPHOMAX XRT (4.0AE) B»PYTHON (80WG) C (G)2,4-D-ESTER (4EC) | 0.75 LAA 0 0.04 LAA 0 0.50 LAA 0 | 100 | 0 | 100 | 3 | 0 | 100 | |
| 9A»GLYPHOMAX XRT (4.0AE) B»FIRSTRATE (84 WG) C (G)2,4-D-ESTER (4EC) | 0.75 LAA 0 0.016 LAA 0 0.50 LAA 0 | 100 | 0 | 100 | 0 | 0 | 100 | |
| 10A»GLYPHOMAX XRT (4.0AE) B»FIRSTRATE (84 WG) C»VALOR SX (51WG) D (G)2,4-D-ESTER (4EC) | 0.75 LAA 0 0.016 LAA 0 0.05 LAA 0 0.50 LAA 0 | 100 | 0 | 100 | 0 | 0 | 100 | |
| 11A»TOUCHDOWN TOTAL (4.17AE) | 0.75 LAA 0 | 100 | 0 | 100 | 0 | 0 | 93 | |
| 12A»TOUCHDOWN TOTAL (4.17AE) B (G)2,4-D-ESTER (4EC) | 0.75 LAA 0 1.00 LAA 0 | 100 | 0 | 100 | 3 | 0 | 100 | |
| 13A»TOUCHDOWN TOTAL (4.17AE) B (G)2,4-D-ESTER (4EC) | 0.75 LAA 0 0.50 LAA 0 | 100 | 0 | 100 | 7 | 0 | 100 | |
| 14A»TOUCHDOWN TOTAL (4.17AE) B CLARITY (4SL) | 0.75 LAA 0 1.00 LAA 0 | 100 | 0 | 100 | 40 | 0 | 100 | |
| 15A»TOUCHDOWN TOTAL (4.17AE) B CLARITY (4SL) | 0.75 LAA 0 0.50 LAA 0 | 100 | 0 | 100 | 10 | 0 | 100 | |
| 16A»TOUCHDOWN TOTAL (4.17AE) B CLARITY (4SL) | 0.75 LAA 0 0.25 LAA 0 | 100 | 0 | 100 | 3 | 0 | 100 | |
| | LSLSD (0.05) | 2.62 | 0.00 | 2.35 | 17.92 | 11.94 | | |
| | SIGNIFICANCE OF F | ** | ns | ** | * | ** | | |
| | STANDARD DEVIATION | 1.28 | 0.00 | 1.15 | 8.78 | 5.85 | | |
| | COEFFICIENT OF VARIANCE | 1.69 | 0.00 | 1.51 | 198.46 | 7.92 | | |
| | DAT APPLICATION # 01 TIMINGS (00) | 20 | 26 | 26 | 42 | 42 | | |

TITLE: MARESTAIL CONTROL IN NO-TILL SOYBEAN

CREATED: 05-13-2005 REVISED: 11-22-2005 COMPLETED: Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM RESEARCHED BY: RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 008 CALC |
|--------------------------------|--------|-----------------------------------|----|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| | RATE | UNIT | TM | 07-07-05 P GLXMA | 07-25-05 P GLXMA | 11-09-05 P GLXMA | 11-09-05 P GLXMA |
| | | | | VAR 02 PHY % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | VAR 02 YLD LB 1.00 PL SD | VAR 02 YLD BU 1.00 A SD |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 2.6 | 12.9 |
| 2A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 8 | 7 | 3.7 | 18.4 |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| 3A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 23 | 23 | 3.0 | 14.8 |
| B (G)2,4-D-ESTER (4EC) | 1.00 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| 4A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 3 | 3 | 4.1 | 20.2 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| 5A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 8 | 5 | 3.9 | 19.4 |
| B CLARITY (4SL) | 1.00 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| 6A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 15 | 18 | 2.9 | 14.1 |
| B CLARITY (4SL) | 0.50 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| 7A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 8 | 5 | 3.6 | 17.9 |
| B CLARITY (4SL) | 0.25 | LAA | 0 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | |
| 8A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 5 | 5 | 4.0 | 19.7 |
| B>PYTHON (80WG) | 0.04 | LAA | 0 | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 9A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 0 | 0 | 4.4 | 21.6 |
| B>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 10A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 3 | 3 | 3.7 | 18.2 |
| B>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | |
| C>VALOR SX (51WG) | 0.05 | LAA | 0 | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 11A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 0 | 0 | 3.8 | 18.9 |
| 12A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 5 | 2 | 4.0 | 19.5 |
| B (G)2,4-D-ESTER (4EC) | 1.00 | LAA | 0 | | | | |
| 13A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 15 | 13 | 3.3 | 16.4 |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | |
| 14A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 37 | 35 | 2.4 | 11.8 |
| B CLARITY (4SL) | 1.00 | LAA | 0 | | | | |
| 15A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 8 | 8 | 3.6 | 17.7 |
| B CLARITY (4SL) | 0.50 | LAA | 0 | | | | |
| 16A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 8 | 8 | 3.5 | 17.2 |
| B CLARITY (4SL) | 0.25 | LAA | 0 | | | | |
| | | LSD (0.05) | | 23.00 | 24.00 | 1.65 | 8.09 |
| | | SIGNIFICANCE OF F | | ns | ns | ns | ns |
| | | STANDARD DEVIATION | | 11.28 | 11.73 | 0.806 | 4.00 |
| | | COEFFICIENT OF VARIANCE | | 149.08 | 168.25 | 27.89 | 27.85 |
| | | DAT APPLICATION # 01 TIMINGS (00) | | 55 | 73 | 180 | 180 |

>> = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = PREPLA / 15 DAYS PREPLANT 05-13-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|------|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ERICA | CON % | 06-02-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | GLXMA | PHYTO % | 06-08-2005 | 02 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | ERICA | CON % | 06-08-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | GLXMA | PHYTO % | 06-24-2005 | 02 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 06-24-2005 | 01 | P | ERICA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | GLXMA | PHYTO % | 07-07-2005 | 02 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | GLXMA | PHYTO % | 07-25-2005 | 02 | P | GLXMA | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | GLXMA | LB/PLOT | 11-09-2005 | 02 | P | GLXMA | | RAW | SD | YLD | LB | H | 1.00 PL | UDC | 0001 | 0 | N |
| | GLXMA | BU/ACRE | | | | | | CALC | SD | YLD | BU | H | 1.00 A | | | | |

*** VARIETY CODES**

VAR 02 = PIONEER 93M94

*** SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)**

02 = PIONEER 93M94

*** USER DEFINED CALCULATIONS**

US 003/05/01 001 HX--- 008 -- {RAW} * (4.92)

US 003/05/01 001 HX--- 008 -- {RAW} * (4.92)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/05/01 001 HY **ALTERNATE ID#:** HF 25 2005
PROTOCOL#: US 003/05/01 **ALTERNATE ID#:** US 003/00/01
CREATED BY: US RITTER R
CREATED: 05-26-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
TITLE: WEED CONTROL IN SUNFLOWERS
COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER **DATA SOURCE:** UNIVERSITY
LOCATION: HAYDEN FARM **TYPE:** FIELD TRIAL
CITY: BELTSVILLE **STATE:** MARYLAND
COUNTY: PRINCE GEORGE'S **ZIP:** 20705
COUNTRY: UNITED STATES
WEATHER SITE: HF -- HAYDEN FARM **DISTANCE TO TRIAL:** 5280.0 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 **WEEKS AFTER LAST APPLICATION:** 4
EARLY WEATHER: NA **MID WEATHER:** NA **LATE WEATHER:** NA

SOIL INFORMATION

% SAND: 84 **TILLAGE:** COT
% SILT: 9 **PH:** 6.4
% CLAY: 7 **CEC:** 7.2
TEXTURE: SL **% OM:** 1.8
SOIL GEN: C
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 0
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 15.00 FT

TRIAL INFORMATION

DESIGN: RCB **RESIDUE TRIAL:** EFF
ACTUAL REPS: 3 **ACTUAL BLOCKS:** 1
ACTUAL TRTS: 12 **ACTUAL SUB-BLOCKS:** 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/02/2005. Variety - Pioneer 63A70.
2. Preemergence applications made 06/02/2005.
3. Study not taken to yield.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 06-02-05 | USA |
| TIME - BEGIN | 15:30 | 24H |
| TIME - END | 16:00 | 24H |
| AIR TEMPERATURE | 64 | F |
| % REL. HUMIDITY | 55 | |
| WIND DIRECTION | SOUTH | |
| WIND SPEED | 5.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/MOIST | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 64/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / PREEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P HELAN - SUNFLOWER, COMMON, VOLUNTEER CULTIVAR: PIONEER 63A70
 TARGET: CROP SITE: FG POPULATION: 22000.00 IPA PLANTED: 06-02-2005
 PLANTING DEPTH: 1.0 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 06-02-2005 00 MED 22000.00 IPA . . . IN NA

02 P AMBEL - RAGWEED, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 06-02-2005 00 --- IND . . . IN NA

03 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 06-02-2005 00 --- IND . . . IN ---

04 P ELEIN - GOOSEGRASS
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 06-02-2005 00 --- IND . . . IN ---

* STAGE CODE -- GENERAL
 00 = DRY SEED; DORMANCY
 * STAGE CODE -- SUNFLOWER
 00 = DRY SEED (ACHENE)

TITLE: WEED CONTROL IN SUNFLOWERS
CREATED: 05-26-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: HAYDEN FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 15.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | TM | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|--------------------------------|--------|------|----|-----------------------------------|----------|----------|----------|----------|-------|
| | RATE | UNIT | | 06-16-05 | 06-16-05 | 06-16-05 | 07-08-05 | 07-25-05 | |
| | | | | P HELAN | P ELEIN | P CHEAL | P AMBEL | P AMBEL | |
| | | | | VAR 01 | CON % | CON % | CON % | CON % | |
| | | | | PHY % | PL ALL | PL ALL | PL ALL | PL ALL | |
| | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2A»DUAL II MAGNUM (7.64EC) | 1.24 | LAA | 0 | 12 | 100 | 100 | 23 | 0 | |
| B»AUTHORITY (75DF) | 0.09 | LAA | 0 | | | | | | |
| 3A»DUAL II MAGNUM (7.64EC) | 1.24 | LAA | 0 | 17 | 100 | 100 | 35 | 0 | |
| B»AUTHORITY (75DF) | 0.14 | LAA | 0 | | | | | | |
| 4A»DUAL II MAGNUM (7.64EC) | 1.24 | LAA | 0 | 17 | 100 | 100 | 58 | 27 | |
| B»AUTHORITY (75DF) | 0.19 | LAA | 0 | | | | | | |
| 5A»DUAL II MAGNUM (7.64EC) | 1.24 | LAA | 0 | 20 | 100 | 100 | 63 | 37 | |
| B»AUTHORITY (75DF) | 0.25 | LAA | 0 | | | | | | |
| 6A»PROWL H20 (3.8CS) | 1.00 | LAA | 0 | 7 | 100 | 100 | 27 | 17 | |
| B»AUTHORITY (75DF) | 0.09 | LAA | 0 | | | | | | |
| 7A»PROWL H20 (3.8CS) | 1.00 | LAA | 0 | 10 | 100 | 100 | 18 | 10 | |
| B»AUTHORITY (75DF) | 0.14 | LAA | 0 | | | | | | |
| 8A»PROWL H20 (3.8CS) | 1.00 | LAA | 0 | 12 | 100 | 100 | 23 | 10 | |
| B»AUTHORITY (75DF) | 0.19 | LAA | 0 | | | | | | |
| 9A»PROWL H20 (3.8CS) | 1.00 | LAA | 0 | 18 | 100 | 100 | 40 | 23 | |
| B»AUTHORITY (75DF) | 0.25 | LAA | 0 | | | | | | |
| 10A»DUAL II MAGNUM (7.64EC) | 1.24 | LAA | 0 | 20 | 100 | 100 | 98 | 98 | |
| B»VALOR SX (51WG) | 0.064 | LAA | 0 | | | | | | |
| 11A»PROWL H20 (3.8CS) | 1.00 | LAA | 0 | 7 | 100 | 100 | 7 | 0 | |
| 12A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSL (0.05) | 7.50 | 0.00 | 0.00 | 27.00 | 24.35 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 3.62 | 0.00 | 0.00 | 13.00 | 11.74 |
| | | | | COEFFICIENT OF VARIANCE | 38.44 | 0.00 | 0.00 | 48.56 | 77.84 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 14 | 14 | 14 | 36 | 53 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 06-02-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | HELAN | PHYTO % | 06-16-2005 | 01 | P | HELAN | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | ELEIN | CON % | 06-16-2005 | 04 | P | ELEIN | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-16-2005 | 03 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | AMBEL | CON % | 07-08-2005 | 02 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | AMBEL | CON % | 07-25-2005 | 02 | P | AMBEL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

* VARIETY CODES

VAR 01 = PIONEER 63A70

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 63A70

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/05/01 001 CA ALTERNATE ID#: CT 01 2005
 PROTOCOL#: US 007/05/01 ALTERNATE ID#: OF-2005
 CREATED BY: US RITTER R
 CREATED: 06-15-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: POSTEMERGENCE CONTROL OF CANADA THISTLE IN NO-TILL CORN
 COORDINATOR: US 000 Not Applicable
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: RICKY BAUER DATA SOURCE: UNIVERSITY
 LOCATION: MANOR FARM TYPE: FIELD TRIAL
 CITY: CLARKSVILLE STATE: MARYLAND
 COUNTY: HOWARD ZIP: 21029
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 105600 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 000 TILLAGE: NOT
 % SILT: 000 PH: 7.0
 % CLAY: 000 CEC: 0000
 TEXTURE: CL % OM: 0.0
 SOIL GEN: F
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 50
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 6 ACTUAL SUB-BLOCKS: 6

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. This is a replicated trial.
2. Applications were made 06/20/2005.
3. Study not taken to yield.

| APPL. NUMBER | 01 | UNIT |
|------------------|----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 06-20-05 | USA |
| TIME - BEGIN | 16:00 | 24H |
| TIME - END | 17:00 | 24H |
| AIR TEMPERATURE | 80 | F |
| % REL. HUMIDITY | 75 | |
| WIND DIRECTION | WEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 79/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = POSPOS / POSTEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD

TARGET: CROP SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-20-2005 | 17 | MED | 26000.00 | IPA | 24.00 | 24.00 | IN | TUR | |

02 P CIRAR - THISTLE, CANADA

TARGET: PEST SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 06-20-2005 | 19 | MED | 1.00 | SQY | 12.00 | 18.00 | IN | TUR | |

* STAGE CODE -- CORN

17 = 7 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

TITLE: POSTEMERGENCE CONTROL OF CANADA THISTLE IN NO-TILL CORN
CREATED: 06-15-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: MANOR FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | |
|--------------------------------|--------|------|----|-----------------------------------|---------|---------|---------|-------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL | |
| 001 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 | |
| 002 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 | |
| 003 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 | |
| 004 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 | |
| | | | | P CIRAR | P CIRAR | P CIRAR | P CIRAR | |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | |
| 2A STINGER (3SL) | 0.188 | LAA | 0 | 78 | 95 | 92 | 88 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 3A STINGER (3SL) | 0.248 | LAA | 0 | 82 | 98 | 93 | 92 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| 4A»DISTINCT (70WG) | 0.175 | LAA | 0 | 60 | 92 | 87 | 72 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| C FERTILIZER - 28%UAN | 1.25 | PMV | 0 | | | | | |
| 5A»DISTINCT (70WG) | 0.263 | LAA | 0 | 70 | 97 | 87 | 80 | |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | | |
| C FERTILIZER - 28%UAN | 1.25 | PMV | 0 | | | | | |
| 6A»IMPACT (2.8SC) | 0.022 | LAA | 0 | 87 | 80 | 70 | 70 | |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 0 | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 0 | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 0 | | | | | |
| | | | | LSD (0.05) | 11.22 | 8.25 | 15.00 | 19.00 |
| | | | | SIGNIFICANCE OF F | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 5.00 | 3.70 | 6.74 | 8.52 |
| | | | | COEFFICIENT OF VARIANCE | 9.83 | 5.89 | 11.56 | 15.59 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 15 | 30 | 45 | 66 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-20-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR1 | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-------|-----|-----|---------|-----|------|----|------|
| 001 | CIRAR | CON % | 07-05-2005 | 02 | P | CIRAR | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | CIRAR | CON % | 07-20-2005 | 02 | P | CIRAR | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CIRAR | CON % | 08-04-2005 | 02 | P | CIRAR | | RAW | ALL | CON % | H | | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CIRAR | CON % | 08-25-2005 | 02 | P | CIRAR | | RAW | ALL | CON % | H | | 1.00 PL | NO | 0001 | 0 | N |

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/05/01 001 CB ALTERNATE ID#: CT 02 2005
 PROTOCOL#: US 007/05/01 ALTERNATE ID#: OF-2005
 CREATED BY: US RITTER R REVISED: 10-19-2005 COMPLETED: Y
 CREATED: 06-15-2005
 TITLE: POSTEMERGENCE CONTROL OF CANADA THISTLE IN NO-TILL CORN - STRIP TRIAL
 COORDINATOR: US 000 Not Applicable
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: RICKY BAUER DATA SOURCE: UNIVERSITY
 LOCATION: MANOR FARM TYPE: FIELD TRIAL
 CITY: CLARKSVILLE STATE: MARYLAND
 COUNTY: HOWARD ZIP: 21029
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 105600 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

| | | | |
|---|--------------|--------------------------|----------------------|
| SOIL INFORMATION | | TRIAL INFORMATION | |
| % SAND: 000 | TILLAGE: NOT | DESIGN: RCB | RESIDUE TRIAL: --- |
| % SILT: 000 | PH: 7.0 | ACTUAL REPS: 3 | ACTUAL BLOCKS: 1 |
| % CLAY: 000 | CEC: 0000 | ACTUAL TRTS: 4 | ACTUAL SUB-BLOCKS: 4 |
| TEXTURE: CL | % OM: 0.0 | | |
| SOIL GEN: F | | | |
| PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD | | | |
| % RESIDUE: 50 | | | |
| PLOT WIDTH: 10.00 FT | | | |
| PLOT LENGTH: 30.00 FT | | | |

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. This is a strip trial - nonreplicated.
2. Postemergence applications were made 06/20/2005.
3. Study not taken to yield.

| APPL. NUMBER | 01 | UNIT |
|------------------|----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 06-20-05 | USA |
| TIME - BEGIN | 16:00 | 24H |
| TIME - END | 17:00 | 24H |
| AIR TEMPERATURE | 80 | F |
| % REL. HUMIDITY | 75 | |
| WIND DIRECTION | WEST | |
| WIND SPEED | 3.0 | M/H |
| CLOUD COVER | CLOUDY | |
| DEW | NO | |
| SOIL MOISTURE | DRY/DRY | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 79/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATEFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 1.000 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = POSPOS / POSTEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD

TARGET: CROP SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|-----------|---------|----------|------------|-------|
| 06-20-2005 | 17 | MED | 26000.00 | IPA 24.00 | 24.00 | 24.00 IN | TUR | |

02 P CIRAR - THISTLE, CANADA

TARGET: PEST SITE: FG

PLANTED:

INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|-----------|---------|----------|------------|-------|
| 06-20-2005 | 19 | MED | 1.00 | SQY 12.00 | 18.00 | 15.00 IN | TUR | |

* STAGE CODE -- CORN

17 = 7 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

TITLE: POSTEMERGENCE CONTROL OF CANADA THISTLE IN NO-TILL CORN - STRIP TRIAL
 CREATED: 06-15-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: MANOR FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 30.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % |
|--------------------------------|--------|------|----|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL |
| 001 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 |
| 07-05-05 | | | | | | | |
| P CIRAR | | | | | | | |
| 002 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 |
| 07-20-05 | | | | | | | |
| P CIRAR | | | | | | | |
| 003 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 |
| 08-04-05 | | | | | | | |
| P CIRAR | | | | | | | |
| 004 RAW | | | | 1.00 | 1.00 | 1.00 | 1.00 |
| 08-25-05 | | | | | | | |
| P CIRAR | | | | | | | |
| 1A STINGER (3SL) | 0.188 | LAA | 0 | 70 | 95 | 95 | 95 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | |
| 2A STINGER (3SL) | 0.248 | LAA | 0 | 80 | 95 | 90 | 90 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | |
| 3A»DISTINCT (70WG) | 0.175 | LAA | 0 | 80 | 95 | 85 | 70 |
| B SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 0 | | | | |
| C FERTILIZER - 28%UAN | 1.25 | PMV | 0 | | | | |
| 4A»IMPACT (2.8SC) | 0.022 | LAA | 0 | 90 | 90 | 80 | 80 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 0 | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 0 | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 0 | | | | |
| | | | | | | | 0.00 |
| | | | | ** | ** | ** | ** |
| | | | | | | | 0.00 |
| | | | | | | | 0.00 |
| | | | | 15 | 30 | 45 | 66 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-20-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRT | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|------|---------|-----|------|----|------|
| 001 | CIRAR | CON % | 07-05-2005 | 02 | P | CIRAR | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | CIRAR | CON % | 07-20-2005 | 02 | P | CIRAR | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CIRAR | CON % | 08-04-2005 | 02 | P | CIRAR | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | CIRAR | CON % | 08-25-2005 | 02 | P | CIRAR | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/05/01 001 LA ALTERNATE ID#: LQ 01 2005
 PROTOCOL#: US 007/05/01 ALTERNATE ID#: OF-2005
 CREATED BY: US RITTER R
 CREATED: 04-11-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
 COORDINATOR: US 000 Not Applicable
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. CARL SEILER DATA SOURCE: UNIVERSITY
 LOCATION: CARL SEILER FARM TYPE: FIELD TRIAL
 CITY: WESTMINSTER STATE: MARYLAND
 COUNTY: CARROLL ZIP: 21157
 COUNTRY: UNITED STATES
 WEATHER SITE: CARROL CO. -- ON-FARM - WESTMINSTER, I DISTANCE TO TRIAL: 52800 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 66 TILLAGE: NOT
 % SILT: 18 PH: 5.2
 % CLAY: 16 CEC: 6.1
 TEXTURE: SL % OM: 3.4
 SOIL GEN: C
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 35
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/12/2005. Variety - Pioneer 33B54.
2. Preemergence applications made 05/16/2005.
3. Study not taken to yield.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-16-05 | USA |
| TIME - BEGIN | 14:00 | 24H |
| TIME - END | 15:30 | 24H |
| AIR TEMPERATURE | 60 | F |
| % REL. HUMIDITY | 45 | |
| WIND DIRECTION | NORTHWEST | |
| WIND SPEED | 5.0 | M/H |
| CLOUD COVER | PARTCLDY | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 62/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPRE / PRREEMERGENCE

* NOZZLE DESCRIPTION
01 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54
 TARGET: CROP SITE: FG POPULATION: 27000.00 IPA PLANTED: 05-12-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-12-2005 | 00 | MED | 27000.00 | IPA | . | . | IN | NA | |
| 05-16-2005 | 00 | MED | 27000.00 | IPA | . | . | IN | NA | |

02 P CHEAL - LAMBSQUARTERS, COMMON PLANTED:
 TARGET: PEST SITE: FG
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-16-2005 | 00 | --- | IND | . | . | IN | --- | --- | |

03 P SETFA - FOXTAIL, GIANT PLANTED:
 TARGET: PEST SITE: FG
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP | VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------|-------|-------|
| 05-16-2005 | 00 | --- | IND | . | . | IN | --- | --- | |

* STAGE CODE -- CORN
 00 = DRY SEED (CARYOPSIS)
 * STAGE CODE -- GENERAL
 00 = DRY SEED; DORMANCY

TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
CREATED: 04-11-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: CARL SEILER FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | VAR 01 | | | | |
|-----------------------------------|--------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | PHY % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 001 RAW 06-06-05 P ZEAMX | | | | | | | | |
| 002 RAW 06-06-05 P SETFA | | | | | | | | |
| 003 RAW 06-06-05 P CHEAL | | | | | | | | |
| 004 RAW 06-20-05 P SETFA | | | | | | | | |
| 005 RAW 06-20-05 P CHEAL | | | | | | | | |
| 1A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 100 | 32 | 95 | 10 |
| 2A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 3 | 98 | 100 | 98 | 100 |
| 3A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 0 | 98 | 98 | 90 | 100 |
| 4A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 3 | 98 | 98 | 92 | 90 |
| B»BASIS (75 DF) | 0.016 | LAA | 0 | | | | | |
| 5A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 3 | 100 | 100 | 93 | 97 |
| B»BASIS (75 DF) | 0.023 | LAA | 0 | | | | | |
| 6A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 97 | 97 | 95 | 98 |
| B»BALANCE PRO (4SC) | 0.07 | LAA | 0 | | | | | |
| 7A»RADIUS (4SC) | 0.66 | LAA | 0 | 0 | 100 | 100 | 97 | 100 |
| 8A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 0 | 100 | 95 | 95 | 90 |
| 9A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 5 | 100 | 100 | 98 | 100 |
| B»HORNET (78.5DF) | 0.147 | LAA | 0 | | | | | |
| 10A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 8 | 100 | 100 | 98 | 98 |
| B»PYTHON (80WG) | 0.04 | LAA | 0 | | | | | |
| 11A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 0 | 100 | 95 | 97 | 87 |
| 12A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 2 | 100 | 100 | 95 | 100 |
| B»PROWL H2O (3.8CS) | 1.50 | LAA | 0 | | | | | |
| 13A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 | 100 | 78 | 93 | 67 |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 0 | 0 | 100 | 92 | 92 | 87 |
| 15A»KIH-485 (60WG) | 0.217 | LAA | 0 | 7 | 98 | 97 | 95 | 95 |
| 16A ATRAZINE 4L (SC) | 1.50 | LAA | 0 | 0 | 100 | 0 | 93 | 0 |
| B PRINCEP 4L (SC) | 1.50 | LAA | 0 | | | | | |
| LSD (0.05) | | | | 4.29 | 2.39 | 6.81 | 5.67 | 12.36 |
| SIGNIFICANCE OF F | | | | ** | ns | ** | ns | ** |
| STANDARD DEVIATION | | | | 2.10 | 1.17 | 3.33 | 2.78 | 6.05 |
| COEFFICIENT OF VARIANCE | | | | 130.12 | 1.44 | 4.73 | 3.59 | 9.00 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 21 | 21 | 21 | 35 | 35 |

TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
 CREATED: 04-11-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: CARL SEILER FARM RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % | CON % |
|--------------------------------|-----------------------------------|------|----|----------------|----------------|----------------|----------------|----------------|
| | RATE | UNIT | TM | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL | 1.00 PL ALL |
| 1A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 95 | 0 | 93 | 0 | 93 |
| 2A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 90 | 97 | 87 | 95 | 87 |
| 3A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 82 | 98 | 75 | 98 | 68 |
| 4A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 83 | 78 | 80 | 65 | 80 |
| B»BASIS (75 DF) | 0.016 | LAA | 0 | | | | | |
| 5A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 87 | 88 | 78 | 78 | 73 |
| B»BASIS (75 DF) | 0.023 | LAA | 0 | | | | | |
| 6A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 92 | 98 | 90 | 98 | 88 |
| B»BALANCE PRO (4SC) | 0.07 | LAA | 0 | | | | | |
| 7A»RADIUS (4SC) | 0.66 | LAA | 0 | 95 | 100 | 93 | 100 | 93 |
| 8A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 90 | 58 | 88 | 50 | 87 |
| 9A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 92 | 100 | 90 | 100 | 88 |
| B»HORNET (78.5DF) | 0.147 | LAA | 0 | | | | | |
| 10A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 90 | 93 | 88 | 92 | 87 |
| B»PYTHON (80WG) | 0.04 | LAA | 0 | | | | | |
| 11A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 93 | 43 | 93 | 32 | 92 |
| 12A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 90 | 98 | 88 | 98 | 88 |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | | | | | |
| 13A»KIH-485 (60WG) | 0.144 | LAA | 0 | 92 | 32 | 90 | 10 | 87 |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 0 | 90 | 65 | 83 | 47 | 83 |
| 15A»KIH-485 (60WG) | 0.217 | LAA | 0 | 90 | 88 | 87 | 77 | 83 |
| 16A ATRAZINE 4L (SC) | 1.50 | LAA | 0 | 92 | 0 | 92 | 0 | 92 |
| B PRINCEP 4L (SC) | 1.50 | LAA | 0 | | | | | |
| | LSD (0.05) | | | 8.34 | 27.00 | 12.00 | 22.61 | 13.60 |
| | SIGNIFICANCE OF F | | | ns | ** | ns | ** | * |
| | STANDARD DEVIATION | | | 4.09 | 13.21 | 5.88 | 11.07 | 6.66 |
| | COEFFICIENT OF VARIANCE | | | 5.55 | 22.74 | 8.25 | 20.86 | 9.53 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 50 | 50 | 65 | 65 | 80 |

TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
CREATED: 04-11-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: CARL SEILER FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

011 RAW
08-04-05
P CHEAL

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % |
|-----------------------------------|--------|------|----|--------|
| | RATE | UNIT | TM | PL ALL |
| 1A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 |
| 2A»LUMAX (3.94 SE) | 2.46 | LAA | 0 | 93 |
| 3A»LEXAR (3.7SC) | 2.78 | LAA | 0 | 95 |
| 4A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 48 |
| B»BASIS (75 DF) | 0.016 | LAA | 0 | |
| 5A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 73 |
| B»BASIS (75 DF) | 0.023 | LAA | 0 | |
| 6A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 97 |
| B»BALANCE PRO (4SC) | 0.07 | LAA | 0 | |
| 7A»RADIUS (4SC) | 0.66 | LAA | 0 | 98 |
| 8A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 40 |
| 9A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 98 |
| B»HORNET (78.5DF) | 0.147 | LAA | 0 | |
| 10A»KEYSTONE (5.25SE) | 3.28 | LAA | 0 | 90 |
| B»PYTHON (80WG) | 0.04 | LAA | 0 | |
| 11A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 17 |
| 12A»GUARDSMAN MAX (5L) | 2.50 | LAA | 0 | 98 |
| B»PROWL H20 (3.8CS) | 1.50 | LAA | 0 | |
| 13A»KIH-485 (60WG) | 0.144 | LAA | 0 | 0 |
| 14A»KIH-485 (60WG) | 0.181 | LAA | 0 | 23 |
| 15A»KIH-485 (60WG) | 0.217 | LAA | 0 | 75 |
| 16A ATRAZINE 4L (SC) | 1.50 | LAA | 0 | 0 |
| B PRINCEP 4L (SC) | 1.50 | LAA | 0 | |
| LSD (0.05) | | | | 28.10 |
| SIGNIFICANCE OF F | | | | ** |
| STANDARD DEVIATION | | | | 13.76 |
| COEFFICIENT OF VARIANCE | | | | 28.49 |
| DAT APPLICATION # 01 TIMINGS (00) | | | | 80 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PRREEMERGENCE 05-16-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|-----|---------|-----|------|----|------|
| 001 | ZEAMK | PHYTO % | 06-06-2005 | 01 | P | ZEAMK | | RAW | ALL | PHY | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-06-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-06-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 06-20-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 06-20-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 07-05-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 07-05-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 07-20-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 07-20-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | --- | 1.00 PL | NO | 0001 | 0 | N |

TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-------|-----|-----|---------|-----|------|----|------|
| 010 | SETFA | CON % | 08-04-2005 | 03 | P | SETFA | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |
| 011 | CHEAL | CON % | 08-04-2005 | 02 | P | CHEAL | | RAW | ALL | CON % | | --- | 1.00 PL | NO | 0001 | 0 | N |

* VARIETY CODES

VAR 01 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 33B54

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/05/01 001 LB ALTERNATE ID#: LQ 02 2005
 PROTOCOL#: US 007/05/01 ALTERNATE ID#: OF-2005
 CREATED BY: US RITTER R
 CREATED: 04-11-2005 REVISED: 10-19-2005 COMPLETED: Y
 TITLE: POSTEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
 COORDINATOR: US 000 Not Applicable
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
 REPORTED BY: US Ron Ritter And Ron Ritter
 COOPERATOR: MR. CARL SEILER DATA SOURCE: UNIVERSITY
 LOCATION: CARL SEILER FARM TYPE: FIELD TRIAL
 CITY: WESTMINSTER STATE: MARYLAND
 COUNTY: CARROLL ZIP: 21157
 COUNTRY: UNITED STATES
 WEATHER SITE: CARROL CO. -- ON-FARM - WESTMINSTER, 1 DISTANCE TO TRIAL: 52800 FT
 WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
 EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION

% SAND: 66 TILLAGE: NOT
 % SILT: 18 PH: 5.2
 % CLAY: 16 CEC: 6.1
 TEXTURE: SL % OM: 3.4
 SOIL GEN: C
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 35
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 20.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/12/2005. Variety - Pioneer 33B54.
2. Preemergence applications made 05/16/2005.
3. Early postemergence applications made 06/06/2005.
4. Mid-postemergence applications made 06/20/2005.
5. Study not taken to yield.

| APPL. NUMBER | 01 | 02 | 03 | UNIT |
|------------------|-----------|-----------|----------|------|
| TIMINGS | 00 | 01 | 02 | |
| TYPE | LIQMIX | LIQMIX | LIQMIX | |
| APPLICATION DATE | 05-16-05 | 06-06-05 | 06-20-05 | USA |
| TIME - BEGIN | 14:00 | 13:00 | 14:00 | 24H |
| TIME - END | 15:30 | 14:00 | 14:30 | 24H |
| AIR TEMPERATURE | 60 | 78 | 80 | F |
| % REL. HUMIDITY | 45 | 75 | 70 | |
| WIND DIRECTION | NORTHWEST | SOUTH | WEST | |
| WIND SPEED | 5.0 | 3.0 | 3.0 | M/H |
| CLOUD COVER | PARTCLDY | PARTCLDY | PARTCLDY | |
| DEW | NO | NO | NO | |
| SOIL MOISTURE | MOIST/MOI | DRY/MOIST | DRY/DRY | |
| SOIL CONDITION | FRIABLE | FRIABLE | FRIABLE | |
| SOIL TEMP/DEPTH | 62/4.00 | 78/4.00 | 75/4.00 | F / |
| METHOD | SPRAY | SPRAY | SPRAY | |
| EQUIPMENT | SPRBAC | SPRBAC | SPRBAC | |
| PROPELLANT | COMCO2 | COMCO2 | COMCO2 | |
| PLACEMENT | BRFOSO | BRFOSO | BRFOSO | |
| NOZZLE | FLATFAN | FLATFAN | FLATFAN | |
| NOZZLE VOLUME | 0.03 | 0.03 | 0.03 | GPM |
| NOZZLE NUMBER | 6 | 6 | 6 | |
| NOZZLE SPACING | 20.000 | 20.000 | 20.000 | IN |
| SWATH WIDTH | 10.0 | 10.0 | 10.0 | FT |
| BOOM HEIGHT | 20.0 | 20.0 | 20.0 | IN |
| SPEED | 3.00 | 3.00 | 3.00 | M/H |
| MIX SIZE | 0.560 | 0.560 | 0.560 | |
| MIX SIZE UNIT | GAL | GAL | GAL | |
| SPRAY VOLUME | 18.00 | 18.00 | 18.00 | |
| VOLUME UNIT | GPA | GPA | GPA | |
| PRESSURE | 20.00 | 20.00 | 20.00 | PSI |
| DILUENT | WATER | WATER | WATER | |
| INC. DATE | | | | USA |
| INC. START | | | | 24H |
| INC. END | | | | 24H |
| INC. DEPTH | | | | IN |
| INC. EQUIPMENT | --- | --- | --- | |

* TIMING CODES

00 = PREPRE / PREEMERGENCE
 01 = POSPOS / EARLY POSTEMERGENCE
 02 = MID POS / MID-POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = SS-8003

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33B54
 TARGET: CROP SITE: FG POPULATION: 27000.00 IPA PLANTED: 05-12-2005
 PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|--------------|---------|---------|----------|------------|-------|
| 05-12-2005 | 00 | MED | 27000.00 IPA | . | . | . IN | NA | |
| 05-16-2005 | 00 | MED | 27000.00 IPA | . | . | . IN | NA | |
| 06-06-2005 | 15 | MED | 27000.00 IPA | 8.00 | 8.00 | 8.00 IN | TUR | |
| 06-20-2005 | 17 | MED | 27000.00 IPA | 24.00 | 24.00 | 24.00 IN | TUR | |

02 P CHEAL - LAMBSQUARTERS, COMMON
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-16-2005 | 00 | --- | IND | . | . | . IN | --- | |
| 06-06-2005 | 14 | LOW | 1.00 SQF | 0.50 | 0.50 | 0.50 IN | TUR | |
| 06-20-2005 | 19 | LOW | 3.00 SQY | 4.00 | 8.00 | 6.00 IN | TUR | |

03 P SETFA - FOXTAIL, GIANT
 TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA

| STAGE ON | STAGE CODE | POP.GEN. | POPULATION | MN SIZE | MX SIZE | AV SIZE | CROP VIGOR | NOTES |
|------------|------------|----------|------------|---------|---------|---------|------------|-------|
| 05-16-2005 | 00 | --- | IND | . | . | . IN | --- | |
| 06-06-2005 | 13 | HGH | 10.00 SQF | 3.00 | 3.00 | 3.00 IN | TUR | |
| 06-20-2005 | 13 | LOW | 1.00 SQY | 4.00 | 4.00 | 4.00 IN | TUR | |

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)
 15 = 5 LEAVES UNFOLDED
 17 = 7 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY
 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

13 = 3 LEAVES UNFOLDED

TITLE: POSTEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
CREATED: 04-11-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: CARL SEILER FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW |
|--------------------------------|--------|------|----|--|--|--|--|--|
| | RATE | UNIT | TM | 06-20-05 P ZEAMX 17 VAR 01 PHY % 1.00 PL ALL | 06-20-05 P SETFA 13 CON % 1.00 PL ALL | 06-20-05 P CHEAL 19 CON % 1.00 PL ALL | 07-05-05 P SETFA CON % 1.00 PL ALL | 07-05-05 P CHEAL CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 90 | 53 | 83 | 33 |
| 3A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 93 | 43 | 95 | 85 |
| B»IMPACT (2.8SC) | 0.016 | LAA | 2 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 2 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 2 | | | | | |
| 4A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 80 | 63 | 95 | 93 |
| B»IMPACT (2.8SC) | 0.022 | LAA | 2 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 2 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 2 | | | | | |
| 5A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 90 | 70 | 88 | 97 |
| B»CALLISTO (4SC) | 0.094 | LAA | 2 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 2 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 2 | | | | | |
| 6A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 87 | 63 | 78 | 92 |
| B»DISTINCT (70WG) | 0.175 | LAA | 2 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 2 | | | | | |
| 7A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 0 | 87 | 73 | 83 | 97 |
| B»DISTINCT (70WG) | 0.263 | LAA | 2 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 2 | | | | | |
| 8A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 0 | 92 | 100 | 83 | 95 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 9A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 0 | 97 | 100 | 90 | 88 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 10A»CALLISTO (4SC) | 0.094 | LAA | 1 | 0 | 82 | 100 | 65 | 100 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |
| 11A»DISTINCT (70WG) | 0.175 | LAA | 1 | 0 | 85 | 100 | 75 | 92 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 1 | | | | | |
| 12A»DISTINCT (70WG) | 0.263 | LAA | 1 | 0 | 88 | 98 | 77 | 98 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 1 | | | | | |
| 13A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 0 | 87 | 98 | 68 | 95 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | |

TITLE: POSTEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW | 002 RAW | 003 RAW | 004 RAW | 005 RAW | |
|--------------------------------|--------|------|----|-----------------------------------|---------------|---------------|---------------|---------------|-------|
| | RATE | UNIT | TM | 06-20-05 | 06-20-05 | 06-20-05 | 07-05-05 | 07-05-05 | |
| | | | | P ZEAMX 17 | P SETFA 13 | P CHEAL 19 | P SETFA | P CHEAL | |
| | | | | VAR 01 PHY % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | CON % 1.00 | |
| | | | | PL ALL | PL ALL | PL ALL | PL ALL | PL ALL | |
| 14A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 0 | 90 | 98 | 70 | 97 | |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | | | |
| 15A ATRAZINE 4L (SC) | 1.50 | LAA | 0 | 0 | 77 | 23 | 65 | 12 | |
| B PRINCEP 4L (SC) | 1.50 | LAA | 0 | | | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | LSD (0.05) | 0.00 | 9.53 | 38.55 | 17.14 | 17.78 |
| | | | | SIGNIFICANCE OF F | ns | ** | ** | ** | ** |
| | | | | STANDARD DEVIATION | 0.00 | 4.67 | 18.88 | 8.40 | 8.71 |
| | | | | COEFFICIENT OF VARIANCE | 0.00 | 7.48 | 34.10 | 14.73 | 14.54 |
| | | | | DAT APPLICATION # 01 TIMINGS (00) | 35 | 35 | 35 | 50 | 50 |
| | | | | DAT APPLICATION # 02 TIMINGS (01) | 14 | 14 | 14 | 29 | 29 |
| | | | | DAT APPLICATION # 03 TIMINGS (02) | 0 | 0 | 0 | 15 | 15 |

TITLE: POSTEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
CREATED: 04-11-2005 **REVISED:** 10-19-2005 **COMPLETED:** Y
PROJECT TYPE: HERBICIDE
LOCATION: CARL SEILER FARM **RESEARCHED BY:** RITTER AND MENBERE
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG **REPS:** 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | 007 RAW | 008 RAW | 009 RAW |
|--------------------------------|--------|------|----|-------------------------|-------------------------|-------------------------|-------------------------|
| | RATE | UNIT | TM | 07-20-05 P SETFA | 07-20-05 P CHEAL | 08-04-05 P SETFA | 08-04-05 P CHEAL |
| | | | | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL | CON % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 80 | 10 | 77 | 0 |
| 3A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 93 | 93 | 93 | 93 |
| B»IMPACT (2.8SC) | 0.016 | LAA | 2 | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 2 | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 2 | | | | |
| 4A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 97 | 100 | 97 | 98 |
| B»IMPACT (2.8SC) | 0.022 | LAA | 2 | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 2 | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 2 | | | | |
| 5A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 88 | 98 | 88 | 98 |
| B»CALLISTO (4SC) | 0.094 | LAA | 2 | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 2 | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 2 | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 2 | | | | |
| 6A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 75 | 97 | 72 | 97 |
| B»DISTINCT (70WG) | 0.175 | LAA | 2 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 2 | | | | |
| 7A»BICEP II MAGNUM (5.5SC) | 2.89 | LAA | 0 | 78 | 97 | 77 | 100 |
| B»DISTINCT (70WG) | 0.263 | LAA | 2 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 2 | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 2 | | | | |
| 8A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 78 | 93 | 77 | 95 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 9A»IMPACT (2.8SC) | 0.022 | LAA | 1 | 83 | 88 | 80 | 83 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| D ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 10A»CALLISTO (4SC) | 0.094 | LAA | 1 | 62 | 100 | 53 | 100 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| C ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| D ADJUVANT - COC (EC) | 1.00 | PMV | 1 | | | | |
| E FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |
| 11A»DISTINCT (70WG) | 0.175 | LAA | 1 | 68 | 98 | 63 | 98 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 1 | | | | |
| 12A»DISTINCT (70WG) | 0.263 | LAA | 1 | 67 | 97 | 62 | 95 |
| B ACCENT (75WG) | 0.031 | LAA | 1 | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.25 | PMV | 1 | | | | |
| D FERTILIZER - 28%UAN | 1.25 | PMV | 1 | | | | |
| 13A»IMPACT (2.8SC) | 0.016 | LAA | 1 | 58 | 93 | 47 | 92 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| D FERTILIZER - 28%UAN | 2.50 | PMV | 1 | | | | |

TITLE: POSTEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | CON % | CON % | CON % | CON % |
|--------------------------------|-----------------------------------|------|----|--------|--------|--------|--------|
| | RATE | UNIT | TM | PL ALL | PL ALL | PL ALL | PL ALL |
| 14A>>IMPACT (2.8SC) | 0.022 | LAA | 1 | 63 | 100 | 52 | 100 |
| B ATRAZINE 4L (SC) | 0.50 | LAA | 1 | | | | |
| C ADJUVANT - VEGETABLE OIL | 1.00 | PMV | 1 | | | | |
| D FERTILIZER - 28*UAN | 2.50 | PMV | 1 | | | | |
| 15A ATRAZINE 4L (SC) | 1.50 | LAA | 0 | 65 | 12 | 53 | 0 |
| B PRINCEP 4L (SC) | 1.50 | LAA | 0 | | | | |
| 16A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 |
| | LSL (0.05) | | | 18.64 | 13.00 | 26.62 | 8.63 |
| | SIGNIFICANCE OF F | | | ** | ** | ** | ** |
| | STANDARD DEVIATION | | | 9.13 | 6.35 | 13.00 | 4.23 |
| | COEFFICIENT OF VARIANCE | | | 16.93 | 10.57 | 25.80 | 7.20 |
| | DAT APPLICATION # 01 TIMINGS (00) | | | 65 | 65 | 80 | 80 |
| | DAT APPLICATION # 02 TIMINGS (01) | | | 44 | 44 | 59 | 59 |
| | DAT APPLICATION # 03 TIMINGS (02) | | | 30 | 30 | 45 | 45 |

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-16-2005 (1)
01 = POSPOS / EARLY POSTEMERGENCE 06-06-2005 (2)
02 = MID POS / MID-POSTEMERGENCE 06-20-2005 (3)

| H# | CUSTOM#1 | CUSTOM#2 | EV.DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTRTR | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-----|-----|------|---------|-----|-------|----|------|
| 001 | ZEAMX | PHYTO % | 06-20-2005 | 01 | P | ZEAMX | 17 | RAW | ALL | PHY | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | SETFA | CON % | 06-20-2005 | 03 | P | SETFA | 13 | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | CHEAL | CON % | 06-20-2005 | 02 | P | CHEAL | 19 | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | SETFA | CON % | 07-05-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | CHEAL | CON % | 07-05-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | SETFA | CON % | 07-20-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | CHEAL | CON % | 07-20-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | SETFA | CON % | 08-04-2005 | 03 | P | SETFA | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 009 | CHEAL | CON % | 08-04-2005 | 02 | P | CHEAL | | RAW | ALL | CON | % | ---- | 1.00 PL | NO | 0001 | 0 | N |

* VARIETY CODES

VAR 01 = PIONEER 33B54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 33B54

* STAGE CODE

13 = 3 LEAVES UNFOLDED
17 = 7 LEAVES UNFOLDED
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 007/05/01 001 MA ALTERNATE ID#: MT 01 2005
PROTOCOL#: US 007/05/01 ALTERNATE ID#: OF-2005
CREATED BY: US RITTER R
CREATED: 04-13-2005 REVISED: 10-19-2005 COMPLETED: Y
TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN NO-TILL CORN

COORDINATOR: US 000 Not Applicable
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: CHINO FARMS DATA SOURCE: UNIVERSITY
LOCATION: CHINO FARMS TYPE: FIELD TRIAL
CITY: CHESTERTOWN STATE: MARYLAND
COUNTY: KENT ZIP: 21620
COUNTRY: UNITED STATES
WEATHER SITE: WREC -- WYE RESEARCH AND EDUCATION CEI DISTANCE TO TRIAL: 105600 FT
WEEKS PRIOR TO FIRST APPLICATION: 4 WEEKS AFTER LAST APPLICATION: 4
EARLY WEATHER: NA MID WEATHER: NA LATE WEATHER: NA

SOIL INFORMATION **TRIAL INFORMATION**
% SAND: 66 TILLAGE: NOT DESIGN: RCB RESIDUE TRIAL: ---
% SILT: 18 PH: 5.2 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
% CLAY: 16 CEC: 6.1 ACTUAL TRTS: 20 ACTUAL SUB-BLOCKS: 20
TEXTURE: SL % OM: 3.4
SOIL GEN: F
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 50
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 30 day preplant applications made 05/05/2005.
2. Soybeans planted 05/16/2005. Variety - Pioneer 94M70.
3. Study oversprayed with Touchdown Total at 48 oz/acre on 07/06/2005.
4. Study not taken to yield.

| APPL. NUMBER | 01 | UNIT |
|------------------|-----------|------|
| TIMINGS | 00 | |
| TYPE | LIQMIX | |
| APPLICATION DATE | 05-05-05 | USA |
| TIME - BEGIN | 12:00 | 24H |
| TIME - END | 13:00 | 24H |
| AIR TEMPERATURE | 64 | F |
| % REL. HUMIDITY | 45 | |
| WIND DIRECTION | SOUTHWEST | |
| WIND SPEED | 5.0 | M/H |
| CLOUD COVER | OVERCAST | |
| DEW | NO | |
| SOIL MOISTURE | MOIST/MOI | |
| SOIL CONDITION | FRIABLE | |
| SOIL TEMP/DEPTH | 58/4.00 | F / |
| METHOD | SPRAY | |
| EQUIPMENT | SPRBAC | |
| PROPELLANT | COMCO2 | |
| PLACEMENT | BRFOSO | |
| NOZZLE | FLATFAN | |
| NOZZLE VOLUME | 0.03 | GPM |
| NOZZLE NUMBER | 6 | |
| NOZZLE SPACING | 20.000 | IN |
| SWATH WIDTH | 10.0 | FT |
| BOOM HEIGHT | 20.0 | IN |
| SPEED | 3.00 | M/H |
| MIX SIZE | 0.560 | |
| MIX SIZE UNIT | GAL | |
| SPRAY VOLUME | 18.00 | |
| VOLUME UNIT | GPA | |
| PRESSURE | 20.00 | PSI |
| DILUENT | WATER | |
| INC. DATE | | USA |
| INC. START | | 24H |
| INC. END | | 24H |
| INC. DEPTH | | IN |
| INC. EQUIPMENT | --- | |

* TIMING CODES
00 = PREPLA / 30 DAYS PREPLANT

* NOZZLE DESCRIPTION
01 = SS-8003

01 P ERICA - HORSEWEED

TARGET: PEST SITE: FG PLANTED:
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-05-2005 19 MED 3.00 SQY 4.00 4.00 4.00 IN TUR

02 P GLXMA - SOYBEAN

CULTIVAR: PIONEER 94M70
 TARGET: CROP SITE: FG POPULATION: 3.00 FTR PLANTED: 05-16-2005
 PLANTING DEPTH: 1.0 IN ROW WIDTH: 7.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 05-05-2005 00 NA IND . . . IN ---
 05-16-2005 00 MED 3.00 FTR . . . IN NA

* STAGE CODE -- GENERAL

19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN NO-TILL CORN

CREATED: 04-13-2005 REVISED: 10-19-2005

COMPLETED: Y

PROJECT TYPE: HERBICIDE

LOCATION: CHINO FARMS

RESEARCHED BY: RITTER AND MENBERE

DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN

PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG

REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 001 RAW 05-18-05 P ERICA | | 002 RAW 06-01-05 P GLXMA | | 003 RAW 06-01-05 P ERICA | | 004 RAW 06-14-05 P GLXMA | | 005 RAW 06-14-05 P ERICA | |
|--------------------------------|--------|------|----|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|
| | RATE | UNIT | TM | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 40 | 0 | 48 | 0 | 30 | | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 3A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 93 | 20 | 100 | 15 | 97 | | | | | |
| B (G)2,4-D-ESTER (4EC) | 1.00 | LAA | 0 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 4A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 63 | 13 | 77 | 10 | 67 | | | | | |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 5A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 88 | 100 | 100 | 95 | 100 | | | | | |
| B CLARITY (4SL) | 1.00 | LAA | 0 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 6A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 70 | 98 | 100 | 93 | 100 | | | | | |
| B CLARITY (4SL) | 0.50 | LAA | 0 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 7A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 57 | 87 | 78 | 80 | 87 | | | | | |
| B CLARITY (4SL) | 0.25 | LAA | 0 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 8A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 95 | 10 | 100 | 10 | 100 | | | | | |
| B>>PYTHON (80WG) | 0.04 | LAA | 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| 9A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 90 | 18 | 100 | 10 | 100 | | | | | |
| B>>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| 10A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 100 | 10 | 100 | 10 | 100 | | | | | |
| B>>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | | | | | |
| C>>VALOR SX (51WG) | 0.05 | LAA | 0 | | | | | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| 11A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 98 | 0 | 100 | 0 | 100 | | | | | |
| 12A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 97 | 20 | 100 | 3 | 100 | | | | | |
| B (G)2,4-D-ESTER (4EC) | 1.00 | LAA | 0 | | | | | | | | | | |
| 13A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 97 | 13 | 100 | 10 | 100 | | | | | |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | | | | | |
| 14A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 97 | 100 | 100 | 95 | 100 | | | | | |
| B CLARITY (4SL) | 1.00 | LAA | 0 | | | | | | | | | | |
| 15A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 95 | 95 | 100 | 88 | 100 | | | | | |
| B CLARITY (4SL) | 0.50 | LAA | 0 | | | | | | | | | | |
| 16A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 95 | 88 | 100 | 78 | 100 | | | | | |
| B CLARITY (4SL) | 0.25 | LAA | 0 | | | | | | | | | | |
| 17A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 77 | 3 | 90 | 3 | 77 | | | | | |
| B SENCOR DF (75WG) | 0.187 | LAA | 0 | | | | | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | | | | | |
| 18A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 93 | 3 | 100 | 3 | 100 | | | | | |
| B SENCOR DF (75WG) | 0.187 | LAA | 0 | | | | | | | | | | |

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 001 RAW 05-18-05 P ERICA | | 002 RAW 06-01-05 P GLXMA | | 003 RAW 06-01-05 P ERICA | | 004 RAW 06-14-05 P GLXMA | | 005 RAW 06-14-05 P ERICA | |
|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|--|
| | | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL | | |
| 19A»GRAMOXONE INTEON (2SL) | 0.75 LAA 0 | 93 | 13 | 100 | 10 | 100 | | | | | |
| B SENCOR DF (75WG) | 0.187 LAA 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 LAA 0 | | | | | | | | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.125 PMV 0 | | | | | | | | | | |
| 20A»TOUCHDOWN TOTAL (4.17AE) | 0.75 LAA 0 | 95 | 7 | 100 | 3 | 100 | | | | | |
| B SENCOR DF (75WG) | 0.187 LAA 0 | | | | | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 LAA 0 | | | | | | | | | | |
| | LSD (0.05) | 15.73 | 9.70 | 17.71 | 11.72 | 25.00 | | | | | |
| | SIGNIFICANCE OF F | ** | ** | ** | ** | ** | | | | | |
| | STANDARD DEVIATION | 7.78 | 4.80 | 8.76 | 5.80 | 12.39 | | | | | |
| | COEFFICIENT OF VARIANCE | 11.67 | 16.80 | 12.00 | 23.00 | 17.27 | | | | | |
| | DAT APPLICATION # 01 TIMINGS (00) | 13 | 27 | 27 | 40 | 40 | | | | | |

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN NO-TILL CORN

CREATED: 04-13-2005 REVISED: 10-19-2005 COMPLETED: Y
 PROJECT TYPE: HERBICIDE
 LOCATION: CHINO FARMS RESEARCHED BY: RITTER AND MENBERE
 DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
 PLOT SIZE: 10.00 FT WIDE X 20.00 FT LONG REPS: 03

| TRT TREATMENT NUM COMPONENT | DOSAGE | | | 006 RAW | | 007 RAW | | 008 RAW | |
|--------------------------------|--------|------|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | RATE | UNIT | TM | PHY % PL ALL | CON % PL ALL | PHY % PL ALL | CON % PL ALL | PHY % PL ALL | CON % PL ALL |
| 1A UNTREATED CHECK | 0.00 | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 0 | 30 | | | | |
| B SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 3A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 13 | 95 | | | | |
| B (G)2,4-D-ESTER (4EC) | 1.00 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 4A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 7 | 50 | | | | |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 5A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 95 | 100 | | | | |
| B CLARITY (4SL) | 1.00 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 6A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 92 | 92 | | | | |
| B CLARITY (4SL) | 0.50 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 7A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 77 | 70 | | | | |
| B CLARITY (4SL) | 0.25 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 8A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 10 | 97 | | | | |
| B>PYTHON (80WG) | 0.04 | LAA | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 9A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 10 | 98 | | | | |
| B>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 10A>GLYPHOMAX XRT (4.0AE) | 0.75 | LAA | 0 | 7 | 100 | | | | |
| B>FIRSTRATE (84 WG) | 0.016 | LAA | 0 | | | | | | |
| C>VALOR SX (51WG) | 0.05 | LAA | 0 | | | | | | |
| D (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 11A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 0 | 100 | | | | |
| 12A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 3 | 98 | | | | |
| B (G)2,4-D-ESTER (4EC) | 1.00 | LAA | 0 | | | | | | |
| 13A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 10 | 100 | | | | |
| B (G)2,4-D-ESTER (4EC) | 0.50 | LAA | 0 | | | | | | |
| 14A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 95 | 100 | | | | |
| B CLARITY (4SL) | 1.00 | LAA | 0 | | | | | | |
| 15A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 82 | 98 | | | | |
| B CLARITY (4SL) | 0.50 | LAA | 0 | | | | | | |
| 16A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 75 | 98 | | | | |
| B CLARITY (4SL) | 0.25 | LAA | 0 | | | | | | |
| 17A>GRAMOXONE INTEON (2SL) | 0.75 | LAA | 0 | 3 | 72 | | | | |
| B SENCOR DF (75WG) | 0.187 | LAA | 0 | | | | | | |
| C SURFACTANT - NON-IONIC (SL) | 0.125 | PMV | 0 | | | | | | |
| 18A>TOUCHDOWN TOTAL (4.17AE) | 0.75 | LAA | 0 | 3 | 100 | | | | |
| B SENCOR DF (75WG) | 0.187 | LAA | 0 | | | | | | |

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN NO-TILL CORN

| TRT TREATMENT NUM COMPONENT | DOSAGE RATE UNIT TM | 006 RAW 007 RAW 008 RAW 07-06-05 07-06-05 07-26-05 P GLXMA P ERICA P GLXMA | | |
|--------------------------------|-----------------------------------|--|-------------------------|-----------------------------------|
| | | VAR 02 PHY % 1.00 PL ALL | CON % 1.00 PL ALL | VAR 02 PHY % 1.00 PL ALL |
| 19A»GRAMOXONE INTEON (2SL) | 0.75 LAA 0 | 10 | 97 | 0 |
| B SENCOR DF (75WG) | 0.187 LAA 0 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 LAA 0 | | | |
| D SURFACTANT - NON-IONIC (SL) | 0.125 PMV 0 | | | |
| 20A»TOUCHDOWN TOTAL (4.17AE) | 0.75 LAA 0 | 3 | 100 | 0 |
| B SENCOR DF (75WG) | 0.187 LAA 0 | | | |
| C (G)2,4-D-ESTER (4EC) | 0.50 LAA 0 | | | |
| | LSD (0.05) | 11.67 | 22.37 | 20.25 |
| | SIGNIFICANCE OF F | ** | ** | ** |
| | STANDARD DEVIATION | 5.77 | 11.07 | 10.00 |
| | COEFFICIENT OF VARIANCE | 23.76 | 16.00 | 74.00 |
| | DAT APPLICATION # 01 TIMINGS (00) | 62 | 62 | 82 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / 30 DAYS PREPLANT 05-05-2005(1)

| H# | CUSTOM#1 | CUSTOM#2 | EV. DATE | S# | TYP | SPECIE | STAGE | RAW | PRT | SYM | MTH | CNF | BASIS | C.M | CTR1 | SS | NOTE |
|-----|----------|----------|------------|----|-----|--------|-------|-----|-----|-------|-----|------|---------|-----|------|----|------|
| 001 | ERICA | CON % | 05-18-2005 | 01 | P | ERICA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 002 | GLXMA | PHYTO % | 06-01-2005 | 02 | P | GLXMA | | RAW | ALL | PHY % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 003 | ERICA | CON % | 06-01-2005 | 01 | P | ERICA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 004 | GLXMA | PHYTO % | 06-14-2005 | 02 | P | GLXMA | | RAW | ALL | PHY % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 005 | ERICA | CON % | 06-14-2005 | 01 | P | ERICA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 006 | GLXMA | PHYTO % | 07-06-2005 | 02 | P | GLXMA | | RAW | ALL | PHY % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 007 | ERICA | CON % | 07-06-2005 | 01 | P | ERICA | | RAW | ALL | CON % | | ---- | 1.00 PL | NO | 0001 | 0 | N |
| 008 | GLXMA | PHYTO % | 07-26-2005 | 02 | P | GLXMA | | RAW | ALL | PHY % | | ---- | 1.00 PL | NO | 0001 | 0 | N |

* VARIETY CODES

VAR 02 = PIONEER 94M70

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = PIONEER 94M70

SITE NAME: WREC - WYE RESEARCH AND EDUCATION CENTER
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|----------------|
| 05-01-2005 | 23:59 | AUT | 0.30 | 65 | 47 | 56 | M | M |
| 05-02-2005 | 23:59 | AUT | 0.07 | 64 | 42 | 53 | M | M |
| 05-03-2005 | 23:59 | AUT | M | 60 | 38 | 49 | M | M |
| 05-04-2005 | 23:59 | AUT | M | 59 | 43 | 51 | M | M |
| 05-05-2005 | 23:59 | AUT | M | 63 | 39 | 51 | M | M |
| 05-06-2005 | 23:59 | AUT | M | 55 | 46 | 51 | M | M |
| 05-07-2005 | 23:59 | AUT | M | 69 | 47 | 58 | M | M |
| 05-08-2005 | 23:59 | AUT | M | 73 | 51 | 62 | M | M |
| 05-09-2005 | 23:59 | AUT | M | 74 | 44 | 59 | M | M |
| 05-10-2005 | 23:59 | AUT | M | 73 | 46 | 59 | M | M |
| 05-11-2005 | 23:59 | AUT | M | 78 | 52 | 65 | M | M |
| 05-12-2005 | 23:59 | AUT | M | 72 | 51 | 61 | M | M |
| 05-13-2005 | 23:59 | AUT | M | 61 | 46 | 53 | M | M |
| 05-14-2005 | 23:59 | AUT | 0.72 | 79 | 54 | 66 | M | M |
| 05-15-2005 | 23:59 | AUT | 0.02 | 73 | 60 | 66 | M | M |
| 05-16-2005 | 23:59 | AUT | M | 69 | 52 | 61 | M | M |
| 05-17-2005 | 23:59 | AUT | M | 66 | 50 | 58 | M | M |
| 05-18-2005 | 23:59 | AUT | M | 70 | 50 | 60 | M | M |
| 05-19-2005 | 23:59 | AUT | M | 70 | 50 | 60 | M | M |
| 05-20-2005 | 23:59 | AUT | 3.35 | 57 | 48 | 53 | M | M |
| 05-21-2005 | 23:59 | AUT | M | 72 | 45 | 59 | M | M |
| 05-22-2005 | 23:59 | AUT | M | 69 | 52 | 61 | M | M |
| 05-23-2005 | 23:59 | AUT | M | 68 | 54 | 61 | M | M |
| 05-24-2005 | 23:59 | AUT | 0.23 | 61 | 51 | 56 | M | M |
| 05-25-2005 | 23:59 | AUT | 0.20 | 55 | 48 | 51 | M | M |
| 05-26-2005 | 23:59 | AUT | M | 71 | 54 | 62 | M | M |
| 05-27-2005 | 23:59 | AUT | M | 79 | 51 | 65 | M | M |
| 05-28-2005 | 23:59 | AUT | M | 77 | 54 | 65 | M | M |
| 05-29-2005 | 23:59 | AUT | M | 75 | 54 | 64 | M | M |
| 05-30-2005 | 23:59 | AUT | 0.05 | 75 | 51 | 63 | M | M |
| 05-31-2005 | 23:59 | AUT | M | 77 | 55 | 66 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | AVERAGE |
| | | | 4.94 | 69 | 49 | 59 | *** | |

SITE NAME: WREC - WYE RESEARCH AND EDUCATION CENTER
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 06-01-2005 | 23:59 | AUT | | M 78 | 54 | 66 | M | M |
| 06-02-2005 | 23:59 | AUT | | M 67 | 55 | 61 | M | M |
| 06-03-2005 | 23:59 | AUT | 0.93 | 66 | 58 | 62 | M | M |
| 06-04-2005 | 23:59 | AUT | | M 74 | 61 | 68 | M | M |
| 06-05-2005 | 23:59 | AUT | | M 83 | 61 | 72 | M | M |
| 06-06-2005 | 23:59 | AUT | 1.01 | 89 | 66 | 78 | M | M |
| 06-07-2005 | 23:59 | AUT | 0.25 | 85 | 66 | 75 | M | M |
| 06-08-2005 | 23:59 | AUT | | M 89 | 68 | 78 | M | M |
| 06-09-2005 | 23:59 | AUT | | M 86 | 72 | 79 | M | M |
| 06-10-2005 | 23:59 | AUT | | M 85 | 74 | 80 | M | M |
| 06-11-2005 | 23:59 | AUT | | M 85 | 72 | 79 | M | M |
| 06-12-2005 | 23:59 | AUT | | M 84 | 71 | 77 | M | M |
| 06-13-2005 | 23:59 | AUT | | M 87 | 75 | 81 | M | M |
| 06-14-2005 | 23:59 | AUT | | M 90 | 76 | 83 | M | M |
| 06-15-2005 | 23:59 | AUT | | M 87 | 75 | 81 | M | M |
| 06-16-2005 | 23:59 | AUT | 0.11 | 83 | 68 | 76 | M | M |
| 06-17-2005 | 23:59 | AUT | | M 76 | 59 | 68 | M | M |
| 06-18-2005 | 23:59 | AUT | | M 78 | 56 | 67 | M | M |
| 06-19-2005 | 23:59 | AUT | | M 75 | 57 | 66 | M | M |
| 06-20-2005 | 23:59 | AUT | | M 72 | 54 | 63 | M | M |
| 06-21-2005 | 23:59 | AUT | | M 78 | 54 | 66 | M | M |
| 06-22-2005 | 23:59 | AUT | | M 79 | 63 | 71 | M | M |
| 06-23-2005 | 23:59 | AUT | | M 80 | 60 | 70 | M | M |
| 06-24-2005 | 23:59 | AUT | | M 83 | 62 | 73 | M | M |
| 06-25-2005 | 23:59 | AUT | | M 87 | 65 | 76 | M | M |
| 06-26-2005 | 23:59 | AUT | | M 87 | 66 | 77 | M | M |
| 06-27-2005 | 23:59 | AUT | 0.02 | 81 | 71 | 76 | M | M |
| 06-28-2005 | 23:59 | AUT | | M 90 | 70 | 80 | M | M |
| 06-29-2005 | 23:59 | AUT | 0.09 | 81 | 70 | 76 | M | M |
| 06-30-2005 | 23:59 | AUT | | M 85 | 67 | 76 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 2.41 | 82 | 65 | 74 | *** | |

SITE NAME: WREC - WYE RESEARCH AND EDUCATION CENTER
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 07-01-2005 | 23:59 | AUT | M | 88 | 72 | 80 | M | M |
| 07-02-2005 | 23:59 | AUT | M | 84 | 68 | 76 | M | M |
| 07-03-2005 | 23:59 | AUT | M | 83 | 65 | 74 | M | M |
| 07-04-2005 | 23:59 | AUT | M | 83 | 61 | 72 | M | M |
| 07-05-2005 | 23:59 | AUT | 1.17 | 86 | 71 | 79 | M | M |
| 07-06-2005 | 23:59 | AUT | 0.35 | 83 | 69 | 76 | M | M |
| 07-07-2005 | 23:59 | AUT | 0.10 | 80 | 67 | 74 | M | M |
| 07-08-2005 | 23:59 | AUT | 1.30 | 77 | 65 | 71 | M | M |
| 07-09-2005 | 23:59 | AUT | M | 84 | 63 | 74 | M | M |
| 07-10-2005 | 23:59 | AUT | M | 86 | 65 | 76 | M | M |
| 07-11-2005 | 23:59 | AUT | M | 88 | 66 | 77 | M | M |
| 07-12-2005 | 23:59 | AUT | M | 89 | 69 | 79 | M | M |
| 07-13-2005 | 23:59 | AUT | 0.03 | 89 | 72 | 81 | M | M |
| 07-14-2005 | 23:59 | AUT | 0.13 | 86 | 73 | 80 | M | M |
| 07-15-2005 | 23:59 | AUT | M | 86 | 74 | 80 | M | M |
| 07-16-2005 | 23:59 | AUT | 0.48 | 87 | 74 | 80 | M | M |
| 07-17-2005 | 23:59 | AUT | 0.01 | 89 | 47 | 68 | M | M |
| 07-18-2005 | 23:59 | AUT | M | 89 | 78 | 84 | M | M |
| 07-19-2005 | 23:59 | AUT | M | 91 | 77 | 84 | M | M |
| 07-20-2005 | 23:59 | AUT | M | 89 | 71 | 80 | M | M |
| 07-21-2005 | 23:59 | AUT | M | 90 | 69 | 81 | M | M |
| 07-22-2005 | 23:59 | AUT | M | 89 | 73 | 76 | M | M |
| 07-23-2005 | 23:59 | AUT | M | 87 | 66 | 74 | M | M |
| 07-24-2005 | 23:59 | AUT | M | 85 | 63 | 78 | M | M |
| 07-25-2005 | 23:59 | AUT | 0.70 | 88 | 68 | 84 | M | M |
| 07-26-2005 | 23:59 | AUT | M | 92 | 75 | 84 | M | M |
| 07-27-2005 | 23:59 | AUT | 0.42 | 95 | 72 | 75 | M | M |
| 07-28-2005 | 23:59 | AUT | M | 81 | 67 | 76 | M | M |
| 07-29-2005 | 23:59 | AUT | 0.15 | 77 | 70 | 75 | M | M |
| 07-30-2005 | 23:59 | AUT | 0.22 | 82 | 68 | 76 | M | M |
| 07-31-2005 | 23:59 | AUT | M | 83 | 67 | 76 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 5.06 | 86 | 69 | 78 | *** | |

SITE NAME: WREC - WYE RESEARCH AND EDUCATION CENTER
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 08-01-2005 | 23:59 | AUT | M | 84 | 68 | 76 | M | M |
| 08-02-2005 | 23:59 | AUT | M | 90 | 70 | 80 | M | M |
| 08-03-2005 | 23:59 | AUT | M | 90 | 72 | 81 | M | M |
| 08-04-2005 | 23:59 | AUT | M | 92 | 71 | 82 | M | M |
| 08-05-2005 | 23:59 | AUT | 1.23 | 91 | 68 | 80 | M | M |
| 08-06-2005 | 23:59 | AUT | 0.11 | 85 | 70 | 78 | M | M |
| 08-07-2005 | 23:59 | AUT | 1.75 | 81 | 64 | 73 | M | M |
| 08-08-2005 | 23:59 | AUT | 0.29 | 86 | 71 | 79 | M | M |
| 08-09-2005 | 23:59 | AUT | 0.50 | 74 | 70 | 72 | M | M |
| 08-10-2005 | 23:59 | AUT | 0.08 | 84 | 69 | 77 | M | M |
| 08-11-2005 | 23:59 | AUT | M | 89 | 73 | 81 | M | M |
| 08-12-2005 | 23:59 | AUT | M | 91 | 75 | 83 | M | M |
| 08-13-2005 | 23:59 | AUT | M | 92 | 79 | 86 | M | M |
| 08-14-2005 | 23:59 | AUT | M | 91 | 76 | 84 | M | M |
| 08-15-2005 | 23:59 | AUT | M | 86 | 73 | 80 | M | M |
| 08-16-2005 | 23:59 | AUT | 0.47 | 79 | 70 | 75 | M | M |
| 08-17-2005 | 23:59 | AUT | M | 83 | 67 | 75 | M | M |
| 08-18-2005 | 23:59 | AUT | M | 85 | 66 | 76 | M | M |
| 08-19-2005 | 23:59 | AUT | 0.28 | 76 | 68 | 72 | M | M |
| 08-20-2005 | 23:59 | AUT | M | 85 | 70 | 78 | M | M |
| 08-21-2005 | 23:59 | AUT | M | 96 | 68 | 82 | M | M |
| 08-22-2005 | 23:59 | AUT | M | 91 | 65 | 78 | M | M |
| 08-23-2005 | 23:59 | AUT | M | 87 | 62 | 75 | M | M |
| 08-24-2005 | 23:59 | AUT | M | 88 | 59 | 74 | M | M |
| 08-25-2005 | 23:59 | AUT | M | 87 | 54 | 71 | M | M |
| 08-26-2005 | 23:59 | AUT | M | 85 | 62 | 74 | M | M |
| 08-27-2005 | 23:59 | AUT | 0.25 | 80 | 65 | 73 | M | M |
| 08-28-2005 | 23:59 | AUT | 0.09 | 89 | 70 | 80 | M | M |
| 08-29-2005 | 23:59 | AUT | M | 92 | 67 | 80 | M | M |
| 08-30-2005 | 23:59 | AUT | M | 88 | 72 | 80 | M | M |
| 08-31-2005 | 23:59 | AUT | M | 89 | 72 | 81 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 5.05 | 87 | 69 | 78 | *** | |

SITE NAME: WREC - WYE RESEARCH AND EDUCATION CENTER
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 09-01-2005 | 23:59 | AUT | M | 89 | 65 | 77 | M | M |
| 09-02-2005 | 23:59 | AUT | M | 90 | 62 | 76 | M | M |
| 09-03-2005 | 23:59 | AUT | M | 86 | 60 | 73 | M | M |
| 09-04-2005 | 23:59 | AUT | M | 85 | 59 | 72 | M | M |
| 09-05-2005 | 23:59 | AUT | M | 87 | 58 | 73 | M | M |
| 09-06-2005 | 23:59 | AUT | M | 85 | 55 | 70 | M | M |
| 09-07-2005 | 23:59 | AUT | M | 85 | 54 | 70 | M | M |
| 09-08-2005 | 23:59 | AUT | M | 85 | 56 | 71 | M | M |
| 09-09-2005 | 23:59 | AUT | M | 89 | 58 | 74 | M | M |
| 09-10-2005 | 23:59 | AUT | M | 89 | 59 | 74 | M | M |
| 09-11-2005 | 23:59 | AUT | M | 88 | 55 | 72 | M | M |
| 09-12-2005 | 23:59 | AUT | M | 87 | 57 | 72 | M | M |
| 09-13-2005 | 23:59 | AUT | M | 90 | 57 | 74 | M | M |
| 09-14-2005 | 23:59 | AUT | 1.53 | 90 | 70 | 80 | M | M |
| 09-15-2005 | 23:59 | AUT | M | 95 | 71 | 83 | M | M |
| 09-16-2005 | 23:59 | AUT | M | 95 | 71 | 83 | M | M |
| 09-17-2005 | 23:59 | AUT | M | 93 | 70 | 82 | M | M |
| 09-18-2005 | 23:59 | AUT | M | 88 | 63 | 76 | M | M |
| 09-19-2005 | 23:59 | AUT | M | 89 | 62 | 76 | M | M |
| 09-20-2005 | 23:59 | AUT | 0.05 | 89 | 69 | 79 | M | M |
| 09-21-2005 | 23:59 | AUT | M | 88 | 58 | 73 | M | M |
| 09-22-2005 | 23:59 | AUT | M | 87 | 56 | 72 | M | M |
| 09-23-2005 | 23:59 | AUT | M | 94 | 71 | 83 | M | M |
| 09-24-2005 | 23:59 | AUT | M | 75 | 61 | 68 | M | M |
| 09-25-2005 | 23:59 | AUT | M | 85 | 59 | 72 | M | M |
| 09-26-2005 | 23:59 | AUT | 0.10 | 84 | 66 | 75 | M | M |
| 09-27-2005 | 23:59 | AUT | M | 81 | 50 | 66 | M | M |
| 09-28-2005 | 23:59 | AUT | M | 82 | 48 | 65 | M | M |
| 09-29-2005 | 23:59 | AUT | M | 78 | 53 | 66 | M | M |
| 09-30-2005 | 23:59 | AUT | M | 73 | 41 | 57 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 1.68 | 87 | 60 | 74 | *** | |

SITE NAME: WREC - WYE RESEARCH AND EDUCATION CENTER
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 10-01-2005 | 23:59 | AUT | M | 80 | 44 | 62 | M | M |
| 10-02-2005 | 23:59 | AUT | M | 83 | 48 | 66 | M | M |
| 10-03-2005 | 23:59 | AUT | M | 85 | 49 | 67 | M | M |
| 10-04-2005 | 23:59 | AUT | M | 84 | 60 | 72 | M | M |
| 10-05-2005 | 23:59 | AUT | M | 85 | 57 | 71 | M | M |
| 10-06-2005 | 23:59 | AUT | 0.30 | 86 | 62 | 74 | M | M |
| 10-07-2005 | 23:59 | AUT | 0.77 | 80 | 68 | 74 | M | M |
| 10-08-2005 | 23:59 | AUT | 1.63 | 76 | 57 | 67 | M | M |
| 10-09-2005 | 23:59 | AUT | M | 62 | 55 | 59 | M | M |
| 10-10-2005 | 23:59 | AUT | 0.16 | 66 | 59 | 63 | M | M |
| 10-11-2005 | 23:59 | AUT | 1.07 | 66 | 60 | 63 | M | M |
| 10-12-2005 | 23:59 | AUT | 0.02 | 66 | 55 | 61 | M | M |
| 10-13-2005 | 23:59 | AUT | 0.26 | 66 | 56 | 61 | M | M |
| 10-14-2005 | 23:59 | AUT | 0.04 | 72 | 60 | 66 | M | M |
| 10-15-2005 | 23:59 | AUT | M | 80 | 58 | 69 | M | M |
| 10-16-2005 | 23:59 | AUT | M | 70 | 53 | 62 | M | M |
| 10-17-2005 | 23:59 | AUT | M | 71 | 49 | 60 | M | M |
| 10-18-2005 | 23:59 | AUT | M | 81 | 50 | 66 | M | M |
| 10-19-2005 | 23:59 | AUT | M | 76 | 46 | 61 | M | M |
| 10-20-2005 | 23:59 | AUT | M | 67 | 53 | 60 | M | M |
| 10-21-2005 | 23:59 | AUT | 0.13 | 53 | 50 | 52 | M | M |
| 10-22-2005 | 23:59 | AUT | 0.87 | 63 | 51 | 57 | M | M |
| 10-23-2005 | 23:59 | AUT | M | 67 | 42 | 55 | M | M |
| 10-24-2005 | 23:59 | AUT | 0.61 | 60 | 42 | 51 | M | M |
| 10-25-2005 | 23:59 | AUT | 0.90 | 50 | 41 | 46 | M | M |
| 10-26-2005 | 23:59 | AUT | M | 61 | 41 | 51 | M | M |
| 10-27-2005 | 23:59 | AUT | M | 62 | 37 | 48 | M | M |
| 10-28-2005 | 23:59 | AUT | M | 61 | 31 | 46 | M | M |
| 10-29-2005 | 23:59 | AUT | M | 56 | 30 | 43 | M | M |
| 10-30-2005 | 23:59 | AUT | M | 69 | 40 | 55 | M | M |
| 10-31-2005 | 23:59 | AUT | M | 74 | 38 | 56 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 6.76 | 70 | 50 | 60 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 10-01-2004 | 23:59 | AUT | 0.01 | 75 | 48 | 62 | M | M |
| 10-02-2004 | 23:59 | AUT | 0.20 | 72 | 63 | 68 | M | M |
| 10-03-2004 | 23:59 | AUT | 0.01 | 71 | 53 | 62 | M | M |
| 10-04-2004 | 23:59 | AUT | M | 75 | 52 | 64 | M | M |
| 10-05-2004 | 23:59 | AUT | M | 62 | 41 | 52 | M | M |
| 10-06-2004 | 23:59 | AUT | M | 67 | 36 | 52 | M | M |
| 10-07-2004 | 23:59 | AUT | M | 79 | 40 | 60 | M | M |
| 10-08-2004 | 23:59 | AUT | 0.01 | 77 | 45 | 61 | M | M |
| 10-09-2004 | 23:59 | AUT | 0.01 | 72 | 50 | 61 | M | M |
| 10-10-2004 | 23:59 | AUT | M | 71 | 49 | 60 | M | M |
| 10-11-2004 | 23:59 | AUT | M | 63 | 42 | 53 | M | M |
| 10-12-2004 | 23:59 | AUT | M | 66 | 36 | 51 | M | M |
| 10-13-2004 | 23:59 | AUT | 0.01 | 62 | 38 | 50 | M | M |
| 10-14-2004 | 23:59 | AUT | 0.03 | 69 | 51 | 60 | M | M |
| 10-15-2004 | 23:59 | AUT | 0.07 | 64 | 46 | 55 | M | M |
| 10-16-2004 | 23:59 | AUT | 0.06 | 63 | 45 | 54 | M | M |
| 10-17-2004 | 23:59 | AUT | M | 64 | 68 | 66 | M | M |
| 10-18-2004 | 23:59 | AUT | 0.01 | 63 | 31 | 47 | M | M |
| 10-19-2004 | 23:59 | AUT | 0.05 | 59 | 54 | 57 | M | M |
| 10-20-2004 | 23:59 | AUT | 0.27 | 54 | 52 | 53 | M | M |
| 10-21-2004 | 23:59 | AUT | 0.14 | 55 | 51 | 53 | M | M |
| 10-22-2004 | 23:59 | AUT | 0.08 | 55 | 42 | 49 | M | M |
| 10-23-2004 | 23:59 | AUT | 0.01 | 58 | 35 | 47 | M | M |
| 10-24-2004 | 23:59 | AUT | 0.07 | 51 | 39 | 45 | M | M |
| 10-25-2004 | 23:59 | AUT | M | 57 | 49 | 53 | M | M |
| 10-26-2004 | 23:59 | AUT | 0.01 | 65 | 40 | 53 | M | M |
| 10-27-2004 | 23:59 | AUT | M | 65 | 44 | 55 | M | M |
| 10-28-2004 | 23:59 | AUT | M | 63 | 46 | 55 | M | M |
| 10-29-2004 | 23:59 | AUT | M | 59 | 51 | 55 | M | M |
| 10-30-2004 | 23:59 | AUT | 0.01 | 73 | 67 | 70 | M | M |
| 10-31-2004 | 23:59 | AUT | 0.01 | 78 | 60 | 69 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 1.07 | 65 | 47 | 56 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 11-01-2004 | 23:59 | AUT | | M 68 | 44 | 56 | M | M |
| 11-02-2004 | 23:59 | AUT | | M 72 | 45 | 59 | M | M |
| 11-03-2004 | 23:59 | AUT | | M 69 | 45 | 57 | M | M |
| 11-04-2004 | 23:59 | AUT | 1.42 | 51 | 40 | 46 | M | M |
| 11-05-2004 | 23:59 | AUT | | M 57 | 42 | 50 | M | M |
| 11-06-2004 | 23:59 | AUT | | M 64 | 38 | 51 | M | M |
| 11-07-2004 | 23:59 | AUT | | M 72 | 37 | 55 | M | M |
| 11-08-2004 | 23:59 | AUT | | M 59 | 30 | 45 | M | M |
| 11-09-2004 | 23:59 | AUT | | M 48 | 28 | 38 | M | M |
| 11-10-2004 | 23:59 | AUT | | M 52 | 24 | 38 | M | M |
| 11-11-2004 | 23:59 | AUT | | M 58 | 39 | 49 | M | M |
| 11-12-2004 | 23:59 | AUT | 1.76 | 47 | 41 | 44 | M | M |
| 11-13-2004 | 23:59 | AUT | 0.06 | 48 | 33 | 41 | M | M |
| 11-14-2004 | 23:59 | AUT | | M 51 | 28 | 40 | M | M |
| 11-15-2004 | 23:59 | AUT | | M 60 | 28 | 44 | M | M |
| 11-16-2004 | 23:59 | AUT | | M 63 | 32 | 48 | M | M |
| 11-17-2004 | 23:59 | AUT | | M 62 | 34 | 48 | M | M |
| 11-18-2004 | 23:59 | AUT | | M 66 | 45 | 56 | M | M |
| 11-19-2004 | 23:59 | AUT | | M 63 | 43 | 53 | M | M |
| 11-20-2004 | 23:59 | AUT | 0.15 | 62 | 54 | 58 | M | M |
| 11-21-2004 | 23:59 | AUT | 0.01 | 64 | 47 | 56 | M | M |
| 11-22-2004 | 23:59 | AUT | 0.03 | 55 | 50 | 53 | M | M |
| 11-23-2004 | 23:59 | AUT | 0.01 | 51 | 49 | 50 | M | M |
| 11-24-2004 | 23:59 | AUT | 0.17 | 66 | 52 | 59 | M | M |
| 11-25-2004 | 23:59 | AUT | 0.14 | 67 | 38 | 53 | M | M |
| 11-26-2004 | 23:59 | AUT | | M 48 | 29 | 39 | M | M |
| 11-27-2004 | 23:59 | AUT | 0.11 | 54 | 31 | 43 | M | M |
| 11-28-2004 | 23:59 | AUT | 0.44 | 59 | 38 | 49 | M | M |
| 11-29-2004 | 23:59 | AUT | | M 50 | 33 | 42 | M | M |
| 11-30-2004 | 23:59 | AUT | 0.03 | 53 | 36 | 45 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 4.33 | 59 | 38 | 49 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 12-01-2004 | 23:59 | AUT | 0.52 | 57 | 36 | 47 | M | M |
| 12-02-2004 | 23:59 | AUT | M | 52 | 30 | 41 | M | M |
| 12-03-2004 | 23:59 | AUT | M | 50 | 27 | 39 | M | M |
| 12-04-2004 | 23:59 | AUT | M | 49 | 23 | 36 | M | M |
| 12-05-2004 | 23:59 | AUT | M | 58 | 32 | 40 | M | M |
| 12-06-2004 | 23:59 | AUT | M | 53 | 36 | 45 | M | M |
| 12-07-2004 | 23:59 | AUT | 0.62 | 65 | 47 | 56 | M | M |
| 12-08-2004 | 23:59 | AUT | M | 62 | 39 | 51 | M | M |
| 12-09-2004 | 23:59 | AUT | 0.60 | 52 | 34 | 43 | M | M |
| 12-10-2004 | 23:59 | AUT | 0.16 | 53 | 50 | 52 | M | M |
| 12-11-2004 | 23:59 | AUT | 0.09 | 54 | 40 | 47 | M | M |
| 12-12-2004 | 23:59 | AUT | M | 49 | 39 | 44 | M | M |
| 12-13-2004 | 23:59 | AUT | M | 47 | 34 | 41 | M | M |
| 12-14-2004 | 23:59 | AUT | M | 40 | 29 | 35 | M | M |
| 12-15-2004 | 23:59 | AUT | M | 37 | 22 | 30 | M | M |
| 12-16-2004 | 23:59 | AUT | M | 48 | 17 | 33 | M | M |
| 12-17-2004 | 23:59 | AUT | M | 49 | 28 | 39 | M | M |
| 12-18-2004 | 23:59 | AUT | M | 50 | 21 | 36 | M | M |
| 12-19-2004 | 23:59 | AUT | 0.13 | 40 | 18 | 29 | M | M |
| 12-20-2004 | 23:59 | AUT | M | 22 | 9 | 16 | M | M |
| 12-21-2004 | 23:59 | AUT | M | 42 | 16 | 29 | M | M |
| 12-22-2004 | 23:59 | AUT | M | 61 | 27 | 44 | M | M |
| 12-23-2004 | 23:59 | AUT | 0.82 | 61 | 34 | 48 | M | M |
| 12-24-2004 | 23:59 | AUT | M | 35 | 19 | 27 | M | M |
| 12-25-2004 | 23:59 | AUT | M | 31 | 16 | 24 | M | M |
| 12-26-2004 | 23:59 | AUT | M | 33 | 16 | 25 | M | M |
| 12-27-2004 | 23:59 | AUT | M | 30 | 19 | 25 | M | M |
| 12-28-2004 | 23:59 | AUT | M | 36 | 14 | 25 | M | M |
| 12-29-2004 | 23:59 | AUT | M | 51 | 34 | 43 | M | M |
| 12-30-2004 | 23:59 | AUT | M | 48 | 28 | 38 | M | M |
| 12-31-2004 | 23:59 | AUT | M | 60 | 38 | 49 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 2.94 | 48 | 28 | 38 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 01-01-2005 | 23:59 | AUT | | M 68 | 39 | 54 | M | M |
| 01-02-2005 | 23:59 | AUT | | M 49 | 37 | 43 | M | M |
| 01-03-2005 | 23:59 | AUT | 0.02 | 65 | 41 | 53 | M | M |
| 01-04-2005 | 23:59 | AUT | | M 66 | 49 | 58 | M | M |
| 01-05-2005 | 23:59 | AUT | 0.42 | 49 | 39 | 44 | M | M |
| 01-06-2005 | 23:59 | AUT | 0.03 | 43 | 37 | 40 | M | M |
| 01-07-2005 | 23:59 | AUT | 0.01 | 47 | 39 | 43 | M | M |
| 01-08-2005 | 23:59 | AUT | 0.20 | 52 | 37 | 45 | M | M |
| 01-09-2005 | 23:59 | AUT | | M 41 | 29 | 35 | M | M |
| 01-10-2005 | 23:59 | AUT | | M 54 | 28 | 41 | M | M |
| 01-11-2005 | 23:59 | AUT | 0.07 | 47 | 36 | 42 | M | M |
| 01-12-2005 | 23:59 | AUT | 0.01 | 48 | 41 | 45 | M | M |
| 01-13-2005 | 23:59 | AUT | 0.03 | 71 | 44 | 58 | M | M |
| 01-14-2005 | 23:59 | AUT | 1.76 | 69 | 33 | 51 | M | M |
| 01-15-2005 | 23:59 | AUT | | M 35 | 26 | 31 | M | M |
| 01-16-2005 | 23:59 | AUT | | M 36 | 27 | 32 | M | M |
| 01-17-2005 | 23:59 | AUT | | M 29 | 16 | 23 | M | M |
| 01-18-2005 | 23:59 | AUT | | M 23 | 12 | 18 | M | M |
| 01-19-2005 | 23:59 | AUT | 0.07 | 26 | 11 | 19 | M | M |
| 01-20-2005 | 23:59 | AUT | | M 36 | 25 | 31 | M | M |
| 01-21-2005 | 23:59 | AUT | | M 30 | 11 | 21 | M | M |
| 01-22-2005 | 23:59 | AUT | 0.36 | 22 | 9 | 16 | M | M |
| 01-23-2005 | 23:59 | AUT | | M 21 | 13 | 17 | M | M |
| 01-24-2005 | 23:59 | AUT | 0.01 | 27 | 6 | 17 | M | M |
| 01-25-2005 | 23:59 | AUT | | M 37 | 24 | 31 | M | M |
| 01-26-2005 | 23:59 | AUT | | M 51 | 30 | 41 | M | M |
| 01-27-2005 | 23:59 | AUT | | M 30 | 14 | 22 | M | M |
| 01-28-2005 | 23:59 | AUT | | M 29 | 8 | 19 | M | M |
| 01-29-2005 | 23:59 | AUT | 0.07 | 35 | 10 | 23 | M | M |
| 01-30-2005 | 23:59 | AUT | 0.26 | 35 | 24 | 30 | M | M |
| 01-31-2005 | 23:59 | AUT | | M 39 | 21 | 30 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 3.32 | 42 | 26 | 34 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|---------|-------------|-------------|-------------|--------------|---------------|
| 02-01-2005 | 23:59 | AUT | | M 39 | 16 | 28 | M | M |
| 02-02-2005 | 23:59 | AUT | | M 45 | 14 | 30 | M | M |
| 02-03-2005 | 23:59 | AUT | 0.05 | 37 | 28 | 33 | M | M |
| 02-04-2005 | 23:59 | AUT | | M 46 | 32 | 39 | M | M |
| 02-05-2005 | 23:59 | AUT | | M 55 | 32 | 44 | M | M |
| 02-06-2005 | 23:59 | AUT | | M 56 | 27 | 42 | M | M |
| 02-07-2005 | 23:59 | AUT | | M 57 | 28 | 43 | M | M |
| 02-08-2005 | 23:59 | AUT | | M 63 | 34 | 49 | M | M |
| 02-09-2005 | 23:59 | AUT | | M 59 | 38 | 49 | M | M |
| 02-10-2005 | 23:59 | AUT | 0.80 | 48 | 30 | 39 | M | M |
| 02-11-2005 | 23:59 | AUT | | M 40 | 27 | 34 | M | M |
| 02-12-2005 | 23:59 | AUT | | M 53 | 30 | 42 | M | M |
| 02-13-2005 | 23:59 | AUT | | M 50 | 27 | 39 | M | M |
| 02-14-2005 | 23:59 | AUT | 0.58 | 52 | 35 | 44 | M | M |
| 02-15-2005 | 23:59 | AUT | | M 63 | 37 | 50 | M | M |
| 02-16-2005 | 23:59 | AUT | 0.04 | 63 | 39 | 51 | M | M |
| 02-17-2005 | 23:59 | AUT | | M 45 | 29 | 37 | M | M |
| 02-18-2005 | 23:59 | AUT | | M 32 | 22 | 27 | M | M |
| 02-19-2005 | 23:59 | AUT | | M 39 | 17 | 28 | M | M |
| 02-20-2005 | 23:59 | AUT | | M 44 | 24 | 34 | M | M |
| 02-21-2005 | 23:59 | AUT | 0.09 | 58 | 35 | 47 | M | M |
| 02-22-2005 | 23:59 | AUT | 0.01 | 49 | 39 | 44 | M | M |
| 02-23-2005 | 23:59 | AUT | | M 46 | 33 | 40 | M | M |
| 02-24-2005 | 23:59 | AUT | 0.34 | 35 | 27 | 31 | M | M |
| 02-25-2005 | 23:59 | AUT | 0.02 | 37 | 24 | 31 | M | M |
| 02-26-2005 | 23:59 | AUT | | M 44 | 18 | 31 | M | M |
| 02-27-2005 | 23:59 | AUT | | M 40 | 25 | 33 | M | M |
| 02-28-2005 | 23:59 | AUT | 0.43 | 33 | 30 | 32 | M | M |

| TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE |
|-------|---------|---------|---------|---------|
| 2.36 | 47 | 28 | 38 | *** |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 03-01-2005 | 23:59 | AUT | 0.04 | 40 | 29 | 35 | M | M |
| 03-02-2005 | 23:59 | AUT | M | 35 | 27 | 31 | M | M |
| 03-03-2005 | 23:59 | AUT | M | 35 | 24 | 30 | M | M |
| 03-04-2005 | 23:59 | AUT | M | 44 | 17 | 31 | M | M |
| 03-05-2005 | 23:59 | AUT | M | 45 | 28 | 37 | M | M |
| 03-06-2005 | 23:59 | AUT | M | 56 | 26 | 41 | M | M |
| 03-07-2005 | 23:59 | AUT | M | 70 | 40 | 55 | M | M |
| 03-08-2005 | 23:59 | AUT | 0.49 | 62 | 23 | 43 | M | M |
| 03-09-2005 | 23:59 | AUT | M | 35 | 19 | 27 | M | M |
| 03-10-2005 | 23:59 | AUT | M | 41 | 17 | 29 | M | M |
| 03-11-2005 | 23:59 | AUT | M | 54 | 28 | 41 | M | M |
| 03-12-2005 | 23:59 | AUT | 0.09 | 50 | 28 | 39 | M | M |
| 03-13-2005 | 23:59 | AUT | M | 47 | 36 | 42 | M | M |
| 03-14-2005 | 23:59 | AUT | M | 45 | 33 | 39 | M | M |
| 03-15-2005 | 23:59 | AUT | M | 48 | 26 | 37 | M | M |
| 03-16-2005 | 23:59 | AUT | M | 48 | 30 | 39 | M | M |
| 03-17-2005 | 23:59 | AUT | M | 47 | 34 | 41 | M | M |
| 03-18-2005 | 23:59 | AUT | M | 58 | 28 | 43 | M | M |
| 03-19-2005 | 23:59 | AUT | M | 58 | 32 | 45 | M | M |
| 03-20-2005 | 23:59 | AUT | 0.04 | 54 | 42 | 48 | M | M |
| 03-21-2005 | 23:59 | AUT | M | 51 | 32 | 42 | M | M |
| 03-22-2005 | 23:59 | AUT | M | 58 | 28 | 43 | M | M |
| 03-23-2005 | 23:59 | AUT | 2.14 | 46 | 40 | 43 | M | M |
| 03-24-2005 | 23:59 | AUT | M | 48 | 38 | 43 | M | M |
| 03-25-2005 | 23:59 | AUT | M | 48 | 42 | 45 | M | M |
| 03-26-2005 | 23:59 | AUT | M | 47 | 40 | 44 | M | M |
| 03-27-2005 | 23:59 | AUT | 0.11 | 46 | 42 | 44 | M | M |
| 03-28-2005 | 23:59 | AUT | 1.30 | 57 | 42 | 50 | M | M |
| 03-29-2005 | 23:59 | AUT | M | 65 | 48 | 57 | M | M |
| 03-30-2005 | 23:59 | AUT | M | 64 | 38 | 51 | M | M |
| 03-31-2005 | 23:59 | AUT | M | 54 | 40 | 47 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 4.21 | 50 | 32 | 41 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 04-01-2005 | 23:59 | AUT | 0.24 | 64 | 47 | 56 | M | M |
| 04-02-2005 | 23:59 | AUT | 1.50 | 59 | 42 | 51 | M | M |
| 04-03-2005 | 23:59 | AUT | 0.05 | 49 | 40 | 45 | M | M |
| 04-04-2005 | 23:59 | AUT | M | 64 | 42 | 53 | M | M |
| 04-05-2005 | 23:59 | AUT | M | 73 | 32 | 53 | M | M |
| 04-06-2005 | 23:59 | AUT | M | 84 | 44 | 64 | M | M |
| 04-07-2005 | 23:59 | AUT | 0.20 | 75 | 62 | 69 | M | M |
| 04-08-2005 | 23:59 | AUT | 0.05 | 65 | 46 | 56 | M | M |
| 04-09-2005 | 23:59 | AUT | M | 64 | 41 | 53 | M | M |
| 04-10-2005 | 23:59 | AUT | M | 74 | 35 | 55 | M | M |
| 04-11-2005 | 23:59 | AUT | M | 67 | 45 | 56 | M | M |
| 04-12-2005 | 23:59 | AUT | M | 54 | 39 | 47 | M | M |
| 04-13-2005 | 23:59 | AUT | M | 61 | 42 | 52 | M | M |
| 04-14-2005 | 23:59 | AUT | M | 65 | 33 | 49 | M | M |
| 04-15-2005 | 23:59 | AUT | M | 56 | 38 | 47 | M | M |
| 04-16-2005 | 23:59 | AUT | M | 61 | 29 | 45 | M | M |
| 04-17-2005 | 23:59 | AUT | M | 74 | 31 | 53 | M | M |
| 04-18-2005 | 23:59 | AUT | M | 78 | 44 | 61 | M | M |
| 04-19-2005 | 23:59 | AUT | M | 85 | 47 | 66 | M | M |
| 04-20-2005 | 23:59 | AUT | M | 86 | 54 | 70 | M | M |
| 04-21-2005 | 23:59 | AUT | 0.09 | 74 | 51 | 63 | M | M |
| 04-22-2005 | 23:59 | AUT | 0.22 | 53 | 50 | 52 | M | M |
| 04-23-2005 | 23:59 | AUT | 0.62 | 70 | 47 | 59 | M | M |
| 04-24-2005 | 23:59 | AUT | M | 51 | 41 | 46 | M | M |
| 04-25-2005 | 23:59 | AUT | M | 63 | 41 | 52 | M | M |
| 04-26-2005 | 23:59 | AUT | M | 71 | 40 | 56 | M | M |
| 04-27-2005 | 23:59 | AUT | 0.01 | 69 | 52 | 61 | M | M |
| 04-28-2005 | 23:59 | AUT | M | 67 | 45 | 56 | M | M |
| 04-29-2005 | 23:59 | AUT | M | 59 | 45 | 52 | M | M |
| 04-30-2005 | 23:59 | AUT | 1.21 | 67 | 55 | 61 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 4.19 | 67 | 43 | 55 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 05-01-2005 | 23:59 | AUT | 0.12 | 64 | 43 | 54 | M | M |
| 05-02-2005 | 23:59 | AUT | 0.02 | 63 | 40 | 52 | M | M |
| 05-03-2005 | 23:59 | AUT | M | 60 | 33 | 47 | M | M |
| 05-04-2005 | 23:59 | AUT | M | 61 | 41 | 51 | M | M |
| 05-05-2005 | 23:59 | AUT | M | 63 | 37 | 50 | M | M |
| 05-06-2005 | 23:59 | AUT | M | 56 | 45 | 51 | M | M |
| 05-07-2005 | 23:59 | AUT | M | 71 | 41 | 56 | M | M |
| 05-08-2005 | 23:59 | AUT | M | 76 | 51 | 64 | M | M |
| 05-09-2005 | 23:59 | AUT | M | 78 | 43 | 61 | M | M |
| 05-10-2005 | 23:59 | AUT | M | 74 | 47 | 61 | M | M |
| 05-11-2005 | 23:59 | AUT | M | 85 | 53 | 69 | M | M |
| 05-12-2005 | 23:59 | AUT | 0.01 | 73 | 59 | 66 | M | M |
| 05-13-2005 | 23:59 | AUT | M | 62 | 49 | 56 | M | M |
| 05-14-2005 | 23:59 | AUT | 0.24 | 83 | 50 | 67 | M | M |
| 05-15-2005 | 23:59 | AUT | M | 72 | 61 | 67 | M | M |
| 05-16-2005 | 23:59 | AUT | M | 68 | 51 | 60 | M | M |
| 05-17-2005 | 23:59 | AUT | M | 68 | 44 | 56 | M | M |
| 05-18-2005 | 23:59 | AUT | M | 74 | 45 | 60 | M | M |
| 05-19-2005 | 23:59 | AUT | 0.01 | 70 | 47 | 59 | M | M |
| 05-20-2005 | 23:59 | AUT | 2.61 | 59 | 49 | 54 | M | M |
| 05-21-2005 | 23:59 | AUT | M | 73 | 43 | 58 | M | M |
| 05-22-2005 | 23:59 | AUT | M | 74 | 50 | 62 | M | M |
| 05-23-2005 | 23:59 | AUT | 0.01 | 66 | 54 | 60 | M | M |
| 05-24-2005 | 23:59 | AUT | 0.62 | 58 | 54 | 56 | M | M |
| 05-25-2005 | 23:59 | AUT | 0.01 | 58 | 49 | 54 | M | M |
| 05-26-2005 | 23:59 | AUT | 0.01 | 79 | 48 | 64 | M | M |
| 05-27-2005 | 23:59 | AUT | M | 81 | 50 | 66 | M | M |
| 05-28-2005 | 23:59 | AUT | 0.02 | 79 | 49 | 64 | M | M |
| 05-29-2005 | 23:59 | AUT | 0.01 | 77 | 48 | 63 | M | M |
| 05-30-2005 | 23:59 | AUT | 0.21 | 76 | 47 | 62 | M | M |
| 05-31-2005 | 23:59 | AUT | 0.01 | 78 | 51 | 65 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 3.91 | 70 | 47 | 59 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 06-01-2005 | 23:59 | AUT | M | 77 | 49 | 63 | M | M |
| 06-02-2005 | 23:59 | AUT | 0.01 | 66 | 57 | 62 | M | M |
| 06-03-2005 | 23:59 | AUT | 0.67 | 65 | 59 | 62 | M | M |
| 06-04-2005 | 23:59 | AUT | M | 79 | 61 | 70 | M | M |
| 06-05-2005 | 23:59 | AUT | M | 89 | 59 | 74 | M | M |
| 06-06-2005 | 23:59 | AUT | 0.95 | 91 | 66 | 79 | M | M |
| 06-07-2005 | 23:59 | AUT | 0.16 | 88 | 65 | 77 | M | M |
| 06-08-2005 | 23:59 | AUT | M | 91 | 65 | 78 | M | M |
| 06-09-2005 | 23:59 | AUT | 0.03 | 88 | 71 | 80 | M | M |
| 06-10-2005 | 23:59 | AUT | 0.01 | 87 | 74 | 81 | M | M |
| 06-11-2005 | 23:59 | AUT | M | 88 | 71 | 80 | M | M |
| 06-12-2005 | 23:59 | AUT | M | 87 | 68 | 78 | M | M |
| 06-13-2005 | 23:59 | AUT | 0.02 | 90 | 72 | 81 | M | M |
| 06-14-2005 | 23:59 | AUT | 0.01 | 92 | 71 | 82 | M | M |
| 06-15-2005 | 23:59 | AUT | M | 87 | 70 | 79 | M | M |
| 06-16-2005 | 23:59 | AUT | 0.03 | 75 | 66 | 71 | M | M |
| 06-17-2005 | 23:59 | AUT | M | 76 | 54 | 65 | M | M |
| 06-18-2005 | 23:59 | AUT | M | 81 | 51 | 66 | M | M |
| 06-19-2005 | 23:59 | AUT | M | 75 | 57 | 66 | M | M |
| 06-20-2005 | 23:59 | AUT | M | 74 | 52 | 63 | M | M |
| 06-21-2005 | 23:59 | AUT | M | 83 | 51 | 67 | M | M |
| 06-22-2005 | 23:59 | AUT | 0.02 | 83 | 63 | 73 | M | M |
| 06-23-2005 | 23:59 | AUT | 0.01 | 84 | 56 | 70 | M | M |
| 06-24-2005 | 23:59 | AUT | M | 87 | 58 | 73 | M | M |
| 06-25-2005 | 23:59 | AUT | M | 90 | 62 | 76 | M | M |
| 06-26-2005 | 23:59 | AUT | M | 89 | 62 | 76 | M | M |
| 06-27-2005 | 23:59 | AUT | 0.10 | 82 | 68 | 75 | M | M |
| 06-28-2005 | 23:59 | AUT | 0.03 | 91 | 66 | 79 | M | M |
| 06-29-2005 | 23:59 | AUT | 0.83 | 83 | 69 | 76 | M | M |
| 06-30-2005 | 23:59 | AUT | 0.01 | 89 | 67 | 78 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 2.89 | 84 | 63 | 74 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 07-01-2005 | 23:59 | AUT | 0.01 | 91 | 70 | 81 | M | M |
| 07-02-2005 | 23:59 | AUT | 0.01 | 85 | 69 | 77 | M | M |
| 07-03-2005 | 23:59 | AUT | M | 82 | 61 | 72 | M | M |
| 07-04-2005 | 23:59 | AUT | M | 85 | 63 | 74 | M | M |
| 07-05-2005 | 23:59 | AUT | 0.34 | 86 | 70 | 78 | M | M |
| 07-06-2005 | 23:59 | AUT | 0.09 | 85 | 67 | 76 | M | M |
| 07-07-2005 | 23:59 | AUT | 0.26 | 80 | 66 | 73 | M | M |
| 07-08-2005 | 23:59 | AUT | 1.47 | 80 | 65 | 73 | M | M |
| 07-09-2005 | 23:59 | AUT | M | 87 | 61 | 74 | M | M |
| 07-10-2005 | 23:59 | AUT | M | 89 | 62 | 76 | M | M |
| 07-11-2005 | 23:59 | AUT | M | 91 | 61 | 76 | M | M |
| 07-12-2005 | 23:59 | AUT | M | 93 | 65 | 79 | M | M |
| 07-13-2005 | 23:59 | AUT | M | 86 | 73 | 80 | M | M |
| 07-14-2005 | 23:59 | AUT | 0.12 | 85 | 70 | 78 | M | M |
| 07-15-2005 | 23:59 | AUT | 0.10 | 87 | 73 | 80 | M | M |
| 07-16-2005 | 23:59 | AUT | 1.42 | 88 | 71 | 80 | M | M |
| 07-17-2005 | 23:59 | AUT | M | 91 | 70 | 81 | M | M |
| 07-18-2005 | 23:59 | AUT | M | 91 | 74 | 83 | M | M |
| 07-19-2005 | 23:59 | AUT | M | 90 | 73 | 82 | M | M |
| 07-20-2005 | 23:59 | AUT | M | 90 | 71 | 81 | M | M |
| 07-21-2005 | 23:59 | AUT | M | 93 | 67 | 80 | M | M |
| 07-22-2005 | 23:59 | AUT | M | 92 | 71 | 82 | M | M |
| 07-23-2005 | 23:59 | AUT | 0.06 | 87 | 63 | 75 | M | M |
| 07-24-2005 | 23:59 | AUT | M | 87 | 58 | 73 | M | M |
| 07-25-2005 | 23:59 | AUT | 0.13 | 93 | 69 | 81 | M | M |
| 07-26-2005 | 23:59 | AUT | M | 96 | 73 | 85 | M | M |
| 07-27-2005 | 23:59 | AUT | 0.51 | 98 | 72 | 85 | M | M |
| 07-28-2005 | 23:59 | AUT | 0.01 | 82 | 67 | 75 | M | M |
| 07-29-2005 | 23:59 | AUT | 0.24 | 76 | 70 | 73 | M | M |
| 07-30-2005 | 23:59 | AUT | M | 82 | 70 | 76 | M | M |
| 07-31-2005 | 23:59 | AUT | 0.01 | 81 | 65 | 73 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 4.78 | 87 | 68 | 78 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 08-01-2005 | 23:59 | AUT | M | 87 | 67 | 77 | M | M |
| 08-02-2005 | 23:59 | AUT | M | 92 | 67 | 80 | M | M |
| 08-03-2005 | 23:59 | AUT | M | 92 | 68 | 80 | M | M |
| 08-04-2005 | 23:59 | AUT | M | 96 | 70 | 83 | M | M |
| 08-05-2005 | 23:59 | AUT | 0.02 | 95 | 75 | 85 | M | M |
| 08-06-2005 | 23:59 | AUT | M | 87 | 70 | 79 | M | M |
| 08-07-2005 | 23:59 | AUT | M | 88 | 70 | 79 | M | M |
| 08-08-2005 | 23:59 | AUT | 2.21 | 89 | 70 | 80 | M | M |
| 08-09-2005 | 23:59 | AUT | 0.10 | 75 | 70 | 73 | M | M |
| 08-10-2005 | 23:59 | AUT | 0.01 | 87 | 70 | 79 | M | M |
| 08-11-2005 | 23:59 | AUT | M | 92 | 68 | 80 | M | M |
| 08-12-2005 | 23:59 | AUT | M | 95 | 72 | 84 | M | M |
| 08-13-2005 | 23:59 | AUT | M | 96 | 75 | 86 | M | M |
| 08-14-2005 | 23:59 | AUT | M | 96 | 75 | 86 | M | M |
| 08-15-2005 | 23:59 | AUT | M | 87 | 71 | 79 | M | M |
| 08-16-2005 | 23:59 | AUT | 0.73 | 78 | 69 | 74 | M | M |
| 08-17-2005 | 23:59 | AUT | M | 86 | 66 | 76 | M | M |
| 08-18-2005 | 23:59 | AUT | M | 86 | 62 | 74 | M | M |
| 08-19-2005 | 23:59 | AUT | 0.56 | 76 | 68 | 72 | M | M |
| 08-20-2005 | 23:59 | AUT | M | 91 | 71 | 81 | M | M |
| 08-21-2005 | 23:59 | AUT | M | 91 | 68 | 80 | M | M |
| 08-22-2005 | 23:59 | AUT | M | 86 | 63 | 75 | M | M |
| 08-23-2005 | 23:59 | AUT | M | 84 | 60 | 72 | M | M |
| 08-24-2005 | 23:59 | AUT | M | 82 | 60 | 71 | M | M |
| 08-25-2005 | 23:59 | AUT | M | 83 | 54 | 69 | M | M |
| 08-26-2005 | 23:59 | AUT | M | 78 | 59 | 69 | M | M |
| 08-27-2005 | 23:59 | AUT | 0.10 | 72 | 66 | 69 | M | M |
| 08-28-2005 | 23:59 | AUT | 0.26 | 87 | 71 | 79 | M | M |
| 08-29-2005 | 23:59 | AUT | M | 85 | 66 | 76 | M | M |
| 08-30-2005 | 23:59 | AUT | M | 84 | 71 | 78 | M | M |
| 08-31-2005 | 23:59 | AUT | M | 86 | 71 | 79 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 3.99 | 87 | 68 | 78 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 09-01-2005 | 23:59 | AUT | M | 84 | 64 | 74 | M | M |
| 09-02-2005 | 23:59 | AUT | M | 89 | 60 | 75 | M | M |
| 09-03-2005 | 23:59 | AUT | M | 81 | 54 | 68 | M | M |
| 09-04-2005 | 23:59 | AUT | M | 82 | 57 | 70 | M | M |
| 09-05-2005 | 23:59 | AUT | M | 82 | 57 | 70 | M | M |
| 09-06-2005 | 23:59 | AUT | M | 79 | 54 | 67 | M | M |
| 09-07-2005 | 23:59 | AUT | M | 81 | 51 | 66 | M | M |
| 09-08-2005 | 23:59 | AUT | 0.01 | 87 | 50 | 69 | M | M |
| 09-09-2005 | 23:59 | AUT | M | 85 | 55 | 70 | M | M |
| 09-10-2005 | 23:59 | AUT | M | 83 | 59 | 71 | M | M |
| 09-11-2005 | 23:59 | AUT | M | 82 | 54 | 68 | M | M |
| 09-12-2005 | 23:59 | AUT | M | 88 | 54 | 71 | M | M |
| 09-13-2005 | 23:59 | AUT | 0.01 | 89 | 55 | 72 | M | M |
| 09-14-2005 | 23:59 | AUT | 0.02 | 86 | 67 | 77 | M | M |
| 09-15-2005 | 23:59 | AUT | M | 89 | 71 | 80 | M | M |
| 09-16-2005 | 23:59 | AUT | M | 87 | 70 | 79 | M | M |
| 09-17-2005 | 23:59 | AUT | M | 88 | 69 | 79 | M | M |
| 09-18-2005 | 23:59 | AUT | M | 84 | 62 | 73 | M | M |
| 09-19-2005 | 23:59 | AUT | M | 88 | 58 | 73 | M | M |
| 09-20-2005 | 23:59 | AUT | M | 87 | 66 | 77 | M | M |
| 09-21-2005 | 23:59 | AUT | M | 85 | 57 | 71 | M | M |
| 09-22-2005 | 23:59 | AUT | M | 87 | 51 | 69 | M | M |
| 09-23-2005 | 23:59 | AUT | M | 91 | 69 | 80 | M | M |
| 09-24-2005 | 23:59 | AUT | M | 73 | 67 | 70 | M | M |
| 09-25-2005 | 23:59 | AUT | M | 77 | 65 | 71 | M | M |
| 09-26-2005 | 23:59 | AUT | 0.19 | 84 | 65 | 75 | M | M |
| 09-27-2005 | 23:59 | AUT | 0.01 | 78 | 50 | 64 | M | M |
| 09-28-2005 | 23:59 | AUT | M | 78 | 45 | 62 | M | M |
| 09-29-2005 | 23:59 | AUT | 0.01 | 75 | 56 | 66 | M | M |
| 09-30-2005 | 23:59 | AUT | M | 70 | 39 | 55 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 0.25 | 83 | 58 | 71 | *** | |

SITE NAME: HF - HAYDEN FARM
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 10-01-2005 | 23:59 | AUT | M | 77 | 40 | 59 | M | M |
| 10-02-2005 | 23:59 | AUT | M | 81 | 47 | 64 | M | M |
| 10-03-2005 | 23:59 | AUT | M | 78 | 47 | 63 | M | M |
| 10-04-2005 | 23:59 | AUT | M | 74 | 58 | 66 | M | M |
| 10-05-2005 | 23:59 | AUT | 0.01 | 78 | 60 | 69 | M | M |
| 10-06-2005 | 23:59 | AUT | 0.01 | 78 | 60 | 69 | M | M |
| 10-07-2005 | 23:59 | AUT | 2.37 | 75 | 66 | 71 | M | M |
| 10-08-2005 | 23:59 | AUT | 3.99 | 73 | 56 | 65 | M | M |
| 10-09-2005 | 23:59 | AUT | M | 61 | 55 | 58 | M | M |
| 10-10-2005 | 23:59 | AUT | M | 65 | 58 | 62 | M | M |
| 10-11-2005 | 23:59 | AUT | 0.17 | 64 | 61 | 63 | M | M |
| 10-12-2005 | 23:59 | AUT | 0.02 | 64 | 55 | 60 | M | M |
| 10-13-2005 | 23:59 | AUT | 0.14 | 63 | 55 | 59 | M | M |
| 10-14-2005 | 23:59 | AUT | 0.01 | 71 | 60 | 66 | M | M |
| 10-15-2005 | 23:59 | AUT | M | 77 | 54 | 66 | M | M |
| 10-16-2005 | 23:59 | AUT | M | 67 | 50 | 59 | M | M |
| 10-17-2005 | 23:59 | AUT | M | 68 | 46 | 57 | M | M |
| 10-18-2005 | 23:59 | AUT | M | 78 | 45 | 62 | M | M |
| 10-19-2005 | 23:59 | AUT | M | 76 | 43 | 60 | M | M |
| 10-20-2005 | 23:59 | AUT | M | 61 | 53 | 57 | M | M |
| 10-21-2005 | 23:59 | AUT | 0.34 | 54 | 49 | 52 | M | M |
| 10-22-2005 | 23:59 | AUT | 0.60 | 57 | 50 | 54 | M | M |
| 10-23-2005 | 23:59 | AUT | M | 63 | 44 | 54 | M | M |
| 10-24-2005 | 23:59 | AUT | 0.26 | 57 | 46 | 52 | M | M |
| 10-25-2005 | 23:59 | AUT | 0.60 | 47 | 41 | 44 | M | M |
| 10-26-2005 | 23:59 | AUT | 0.01 | 56 | 40 | 48 | M | M |
| 10-27-2005 | 23:59 | AUT | M | 56 | 34 | 45 | M | M |
| 10-28-2005 | 23:59 | AUT | M | 53 | 33 | 43 | M | M |
| 10-29-2005 | 23:59 | AUT | 0.01 | 52 | 31 | 42 | M | M |
| 10-30-2005 | 23:59 | AUT | M | 66 | 37 | 52 | M | M |
| 10-31-2005 | 23:59 | AUT | M | 74 | 32 | 53 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 8.54 | 67 | 49 | 58 | *** | |

SITE NAME: CARROL CO. - ON-FARM - WESTMINSTER, MD
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|------------|
| 05-01-2005 | 23:59 | AUT | | M 60 | 48 | 54 | M | M |
| 05-02-2005 | 23:59 | AUT | 1.92 | 59 | 35 | 47 | M | M |
| 05-03-2005 | 23:59 | AUT | 0.30 | 56 | 31 | 44 | M | M |
| 05-04-2005 | 23:59 | AUT | | M 59 | 41 | 50 | M | M |
| 05-05-2005 | 23:59 | AUT | | M 63 | 34 | 49 | M | M |
| 05-06-2005 | 23:59 | AUT | | M 59 | 41 | 50 | M | M |
| 05-07-2005 | 23:59 | AUT | | M 68 | 36 | 52 | M | M |
| 05-08-2005 | 23:59 | AUT | 0.33 | 73 | 50 | 62 | M | M |
| 05-09-2005 | 23:59 | AUT | | M 78 | 48 | 63 | M | M |
| 05-10-2005 | 23:59 | AUT | | M 76 | 47 | 62 | M | M |
| 05-11-2005 | 23:59 | AUT | | M 84 | 52 | 68 | M | M |
| 05-12-2005 | 23:59 | AUT | | M 81 | 59 | 70 | M | M |
| 05-13-2005 | 23:59 | AUT | | M 66 | 41 | 54 | M | M |
| 05-14-2005 | 23:59 | AUT | | M 82 | 48 | 65 | M | M |
| 05-15-2005 | 23:59 | AUT | | M 77 | 60 | 69 | M | M |
| 05-16-2005 | 23:59 | AUT | | M 71 | 48 | 60 | M | M |
| 05-17-2005 | 23:59 | AUT | | M 65 | 40 | 53 | M | M |
| 05-18-2005 | 23:59 | AUT | 0.00 | 71 | 43 | 57 | M | M |
| 05-19-2005 | 23:59 | AUT | 0.03 | 73 | 44 | 59 | M | M |
| 05-20-2005 | 23:59 | AUT | | M 65 | 48 | 57 | M | M |
| 05-21-2005 | 23:59 | AUT | | M 70 | 43 | 57 | M | M |
| 05-22-2005 | 23:59 | AUT | 0.03 | 70 | 49 | 60 | M | M |
| 05-23-2005 | 23:59 | AUT | 0.58 | 67 | 48 | 58 | M | M |
| 05-24-2005 | 23:59 | AUT | 0.39 | 58 | 51 | 55 | M | M |
| 05-25-2005 | 23:59 | AUT | 0.02 | 56 | 45 | 51 | M | M |
| 05-26-2005 | 23:59 | AUT | | M 78 | 52 | 65 | M | M |
| 05-27-2005 | 23:59 | AUT | 0.06 | 77 | 49 | 63 | M | M |
| 05-28-2005 | 23:59 | AUT | | M 75 | 52 | 64 | M | M |
| 05-29-2005 | 23:59 | AUT | | M 71 | 48 | 60 | M | M |
| 05-30-2005 | 23:59 | AUT | 0.55 | 72 | 49 | 61 | M | M |
| 05-31-2005 | 23:59 | AUT | 0.10 | 78 | 46 | 62 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 4.31 | 70 | 46 | 58 | *** | |

SITE NAME: CARROL CO. - ON-FARM - WESTMINSTER, MD
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 06-01-2005 | 23:59 | AUT | 0.00 | 79 | 53 | 66 | M | M |
| 06-02-2005 | 23:59 | AUT | 0.00 | 74 | 55 | 65 | M | M |
| 06-03-2005 | 23:59 | AUT | 0.59 | 69 | 56 | 63 | M | M |
| 06-04-2005 | 23:59 | AUT | 0.07 | 72 | 59 | 66 | M | M |
| 06-05-2005 | 23:59 | AUT | M | 86 | 57 | 72 | M | M |
| 06-06-2005 | 23:59 | AUT | M | 90 | 64 | 77 | M | M |
| 06-07-2005 | 23:59 | AUT | 0.28 | 87 | 63 | 75 | M | M |
| 06-08-2005 | 23:59 | AUT | M | 91 | 68 | 80 | M | M |
| 06-09-2005 | 23:59 | AUT | 0.33 | 87 | 78 | 83 | M | M |
| 06-10-2005 | 23:59 | AUT | 0.02 | 84 | 82 | 83 | M | M |
| 06-11-2005 | 23:59 | AUT | M | 87 | 68 | 78 | M | M |
| 06-12-2005 | 23:59 | AUT | M | 86 | 67 | 77 | M | M |
| 06-13-2005 | 23:59 | AUT | M | 89 | 69 | 79 | M | M |
| 06-14-2005 | 23:59 | AUT | 0.02 | 90 | 68 | 79 | M | M |
| 06-15-2005 | 23:59 | AUT | 0.00 | 88 | 69 | 79 | M | M |
| 06-16-2005 | 23:59 | AUT | 0.05 | 80 | 66 | 73 | M | M |
| 06-17-2005 | 23:59 | AUT | M | 73 | 51 | 62 | M | M |
| 06-18-2005 | 23:59 | AUT | M | 77 | 51 | 64 | M | M |
| 06-19-2005 | 23:59 | AUT | M | 76 | 55 | 66 | M | M |
| 06-20-2005 | 23:59 | AUT | 0.00 | 74 | 51 | 63 | M | M |
| 06-21-2005 | 23:59 | AUT | 0.00 | 81 | 53 | 67 | M | M |
| 06-22-2005 | 23:59 | AUT | 0.01 | 84 | 64 | 74 | M | M |
| 06-23-2005 | 23:59 | AUT | 0.01 | 81 | 52 | 67 | M | M |
| 06-24-2005 | 23:59 | AUT | 0.00 | 85 | 58 | 72 | M | M |
| 06-25-2005 | 23:59 | AUT | 0.00 | 89 | 63 | 76 | M | M |
| 06-26-2005 | 23:59 | AUT | M | 89 | 62 | 76 | M | M |
| 06-27-2005 | 23:59 | AUT | M | 87 | 68 | 78 | M | M |
| 06-28-2005 | 23:59 | AUT | 0.30 | 90 | 66 | 78 | M | M |
| 06-29-2005 | 23:59 | AUT | 1.16 | 84 | 70 | 77 | M | M |
| 06-30-2005 | 23:59 | AUT | 0.03 | 87 | 86 | 87 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 2.87 | 83 | 63 | 73 | *** | |

SITE NAME: CARROL CO. - ON-FARM - WESTMINSTER, MD
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 07-01-2005 | 23:59 | AUT | | M 88 | 66 | 77 | M | M |
| 07-02-2005 | 23:59 | AUT | | M 86 | 68 | 77 | M | M |
| 07-03-2005 | 23:59 | AUT | | M 80 | 57 | 69 | M | M |
| 07-04-2005 | 23:59 | AUT | | M 84 | 63 | 74 | M | M |
| 07-05-2005 | 23:59 | AUT | 1.24 | 82 | 67 | 75 | M | M |
| 07-06-2005 | 23:59 | AUT | 2.47 | 82 | 65 | 74 | M | M |
| 07-07-2005 | 23:59 | AUT | 0.06 | 83 | 66 | 75 | M | M |
| 07-08-2005 | 23:59 | AUT | 3.78 | 75 | 62 | 69 | M | M |
| 07-09-2005 | 23:59 | AUT | | M 83 | 58 | 71 | M | M |
| 07-10-2005 | 23:59 | AUT | | M 87 | 59 | 73 | M | M |
| 07-11-2005 | 23:59 | AUT | | M 87 | 64 | 76 | M | M |
| 07-12-2005 | 23:59 | AUT | | M 91 | 66 | 79 | M | M |
| 07-13-2005 | 23:59 | AUT | | M 85 | 70 | 78 | M | M |
| 07-14-2005 | 23:59 | AUT | | M 84 | 70 | 77 | M | M |
| 07-15-2005 | 23:59 | AUT | 1.36 | 82 | 70 | 76 | M | M |
| 07-16-2005 | 23:59 | AUT | 0.13 | 83 | 72 | 78 | M | M |
| 07-17-2005 | 23:59 | AUT | 2.77 | 86 | 71 | 79 | M | M |
| 07-18-2005 | 23:59 | AUT | | M 88 | 71 | 80 | M | M |
| 07-19-2005 | 23:59 | AUT | | M 88 | 72 | 80 | M | M |
| 07-20-2005 | 23:59 | AUT | | M 86 | 71 | 79 | M | M |
| 07-21-2005 | 23:59 | AUT | 0.18 | 88 | 66 | 77 | M | M |
| 07-22-2005 | 23:59 | AUT | | M 88 | 67 | 78 | M | M |
| 07-23-2005 | 23:59 | AUT | 0.03 | 85 | 69 | 77 | M | M |
| 07-24-2005 | 23:59 | AUT | 0.00 | 83 | 56 | 70 | M | M |
| 07-25-2005 | 23:59 | AUT | 0.62 | 90 | 66 | 78 | M | M |
| 07-26-2005 | 23:59 | AUT | | M 91 | 69 | 80 | M | M |
| 07-27-2005 | 23:59 | AUT | 0.04 | 92 | 73 | 83 | M | M |
| 07-28-2005 | 23:59 | AUT | 0.01 | 84 | 64 | 74 | M | M |
| 07-29-2005 | 23:59 | AUT | | M 82 | 61 | 72 | M | M |
| 07-30-2005 | 23:59 | AUT | | M 85 | 64 | 75 | M | M |
| 07-31-2005 | 23:59 | AUT | | M 82 | 65 | 74 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 12.69 | 85 | 66 | 76 | *** | |

DAILY WEATHER DATA

SITE NAME: CARROL CO. - ON-FARM - WESTMINSTER, MD
 PRECIPITATION UNIT: IN - INCHES
 TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
 DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 08-01-2005 | 23:59 | AUT | M | 85 | 65 | 75 | M | M |
| 08-02-2005 | 23:59 | AUT | M | 90 | 67 | 79 | M | M |
| 08-03-2005 | 23:59 | AUT | M | 90 | 69 | 80 | M | M |
| 08-04-2005 | 23:59 | AUT | M | 93 | 68 | 81 | M | M |
| 08-05-2005 | 23:59 | AUT | M | 90 | 72 | 81 | M | M |
| 08-06-2005 | 23:59 | AUT | M | 85 | 69 | 77 | M | M |
| 08-07-2005 | 23:59 | AUT | 0.07 | 84 | 67 | 76 | M | M |
| 08-08-2005 | 23:59 | AUT | 0.23 | 84 | 68 | 76 | M | M |
| 08-09-2005 | 23:59 | AUT | 0.09 | 77 | 66 | 72 | M | M |
| 08-10-2005 | 23:59 | AUT | M | 85 | 64 | 75 | M | M |
| 08-11-2005 | 23:59 | AUT | 0.40 | 89 | 67 | 78 | M | M |
| 08-12-2005 | 23:59 | AUT | M | 92 | 69 | 81 | M | M |
| 08-13-2005 | 23:59 | AUT | M | 94 | 72 | 83 | M | M |
| 08-14-2005 | 23:59 | AUT | M | 93 | 73 | 83 | M | M |
| 08-15-2005 | 23:59 | AUT | M | 90 | 69 | 80 | M | M |
| 08-16-2005 | 23:59 | AUT | 0.38 | 80 | 65 | 73 | M | M |
| 08-17-2005 | 23:59 | AUT | 0.04 | 83 | 63 | 73 | M | M |
| 08-18-2005 | 23:59 | AUT | M | 84 | 60 | 72 | M | M |
| 08-19-2005 | 23:59 | AUT | 0.52 | 80 | 65 | 73 | M | M |
| 08-20-2005 | 23:59 | AUT | 0.01 | 86 | 67 | 77 | M | M |
| 08-21-2005 | 23:59 | AUT | M | 88 | 73 | 81 | M | M |
| 08-22-2005 | 23:59 | AUT | M | 85 | 61 | 73 | M | M |
| 08-23-2005 | 23:59 | AUT | M | 80 | 57 | 69 | M | M |
| 08-24-2005 | 23:59 | AUT | M | 80 | 59 | 70 | M | M |
| 08-25-2005 | 23:59 | AUT | M | 81 | 51 | 66 | M | M |
| 08-26-2005 | 23:59 | AUT | M | 79 | 58 | 69 | M | M |
| 08-27-2005 | 23:59 | AUT | 0.02 | 74 | 61 | 68 | M | M |
| 08-28-2005 | 23:59 | AUT | 0.37 | 84 | 65 | 75 | M | M |
| 08-29-2005 | 23:59 | AUT | M | 84 | 66 | 75 | M | M |
| 08-30-2005 | 23:59 | AUT | M | 83 | 70 | 77 | M | M |
| 08-31-2005 | 23:59 | AUT | 0.03 | 81 | 75 | 78 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 2.16 | 85 | 66 | 76 | *** | |

SITE NAME: CARROL CO. - ON-FARM - WESTMINSTER, MD
PRECIPITATION UNIT: IN - INCHES
TEMPERATURE UNIT: F - DEGREES FAHRENHEIT
DEPTH UNIT: IN - INCHES

| DATE | TIME | SRC | PRECIP. | MAX TEMP | MIN TEMP | AVE TEMP | SOIL TEMP | SOIL DEPTH |
|------------|-------|-----|--------------|----------------|----------------|----------------|----------------|---------------|
| 09-01-2005 | 23:59 | AUT | M | 82 | 63 | 73 | M | M |
| 09-02-2005 | 23:59 | AUT | M | 85 | 60 | 73 | M | M |
| 09-03-2005 | 23:59 | AUT | M | 83 | 60 | 72 | M | M |
| 09-04-2005 | 23:59 | AUT | M | 81 | 57 | 69 | M | M |
| 09-05-2005 | 23:59 | AUT | M | 82 | 55 | 69 | M | M |
| 09-06-2005 | 23:59 | AUT | M | 81 | 55 | 68 | M | M |
| 09-07-2005 | 23:59 | AUT | M | 82 | 53 | 68 | M | M |
| 09-08-2005 | 23:59 | AUT | M | 84 | 50 | 67 | M | M |
| 09-09-2005 | 23:59 | AUT | M | 83 | 57 | 70 | M | M |
| 09-10-2005 | 23:59 | AUT | M | 82 | 58 | 70 | M | M |
| 09-11-2005 | 23:59 | AUT | M | 82 | 53 | 68 | M | M |
| 09-12-2005 | 23:59 | AUT | M | 88 | 55 | 72 | M | M |
| 09-13-2005 | 23:59 | AUT | M | 90 | 57 | 74 | M | M |
| 09-14-2005 | 23:59 | AUT | M | 86 | 61 | 74 | M | M |
| 09-15-2005 | 23:59 | AUT | M | 89 | 68 | 79 | M | M |
| 09-16-2005 | 23:59 | AUT | M | 87 | 70 | 79 | M | M |
| 09-17-2005 | 23:59 | AUT | 0.12 | 86 | 65 | 76 | M | M |
| 09-18-2005 | 23:59 | AUT | M | 82 | 58 | 70 | M | M |
| 09-19-2005 | 23:59 | AUT | M | 85 | 58 | 72 | M | M |
| 09-20-2005 | 23:59 | AUT | M | 83 | 66 | 75 | M | M |
| 09-21-2005 | 23:59 | AUT | M | 83 | 57 | 70 | M | M |
| 09-22-2005 | 23:59 | AUT | M | 85 | 52 | 69 | M | M |
| 09-23-2005 | 23:59 | AUT | M | 89 | 65 | 77 | M | M |
| 09-24-2005 | 23:59 | AUT | M | 81 | 60 | 71 | M | M |
| 09-25-2005 | 23:59 | AUT | M | 72 | 61 | 67 | M | M |
| 09-26-2005 | 23:59 | AUT | 0.11 | 76 | 65 | 71 | M | M |
| 09-27-2005 | 23:59 | AUT | 0.08 | 74 | 60 | 67 | M | M |
| 09-28-2005 | 23:59 | AUT | M | 77 | 42 | 60 | M | M |
| 09-29-2005 | 23:59 | AUT | 0.02 | 73 | 59 | 66 | M | M |
| 09-30-2005 | 23:59 | AUT | M | 69 | 37 | 53 | M | M |
| | | | TOTAL | AVERAGE | AVERAGE | AVERAGE | AVERAGE | |
| | | | 0.33 | 82 | 58 | 70 | *** | |

CROP AND WEED REFERENCE

CROPS

| BAYER* | COMMON NAME | VARIETY | SCIENTIFIC NAME |
|---------------|--------------------|-----------------|-------------------------------|
| MEDSA | alfalfa | Numerous | Medicago sativa L. |
| HORVW | barley | Numerous | Hordeum vulgare L. |
| ZEAMX | corn | Numerous | Zea mays L. |
| SECCE | rye | Numerous | Secale cereale L. |
| GLXMA | soybean | Numerous | Glycine max (L.) Merr. |
| TTLWI | triticale | Numerous | |
| NIOTA | tobacco | MD-609 | Nicotiana tabacum L. |
| TRZAW | wheat | Numerous | Triticum aestivum L. |

WEEDS

| | | | |
|--------------|-------------------|----------------|--|
| ABUTH | velvetleaf | ----- | Abutilon theophrasti Medic. |
| ALLVI | garlic | wild | Allium vineale L. |
| AMACH | pigweed | smooth | Amaranthus hybridus L. |
| AMARE | pigweed | redroot | Amaranthus retroflexus L. |

| | | | |
|--------------|----------------------|---------------------|--|
| AMBEL | ragweed | common | Ambrosia artemisiifolia L. |
| AMBTR | ragweed | giant | Ambrosia trifida L. |
| ANVCR | anoda | spurred | Anoda cristata (L.) Schlecht. |
| APCCA | dogbane | hemp | Apocynum cannabinum L. |
| ARREB | oatgrass | bulbous | Arrhenatherum elatius var. bulbosus |
| ARFLA | burdock | great | Arctium lappa L. |
| BROTE | brome | downy | Bromus tectorum L. |
| CARHI | bittercress | hairy | Cardamine hirsuta L. |
| CHEAL | lambsquarters | common | Chenopodium album L. |
| CIRAR | thistle | Canada | Cirsium arvense (L.) Scop. |
| CYPES | nutsedge | yellow | Cyperus esculentus L. |
| DATST | jimsonweed | ----- | Datura stramonium L. |
| DIGSA | crabgrass | large (tall) | Digitaria sanguinalis (L.) Scop. |
| ELEIN | goosegrass | ----- | Eleusine indica (L.) Gaerth. |
| ERIAN | fleabane | annual | Erigeron annuus (L.) Pers. |
| ERICA | horseweed | ----- | Conyza canadensis (L.) Cronq. |

| | | | |
|--------------|---------------------|---------------------|--|
| FESAR | fescue | tall | Festuca arundinacea Schreb. |
| IPOHE | morningglory | ivyleaf | Ipomoea hederacea (L.) Jacq. |
| IPOLA | morningglory | pitted | Ipomoea lacunosa L. |
| LAMAM | henbit | ----- | Lamium aplexicaule L. |
| LOLMU | ryegrass | annual | Lolium multiflorum Lam. |
| MOLVE | carpetweed | ----- | Mollugo verticulatta L. |
| PANDI | panicum | fall | Panicum dichotomiflorum (L.) Michx. |
| PANTE | panicum | Texas | Panicum texanum Buckl. |
| PHTAM | pokeweed | common | Phytolacca americana L. |
| PLALA | plantain | buckhorn | Plantago lanceolata L. |
| POAAN | bluegrass | annual | Poa annua L. |
| POATR | bluegrass | roughstalk | Poa trivialis L. |
| POLPY | smartweed | Pennsylvania | Polygonum pensylvanicum L. |
| RANAC | buttercup | tall | Ranunculus acris L. |
| RUBCA | dewberry | common | Rubus caesius L. |
| SETFA | foxtail | giant | Setaria faberi Herrm. |
| SIYAN | burcucumber | ----- | Sicyos angulatus L. |
| SOLCA | horsenettle | Carolina | Solanum carolinense L. |

| | | | |
|--------------|---------------------|---------------|---|
| SOLNI | nightshade | black | Solanum nigrum L. |
| SORHA | johnsongrass | ----- | Sorghum halepense (L.) Pers. |
| SORVU | shattercane | ----- | Sorghum bicolor (L.) Moench |
| STEME | chickweed | common | Stellaria media (L.) Vill. |
| VICVI | vetch | hairy | Vicia villosa Roth. |
| XANST | cocklebur | common | Xanthium strumarium L. |

***BAYER CODE is a Weed Science Society of America approved computer code from "Important Weeds of the World," 3rd ed., 1983. Available from the WSSA, 810 East 10th Street, P. O. Box 1897, Lawrence, KS 66044-8897.**

Chemical Index

| Chemical | Page | | | | | | | |
|---------------------------------|------|-----|-----|-----|-----|-----|-----|-----|
| (G)2,4-D-ESTER (4EC) | 208 | 235 | 280 | 295 | 303 | 319 | 357 | |
| A12127 (4SL) - ADJUVANT | 224 | 229 | | | | | | |
| A14972A (5.3EC) | 130 | 303 | | | | | | |
| ACCENT (75WG) | 36 | 44 | 52 | 89 | 349 | | | |
| ADJUVANT - COC (EC) | 44 | 52 | 89 | 106 | 193 | 208 | 224 | 229 |
| | 235 | 246 | 295 | 349 | | | | |
| ADJUVANT - VEGETABLE OIL | 44 | 81 | 89 | 201 | 224 | 229 | 331 | 336 |
| | 349 | | | | | | | |
| ATRAZINE 4L (SC) | 19 | 36 | 44 | 73 | 81 | 235 | 246 | 265 |
| | 273 | 331 | 336 | 341 | 349 | | | |
| AUTHORITY (75DF) | 208 | 326 | | | | | | |
| AXIOM (68 DF) | 201 | | | | | | | |
| BALANCE PRO (4SC) | 11 | 19 | 36 | 81 | 257 | 265 | 273 | 341 |
| BASIS (75 DF) | 36 | 208 | 235 | 341 | | | | |
| BICEP II MAGNUM (5.5SC) | 19 | 27 | 36 | 44 | 235 | 246 | 265 | 273 |
| | 288 | 341 | 349 | | | | | |
| BOUNDARY (6.5EC) | 303 | | | | | | | |
| CALLISTO (4SC) | 36 | 44 | 235 | 349 | | | | |
| CELEBRITY PLUS (70WG) | 89 | | | | | | | |
| CGA-185072 (0.83EC) | 224 | 229 | | | | | | |
| CINCH ATZ (5.5EC) | 36 | | | | | | | |
| CLARITY (4SL) | 73 | 235 | 319 | 357 | | | | |
| CLASSIC (25WG) | 114 | 138 | 208 | 295 | | | | |
| CLEAROUT PLUS (4.0SL) | 153 | | | | | | | |

Chemical Index

| Chemical | Page | | | | | | |
|--|-----------|-----------|-----|-----|-----|-----|---------|
| DEFINE (4SC) | 11 | 19 | 36 | 81 | 257 | 265 | 273 |
| DEGREE (3.8CS) | 11 | 257 | | | | | |
| DEGREE XTRA (4 CS) | 19 | 36 | 265 | 273 | 280 | | |
| DISCOVER (0.5EC) | 224 | | | | | | |
| DISTINCT (70WG) | 44 | 52 | 73 | 81 | 89 | 331 | 336 349 |
| DPX-E9636 (25DF) | 235 | 288 | | | | | |
| DUAL II MAGNUM (7.64EC) | 11 | 27 | 97 | 122 | 201 | 246 | 257 326 |
| EQUIP (32WG) | 44 | 89 | | | | | |
| EXPRESS (75 WG) | 208 | 295 | | | | | |
| FERTILIZER - 28%UAN | 44 336 | 73 349 | 81 | 89 | 201 | 224 | 229 331 |
| FERTILIZER-21% AMMONIUM SULFATE | 36 303 | 44 | 52 | 81 | 89 | 201 | 208 235 |
| FIRSTRATE (84 WG) | 114 | 130 | 138 | 319 | 357 | | |
| FULTIME (4CS) | 19 | 265 | 273 | | | | |
| GLYPHOMAX XRT (4.0AE) | 36 | 89 | 106 | 319 | 357 | | |
| GRAMOXONE INTEON (2SL) | 280 | 303 | 319 | 357 | | | |
| GRAMOXONE MAX (3L) | 161 | 169 | 177 | 185 | 216 | | |
| GUARDSMAN MAX (5L) | 19 | 73 | 265 | 273 | 341 | | |
| HARMONY GT (75WG) | 52 | 114 | 138 | 208 | 216 | 235 | 288 295 |
| HARNESS XTRA (6SC) | 36 | 235 | | | | | |
| HARNESS (7EC) | 11 | 27 | 97 | 235 | 257 | | |
| HARNESS XTRA 5.6(SC) | 19 | 265 | 273 | | | | |

Chemical Index

| Chemical | Page | | | | | | | |
|---------------------------|------|-----|-----|-----|-----|-----|-----|-----|
| HOELON (3EC) | 193 | 224 | 229 | | | | | |
| HORNET (78.5DF) | 341 | | | | | | | |
| IMPACT (2.8SC) | 44 | 331 | 336 | 349 | | | | |
| KEYSTONE (5.25SE) | 19 | 36 | 265 | 273 | 341 | | | |
| KIH-485 (60WG) | 11 | 27 | 97 | 122 | 193 | 257 | 341 | |
| KIH-485/ATRAZINE (57.8WG) | 19 | 27 | 265 | 273 | | | | |
| KNOCKOUT EXTRA (4SL) | 153 | 311 | | | | | | |
| LEXAR (3.7SC) | 19 | 265 | 273 | 280 | 341 | | | |
| LIBERTY (1.67 EC) | 81 | | | | | | | |
| LIGHTNING (70 WDG) | 73 | | | | | | | |
| LOROX DF (50WG) | 130 | | | | | | | |
| LUMAX (3.94 SE) | 19 | 36 | 265 | 273 | 311 | 341 | | |
| MATRIX (25WG) | 36 | 208 | | | | | | |
| OLYMPUS FLEX (11.25 DF) | 229 | | | | | | | |
| OPTION (35WG) | 44 | 81 | 89 | | | | | |
| OSPREY (4.5G) | 201 | 224 | 229 | | | | | |
| OUTLOOK (6EC) | 11 | 73 | 122 | 257 | | | | |
| PERMIT (75WG) | 52 | | | | | | | |
| PRINCEP 4L (SC) | 11 | 257 | 341 | 349 | | | | |
| PROWL H20 (3.8CS) | 11 | 19 | 44 | 73 | 97 | 201 | 257 | 265 |
| | 273 | 326 | 341 | | | | | |
| PURSUIT DG (70WG) | 216 | | | | | | | |
| PYTHON (80WG) | 319 | 341 | 357 | | | | | |

Chemical Index

| Chemical | Page | | | | | | | |
|-------------------------------------|------|-----|-----|-----|-----|-----|-----|-----|
| RADIUS (4SC) | 81 | 341 | | | | | | |
| RAPTOR (1AS) | 216 | | | | | | | |
| REFLEX 2LC (2SL) | 106 | | | | | | | |
| RESOURCE (0.86EC) | 114 | 138 | | | | | | |
| ROUNDUP WEATHER MAX (4.5AE) | 97 | 201 | 208 | | | | | |
| ROUNDUP WEATHER MAX (5.5 SL) | 27 | 36 | 44 | 89 | 106 | 114 | 122 | 130 |
| | 138 | 153 | 161 | 169 | 177 | 185 | 235 | 246 |
| | 280 | 288 | 303 | 311 | | | | |
| SCEPTER (1.5SL) | 208 | | | | | | | |
| SELECT (2EC) | 106 | | | | | | | |
| SENCOR DF (75WG) | 216 | 357 | | | | | | |
| SEQUENCE (5.25SL) | 130 | 303 | | | | | | |
| STEADFAST (75WDG) | 36 | 52 | 235 | | | | | |
| STEADFAST ATZ (89.3WG) | 36 | 44 | 89 | | | | | |
| STINGER (3SL) | 331 | 336 | | | | | | |
| SURFACTANT - NON-IONIC (SL) | 36 | 44 | 73 | 89 | 114 | 130 | 138 | 153 |
| | 161 | 169 | 177 | 185 | 201 | 208 | 216 | 224 |
| | 229 | 280 | 303 | 311 | 319 | 331 | 336 | 349 |
| | 357 | | | | | | | |
| TOPNOTCH (3.2CS) | 11 | 257 | | | | | | |
| TOUCHDOWN TOTAL (4.17AE) | 36 | 65 | 89 | 106 | 114 | 130 | 138 | 146 |
| | 303 | 319 | 357 | | | | | |
| TOUCHDOWN TOTAL (5.1SL) | 311 | | | | | | | |
| VALOR SX (51WG) | 130 | 246 | 319 | 326 | | | | |