



UNIVERSITY OF
MARYLAND

2004
Results of
Weed Control
Research



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HIWOT MENBERE

AGRICULTURE EXPERIMENT STATION
DEPARTMENT OF NATURAL RESOURCE SCIENCE
AND LANDSCAPE ARCHITECTURE

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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: **Kevin Conover, Manager**
(Hayden Farm) **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:

BASF	Monsanto
Bayer	Syngenta
Dow AgroSciences	MD Grain Producers
DuPont	MD Soybean Board
Kumiai America	

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.

METHODS

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
FB (or fb)	- followed by (sequential)
IF	- in furrow

IR	- imidazolinone resistant
IT	- imidazolinone tolerant
LP	- late postemergence
NIR (or NOIR)	- not imidazolinone resistant
NIT (or NOIT)	- not imidazolinone tolerant
NT	- no-till
PD	- post-directed
PM	- package-mix
PPI	- preplant incorporated
PRE	- preemergence
PRE-OT	- 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 non-crop 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).

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WB ALTERNATE ID#: WY 02 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-05-2004 REVISED: 10-14-2004 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 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: 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 disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Study harvested 10/07/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-01-04	USA
TIME - BEGIN	08:00	24H
TIME - END	09:00	24H
AIR TEMPERATURE	65	F
% REL. HUMIDITY	40	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	5.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
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 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
05-01-2004	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
05-01-2004	00	---	IND	.	.	. IN		---	

03 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: ASGROW RX 664 YG/RR

TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 04-29-2004

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
04-29-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-01-2004	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: 04-05-2004 **REVISED:** 10-14-2004 **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	VAR 03				
		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 05-19-04 P ZEAMX						
002 RAW 05-19-04 P SETFA						
003 RAW 06-03-04 P SETFA						
004 RAW 06-15-04 P SETFA						
005 RAW 06-29-04 P SETFA						
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
2A»DUAL II MAGNUM (7.64EC)	1.59 LAA 0	0	100	100	100	98
3A»OUTLOOK (6EC)	0.75 LAA 0	0	100	100	98	98
4A»DEFINE (4SC)	0.56 LAA 0	0	100	100	100	98
5A HARNES (7EC)	1.97 LAA 0	0	100	100	100	98
6A»DEGREE (3.8CS)	2.00 LAA 0	0	100	100	100	98
7A»TOPNOTCH (3.2CS)	2.00 LAA 0	0	100	100	100	100
8A»BALANCE PRO (4SC)	0.07 LAA 0	0	100	95	87	82
9A PROWL 3.3EC	1.50 LAA 0	0	100	92	83	78
10A»PROWL H20 (3.8CS)	1.50 LAA 0	0	83	77	57	50
11A»KIH-485 (60WG)	0.144 LAA 0	0	100	100	100	100
12A»KIH-485 (60WG)	0.181 LAA 0	0	100	100	100	98
13A PRINCEP 4L (SC)	1.25 LAA 0	0	100	93	90	83
14A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
	LSD (0.05)	0.00	7.88	7.51	13.28	12.28
	SIGNIFICANCE OF F	ns	**	**	**	**
	STANDARD DEVIATION	0.00	3.83	3.65	6.46	6.00
	COEFFICIENT OF VARIANCE	0.00	5.55	5.41	9.93	9.45
	DAT APPLICATION # 01 TIMINGS (00)	18	18	33	45	59

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 04-05-2004 **REVISED:** 10-14-2004 **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 03	VAR 03
	RATE	UNIT	TM	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	24.2	92.5
2A»DUAL II MAGNUM (7.64EC)	1.59	LAA	0	98	95	44.6	170.4
3A»OUTLOOK (6EC)	0.75	LAA	0	98	95	42.4	161.9
4A»DEFINE (4SC)	0.56	LAA	0	98	97	44.0	167.9
5A HARNESS (7EC)	1.97	LAA	0	98	95	46.5	177.6
6A»DEGREE (3.8CS)	2.00	LAA	0	98	97	41.9	160.2
7A»TOPNOTCH (3.2CS)	2.00	LAA	0	100	97	41.2	157.5
8A»BALANCE PRO (4SC)	0.07	LAA	0	78	72	46.5	177.5
9A PROWL 3.3EC	1.50	LAA	0	72	67	43.6	166.7
10A»PROWL H20 (3.8CS)	1.50	LAA	0	30	20	39.1	149.4
11A»KIH-485 (60WG)	0.144	LAA	0	100	93	44.0	168.2
12A»KIH-485 (60WG)	0.181	LAA	0	98	93	45.2	172.5
13A PRINCEP 4L (SC)	1.25	LAA	0	80	70	44.1	168.6
14A UNTREATED CHECK	0.00	NA	0	0	0	10.8	41.3
LSD (0.05)				17.00	19.23	10.54	40.26
SIGNIFICANCE OF F				**	**	**	**
STANDARD DEVIATION				8.28	9.35	5.13	19.58
COEFFICIENT OF VARIANCE				13.52	16.20	15.75	15.75
DAT APPLICATION # 01 TIMINGS (00)				74	101	159	159

» = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = PREPRE / PREEMERGENCE 05-01-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
001	ZEAMX	PHY %	05-19-2004	03	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-19-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-03-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	ZEAMX	LB/PLOT	10-07-2004	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 = ASGROW RX 664 YG/RR

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

03 = ASGROW RX 664 YG/RR

*** USER DEFINED CALCULATIONS**

US 005/04/01 001 WB--- 008 -- {RAW}*(3.82)

US 005/04/01 001 WB--- 008 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WC **ALTERNATE ID#:** WY 03 2004
PROTOCOL#: US 005/04/01 **ALTERNATE ID#:** US 005/02/01
CREATED BY: US RITTER R
CREATED: 04-05-2004 **REVISED:** 10-15-2004 **COMPLETED:** Y
TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES 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
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:** NOT
% 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 disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Study harvested 10/07/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-01-04	USA
TIME - BEGIN	08:00	24H
TIME - END	09:00	24H
AIR TEMPERATURE	65	F
% REL.HUMIDITY	40	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	5.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
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 CYPES - NUTSEDGE, YELLOW
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
 05-01-2004 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
 05-01-2004 00 --- IND . . . IN ---

03 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** ASGROW RX 664 YG/RR
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 04-29-2004
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
 04-29-2004 00 MED 26000.00 IPA . . . IN NA
 05-01-2004 00 MED 26000.00 IPA . . . IN NA

04 P CYPES - NUTSEDGE, YELLOW
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
 05-01-2004 --- --- IND . . . IN ---
 05-19-2006 --- --- IND . . . IN ---

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

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN
CREATED: 04-05-2004 **REVISED:** 10-15-2004 **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	001 RAW	002 RAW	003 RAW	004 RAW	005 RAW
	RATE	UNIT	TM	PHY %	05-19-04	05-19-04	06-03-04	06-15-04	06-29-04
				1.00	P ZEAMX	P SETFA	P SETFA	P SETFA	P SETFA
				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»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	100	98
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100	98
4A HARNESX XTRA 5.6(SC)	3.36	LAA	0	0	67	100	100	100	100
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	0	100	100	100	100	100
6A»FULTIME (4CS)	3.30	LAA	0	0	100	100	100	100	100
7A»DEFINE (4SC)	0.56	LAA	0	0	100	100	100	100	98
B ATRAZINE 4L (SC)	1.25	LAA	0						
8A»BALANCE PRO (4SC)	0.07	LAA	0	0	100	100	100	100	93
B ATRAZINE 4L (SC)	1.25	LAA	0						
9A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	100	98
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	0	100	100	100	100	100
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	0	100	100	100	100	100
12A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	100	100	100	100
13A»A14224 (3.7SC)	2.78	LAA	0	0	100	100	100	100	97
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	0
				LSD (0.05)	0.00	25.90	0.00	0.00	3.82
				SIGNIFICANCE OF F	ns	**	**	**	**
				STANDARD DEVIATION	0.00	12.60	0.00	0.00	1.86
				COEFFICIENT OF VARIANCE	0.00	18.52	0.00	0.00	2.69
				DAT APPLICATION # 01 TIMINGS (00)	18	18	33	45	59

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN
CREATED: 04-05-2004 **REVISED:** 10-15-2004 **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 %	VAR 03	VAR 03
	RATE	UNIT	TM	1.00 PL ALL	1.00 PL ALL	1.00 PL ALL	YLD LB PL SD	YLD BU A SD
006 RAW	007 RAW	008 RAW	009 RAW	009 CALC				
06-29-04	07-14-04	08-10-04	10-07-04	10-07-04				
P CYPES	P SETFA	P SETFA	P ZEAMX	P ZEAMX				
1A UNTREATED CHECK	0.00	NA	0	0	0	0	32.6	124.5
2A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	92	98	95	45.6	174.1
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	92	98	97	42.2	161.1
4A HARNESS XTRA 5.6(SC)	3.36	LAA	0	93	100	100	42.6	162.8
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	78	100	95	44.1	168.5
6A»FULTIME (4CS)	3.30	LAA	0	97	100	97	44.4	169.6
7A»DEFINE (4SC)	0.56	LAA	0	80	98	92	43.8	167.2
B ATRAZINE 4L (SC)	1.25	LAA	0					
8A»BALANCE PRO (4SC)	0.07	LAA	0	30	88	73	43.4	165.9
B ATRAZINE 4L (SC)	1.25	LAA	0					
9A»KEYSTONE (5.25SE)	3.67	LAA	0	98	98	95	45.3	173.2
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	85	100	97	44.0	168.2
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	68	100	92	44.6	170.4
12A»LUMAX (3.94 SE)	2.46	LAA	0	95	100	98	39.5	150.8
13A»A14224 (3.7SC)	2.78	LAA	0	93	97	95	41.8	159.6
14A UNTREATED CHECK	0.00	NA	0	0	0	0	30.8	117.6
	LSL (0.05)			22.61	6.30	5.45	6.88	26.28
	SIGNIFICANCE OF F			**	**	**	**	**
	STANDARD DEVIATION			11.00	3.07	2.65	3.34	12.78
	COEFFICIENT OF VARIANCE			18.83	4.46	4.00	9.81	9.81
	DAT APPLICATION # 01 TIMINGS (00)			59	74	101	159	159

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-01-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	ZEAMX	PHY %	05-19-2004	03	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-19-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-03-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-29-2004	01	P	CYPES		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	ZEAMX	LB/PLOT	10-07-2004	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 = ASGROW RX 664 YG/RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = ASGROW RX 664 YG/RR

* USER DEFINED CALCULATIONS

US 005/04/01 001 WC--- 009 -- {RAW}*(3.82)

*** USER DEFINED CALCULATIONS**

US 005/04/01 001 WC--- 009 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WD ALTERNATE ID#: WY 04 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 04-05-2004 REVISED: 10-14-2004 COMPLETED: Y
 TITLE: TANK-MIX COMPARISONS 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: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Study harvested 10/07/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-01-04	USA
TIME - BEGIN	10:00	24H
TIME - END	11:00	24H
AIR TEMPERATURE	65	F
% REL. HUMIDITY	35	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	5.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
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 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
 05-01-2004 00 --- IND . . . IN ---

02 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: ASGROW RX 664 YG/RR

TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 04-29-2004
 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
 04-29-2004 00 MED 26000.00 IPA . . . IN NA
 05-01-2004 00 MED 26000.00 IPA . . . 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
 05-01-2004 00 --- IND . . . IN ---

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

TITLE: TANK-MIX COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-05-2004 REVISED: 10-14-2004 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	05-19-04 P ZEAMX	05-19-04 P SETFA	06-03-04 P SETFA	06-15-04 P SETFA	06-29-04 P SETFA	
				VAR 02 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»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100	
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100	
B»PROWL H20 (3.8CS)	1.50	LAA	0						
4A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	100	
5A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	100	
B»HORNET (78.5DF)	0.147	LAA	0						
6A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	100	
B»PYTHON (80WG)	0.04	LAA	0						
7A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	100	
8A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	100	
B»BASIS (75 DF)	0.0156	LAA	0						
9A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	100	
B»BASIS (75 DF)	0.023	LAA	0						
10A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	100	100	100	
11A»A14224 (3.7SC)	2.78	LAA	0	0	100	100	100	100	
12A 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)	18	18	33	45	59

TITLE: TANK-MIX COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-05-2004 REVISED: 10-14-2004 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	008 CALC	
	RATE	UNIT	TM	07-14-04 P SETFA	08-10-04 P SETFA	10-07-04 P ZEAMX	10-07-04 P ZEAMX	
1A UNTREATED CHECK	0.00	NA	0	0	0	28.6	109.4	
2A»GUARDSMAN MAX (5L)	2.50	LAA	0	100	97	37.8	144.5	
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	100	98	37.9	144.7	
B»PROWL H20 (3.8CS)	1.50	LAA	0					
4A»KEYSTONE (5.25SE)	3.67	LAA	0	100	98	39.6	151.3	
5A»KEYSTONE (5.25SE)	3.67	LAA	0	100	97	40.2	153.6	
B»HORNET (78.5DF)	0.147	LAA	0					
6A»KEYSTONE (5.25SE)	3.67	LAA	0	100	98	38.8	148.1	
B»PYTHON (80WG)	0.04	LAA	0					
7A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	100	98	42.6	162.7	
8A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	100	98	43.6	166.5	
B»BASIS (75 DF)	0.0156	LAA	0					
9A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	100	97	41.1	157.0	
B»BASIS (75 DF)	0.023	LAA	0					
10A»LUMAX (3.94 SE)	2.46	LAA	0	100	100	42.3	161.6	
11A»A14224 (3.7SC)	2.78	LAA	0	100	100	41.8	159.5	
12A UNTREATED CHECK	0.00	NA	0	0	0	28.3	108.2	
				LSD (0.05)	0.00	3.88	9.68	37.00
				SIGNIFICANCE OF F	**	**	*	*
				STANDARD DEVIATION	0.00	1.87	4.67	17.82
				COEFFICIENT OF VARIANCE	0.00	2.80	14.82	14.82
				DAT APPLICATION # 01 TIMINGS (00)	74	101	159	159

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-01-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
001	ZEAMX	PHY %	05-19-2004	02	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-19-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-03-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-15-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-29-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	07-14-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	08-10-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	ZEAMX	LB/PLOT	10-07-2004	02	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 02 = ASGROW RX 664 YG/RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = ASGROW RX 664 YG/RR

* USER DEFINED CALCULATIONS

US 005/04/01 001 WD--- 008 -- {RAW}*(3.82)

US 005/04/01 001 WD--- 008 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WE ALTERNATE ID#: WY 05 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R REVISED: 10-14-2004 COMPLETED: Y
 TITLE: UTILITY 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: NOT
 % 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 disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Study harvested 10/07/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-01-04	USA
TIME - BEGIN	10:00	24H
TIME - END	11:00	24H
AIR TEMPERATURE	65	F
% REL. HUMIDITY	35	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	5.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
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 CYPES - NUTSEGE, YELLOW
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
 05-01-2004 00 --- IND . . . IN ---

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
 05-01-2004 00 --- IND . . . IN ---

03 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** ASGROW RX 664 YG/RR
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 04-29-2004
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
 04-29-2004 00 MED 26000.00 IPA . . . IN NA
 05-01-2004 00 MED 26000.00 IPA . . . IN NA

04 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
 05-01-2004 --- --- IND . . . IN ---
 05-01-2007 00 --- IND . . . IN ---

- * **STAGE CODE -- CORN**
- 00 = DRY SEED (CARYOPSIS)
- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- * **STAGE CODE -- GENERAL GRASS**
- = TO BE SELECTED

TITLE: UTILITY OF KIH-485 IN CONVENTIONAL CORN
 CREATED: 04-07-2004 REVISD: 10-14-2004 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		CON %		CON %		CON %	
	RATE	UNIT	TM	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	0
2A»KIH-485 (60WG)	0.108	LAA	0	0	100	100	100	100	100	97	
3A»KIH-485 (60WG)	0.144	LAA	0	0	100	100	100	100	100	98	
4A»KIH-485 (60WG)	0.181	LAA	0	0	100	100	100	100	100	100	
5A»KIH-485 (60WG)	0.217	LAA	0	0	100	100	100	100	100	100	
6A»KIH-485 (60WG)	0.362	LAA	0	0	100	100	100	100	100	100	
7A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	0	100	100	100	100	100	98	
8A»DUAL II MAGNUM (7.64EC)	3.10	LAA	0	0	100	100	100	100	100	100	
9A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	0	100	100	100	100	100	100	
10A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	0	100	100	100	100	100	100	
11A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	100	100	98	
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	0	0	
	LSD (0.05)			0.00	0.00	0.00	0.00	0.00	0.00	3.73	
	SIGNIFICANCE OF F			ns	**	**	**	**	**	**	
	STANDARD DEVIATION			0.00	0.00	0.00	0.00	0.00	0.00	1.80	
	COEFFICIENT OF VARIANCE			0.00	0.00	0.00	0.00	0.00	0.00	2.67	
	DAT APPLICATION # 01 TIMINGS (00)			18	18	33	45	59			

TITLE: UTILITY OF KIH-485 IN CONVENTIONAL CORN
 CREATED: 04-07-2004 REVISED: 10-14-2004 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 %		VAR 03	VAR 03
	RATE	UNIT	TM	PL ALL	PL ALL	PL ALL	PL ALL	PL ALL	YLD LB	YLD BU	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	22.6	86.5	
2A»KIH-485 (60WG)	0.108	LAA	0	100	97	92	41.3	157.8			
3A»KIH-485 (60WG)	0.144	LAA	0	88	98	95	37.4	142.7			
4A»KIH-485 (60WG)	0.181	LAA	0	92	100	100	42.7	163.0			
5A»KIH-485 (60WG)	0.217	LAA	0	97	100	100	40.1	153.3			
6A»KIH-485 (60WG)	0.362	LAA	0	97	100	100	38.6	147.3			
7A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	100	98	98	40.2	153.5			
8A»DUAL II MAGNUM (7.64EC)	3.10	LAA	0	98	100	100	41.5	158.4			
9A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	97	100	100	40.4	154.3			
10A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	98	100	100	40.5	154.8			
11A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	97	98	97	40.6	155.0			
12A UNTREATED CHECK	0.00	NA	0	0	0	0	21.0	80.2			
	LSD (0.05)			6.15	3.73	3.51	9.23	35.27			
	SIGNIFICANCE OF F			**	**	**	**	**			
	STANDARD DEVIATION			3.00	1.80	1.69	4.45	17.00			
	COEFFICIENT OF VARIANCE			4.52	2.67	2.53	14.65	14.64			
	DAT APPLICATION # 01 TIMINGS (00)			59	74	101	159	159			

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-01-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
001	ZEAMX	PHY %	05-19-2004	03	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-19-2004	04	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-03-2004	04	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-15-2004	04	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-29-2004	04	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-29-2004	01	P	CYPES		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	07-14-2004	04	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	08-10-2004	04	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	ZEAMX	LB/PLOT	10-07-2004	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 = ASGROW RX 664 YG/RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = ASGROW RX 664 YG/RR

* USER DEFINED CALCULATIONS

US 005/04/01 001 WE--- 009 -- {RAW}*(3.82)

US 005/04/01 001 WE--- 009 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WF ALTERNATE ID#: WY 06 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 04-08-2004 REVISED: 10-14-2004 COMPLETED: Y
 TITLE: STEADFAST COMPARISONS 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: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Early post applications made 05/19/2004.
7. Mid-post applications made 05/26/2004.
8. Study harvested 10/07/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-01-04	05-19-04	05-26-04	USA
TIME - BEGIN	12:00	16:30	15:30	24H
TIME - END	13:00	17:30	16:30	24H
AIR TEMPERATURE	72	74	80	F
% REL. HUMIDITY	20	50	50	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTHWEST	
WIND SPEED	5.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	PARTCLDY	
DEW	NO	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	WET/WET	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	63/4.00	74/4.00	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 INCHES
02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	19	LOW	1.00 SQY	1.00	1.00	1.00 IN		TUR	
05-26-2004	19	LOW	1.00 SQY	1.00	2.00	1.50 IN		TUR	

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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	13	MED	3.00 SQF	1.00	4.00	3.00 IN		TUR	
05-26-2004	16	MED	3.00 SQF	4.00	6.00	5.00 IN		TUR	

03 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: ASGROW RX 664 YG/RR
TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 04-29-2004
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
04-29-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-01-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-19-2004	15	MED	26000.00 IPA	8.00	8.00	8.00 IN		TUR	
05-26-2004	16	MED	26000.00 IPA	12.00	12.00	12.00 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	14	LOW	1.00 SQY	1.00	2.00	1.50 IN		TUR	
05-26-2004	14	LOW	1.00 SQY	4.00	6.00	5.00 IN		TUR	

05 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	13	LOW	1.00 SQY	1.00	2.00	1.50 IN		TUR	
05-26-2004	14	LOW	1.00 SQY	2.00	2.00	2.00 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 -- GENERAL GRASS

- 13 = 3 LEAVES UNFOLDED
- 16 = 6 LEAVES UNFOLDED

TITLE: STEADFAST COMPARISONS IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 10-14-2004 **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	05-26-04 P ZEAMX 16 VAR 03 PHY % 1.00 PL ALL	05-26-04 P SETFA 16 CON % 1.00 PL ALL	05-26-04 P CHEAL 19 CON % 1.00 PL ALL	06-03-04 P SETFA CON % 1.00 PL ALL	06-03-04 P CHEAL CON % 1.00 PL ALL	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»CINCH ATZ (5.5EC)	2.89	LAA	0	0	100	100	100	100	
3A»CINCH ATZ (5.5EC)	1.45	LAA	0	0	100	100	100	100	
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2						
C CLARITY (4SL)	0.125	LAA	2						
D ADJUVANT - COC (EC)	1.00	PMV	2						
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
4A»CINCH (7.64EC)	0.80	LAA	0	0	100	97	100	100	
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2						
C CLARITY (4SL)	0.125	LAA	2						
D ADJUVANT - COC (EC)	1.00	PMV	2						
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
5A»STEADFAST (75WDG)	0.035	LAA	1	0	35	100	95	100	
B»CINCH ATZ (5.5EC)	1.38	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
6A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	0	35	100	93	100	
B»CINCH ATZ (5.5EC)	1.38	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
7A»STEADFAST (75WDG)	0.035	LAA	1	0	35	100	97	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						
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	0	35	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						
9A»STEADFAST (75WDG)	0.035	LAA	2	0	0	0	37	67	
B»CALLISTO (4SC)	0.047	LAA	2						
C ATRAZINE 4L (SC)	0.50	LAA	2						
D ADJUVANT - COC (EC)	1.00	PMV	2						
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
10A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	0	0	0	53	100	
B»CALLISTO (4SC)	0.047	LAA	2						
C ADJUVANT - COC (EC)	1.00	PMV	2						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
11A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	0	0	0	47	67	
B»CINCH (7.64EC)	0.95	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
12A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	0	0	0	70	97	
B CLARITY (4SL)	0.125	LAA	2						
C ADJUVANT - VEGETABLE OIL	0.50	PMV	2						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
				LSLSD (0.05)	0.00	0.00	2.82	30.00	41.09
				SIGNIFICANCE OF F	ns	**	**	**	**
				STANDARD DEVIATION	0.00	0.00	1.36	14.47	19.81
				COEFFICIENT OF VARIANCE	0.00	0.00	2.87	24.00	28.27
				DAT APPLICATION # 01 TIMINGS (00)	25	25	25	33	33
				DAT APPLICATION # 02 TIMINGS (01)	7	7	7	15	15
				DAT APPLICATION # 03 TIMINGS (02)	0	0	0	8	8

TITLE: STEADFAST COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-08-2004 REVISD: 10-14-2004 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	06-08-04 P SETFA	06-08-04 P CHEAL	06-15-04 P SETFA	06-15-04 P CHEAL	06-29-04 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»CINCH ATZ (5.5EC)	2.89	LAA	0	100	100	100	100	97	
3A»CINCH ATZ (5.5EC)	1.45	LAA	0	100	100	100	100	100	
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2						
C CLARITY (4SL)	0.125	LAA	2						
D ADJUVANT - COC (EC)	1.00	PMV	2						
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
4A»CINCH (7.64EC)	0.80	LAA	0	100	100	100	100	100	
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2						
C CLARITY (4SL)	0.125	LAA	2						
D ADJUVANT - COC (EC)	1.00	PMV	2						
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
5A»STEADFAST (75WDG)	0.035	LAA	1	95	100	95	100	90	
B»CINCH ATZ (5.5EC)	1.38	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
6A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	95	100	93	100	88	
B»CINCH ATZ (5.5EC)	1.38	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
7A»STEADFAST (75WDG)	0.035	LAA	1	98	100	98	100	93	
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						
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	98	100	97	100	92	
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						
9A»STEADFAST (75WDG)	0.035	LAA	2	50	67	87	100	82	
B»CALLISTO (4SC)	0.047	LAA	2						
C ATRAZINE 4L (SC)	0.50	LAA	2						
D ADJUVANT - COC (EC)	1.00	PMV	2						
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
10A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	80	100	90	100	85	
B»CALLISTO (4SC)	0.047	LAA	2						
C ADJUVANT - COC (EC)	1.00	PMV	2						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
11A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	57	67	98	100	92	
B»CINCH (7.64EC)	0.95	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
12A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	75	100	82	100	75	
B CLARITY (4SL)	0.125	LAA	2						
C ADJUVANT - VEGETABLE OIL	0.50	PMV	2						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2						
				LSD (0.05)	33.33	40.81	6.21	0.00	9.19
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	16.07	19.68	3.00	0.00	4.43
				COEFFICIENT OF VARIANCE	24.91	28.00	4.23	0.00	6.56
				DAT APPLICATION # 01 TIMINGS (00)	38	38	45	45	59
				DAT APPLICATION # 02 TIMINGS (01)	20	20	27	27	41
				DAT APPLICATION # 03 TIMINGS (02)	13	13	20	20	34

TITLE: STEADFAST COMPARISONS IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 10-14-2004 **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
011 RAW 06-29-04 P CHEAL								
012 RAW 07-14-04 P SETFA								
013 RAW 07-14-04 P CHEAL								
014 RAW 08-10-04 P SETFA								
015 RAW 08-10-04 P CHEAL								
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A»CINCH ATZ (5.5EC)	2.89	LAA	0	100	97	100	97	98
3A»CINCH ATZ (5.5EC)	1.45	LAA	0	100	100	100	100	100
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2					
C CLARITY (4SL)	0.125	LAA	2					
D ADJUVANT - COC (EC)	1.00	PMV	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
4A»CINCH (7.64EC)	0.80	LAA	0	100	100	100	100	100
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2					
C CLARITY (4SL)	0.125	LAA	2					
D ADJUVANT - COC (EC)	1.00	PMV	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
5A»STEADFAST (75WDG)	0.035	LAA	1	100	88	100	82	100
B»CINCH ATZ (5.5EC)	1.38	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1					
6A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	100	88	100	80	100
B»CINCH ATZ (5.5EC)	1.38	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1					
7A»STEADFAST (75WDG)	0.035	LAA	1	100	93	100	88	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					
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	100	92	100	83	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					
9A»STEADFAST (75WDG)	0.035	LAA	2	100	82	100	77	100
B»CALLISTO (4SC)	0.047	LAA	2					
C ATRAZINE 4L (SC)	0.50	LAA	2					
D ADJUVANT - COC (EC)	1.00	PMV	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
10A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	100	85	100	80	100
B»CALLISTO (4SC)	0.047	LAA	2					
C ADJUVANT - COC (EC)	1.00	PMV	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
11A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	100	90	100	85	100
B»CINCH (7.64EC)	0.95	LAA	2					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
12A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	100	70	100	60	100
B CLARITY (4SL)	0.125	LAA	2					
C ADJUVANT - VEGETABLE OIL	0.50	PMV	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
		LSD (0.05)		0.00	12.00	0.00	19.38	1.41
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		0.00	5.81	0.00	9.35	0.68
		COEFFICIENT OF VARIANCE		0.00	8.66	0.00	14.74	0.91
		DAT APPLICATION # 01 TIMINGS (00)		59	74	74	101	101
		DAT APPLICATION # 02 TIMINGS (01)		41	56	56	83	83
		DAT APPLICATION # 03 TIMINGS (02)		34	49	49	76	76

TITLE: STEADFAST COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-08-2004 REVISED: 10-14-2004 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	10-07-04	10-07-04
				P ZEAMX	P ZEAMX
				VAR 03 YLD LB	VAR 03 YLD BU
				1.00	1.00
				PL SD	A SD
1A UNTREATED CHECK	0.00	NA	0	28.3	79.7
2A»CINCH ATZ (5.5EC)	2.89	LAA	0	47.4	133.6
3A»CINCH ATZ (5.5EC)	1.45	LAA	0	42.8	120.7
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2		
C CLARITY (4SL)	0.125	LAA	2		
D ADJUVANT - COC (EC)	1.00	PMV	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
4A»CINCH (7.64EC)	0.80	LAA	0	47.1	132.9
B»STEADFAST ATZ (89.3WG)	0.78	LAA	2		
C CLARITY (4SL)	0.125	LAA	2		
D ADJUVANT - COC (EC)	1.00	PMV	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
5A»STEADFAST (75WDG)	0.035	LAA	1	44.2	124.6
B»CINCH ATZ (5.5EC)	1.38	LAA	1		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1		
6A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	48.2	135.9
B»CINCH ATZ (5.5EC)	1.38	LAA	1		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1		
7A»STEADFAST (75WDG)	0.035	LAA	1	44.4	125.1
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		
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	47.5	133.9
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		
9A»STEADFAST (75WDG)	0.035	LAA	2	43.5	122.6
B»CALLISTO (4SC)	0.047	LAA	2		
C ATRAZINE 4L (SC)	0.50	LAA	2		
D ADJUVANT - COC (EC)	1.00	PMV	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
10A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	44.0	124.2
B»CALLISTO (4SC)	0.047	LAA	2		
C ADJUVANT - COC (EC)	1.00	PMV	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
11A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	46.9	132.2
B»CINCH (7.64EC)	0.95	LAA	2		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
12A»STEADFAST ATZ (89.3WG)	0.78	LAA	2	45.3	127.7
B CLARITY (4SL)	0.125	LAA	2		
C ADJUVANT - VEGETABLE OIL	0.50	PMV	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
	LSD (0.05)			7.17	20.21
	SIGNIFICANCE OF F			**	**
	STANDARD DEVIATION			3.46	9.75
	COEFFICIENT OF VARIANCE			9.59	9.59
	DAT APPLICATION # 01 TIMINGS (00)			159	159
	DAT APPLICATION # 02 TIMINGS (01)			141	141
	DAT APPLICATION # 03 TIMINGS (02)			134	134

» = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = PREPRE / PREEMERGENCE 05-01-2004(1)
01 = POSPOS / EARLY POSTEMERGENCE - CORN 5 INCHES 05-19-2004(2)
02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES 05-26-2004(3)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRPT	SS	NOTE
001	ZEAMX	PHY %	05-26-2004	03	P	ZEAMX	16	RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-26-2004	02	P	SETFA	16	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	05-26-2004	01	P	CHEAL	19	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-03-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	CHEAL	CON %	06-03-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-08-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	CHEAL	CON %	06-08-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	CHEAL	CON %	06-15-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	CHEAL	CON %	06-29-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	CHEAL	CON %	07-14-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
015	CHEAL	CON %	08-10-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
016	ZEAMX	LB/PLOT	10-07-2004	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 = ASGROW RX 664 YG/RR

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

03 = ASGROW RX 664 YG/RR

*** STAGE CODE**

16 = 6 LEAVES UNFOLDED
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

*** USER DEFINED CALCULATIONS**

US 005/04/01 001 WF--- 016 -- {RAW}*(2.82)

US 005/04/01 001 WF--- 016 -- {RAW}*(2.82)

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 005/04/01 001 WG ALTERNATE ID#: WY 07 2004
PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
CREATED BY: US RITTER R
CREATED: 04-08-2004 REVISED: 10-14-2004 COMPLETED: Y
TITLE: PRE AND POST COMPARISONS 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: 14 ACTUAL SUB-BLOCKS: 14

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Early post applications made 05/19/2004.
7. Mid-post applications made 05/26/2004.
8. Study harvested 10/07/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-01-04	05-19-04	05-26-04	USA
TIME - BEGIN	12:00	16:30	15:30	24H
TIME - END	13:00	17:30	16:30	24H
AIR TEMPERATURE	72	74	80	F
% REL. HUMIDITY	20	50	50	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTHWEST	
WIND SPEED	5.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	PARTCLDY	
DEW	NO	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	WET/WET	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	63/4.00	74/4.00	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 INCHES
 02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = SS-8003
 03 = 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	19	LOW	1.00 SQY	1.00	1.00	1.00 IN		TUR	
05-26-2004	19	LOW	1.00 SQY	1.00	2.00	1.50 IN		TUR	

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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	13	MED	3.00 SQF	2.00	4.00	3.00 IN		TUR	
05-26-2004	16	MED	3.00 SQF	4.00	6.00	5.00 IN		TUR	

03 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: ASGROW RX 664 YG/RR

TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 04-29-2004

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
04-29-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-01-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-19-2004	15	MED	26000.00 IPA	8.00	8.00	8.00 IN		TUR	
05-26-2004	16	MED	26000.00 IPA	12.00	12.00	12.00 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	14	LOW	1.00 SQY	1.00	2.00	1.50 IN		TUR	
05-26-2004	14	LOW	1.00 SQY	4.00	6.00	5.00 IN		TUR	

05 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	13	LOW	1.00 SQY	1.00	2.00	1.50 IN		TUR	
05-26-2004	14	LOW	1.00 SQY	2.00	2.00	2.00 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 -- GENERAL GRASS

- 13 = 3 LEAVES UNFOLDED
- 16 = 6 LEAVES UNFOLDED

TITLE: PRE AND POST COMPARISONS IN CONVENTIONAL CORN

CREATED: 04-08-2004 REVISED: 10-14-2004 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	05-26-04 P ZEAMX 16 VAR 03 PHY % 1.00	05-26-04 P SETFA 16 CON % 1.00	05-26-04 P CHEAL 19 CON % 1.00	06-03-04 P SETFA CON % 1.00	06-03-04 P CHEAL 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»OPTION (70 WG)	0.066	LAA	1	0	35	35	90	85
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	1.50	QMA	1					
3A»EQUIP (62WG)	0.058	LAA	1	0	35	35	85	88
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	1.50	QMA	1					
4A»OPTION (70 WG)	0.066	LAA	1	0	35	35	83	87
B»DISTINCT (70WG)	0.0875	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
5A»EQUIP (62WG)	0.058	LAA	1	0	35	35	87	95
B»DISTINCT (70WG)	0.0875	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
6A»OPTION (70 WG)	0.066	LAA	1	0	40	40	90	100
B»CALLISTO (4SC)	0.0625	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
7A»EQUIP (62WG)	0.058	LAA	1	0	35	35	77	100
B»CALLISTO (4SC)	0.0625	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
8A»DEFINE (4SC)	0.56	LAA	0	0	100	100	100	100
B»EQUIP (62WG)	0.058	LAA	2					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	2					
D FERTILIZER - 28%UAN	1.50	QMA	2					
9A»PROWL H20 (3.8CS)	1.50	LAA	0	0	97	100	100	100
B»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	2					
10A»PROWL H20 (3.8CS)	1.50	LAA	1	0	100	100	100	100
B»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	1					
11A»KEYSTONE (5.25SE)	1.84	LAA	0	0	100	100	100	100
B»HORNET (78.5DF)	0.147	LAA	2					
C CLARITY (4SL)	0.094	LAA	2					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
E FERTILIZER - 28%UAN	2.50	PMV	2					
12A»KEYSTONE (5.25SE)	1.84	LAA	0	0	100	100	100	100
B»GF-1279 (4.0AE)	0.75	LAA	2					
13A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	100
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
				LSL (0.05)	4.59	3.89	10.37	4.14
				SIGNIFICANCE OF F	ns	**	**	**
				STANDARD DEVIATION	0.00	2.23	1.89	5.00
				COEFFICIENT OF VARIANCE	0.00	4.71	4.00	7.78
				DAT APPLICATION # 01 TIMINGS (00)	25	25	25	33
				DAT APPLICATION # 02 TIMINGS (01)	7	7	7	15
				DAT APPLICATION # 03 TIMINGS (02)	0	0	0	8

TITLE: PRE AND POST COMPARISONS IN CONVENTIONAL CORN

CREATED: 04-08-2004 REVISED: 10-14-2004 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	06-15-04 P SETFA	06-15-04 P CHEAL	06-29-04 P SETFA	06-29-04 P CHEAL	07-14-04 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»OPTION (70 WG)	0.066	LAA	1	87	77	85	53	80
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	1.50	QMA	1					
3A»EQUIP (62WG)	0.058	LAA	1	78	95	62	87	58
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	1.50	QMA	1					
4A»OPTION (70 WG)	0.066	LAA	1	80	97	63	100	58
B»DISTINCT (70WG)	0.0875	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
5A»EQUIP (62WG)	0.058	LAA	1	83	100	73	97	63
B»DISTINCT (70WG)	0.0875	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
6A»OPTION (70 WG)	0.066	LAA	1	87	100	77	100	72
B»CALLISTO (4SC)	0.0625	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
7A»EQUIP (62WG)	0.058	LAA	1	88	100	78	100	68
B»CALLISTO (4SC)	0.0625	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
8A»DEFINE (4SC)	0.56	LAA	0	100	100	100	100	100
B»EQUIP (62WG)	0.058	LAA	2					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	2					
D FERTILIZER - 28%UAN	1.50	QMA	2					
9A»PROWL H20 (3.8CS)	1.50	LAA	0	100	100	100	100	100
B»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	2					
10A»PROWL H20 (3.8CS)	1.50	LAA	1	100	100	97	100	97
B»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	1					
11A»KEYSTONE (5.25SE)	1.84	LAA	0	100	100	100	100	100
B»HORNET (78.5DF)	0.147	LAA	2					
C CLARITY (4SL)	0.094	LAA	2					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
E FERTILIZER - 28%UAN	2.50	PMV	2					
12A»KEYSTONE (5.25SE)	1.84	LAA	0	100	100	95	97	95
B»GF-1279 (4.0AE)	0.75	LAA	2					
13A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	100	100	100	98	100
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
	LSD (0.05)			14.42	4.94	20.11	12.21	30.57
	SIGNIFICANCE OF F			**	**	**	**	**
	STANDARD DEVIATION			7.00	2.40	9.78	5.94	14.87
	COEFFICIENT OF VARIANCE			10.90	3.53	16.28	9.00	25.71
	DAT APPLICATION # 01 TIMINGS (00)			45	45	59	59	74
	DAT APPLICATION # 02 TIMINGS (01)			27	27	41	41	56
	DAT APPLICATION # 03 TIMINGS (02)			20	20	34	34	49

TITLE: PRE AND POST COMPARISONS IN CONVENTIONAL CORN

CREATED: 04-08-2004 REVISED: 10-14-2004 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 %	VAR 03	VAR 03
	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
011 RAW 07-14-04 P CHEAL								
012 RAW 08-10-04 P SETFA								
013 RAW 08-10-04 P CHEAL								
014 RAW 10-07-04 P ZEAMX								
014 CALC 10-07-04 P ZEAMX								
1A UNTREATED CHECK	0.00	NA	0	0	0	0	33.6	128.2
2A»OPTION (70 WG)	0.066	LAA	1	27	75	7	47.8	182.6
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	1.50	QMA	1					
3A»EQUIP (62WG)	0.058	LAA	1	87	50	87	42.9	164.0
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	1.50	QMA	1					
4A»OPTION (70 WG)	0.066	LAA	1	100	37	100	47.7	182.3
B»DISTINCT (70WG)	0.0875	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
5A»EQUIP (62WG)	0.058	LAA	1	97	60	97	46.5	177.5
B»DISTINCT (70WG)	0.0875	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
6A»OPTION (70 WG)	0.066	LAA	1	100	68	100	45.8	175.0
B»CALLISTO (4SC)	0.0625	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
7A»EQUIP (62WG)	0.058	LAA	1	100	60	100	47.0	179.5
B»CALLISTO (4SC)	0.0625	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	1.50	QMA	1					
8A»DEFINE (4SC)	0.56	LAA	0	100	98	100	44.1	168.4
B»EQUIP (62WG)	0.058	LAA	2					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	2					
D FERTILIZER - 28%UAN	1.50	QMA	2					
9A»PROWL H20 (3.8CS)	1.50	LAA	0	100	98	98	46.9	179.2
B»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	2					
10A»PROWL H20 (3.8CS)	1.50	LAA	1	100	97	100	47.8	182.6
B»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	1					
11A»KEYSTONE (5.25SE)	1.84	LAA	0	100	97	100	48.8	186.3
B»HORNET (78.5DF)	0.147	LAA	2					
C CLARITY (4SL)	0.094	LAA	2					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
E FERTILIZER - 28%UAN	2.50	PMV	2					
12A»KEYSTONE (5.25SE)	1.84	LAA	0	97	95	90	46.9	179.3
B»GF-1279 (4.0AE)	0.75	LAA	2					
13A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	98	98	95	46.6	178.0
14A UNTREATED CHECK	0.00	NA	0	0	0	0	41.6	158.9
LSD (0.05)				8.45	31.32	9.69	6.11	23.35
SIGNIFICANCE OF F				**	**	**	**	**
STANDARD DEVIATION				4.11	15.23	4.71	3.00	11.36
COEFFICIENT OF VARIANCE				6.38	28.00	7.53	8.00	8.00
DAT APPLICATION # 01 TIMINGS (00)				74	101	101	159	159
DAT APPLICATION # 02 TIMINGS (01)				56	83	83	141	141
DAT APPLICATION # 03 TIMINGS (02)				49	76	76	134	134

» = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = PREPRE / PREEMERGENCE 05-01-2004(1)
01 = POSPOS / EARLY POSTEMERGENCE - CORN 5 INCHES 05-19-2004(2)
02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES 05-26-2004(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	PHY %	05-26-2004	03	P	ZEAMX	16	RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-26-2004	02	P	SETFA	16	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	05-26-2004	01	P	CHEAL	19	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-03-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	CHEAL	CON %	06-03-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	CHEAL	CON %	06-15-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	CHEAL	CON %	06-29-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	CHEAL	CON %	07-14-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	CHEAL	CON %	08-10-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	ZEAMX	LB/PLOT	10-07-2004	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 = ASGROW RX 664 YG/RR

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

03 = ASGROW RX 664 YG/RR

*** STAGE CODE**

16 = 6 LEAVES UNFOLDED
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

*** USER DEFINED CALCULATIONS**

US 005/04/01 001 WG--- 014 -- {RAW}*(3.82)

US 005/04/01 001 WG--- 014 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WH ALTERNATE ID#: WY 08 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 04-08-2004 REVISED: 10-14-2004 COMPLETED: Y
 TITLE: POSTEMERGENCE COMPARISONS 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: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Early post applications made 05/19/2004.
7. Mid-post applications made 06/03/2004.
8. Study harvested 10/07/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-01-04	05-19-04	06-03-04	USA
TIME - BEGIN	12:00	15:00	18:00	24H
TIME - END	13:00	16:00	19:00	24H
AIR TEMPERATURE	72	78	76	F
% REL. HUMIDITY	20	60	20	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	WEST	
WIND SPEED	5.0	3.0	2.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	PARTCLDY	
DEW	NO	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	73/4.00	77/4.00	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 INCHES
02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003
03 = 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
05-01-2004	00	---		IND	.	. IN		NA	
05-19-2004	19	LOW	3.00	SQY	1.00	2.00	1.50	IN	TUR
06-03-2004	---	---		IND	.	. IN		---	
06-03-2004	---	---		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
05-01-2004	00	---		IND	.	. IN		NA	
05-19-2004	15	MED	3.00	SQF	4.00	4.00	4.00	IN	TUR
06-03-2004	---	---		IND	.	. IN		---	
06-03-2004	---	---		IND	.	. IN		---	

03 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: ASGROW RX 664 YG/RR

TARGET: CROP SITE: FG

POPULATION: 26000.00 IPA PLANTED: 04-29-2004

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
04-29-2004	00	MED	26000.00	IPA	.	. IN		NA	
05-01-2004	00	MED	26000.00	IPA	.	. IN		NA	
05-19-2004	15	MED	26000.00	IPA	8.00	8.00	8.00	IN	TUR
06-03-2004	17	MED	26000.00	IPA	24.00	24.00	24.00	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
05-01-2004	00	---		IND	.	. IN		NA	
05-19-2004	---	---		IND	.	. IN		---	
05-19-2004	---	---		IND	.	. IN		---	
06-03-2004	14	LOW	1.00	SQY	4.00	4.00	4.00	IN	TUR

05 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
05-01-2004	00	---		IND	.	. IN		NA	
05-19-2004	---	---		IND	.	. IN		---	
05-19-2004	---	---		IND	.	. IN		---	
06-03-2004	14	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

--- = TO BE SELECTED
 00 = DRY SEED; DORMANCY
 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

15 = 5 LEAVES UNFOLDED

TITLE: POSTEMERGENCE COMPARISONS IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 10-14-2004 **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	UNIT	TM	001 RAW	002 RAW	003 RAW	004 RAW	005 RAW
					05-26-04	05-26-04	06-03-04	06-08-04	06-15-04
NUM	COMPONENT	RATE			P ZEAMX	P SETFA	P SETFA	P SETFA	P SETFA
					VAR 03	CON %	CON %	CON %	CON %
					PHY %	PL ALL	PL ALL	PL ALL	PL ALL
					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	STEADFAST ATZ (89.3WG)	0.78	LAA	1	0	30	87	88	90
	B CLARITY (4SL)	0.125	LAA	1					
	C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
	D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1					
3A	STEADFAST ATZ (89.3WG)	0.78	LAA	1	0	38	77	78	78
	B CALLISTO (4SC)	0.0625	LAA	1					
	C ADJUVANT - COC (EC)	1.00	PMV	1					
	D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1					
4A	EQUIP (62WG)	0.058	LAA	1	0	35	85	87	85
	B CLARITY (4SL)	0.125	LAA	1					
	C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
	D FERTILIZER - 28%UAN	1.00	QMA	1					
5A	EQUIP (62WG)	0.058	LAA	1	0	35	87	90	88
	B CALLISTO (4SC)	0.0625	LAA	1					
	C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
	D FERTILIZER - 28%UAN	1.00	QMA	1					
6A	DUAL II MAGNUM (7.64EC)	0.80	LAA	0	0	98	100	100	100
	B TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2					
7A	BICEP II MAGNUM (5.5SC)	1.45	LAA	0	0	100	100	100	100
	B TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2					
8A	HARNES (7EC)	1.00	LAA	0	0	100	100	100	100
	B ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2					
9A	HARNES XTRA (5.6FL)	1.68	LAA	0	0	100	100	100	100
	B ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2					
10A	GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100
	B DISTINCT (70WG)	0.175	LAA	2					
	C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
11A	GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100
	B DISTINCT (70WG)	0.263	LAA	2					
	C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
12A	TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1	0	100	100	100	100
	B TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2					
13A	ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1	0	100	100	100	100
	B ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2					
14A	GF-1279 (4.0AE)	0.75	LAA	1	0	100	100	100	100
	B GF-1279 (4.0AE)	0.75	LAA	2					
15A	ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1	0	100	100	100	97
	B DISTINCT (70WG)	0.175	LAA	1					
16A	UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
	LSLSD (0.05)				0.00	4.48	4.53	3.56	6.36
	SIGNIFICANCE OF F				ns	**	**	**	**
	STANDARD DEVIATION				0.00	2.19	2.22	1.74	3.11
	COEFFICIENT OF VARIANCE				0.00	3.78	3.26	2.54	4.56
	DAT APPLICATION # 01 TIMINGS (00)				25	25	33	38	45
	DAT APPLICATION # 02 TIMINGS (01)				7	7	15	20	27
	DAT APPLICATION # 03 TIMINGS (02)				NA	NA	0	5	12

TITLE: POSTEMERGENCE COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-08-2004 REVISED: 10-14-2004 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	006 RAW 06-29-04 P SETFA			007 RAW 07-14-04 P SETFA			008 RAW 08-10-04 P SETFA			009 RAW 10-07-04 P ZEAMX			009 CALC 10-07-04 P ZEAMX		
		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	VAR 03 YLD LB 1.00 PL SD	VAR 03 YLD BU 1.00 A SD	VAR 03 YLD LB 1.00 PL SD	VAR 03 YLD BU 1.00 A SD		
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0	0	0	0	20.7	78.9					
2A>>STEADFAST ATZ (89.3WG)	0.78 LAA 1	83	80	67						49.7	189.9					
B CLARITY (4SL)	0.125 LAA 1															
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 1															
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1															
3A>>STEADFAST ATZ (89.3WG)	0.78 LAA 1	68	57	43						49.5	189.2					
B>>CALLISTO (4SC)	0.0625 LAA 1															
C ADJUVANT - COC (EC)	1.00 PMV 1															
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1															
4A>>EQUIP (62WG)	0.058 LAA 1	70	67	52						50.5	192.8					
B CLARITY (4SL)	0.125 LAA 1															
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1															
D FERTILIZER - 28%UAN	1.00 QMA 1															
5A>>EQUIP (62WG)	0.058 LAA 1	75	70	57						49.7	189.9					
B>>CALLISTO (4SC)	0.0625 LAA 1															
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1															
D FERTILIZER - 28%UAN	1.00 QMA 1															
6A>>DUAL II MAGNUM (7.64EC)	0.80 LAA 0	100	100	98						46.1	176.2					
B>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 2															
7A>>BICEP II MAGNUM (5.5SC)	1.45 LAA 0	100	100	98						48.2	184.0					
B>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 2															
8A HARNES (7EC)	1.00 LAA 0	98	98	95						46.7	178.5					
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 2															
9A>>HARNES XTRA (5.6FL)	1.68 LAA 0	97	97	92						46.9	179.3					
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 2															
10A>>GUARDSMAN MAX (5L)	2.50 LAA 0	100	100	97						43.0	164.2					
B>>DISTINCT (70WG)	0.175 LAA 2															
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 2															
11A>>GUARDSMAN MAX (5L)	2.50 LAA 0	100	100	100						39.9	152.5					
B>>DISTINCT (70WG)	0.263 LAA 2															
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 2															
12A>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 1	97	95	92						45.2	172.7					
B>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 2															
13A>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	97	93	88						44.6	170.5					
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 2															
14A>>GF-1279 (4.0AE)	0.75 LAA 1	95	93	93						45.3	172.9					
B>>GF-1279 (4.0AE)	0.75 LAA 2															
15A>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	90	90	88						39.6	151.3					
B>>DISTINCT (70WG)	0.175 LAA 1															
16A UNTREATED CHECK	0.00 NA 0	0	0	0						8.9	33.9					
	LSD (0.05)	9.12	13.57	20.83	8.76	33.46										
	SIGNIFICANCE OF F	**	**	**	**	**										
	STANDARD DEVIATION	4.46	6.65	10.20	4.29	16.39										
	COEFFICIENT OF VARIANCE	6.89	10.50	17.24	12.46	12.46										
	DAT APPLICATION # 01 TIMINGS (00)	59	74	101	159	159										
	DAT APPLICATION # 02 TIMINGS (01)	41	56	83	141	141										
	DAT APPLICATION # 03 TIMINGS (02)	26	41	68	126	126										

>> = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = PREPRE / PREEMERGENCE 05-01-2004(1)
01 = POSPOS / EARLY POSTEMERGENCE - CORN 5 INCHES 05-19-2004(2)
02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES 06-03-2004(3)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRRT	SS	NOTE
001	ZEAMX	PHY %	05-26-2004	03	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-26-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-03-2004	02	P	SETFA	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-08-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	ZEAMX	LB/PLOT	10-07-2004	03	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	ZEAMX	BU/ACRE						CALC	SD	YLD	BU	---	1.00 A				

*** VARIETY CODES**

VAR 03 = ASGROW RX 664 YG/RR

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

03 = ASGROW RX 664 YG/RR

*** STAGE CODE**

--- = TO BE SELECTED

*** USER DEFINED CALCULATIONS**

US 005/04/01 001 WH--- 009 -- {RAW}*(3.82)

US 005/04/01 001 WH--- 009 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WI ALTERNATE ID#: WY 09 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/01/01
 CREATED BY: US RITTER R
 CREATED: 04-14-2004 REVISED: 11-14-2004 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		TRIAL INFORMATION	
% SAND: 21	TILLAGE: COT	DESIGN: RCB	RESIDUE TRIAL: EFF
% 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: GLXMA - SOYBEAN			
% RESIDUE: 0			
PLOT WIDTH: 10.00 FT			
PLOT LENGTH: 20.00 FT			

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

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. 1 and 2 week applications made 05/10/2004.
6. 3 week application made 05/19/2004.
7. 4 week application made 05/26/2004.
8. 5 week application made 06/03/2004.
9. 6 week application made 06/09/2004.
10. 7 week application made 06/16/2004.
11. 8 week application made 06/24/2004.
12. 9 week applicatiion made 06/29/2004.
13. 10 week application made 07/08/2004.
14. 11 week application made 07/13/2004.
15. 12 week application made 07/21/2004.
16. Study harvested 10/07/2004.

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	05-10-04	05-10-04	05-19-04	05-26-04	06-03-04	06-09-04	06-16-04	06-24-04	USA
TIME - BEGIN	14:30	14:30	15:00	16:30	18:00	10:00	15:00	14:00	24H
TIME - END	15:00	15:00	16:00	17:00	19:00	11:00	16:00	15:00	24H
AIR TEMPERATURE	85	85	78	82	76	83	84	85	F
% REL. HUMIDITY	55	55	60	60	20	60	60	30	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTHWEST	SOUTHWEST	WEST	SOUTHEAST	WEST	SOUTH	
WIND SPEED	3.0	3.0	3.0	3.0	2.0	3.0	3.0	3.0	M/H
CLOUD COVER	HAZY SUN	HAZY SUN	CLOUDY	PARTCLDY	PARTCLDY	HAZY SUN	HAZY SUN	PARTCLDY	
DEW	NO	NO	NO	NO	NO	NO	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	DRY/MOIST	WET/WET	MOIST/MOI	MOIST/MOI	DRY/MOIST	DRY/MOIST	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	FRIABLE	---	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	75/4.00	75/4.00	73/4.00	76/4.00	77/4.00	74/4.00	82/4.00	83/4.00	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	06-29-04	07-08-04	07-13-04	07-21-04	USA
TIME - BEGIN	13:30	18:00	11:30	17:00	24H
TIME - END	14:00	18:15	12:00	17:30	24H
AIR TEMPERATURE	84	78	76	88	F
% REL. HUMIDITY	30	60	80	65	
WIND DIRECTION	NORTHWEST	WEST	SOUTHWEST	WEST	
WIND SPEED	3.0	3.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	CLOUDY	HAZY SUN	
DEW	NO	NO	NO	NO	
SOIL MOISTURE	DRY/MOIST	WET/WET	WET/WET	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	80/4.00	76/4.00	76/4.00	88/4.00	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 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-10-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	---	---	IND	.	.	. IN		---	
05-19-2004	---	---	IND	.	.	. IN		---	
05-26-2004	---	---	IND	.	.	. IN		---	
05-26-2004	---	---	IND	.	.	. IN		---	
06-03-2004	---	---	IND	.	.	. IN		---	
06-03-2004	---	---	IND	.	.	. IN		---	
06-09-2004	---	---	IND	.	.	. IN		---	
06-09-2004	---	---	IND	.	.	. IN		---	
06-16-2004	---	---	IND	.	.	. IN		---	
06-16-2004	---	---	IND	.	.	. IN		---	
06-24-2004	---	---	IND	.	.	. IN		---	
06-24-2004	---	---	IND	.	.	. IN		---	
06-29-2004	---	---	IND	.	.	. IN		---	
06-29-2004	---	---	IND	.	.	. IN		---	
07-08-2004	---	---	IND	.	.	. IN		---	
07-08-2004	---	---	IND	.	.	. IN		---	
07-13-2004	---	---	IND	.	.	. IN		---	
07-13-2004	---	---	IND	.	.	. IN		---	
07-21-2004	---	---	IND	.	.	. IN		---	
07-21-2004	---	---	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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-10-2004	12	HGH	10.00	SQF 0.50	0.50	0.50 IN		TUR	
05-19-2004	15	HGH	10.00	SQF 4.00	4.00	4.00 IN		TUR	
05-26-2004	16	HGH	10.00	SQF 4.00	6.00	5.00 IN		TUR	
06-03-2004	16	HGH	10.00	SQF 18.00	18.00	18.00 IN		TUR	
06-09-2004	16	MED	10.00	FTR 18.00	18.00	18.00 IN		TUR	
06-16-2004	16	MED	10.00	SQF 24.00	24.00	24.00 IN		TUR	
06-24-2004	17	MED	10.00	SQF 48.00	48.00	48.00 IN		TUR	
06-29-2004	17	MED	10.00	SQF 60.00	60.00	60.00 IN		TUR	
07-08-2004	17	MED	10.00	SQF 60.00	60.00	60.00 IN		TUR	
07-13-2004	17	MED	10.00	SQF 72.00	72.00	72.00 IN		TUR	
07-21-2004	55	MED	10.00	SQF 72.00	72.00	72.00 IN		TUR	

03 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: ASGROW RX 664 YG/RR

TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 04-29-2004

PLANTING DEPTH: 1.5 IN ROW WIDTH: 30.0 IN

STAGE ON	STAGE CODE	POP.GEN.	POPULATION	MN SIZE	MX SIZE	AV SIZE	CROP	VIGOR	NOTES
04-29-2004	00	MED	26000.00	IPA	.	. IN		NA	
05-01-2004	00	MED	26000.00	IPA	.	. IN		NA	
05-10-2004	12	MED	26000.00	IPA	3.00	3.00 IN		TUR	
05-19-2004	15	MED	26000.00	IPA	8.00	8.00 IN		TUR	
05-26-2004	16	MED	26000.00	IPA	12.00	12.00 IN		TUR	
06-03-2004	17	MED	26000.00	IPA	24.00	24.00 IN		TUR	
06-09-2004	18	MED	26000.00	IPA	30.00	30.00 IN		TUR	
06-16-2004	18	MED	26000.00	IPA	48.00	48.00 IN		TUR	
06-24-2004	19	MED	26000.00	IPA	60.00	60.00 IN		TUR	
06-29-2004	55	MED	26000.00	IPA	72.00	72.00 IN		TUR	
07-08-2004	71	MED	26000.00	IPA	72.00	72.00 IN		TUR	
07-13-2004	73	MED	26000.00	IPA	72.00	72.00 IN		TUR	
07-21-2004	79	MED	26000.00	IPA	72.00	72.00 IN		TUR	

* STAGE CODE -- CORN

- 00 = DRY SEED (CARYOPSIS)
- 12 = 2 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED
- 16 = 6 LEAVES UNFOLDED
- 17 = 7 LEAVES UNFOLDED
- 18 = 8 LEAVES UNFOLDED
- 19 = 9 OR MORE LEAVES UNFOLDED

*** STAGE CODE -- CORN**

55 = MIDDLE OF TASSEL EMERGENCE: MIDDLE OF TASSEL BEGINS TO SEPARATE
71 = BEGINNING OF GRAIN DEVELOPMENT: KERNELS AT BLISTER STAGE, ABOUT 16% DRY MATTER
73 = EARLY MILK
79 = NEARLY ALL KERNELS HAVE REACHED FINAL SIZE

*** STAGE CODE -- GENERAL**

--- = TO BE SELECTED
00 = DRY SEED; DORMANCY

*** STAGE CODE -- GENERAL GRASS**

12 = 2 LEAVES UNFOLDED
15 = 5 LEAVES UNFOLDED
16 = 6 LEAVES UNFOLDED
17 = 7 LEAVES UNFOLDED
55 = MIDDLE OF HEADING: HALF OF INFLORESCENCE EMERGED

TITLE: GLYPHOSATE TIMING STUDY IN CONVENTIONAL CORN

CREATED: 04-14-2004 REVISED: 11-14-2004 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	CON %					VAR 03
		PL ALL	PL ALL	PL ALL	PL ALL	PL SD	
		002 RAW 06-03-04 P SETFA 16	003 RAW 06-24-04 P SETFA 17	004 RAW 07-13-04 P SETFA 17	005 RAW 08-10-04 P SETFA	001 RAW 10-07-04 P ZEAMX	
		1.00	1.00	1.00	1.00	1.00	YLD LB 1.00
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0	7.0
2A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 0	50	23	13	0		36.3
3A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 1	63	32	23	17		29.8
4A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 2	100	85	80	67		46.5
5A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 3	67	93	97	93		47.3
6A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 4	0	100	98	63		39.6
7A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 5	0	100	100	98		32.1
8A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 6	0	90	100	100		18.8
9A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 7	0	0	100	98		22.6
10A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 8	0	0	100	97		6.1
11A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 9	0	0	30	93		15.4
12A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 10	0	0	0	92		3.4
13A»TOUCHDOWN TOTAL (4.17AE)	0.78 LAA 11	0	0	0	98		4.7
14A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0	0.7
	LSD (0.05)	28.76	17.64	18.69	31.78	10.29	
	SIGNIFICANCE OF F	**	**	**	**	**	
	STANDARD DEVIATION	14.00	8.58	9.09	15.46	5.00	
	COEFFICIENT OF VARIANCE	85.67	28.11	21.00	28.91	27.65	
	DAT APPLICATION # 01 TIMINGS (00)	24	45	64	92	150	
	DAT APPLICATION # 02 TIMINGS (01)	24	45	64	92	150	
	DAT APPLICATION # 03 TIMINGS (02)	15	36	55	83	141	
	DAT APPLICATION # 04 TIMINGS (03)	8	29	48	76	134	
	DAT APPLICATION # 05 TIMINGS (04)	0	21	40	68	126	
	DAT APPLICATION # 06 TIMINGS (05)	NA	15	34	62	120	
	DAT APPLICATION # 07 TIMINGS (06)	NA	8	27	55	113	
	DAT APPLICATION # 08 TIMINGS (07)	NA	0	19	47	105	
	DAT APPLICATION # 09 TIMINGS (08)	NA	NA	14	42	100	
	DAT APPLICATION # 10 TIMINGS (09)	NA	NA	5	33	91	
	DAT APPLICATION # 11 TIMINGS (10)	NA	NA	0	28	86	
	DAT APPLICATION # 12 TIMINGS (11)	NA	NA	NA	20	78	

TITLE: GLYPHOSATE TIMING STUDY IN CONVENTIONAL CORN

CREATED: 04-14-2004 REVISED: 11-14-2004 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			001 CALC
NUM	COMPONENT	RATE	UNIT	TM	10-07-04
					P ZEAMX
					VAR 03
					YLD BU
					1.00
					A SD
1A	UNTREATED CHECK	0.00	NA	0	26.9
2A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	0	138.6
3A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	1	114.0
4A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	2	177.6
5A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	3	180.7
6A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	4	151.2
7A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	5	122.6
8A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	6	71.9
9A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	7	86.3
10A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	8	23.3
11A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	9	58.8
12A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	10	13.1
13A	»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	11	18.0
14A	UNTREATED CHECK	0.00	NA	0	2.5
					LSD (0.05) 39.31
					SIGNIFICANCE OF F **
					STANDARD DEVIATION 19.12
					COEFFICIENT OF VARIANCE 27.65
					DAT APPLICATION # 01 TIMINGS (00) 150
					DAT APPLICATION # 02 TIMINGS (01) 150
					DAT APPLICATION # 03 TIMINGS (02) 141
					DAT APPLICATION # 04 TIMINGS (03) 134
					DAT APPLICATION # 05 TIMINGS (04) 126
					DAT APPLICATION # 06 TIMINGS (05) 120
					DAT APPLICATION # 07 TIMINGS (06) 113
					DAT APPLICATION # 08 TIMINGS (07) 105
					DAT APPLICATION # 09 TIMINGS (08) 100
					DAT APPLICATION # 10 TIMINGS (09) 91
					DAT APPLICATION # 11 TIMINGS (10) 86
					DAT APPLICATION # 12 TIMINGS (11) 78

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = POSPOS / POSTEMERGENCE - 1 WEEK 05-10-2004 (1)
- 01 = POSPOS / POSTEMERGENCE - 2 WEEK 05-10-2004 (2)
- 02 = POSPOS / POSTEMERGENCE - 3 WEEK 05-19-2004 (3)
- 03 = POSPOS / POSTEMERGENCE - 4 WEEK 05-26-2004 (4)
- 04 = POSPOS / POSTEMERGENCE - 5 WEEK 06-03-2004 (5)
- 05 = POSPOS / POSTEMERGENCE - 6 WEEK 06-09-2004 (6)
- 06 = POSPOS / POSTEMERGENCE - 7 WEEK 06-16-2004 (7)
- 07 = POSPOS / POSTEMERGENCE - 8 WEEK 06-24-2004 (8)
- 08 = POSPOS / POSTEMERGENCE - 9 WEEK 06-29-2004 (9)
- 09 = POSPOS / POSTEMERGENCE - 10 WEEK 07-08-2004 (10)
- 10 = POSPOS / POSTEMERGENCE - 11 WEEK 07-13-2004 (11)
- 11 = POSPOS / POSTEMERGENCE - 12 WEEK 07-21-2004 (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	CTRTR	SS	NOTE
002	SETFA	CON %	06-03-2004	02	P	SETFA	16	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-24-2004	02	P	SETFA	17	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
004	SETFA	CON %	07-13-2004	02	P	SETFA	17	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
005	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
001	YIELD	LB/PLOT	10-07-2004	03	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 03 = ASGROW RX 664 YG/RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = ASGROW RX 664 YG/RR

* STAGE CODE

16 = 6 LEAVES UNFOLDED

17 = 7 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/04/01 001 WI--- 001 -- {RAW}*(3.82)

US 005/04/01 001 WI--- 001 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WJ ALTERNATE ID#: WY 10 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-14-2004 REVISED: 10-14-2004 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
 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: EFF
% SILT: 59	PH: 5.8	ACTUAL REPS: 3	ACTUAL BLOCKS: 1
% CLAY: 20	CEC: 5.9	ACTUAL TRTS: 12	ACTUAL SUB-BLOCKS: 12
TEXTURE: SIL	% OM: 2.0		
SOIL GEN: M			
PREVIOUS CROP: GLXMA - SOYBEAN			
% RESIDUE: 0			
PLOT WIDTH: 10.00 FT			
PLOT LENGTH: 20.00 FT			

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Pioneer 35P15 YG/IT, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Isotox was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Early post applications made 05/19/2004.
7. Study harvested 10/07/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	05-01-04	05-19-04	USA
TIME - BEGIN	12:00	15:00	24H
TIME - END	13:00	16:00	24H
AIR TEMPERATURE	72	78	F
% REL. HUMIDITY	20	60	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	
WIND SPEED	5.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	
DEW	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	73/4.00	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

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
05-01-2004 00 --- IND . . . IN NA
05-19-2004 19 LOW 3.00 SQY 1.00 2.00 1.50 IN TUR

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
05-01-2004 00 --- IND . . . IN NA
05-19-2004 15 MED 3.00 SQF 4.00 4.00 4.00 IN TUR

03 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: PIONEER 35P15 YG/IT
TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 04-29-2004
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
04-29-2004 00 MED 26000.00 IPA . . . IN NA
05-01-2004 00 MED 26000.00 IPA . . . IN NA
05-19-2004 15 MED 26000.00 IPA 8.00 8.00 8.00 IN TUR

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPHYSIS)
15 = 5 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

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

* STAGE CODE -- GENERAL GRASS

15 = 5 LEAVES UNFOLDED

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
CREATED: 04-14-2004 **REVISED:** 10-14-2004 **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 05-26-04 P ZEAMX								
002 RAW 05-26-04 P SETFA								
003 RAW 05-26-04 P CHEAL								
004 RAW 06-03-04 P SETFA								
005 RAW 06-03-04 P CHEAL								
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100
3A»GUARDSMAN MAX (5L)	1.25	LAA	0	0	100	100	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					
4A»PROWL HTO (3.8CS)	1.48	LAA	0	0	95	100	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	100	83	100	98
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	62	52	85	83
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	30	100	75	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	40	62	75	97
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	30	62	78	97
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	28	93	78	98
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	28	100	83	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
LSD (0.05)				0.00	17.31	8.71	9.18	4.76
SIGNIFICANCE OF F				ns	**	**	**	**
STANDARD DEVIATION				0.00	8.35	4.20	4.42	2.29
COEFFICIENT OF VARIANCE				0.00	20.00	7.25	7.43	3.46
DAT APPLICATION # 01 TIMINGS (00)				25	25	25	33	33
DAT APPLICATION # 02 TIMINGS (01)				7	7	7	15	15

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
 CREATED: 04-14-2004 REVISED: 10-14-2004 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»GUARDSMAN MAX (5L)	2.50	LAA	0	98	100	92	100	88
3A»GUARDSMAN MAX (5L)	1.25	LAA	0	100	100	98	100	98
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	100	100	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	100	100	100	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					
6A»LIGHTNING (70 WDG)	0.056	LAA	1	93	97	90	98	88
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	83	100	88	100	83
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	88	98	90	100	88
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	90	100	92	100	92
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	87	100	88	100	82
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	92	100	92	100	90
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
		LSD (0.05)		5.30	1.95	3.83	1.41	7.55
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		2.55	0.94	1.85	0.68	3.64
		COEFFICIENT OF VARIANCE		4.00	1.39	2.92	1.00	5.88
		DAT APPLICATION # 01 TIMINGS (00)		45	45	59	59	74
		DAT APPLICATION # 02 TIMINGS (01)		27	27	41	41	56

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
CREATED: 04-14-2004 **REVISED:** 10-14-2004 **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	014 CALC	
	RATE	UNIT	TM	07-14-04 P CHEAL	08-10-04 P SETFA	08-10-04 P CHEAL	10-07-04 P ZEAMX	10-07-04 P ZEAMX	
				CON % 1.00 PL ALL	CON % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 03 YLD BU 1.00 PL SD	VAR 03 YLD BU 1.00 A SD	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	12.4	47.4	
2A»GUARDSMAN MAX (5L)	2.50	LAA	0	100	85	95	38.9	148.6	
3A»GUARDSMAN MAX (5L)	1.25	LAA	0	100	98	100	44.4	169.7	
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	100	100	41.9	159.9	
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	42.9	163.7	
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	98	83	97	40.0	152.9	
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	75	100	42.2	161.2	
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	87	100	45.3	173.2	
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	92	100	38.2	145.8	
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	77	100	44.3	169.1	
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	87	100	44.1	168.3	
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	15.0	57.2	
				LSD (0.05)	1.41	10.92	4.40	10.42	39.78
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	0.68	5.27	2.12	5.00	19.18
				COEFFICIENT OF VARIANCE	1.00	8.78	3.15	16.42	16.42
				DAT APPLICATION # 01 TIMINGS (00)	74	101	101	159	159
				DAT APPLICATION # 02 TIMINGS (01)	56	83	83	141	141

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-01-2004(1)

* TIMING CODES

01 = POSPOS / EARLY POSTEMERGENCE - CORN < 12 INCHES 05-19-2004(2)

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 %	05-26-2004	03	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	05-26-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	05-26-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-03-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	CHEAL	CON %	06-03-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	CHEAL	CON %	06-15-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	CHEAL	CON %	06-29-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	CHEAL	CON %	07-14-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	CHEAL	CON %	08-10-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	ZEAMX	LB/PLOT	10-07-2004	03	P	ZEAMX		RAW	SD	YLD	BU	H	1.00 PL	UDC	0001	0	N
	ZEAMX	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 03 = PIONEER 35P15 YG/IT

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = PIONEER 35P15 YG/IT

* USER DEFINED CALCULATIONS

US 005/04/01 001 WJ--- 014 -- {RAW}*(3.82)

US 005/04/01 001 WJ--- 014 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WK ALTERNATE ID#: WY 11 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-14-2004 REVISED: 10-14-2004 COMPLETED: Y
 TITLE: USE OF LIBERTY AND LIBERTY-LINK 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: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study disced on 04/23/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 04/29/2004, variety = Pioneer 34M93 YT/LL, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Isotox was added as a seed treatment.
5. Preemergence applications made 05/01/2004.
6. Early post applications made 05/19/2004.
7. Mid-post applications made 05/26/2004.
8. Study harvested 10/07/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-01-04	05-19-04	05-26-04	USA
TIME - BEGIN	12:00	15:00	16:30	24H
TIME - END	13:00	16:00	17:00	24H
AIR TEMPERATURE	72	78	82	F
% REL. HUMIDITY	20	60	60	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTHWEST	
WIND SPEED	5.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	PARTCLDY	
DEW	NO	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	WET/WET	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	63/4.00	76/4.00	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 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	19	LOW	3.00 SQY	1.00	2.00	1.50 IN		TUR	
05-26-2004	19	LOW	3.00 SQY	1.00	2.00	1.50 IN		TUR	

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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	15	MED	3.00 SQF	4.00	4.00	4.00 IN		TUR	
05-26-2004	---	---	IND	.	.	. IN		---	

03 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 34M93 YG/LL

TARGET: CROP SITE: FG PLANTED: 04-29-2004
POPULATION: 26000.00 IPA ROW WIDTH: 30.0 IN
PLANTING DEPTH: 1.5 IN

INFESTATION DATE: - - METHOD: NA

STAGE ON	STAGE CODE	POP.GEN.	POPULATION	MN SIZE	MX SIZE	AV SIZE	CROP	VIGOR	NOTES
04-29-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-01-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
05-19-2004	15	MED	26000.00 IPA	8.00	8.00	8.00 IN		TUR	
05-26-2004	16	MED	26000.00 IPA	12.00	12.00	12.00 IN		TUR	

04 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	19	HGH	12.00 SQF	1.00	2.00	1.50 IN		TUR	
05-26-2004	---	---	IND	.	.	. IN		---	

05 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
05-01-2004	00	---	IND	.	.	. IN		NA	
05-19-2004	---	---	IND	.	.	. IN		---	
05-26-2004	14	LOW	1.00 SQY	4.00	6.00	5.00 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 -- GENERAL GRASS

-
- 15 = 5 LEAVES UNFOLDED

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
CREATED: 04-14-2004 **REVISED:** 10-14-2004 **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	05-26-04 P ZEAMX 16 VAR 03 PHY % 1.00 PL ALL	05-26-04 P SETFA --- CON % 1.00 PL ALL	05-26-04 P AMARE --- CON % 1.00 PL ALL	06-03-04 P SETFA CON % 1.00 PL ALL	06-03-04 P AMARE CON % 1.00 PL ALL
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A>LIBERTY (1.67 EC)	0.37	LAA	1	0	95	98	93	88
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
3A>LIBERTY (1.67 EC)	0.42	LAA	1	0	93	97	92	88
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
4A>LIBERTY (1.67 EC)	0.37	LAA	1	0	95	97	93	95
B ATRAZINE 4L (SC)	0.50	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
5A>LIBERTY (1.67 EC)	0.42	LAA	1	0	95	98	97	98
B ATRAZINE 4L (SC)	0.50	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
6A>LIBERTY (1.67 EC)	0.37	LAA	1	0	97	100	97	100
B ATRAZINE 4L (SC)	1.00	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
7A>LIBERTY (1.67 EC)	0.42	LAA	1	0	100	100	95	100
B ATRAZINE 4L (SC)	1.00	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
8A>DEFINE (4SC)	0.56	LAA	0	0	100	83	100	100
B>LIBERTY (1.67 EC)	0.37	LAA	2					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2					
9A>DEFINE (4SC)	0.28	LAA	0	0	97	73	100	100
B>LIBERTY (1.67 EC)	0.37	LAA	2					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2					
10A>DEFINE (4SC)	0.56	LAA	0	0	100	85	100	90
B>EQUIP (62WG)	0.058	LAA	2					
C>DISTINCT (70WG)	0.0875	LAA	2					
D ADJUVANT - VEGETABLE OIL	1.50	PMA	2					
E FERTILIZER - 28%UAN	1.50	QMA	2					
11A>LIBERTY (1.67 EC)	0.37	LAA	1	0	97	100	100	100
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
C>LIBERTY (1.67 EC)	0.37	LAA	2					
D FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2					
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
				0.00	3.81	8.00	6.58	7.41
				ns	**	**	**	**
				0.00	1.83	3.87	3.17	3.57
				0.00	2.78	6.11	4.82	5.47
				25	25	25	33	33
				7	7	7	15	15
				0	0	0	8	8

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
 CREATED: 04-14-2004 REVISED: 10-14-2004 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)	0.37	LAA	1	87	73	80	42	80
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
3A»LIBERTY (1.67 EC)	0.42	LAA	1	82	77	75	53	73
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
4A»LIBERTY (1.67 EC)	0.37	LAA	1	88	93	73	97	65
B ATRAZINE 4L (SC)	0.50	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
5A»LIBERTY (1.67 EC)	0.42	LAA	1	88	95	75	98	67
B ATRAZINE 4L (SC)	0.50	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
6A»LIBERTY (1.67 EC)	0.37	LAA	1	93	100	87	100	85
B ATRAZINE 4L (SC)	1.00	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
7A»LIBERTY (1.67 EC)	0.42	LAA	1	93	100	85	100	82
B ATRAZINE 4L (SC)	1.00	LAA	1					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
8A»DEFINE (4SC)	0.56	LAA	0	100	100	98	98	98
B»LIBERTY (1.67 EC)	0.37	LAA	2					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2					
9A»DEFINE (4SC)	0.28	LAA	0	100	100	97	98	97
B»LIBERTY (1.67 EC)	0.37	LAA	2					
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2					
10A»DEFINE (4SC)	0.56	LAA	0	100	100	100	100	100
B»EQUIP (62WG)	0.058	LAA	2					
C»DISTINCT (70WG)	0.0875	LAA	2					
D ADJUVANT - VEGETABLE OIL	1.50	PMA	2					
E FERTILIZER - 28%UAN	1.50	QMA	2					
11A»LIBERTY (1.67 EC)	0.37	LAA	1	92	95	82	87	75
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1					
C»LIBERTY (1.67 EC)	0.37	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)		8.06	10.00	9.00	14.19	11.57
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		3.89	4.84	4.35	6.84	5.58
		COEFFICIENT OF VARIANCE		6.19	7.62	7.50	11.51	10.00
		DAT APPLICATION # 01 TIMINGS (00)		45	45	59	59	74
		DAT APPLICATION # 02 TIMINGS (01)		27	27	41	41	56
		DAT APPLICATION # 03 TIMINGS (02)		20	20	34	34	49

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
 CREATED: 04-14-2004 REVISED: 10-14-2004 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 %	VAR 03	VAR 03	
	RATE	UNIT	TM	PL ALL	PL ALL	PL ALL	YLD BU PL SD	YLD BU A SD	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	10.3	39.4	
2A»LIBERTY (1.67 EC)	0.37	LAA	1	27	77	10	39.9	152.3	
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
3A»LIBERTY (1.67 EC)	0.42	LAA	1	50	73	23	41.4	158.2	
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
4A»LIBERTY (1.67 EC)	0.37	LAA	1	97	57	93	43.8	167.5	
B ATRAZINE 4L (SC)	0.50	LAA	1						
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
5A»LIBERTY (1.67 EC)	0.42	LAA	1	95	48	95	43.4	165.6	
B ATRAZINE 4L (SC)	0.50	LAA	1						
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
6A»LIBERTY (1.67 EC)	0.37	LAA	1	100	75	100	41.4	158.2	
B ATRAZINE 4L (SC)	1.00	LAA	1						
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
7A»LIBERTY (1.67 EC)	0.42	LAA	1	100	75	100	45.6	174.3	
B ATRAZINE 4L (SC)	1.00	LAA	1						
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
8A»DEFINE (4SC)	0.56	LAA	0	98	97	88	41.6	158.9	
B»LIBERTY (1.67 EC)	0.37	LAA	2						
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2						
9A»DEFINE (4SC)	0.28	LAA	0	95	95	90	43.1	164.6	
B»LIBERTY (1.67 EC)	0.37	LAA	2						
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2						
10A»DEFINE (4SC)	0.56	LAA	0	100	100	100	40.6	155.1	
B»EQUIP (62WG)	0.058	LAA	2						
C»DISTINCT (70WG)	0.0875	LAA	2						
D ADJUVANT - VEGETABLE OIL	1.50	PMA	2						
E FERTILIZER - 28%UAN	1.50	QMA	2						
11A»LIBERTY (1.67 EC)	0.37	LAA	1	87	62	85	41.7	159.4	
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1						
C»LIBERTY (1.67 EC)	0.37	LAA	2						
D FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2						
12A UNTREATED CHECK	0.00	NA	0	0	0	0	15.6	59.7	
				LSL (0.05)	17.15	16.07	17.76	6.38	24.37
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	8.27	7.75	8.56	3.08	11.75
				COEFFICIENT OF VARIANCE	14.33	15.00	16.00	10.08	10.08
				DAT APPLICATION # 01 TIMINGS (00)	74	101	101	159	159
				DAT APPLICATION # 02 TIMINGS (01)	56	83	83	141	141
				DAT APPLICATION # 03 TIMINGS (02)	49	76	76	134	134

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-01-2004(1)
 01 = POSPOS / EARLY POSTEMERGENCE - CORN < 6 INCHES 05-19-2004(2)
 02 = MID POS / MID-POSTEMERGENCE - CORN < 12 INCHES 05-26-2004(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 %	05-26-2004	03	P	ZEAMX	16	RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N

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	CTR	SS	NOTE
002	SETFA	CON %	05-26-2004	02	P	SETFA	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	05-26-2004	04	P	AMARE	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-03-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	AMARE	CON %	06-03-2004	04	P	AMARE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	06-15-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	AMARE	CON %	06-15-2004	04	P	AMARE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	AMARE	CON %	06-29-2004	04	P	AMARE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	AMARE	CON %	07-14-2004	04	P	AMARE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	AMARE	CON %	08-10-2004	04	P	AMARE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	ZEAMX	LB/PLOT	10-07-2004	03	P	ZEAMX		RAW	SD	YLD	BU	H	1.00 PL	UDC	0001	0	N
	ZEAMX	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 03 = PIONEER 34M93 YG/LL

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = PIONEER 34M93 YG/LL

* STAGE CODE

--- = TO BE SELECTED

16 = 6 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/04/01 001 WK--- 014 -- {RAW}*(3.82)

US 005/04/01 001 WK--- 014 -- {RAW}*(3.82)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WL **ALTERNATE ID#:** WY 12 2004
PROTOCOL#: US 005/04/01 **ALTERNATE ID#:** WYE 2003
CREATED BY: US RITTER R
CREATED: 04-14-2004 **REVISED:** 11-23-2004 **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
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:** 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 disced on 05/24/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 05/24/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Early post applications made 06/16/2004.
6. Mid post applications made 06/24/2004.
7. Study harvested 11/10/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	01	02	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	06-16-04	06-24-04	USA
TIME - BEGIN	15:00	13:00	24H
TIME - END	16:00	14:00	24H
AIR TEMPERATURE	84	86	F
% REL. HUMIDITY	60	50	
WIND DIRECTION	SOUTHWEST	SOUTH	
WIND SPEED	3.0	3.0	M/H
CLOUD COVER	HAZY SUN	PARTCLDY	
DEW	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	82/4.00	82/4.00	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 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
 05-24-2004 00 --- IND . . . IN NA
 06-16-2004 14 MED 3.00 SQF 4.00 4.00 4.00 IN TUR
 06-24-2004 15 MED 3.00 SQF 10.00 10.00 10.00 IN TUR

02 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** ASGROW RX 664 YG/RR
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 05-24-2004
PLANTING DEPTH: 1.7 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
 05-24-2004 00 MED 26000.00 IPA . . . IN NA
 06-16-2004 15 MED 26000.00 IPA 15.00 15.00 15.00 IN TUR
 06-24-2004 16 MED 26000.00 IPA 24.00 24.00 24.00 IN TUR

03 P PHBPU - MORNINGGLORY, TALL **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
 05-24-2004 00 --- IND . . . IN NA
 06-16-2004 14 LOW 1.00 SQY 4.00 4.00 4.00 IN TUR
 06-24-2004 16 LOW 1.00 SQY 12.00 12.00 12.00 IN TUR

04 P IPOHE - MORNINGGLORY, IVYLEAF, ANNUAL **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
 05-24-2004 00 --- IND . . . IN NA
 06-16-2004 14 LOW 1.00 SQY 4.00 4.00 4.00 IN TUR
 06-24-2004 16 LOW 1.00 SQY 12.00 12.00 12.00 IN TUR

05 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
 05-24-2004 00 --- IND . . . IN ---

- * **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
- 16 = 6TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- SORGHUM**
- 00 = DRY SEED (CARYOPSIS)
- 14 = 4 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
CREATED: 04-14-2004 **REVISED:** 11-23-2004 **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	06-24-04 P ZEAMX 16 VAR 02 PHY % 1.00 PL ALL	06-24-04 P SORHA 15 CON % 1.00 PL ALL	06-24-04 P IPOHE 16 CON % 1.00 PL ALL	06-29-04 P ZEAMX VAR 02 PHY % 1.00 PL ALL	06-29-04 P SORHA CON % 1.00 PL ALL	
1A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
2A»OPTION (70 WG)	0.066	LAA	1	22	70	33	3	77	
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1						
C FERTILIZER - 28%UAN	2.00	QMA	1						
3A»EQUIP (62WG)	0.058	LAA	1	20	80	32	3	75	
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1						
C FERTILIZER - 28%UAN	2.00	QMA	1						
4A»OPTION (70 WG)	0.066	LAA	1	20	63	60	3	73	
B»DISTINCT (70WG)	0.088	LAA	1						
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1						
D FERTILIZER - 28%UAN	2.00	QMA	1						
5A»EQUIP (62WG)	0.058	LAA	1	20	67	67	3	78	
B»DISTINCT (70WG)	0.088	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	0	40	30	0	78	
B ADJUVANT - COC (EC)	1.00	QMA	1						
7A ACCENT (75WG)	0.041	LAA	1	0	55	52	0	87	
B»DISTINCT (70WG)	0.088	LAA	1						
C ADJUVANT - COC (EC)	1.00	QMA	1						
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	13	90	87	0	92	
B»DISTINCT (70WG)	0.088	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	0	73	60	0	82	
B ADJUVANT - COC (EC)	1.00	QMA	1						
10A»CELEBRITY PLUS (70WG)	0.21	LAA	2	0	0	0	0	20	
B ADJUVANT - COC (EC)	1.00	QMA	2						
11A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2	0	0	0	0	63	
12A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2	0	0	0	0	63	
13A»GF-1279 (4.0AE)	0.75	LAA	2	0	0	0	0	40	
14A UNTREATED CHECK	0.00	NA	2	0	0	0	0	0	
				LSD (0.05)	7.58	23.67	7.88	4.54	18.95
				SIGNIFICANCE OF F	**	**	**	ns	**
				STANDARD DEVIATION	3.69	11.51	3.83	2.21	9.22
				COEFFICIENT OF VARIANCE	66.52	36.67	15.64	284.20	19.08
				DAT APPLICATION # 01 TIMINGS (01)	8	8	8	13	13
				DAT APPLICATION # 02 TIMINGS (02)	0	0	0	5	5

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
CREATED: 04-14-2004 **REVISED:** 11-23-2004 **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	1	0	0	0	0	0
2A»OPTION (70 WG)	0.066	LAA	1	48	80	92	73	67
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	2.00	QMA	1					
3A»EQUIP (62WG)	0.058	LAA	1	40	88	95	87	93
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	2.00	QMA	1					
4A»OPTION (70 WG)	0.066	LAA	1	48	80	93	80	97
B»DISTINCT (70WG)	0.088	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	2.00	QMA	1					
5A»EQUIP (62WG)	0.058	LAA	1	67	78	95	83	100
B»DISTINCT (70WG)	0.088	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	77	90	77	20
B ADJUVANT - COC (EC)	1.00	QMA	1					
7A ACCENT (75WG)	0.041	LAA	1	73	85	92	73	80
B»DISTINCT (70WG)	0.088	LAA	1					
C ADJUVANT - COC (EC)	1.00	QMA	1					
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	100	97	100	100	100
B»DISTINCT (70WG)	0.088	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	67	92	93	92	90
B ADJUVANT - COC (EC)	1.00	QMA	1					
10A»CELEBRITY PLUS (70WG)	0.21	LAA	2	20	50	32	92	75
B ADJUVANT - COC (EC)	1.00	QMA	2					
11A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2	40	100	88	100	90
12A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2	30	100	85	98	92
13A»GF-1279 (4.0AE)	0.75	LAA	2	30	100	87	98	95
14A UNTREATED CHECK	0.00	NA	2	0	0	0	0	0
		LSD (0.05)		17.06	24.85	15.21	31.06	16.23
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		8.30	12.09	7.40	15.11	7.89
		COEFFICIENT OF VARIANCE		23.84	20.18	12.17	24.59	13.56
		DAT APPLICATION # 01 TIMINGS (01)		13	22	22	35	35
		DAT APPLICATION # 02 TIMINGS (02)		5	14	14	27	27

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
CREATED: 04-14-2004 **REVISED:** 11-23-2004 **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 %	VAR 02
	RATE	UNIT	TM	PL ALL	PL ALL	PL ALL	PL ALL	YLD LB PL SD
1A UNTREATED CHECK	0.00	NA	1	0	0	0	0	4.1
2A»OPTION (70 WG)	0.066	LAA	1	93	67	58	92	13.3
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	2.00	QMA	1					
3A»EQUIP (62WG)	0.058	LAA	1	93	77	90	88	12.2
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
C FERTILIZER - 28%UAN	2.00	QMA	1					
4A»OPTION (70 WG)	0.066	LAA	1	97	58	98	98	11.1
B»DISTINCT (70WG)	0.088	LAA	1					
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1					
D FERTILIZER - 28%UAN	2.00	QMA	1					
5A»EQUIP (62WG)	0.058	LAA	1	100	48	98	100	13.6
B»DISTINCT (70WG)	0.088	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	93	73	10	93	11.9
B ADJUVANT - COC (EC)	1.00	QMA	1					
7A ACCENT (75WG)	0.041	LAA	1	100	68	73	95	10.1
B»DISTINCT (70WG)	0.088	LAA	1					
C ADJUVANT - COC (EC)	1.00	QMA	1					
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	100	95	98	95	12.3
B»DISTINCT (70WG)	0.088	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	98	85	88	97	10.9
B ADJUVANT - COC (EC)	1.00	QMA	1					
10A»CELEBRITY PLUS (70WG)	0.21	LAA	2	83	80	68	90	12.5
B ADJUVANT - COC (EC)	1.00	QMA	2					
11A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2	98	98	88	92	14.8
12A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2	88	93	92	92	12.9
13A»GF-1279 (4.0AE)	0.75	LAA	2	95	95	90	92	10.4
14A UNTREATED CHECK	0.00	NA	2	0	0	0	0	14.3
	LSD (0.05)			8.67	36.55	19.48	5.70	7.62
	SIGNIFICANCE OF F			**	**	**	**	ns
	STANDARD DEVIATION			4.22	17.78	9.48	2.77	3.71
	COEFFICIENT OF VARIANCE			6.34	32.48	17.00	4.23	38.67
	DAT APPLICATION # 01 TIMINGS (01)			35	54	54	54	147
	DAT APPLICATION # 02 TIMINGS (02)			27	46	46	46	139

TITLE: JOHNSONGRASS CONTROL PROGRAMS FOR CONVENTIONAL CORN
 CREATED: 04-14-2004 REVISED: 11-23-2004 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	015 CALC 11-10-04 P ZEAMX VAR 02 YLD BU 1.00 A SD
1A UNTREATED CHECK	0.00	NA	1	32.2
2A»OPTION (70 WG)	0.066	LAA	1	103.2
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1	
C FERTILIZER - 28%UAN	2.00	QMA	1	
3A»EQUIP (62WG)	0.058	LAA	1	94.7
B ADJUVANT - VEGETABLE OIL	1.50	PMA	1	
C FERTILIZER - 28%UAN	2.00	QMA	1	
4A»OPTION (70 WG)	0.066	LAA	1	86.4
B»DISTINCT (70WG)	0.088	LAA	1	
C ADJUVANT - VEGETABLE OIL	1.50	PMA	1	
D FERTILIZER - 28%UAN	2.00	QMA	1	
5A»EQUIP (62WG)	0.058	LAA	1	106.1
B»DISTINCT (70WG)	0.088	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	92.3
B ADJUVANT - COC (EC)	1.00	QMA	1	
7A ACCENT (75WG)	0.041	LAA	1	78.9
B»DISTINCT (70WG)	0.088	LAA	1	
C ADJUVANT - COC (EC)	1.00	QMA	1	
8A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	95.7
B»DISTINCT (70WG)	0.088	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	85.1
B ADJUVANT - COC (EC)	1.00	QMA	1	
10A»CELEBRITY PLUS (70WG)	0.21	LAA	2	97.0
B ADJUVANT - COC (EC)	1.00	QMA	2	
11A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	2	114.9
12A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	2	100.1
13A»GF-1279 (4.0AE)	0.75	LAA	2	81.2
14A UNTREATED CHECK	0.00	NA	2	111.3
				LSD (0.05) 59.30
				SIGNIFICANCE OF F ns
				STANDARD DEVIATION 28.84
				COEFFICIENT OF VARIANCE 38.67
				DAT APPLICATION # 01 TIMINGS (01) 147
				DAT APPLICATION # 02 TIMINGS (02) 139

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

01 = POSPOS / EARLY POSTEMERGENCE - JOHNSONGRASS < 12" 06-16-2004 (1)
 02 = MID POS / MID-POSTEMERGENCE - JOHNSONGRASS < 18" 06-24-2004 (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 %	06-24-2004	02	P	ZEAMX	16	RAW	ALL	PHY	%	---	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	CTRFT	SS	NOTE
002	SORHA	CON %	06-24-2004	01	P	SORHA	15	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	IPOHE	CON %	06-24-2004	04	P	IPOHE	16	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	ZEAMX	PHYTO %	06-29-2004	02	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	SORHA	CON %	06-29-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	IPOHE	CON %	06-29-2004	04	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SORHA	CON %	07-08-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	IPOHE	CON %	07-08-2004	04	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	SORHA	CON %	07-21-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SORHA	CON %	07-21-2004	05	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	IPOHE	CON %	07-21-2004	04	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	SORHA	CON %	08-09-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	SORHA	CON %	08-09-2004	05	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	IPOHE	CON %	08-09-2004	04	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
015	YIELD	LB/PLOT	11-10-2004	02	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 02 = ASGROW RX 664 YG/RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = ASGROW RX 664 YG/RR

* STAGE CODE

15 = 5 LEAVES UNFOLDED

16 = 6 LEAVES UNFOLDED

* USER DEFINED CALCULATIONS

US 005/04/01 001 WL--- 015 -- {RAW}*(7.78)

US 005/04/01 001 WL--- 015 -- {RAW}*(7.78)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WM ALTERNATE ID#: WY 13 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R REVISED: 11-23-2004 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
 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: 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: 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 disced on 05/24/2004. Spread 418 lb/acre of ammonium nitrate = 142 lb N/acre.
2. Study planted on 05/24/2004, variety = Asgrow 664 YG/RR, at 26,000 seeds/acre.
3. Planter added 12 gallons of starter solution = 30-20-0 total plant food.
4. Kernel Guard was added as a seed treatment.
5. Preemergence applications made 05/25/2004.
6. Early post applications made 06/16/2004.
7. Mid post applications made 06/24/2004.
8. Study harvested 11/10/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-25-04	06-16-04	06-24-04	USA
TIME - BEGIN	10:00	12:00	13:00	24H
TIME - END	10:30	13:00	14:00	24H
AIR TEMPERATURE	78	82	86	F
% REL. HUMIDITY	55	65	50	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTH	
WIND SPEED	3.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	PARTCLDY	
DEW	NO	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	DRY/MOIST	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	70/4.00	80/4.00	82/4.00	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 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
05-25-2004	00	---	IND	.	.	. IN		NA	
06-16-2004	14	MED	3.00 SQF	4.00	4.00	4.00 IN		TUR	
06-24-2004	15	LOW	1.00 SQF	10.00	10.00	10.00 IN		TUR	

02 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: ASGROW RX 664 YG/RR

TARGET: CROP SITE: FG

POPULATION: 26000.00 IPA PLANTED: 05-24-2004

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
05-25-2004	00	MED	26000.00 IPA	.	.	. IN		NA	
06-16-2004	15	MED	26000.00 IPA	15.00	15.00	15.00 IN		TUR	
06-24-2004	16	MED	26000.00 IPA	24.00	24.00	24.00 IN		TUR	

03 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
05-25-2004	00	---	IND	.	.	. IN		---	
06-16-2004	16	MED	3.00 SQY	8.00	8.00	8.00 IN		TUR	
06-24-2004	18	MED	3.00 SQY	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

- 00 = DRY SEED; DORMANCY
- 16 = 6TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 18 = 8TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SORGHUM

- 00 = DRY SEED (CARYOPSIS)
- 14 = 4 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 11-23-2004 **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	06-07-04 P SORHA	06-07-04 P IPOHE	06-24-04 P SORHA 15	06-24-04 P IPOHE 18	06-29-04 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	100	90	95	87	90	
3A»KIH-485 (60WG)	0.181	LAA	0	100	90	100	90	95	
4A»KIH-485 (60WG)	0.217	LAA	0	100	93	98	93	93	
5A»DUAL II MAGNUM (7.64EC)	1.59	LAA	0	100	43	97	27	92	
6A HARNESS (7EC)	1.97	LAA	0	100	78	93	77	90	
7A»PROWL H20 (3.8CS)	1.50	LAA	0	90	67	83	60	72	
8A»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1	0	0	100	92	98	
9A»KIH-485 (60WG)	0.144	LAA	1	0	0	100	97	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1						
10A»KIH-485 (60WG)	0.181	LAA	1	0	0	100	95	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1						
11A»KIH-485 (60WG)	0.217	LAA	1	0	0	100	95	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1						
12A»DUAL II MAGNUM (7.64EC)	1.59	LAA	1	0	0	100	93	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1						
13A HARNESS (7EC)	1.97	LAA	1	0	0	100	92	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1						
14A»PROWL H20 (3.8CS)	1.50	LAA	1	0	0	100	90	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1						
15A»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1	0	0	100	92	100	
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)	0.00	10.50	5.00	13.33	7.62
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	0.00	5.14	2.43	6.53	3.73
				COEFFICIENT OF VARIANCE	0.00	21.83	3.48	10.86	5.50
				DAT APPLICATION # 01 TIMINGS (00)	13	13	30	30	35
				DAT APPLICATION # 02 TIMINGS (01)	NA	NA	8	8	13
				DAT APPLICATION # 03 TIMINGS (02)	NA	NA	0	0	5

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 11-23-2004 **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	CON %				
		1.00 PL ALL	1.00 PL ALL	1.00 PL ALL	1.00 PL ALL	1.00 PL ALL
		006 RAW 06-29-04 P IPOHE	007 RAW 07-14-04 P SORHA	008 RAW 07-14-04 P IPOHE	009 RAW 08-09-04 P SORHA	010 RAW 08-09-04 P IPOHE
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
2A»KIH-485 (60WG)	0.144 LAA 0	78	90	72	78	67
3A»KIH-485 (60WG)	0.181 LAA 0	93	95	93	93	92
4A»KIH-485 (60WG)	0.217 LAA 0	93	93	90	85	90
5A»DUAL II MAGNUM (7.64EC)	1.59 LAA 0	7	58	0	50	0
6A HARNESS (7EC)	1.97 LAA 0	67	83	52	80	50
7A»PROWL H20 (3.8CS)	1.50 LAA 0	47	60	40	45	37
8A»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1	100	100	98	97	92
9A»KIH-485 (60WG)	0.144 LAA 1	100	100	100	100	98
B»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1					
10A»KIH-485 (60WG)	0.181 LAA 1	100	100	100	100	100
B»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1					
11A»KIH-485 (60WG)	0.217 LAA 1	100	100	100	100	100
B»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1					
12A»DUAL II MAGNUM (7.64EC)	1.59 LAA 1	100	100	98	100	93
B»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1					
13A HARNESS (7EC)	1.97 LAA 1	100	100	98	100	90
B»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1					
14A»PROWL H20 (3.8CS)	1.50 LAA 1	98	100	98	98	95
B»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1					
15A»ROUNDUP WEATHER MAX (4.5AE)	0.84 LAA 1	100	100	97	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)	18.00	23.58	24.74	25.29	24.70
	SIGNIFICANCE OF F	**	**	**	**	**
	STANDARD DEVIATION	8.80	11.55	12.12	12.38	12.10
	COEFFICIENT OF VARIANCE	14.58	17.68	20.89	19.78	21.58
	DAT APPLICATION # 01 TIMINGS (00)	35	50	50	76	76
	DAT APPLICATION # 02 TIMINGS (01)	13	28	28	54	54
	DAT APPLICATION # 03 TIMINGS (02)	5	20	20	46	46

TITLE: EXAMINING KIH-485 FOR JOHNSONGRASS CONTROL IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 11-23-2004 **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 11-10-04 P ZEAMX		011 CALC 11-10-04 P ZEAMX	
	RATE	UNIT	TM	YLD LB 1.00 PL SD	YLD BU 1.00 A SD		
1A UNTREATED CHECK	0.00	NA	0	3.9	30.1		
2A»KIH-485 (60WG)	0.144	LAA	0	15.0	116.4		
3A»KIH-485 (60WG)	0.181	LAA	0	15.4	119.8		
4A»KIH-485 (60WG)	0.217	LAA	0	17.8	138.8		
5A»DUAL II MAGNUM (7.64EC)	1.59	LAA	0	14.0	108.7		
6A HARNESS (7EC)	1.97	LAA	0	14.6	113.6		
7A»PROWL H20 (3.8CS)	1.50	LAA	0	11.8	92.1		
8A»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1	12.3	95.7		
9A»KIH-485 (60WG)	0.144	LAA	1	12.1	94.4		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1				
10A»KIH-485 (60WG)	0.181	LAA	1	12.6	98.0		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1				
11A»KIH-485 (60WG)	0.217	LAA	1	14.4	112.0		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1				
12A»DUAL II MAGNUM (7.64EC)	1.59	LAA	1	15.3	119.1		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1				
13A HARNESS (7EC)	1.97	LAA	1	16.8	130.4		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1				
14A»PROWL H20 (3.8CS)	1.50	LAA	1	15.6	121.1		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1				
15A»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	1	12.3	95.7		
B»ROUNDUP WEATHER MAX (4.5AE)	0.84	LAA	2				
16A UNTREATED CHECK	0.00	NA	1	12.5	97.3		
		LSLSD (0.05)		6.90	53.67		
		SIGNIFICANCE OF F		ns	ns		
		STANDARD DEVIATION		3.38	26.28		
		COEFFICIENT OF VARIANCE		30.60	30.60		
		DAT APPLICATION # 01 TIMINGS (00)		169	169		
		DAT APPLICATION # 02 TIMINGS (01)		147	147		
		DAT APPLICATION # 03 TIMINGS (02)		139	139		

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-25-2004(1)
 01 = POSPOS / EARLY POSTEMERGENCE 06-16-2004(2)
 02 = MID POS / MID-POSTEMERGENCE 06-24-2004(3)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
001	SORHA	CON %	06-07-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	SORHA	CON %	06-07-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SORHA	CON %	06-24-2004	01	P	SORHA	15	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SORHA	CON %	06-24-2004	03	P	IPOHE	18	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SORHA	CON %	06-29-2004	01	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	CTR	SS	NOTE
006	SORHA	CON %	06-29-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SORHA	CON %	07-14-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SORHA	CON %	07-14-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	SORHA	CON %	08-09-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SORHA	CON %	08-09-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	YIELD	LB/PLOT	11-10-2004	02	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 02 = ASGROW RX 664 YG/RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = ASGROW RX 664 YG/RR

* STAGE CODE

15 = 5 LEAVES UNFOLDED

18 = 8TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* USER DEFINED CALCULATIONS

US 005/04/01 001 WM--- 011 -- {RAW}*(7.78)

US 005/04/01 001 WM--- 011 -- {RAW}*(7.78)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WO ALTERNATE ID#: WY 15 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 05-24-2004 REVISED: 10-15-2004 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
 COUNTRY: 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 05/24/2004. Variety - DeKalb 44-51RR.
2. Early post applications made 06/16/2004.
3. Basagran at 1 qt/acre added to early post applications of Select.
4. Mid post applications made 06/24/2004.
5. Flexstar at 1.5 pt/acre added to mid post applications of Select.
6. Study not taken to yield.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	06-16-04	06-24-04	USA
TIME - BEGIN	15:00	13:00	24H
TIME - END	16:00	14:00	24H
AIR TEMPERATURE	84	86	F
% REL. HUMIDITY	60	50	
WIND DIRECTION	SOUTHWEST	SOUTH	
WIND SPEED	3.0	3.0	M/H
CLOUD COVER	HAZY SUN	PARTCLDY	
DEW	NO	NO	
SOIL MOISTURE	DRY/MOIST	DRY/MOIST	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	82/4.00	82/4.00	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 - 3-4 WAP
01 = MID POS / MID-POSTEMERGENCE - 6-8 WAP

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003

01 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
05-24-2004	---	---	IND	.	.	. IN		NA	
06-16-2004	13	LOW	1.00 SQY	12.00	12.00	12.00 IN		TUR	
06-16-2004	15	MED	3.00 SQF	4.00	4.00	4.00 IN		TUR	
06-24-2004	14	LOW	1.00 SQY	16.00	16.00	16.00 IN		TUR	
06-24-2004	15	MED	3.00 SQF	10.00	10.00	10.00 IN		TUR	

02 P GLXMA - SOYBEAN

CULTIVAR: DEKALB CX 44-51RR

TARGET: CROP SITE: FG POPULATION: 6.00 FTR PLANTED: 05-24-2004

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
05-24-2004	00	---	IND	.	.	. IN		NA	
06-16-2004	13	MED	6.00 FTR	4.00	4.00	4.00 IN		TUR	
06-24-2004	15	MED	6.00 FTR	12.00	12.00	12.00 IN		TUR	

03 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
05-24-2004	00	---	IND	.	.	. IN		NA	
06-16-2004	14	LOW	1.00 SQY	4.00	4.00	4.00 IN		TUR	
06-24-2004	16	LOW	1.00 SQY	12.00	12.00	12.00 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
05-24-2004	---	---	IND	.	.	. IN		---	
06-16-2004	---	---	IND	.	.	. IN		---	
06-24-2004	---	---	IND	.	.	. IN		---	

* STAGE CODE -- GENERAL

- = TO BE SELECTED
- 00 = DRY SEED; DORMANCY
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 16 = 6TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- SORGHUM

- = TO BE SELECTED
- 13 = 3 LEAVES UNFOLDED
- 14 = 4 LEAVES UNFOLDED
- 15 = 5 LEAVES UNFOLDED

* STAGE CODE -- SOYBEAN

- 00 = DRY SEED
- 13 = 3RD LEAF (1ST TRIFOLIATE LEAF) UNFOLDED, 2 NODES
- 15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
 CREATED: 05-24-2004 REVISED: 10-15-2004 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
		06-24-04 P GLXMA 15 VAR 02 PHY % 1.00 PL ALL	06-24-04 P SORHA 14 CON % 1.00 PL ALL	06-24-04 P IPOHE 16 CON % 1.00 PL ALL	06-29-04 P SORHA CON % 1.00 PL ALL	06-29-04 P IPOHE CON % 1.00 PL ALL
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 0	0	100	88	98	95
3A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 0	0	100	87	100	95
B»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1					
4A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	0	0	0	67	67
5A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 0	0	100	93	97	98
6A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 0	0	100	95	100	98
B»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 1					
7A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 1	0	0	0	60	60
8A»GF-1279 (4.0AE)	0.75 LAA 0	0	100	83	100	95
9A»GF-1279 (4.0AE)	0.75 LAA 0	0	100	85	100	97
B»GF-1279 (4.0AE)	0.75 LAA 1					
10A»GF-1279 (4.0AE)	0.75 LAA 1	0	0	0	60	60
11A»SELECT (2EC)	0.156 LAA 0	0	93	87	97	90
B ADJUVANT - COC (EC)	1.00 QMA 0					
12A»SELECT (2EC)	0.156 LAA 0	0	97	83	100	100
B ADJUVANT - COC (EC)	1.00 QMA 0					
C»SELECT (2EC)	0.125 LAA 1					
D ADJUVANT - COC (EC)	1.00 QMA 1					
13A»SELECT (2EC)	0.156 LAA 1	0	0	0	77	93
B ADJUVANT - COC (EC)	1.00 QMA 1					
14A UNTREATED CHECK	0.00 NA 1	0	0	0	0	0
	LSD (0.05)	0.00	3.59	8.34	9.07	6.00
	SIGNIFICANCE OF F	ns	**	**	**	**
	STANDARD DEVIATION	0.00	1.75	4.06	4.41	2.92
	COEFFICIENT OF VARIANCE	0.00	3.79	9.91	7.17	4.77
	DAT APPLICATION # 01 TIMINGS (00)	8	8	8	13	13
	DAT APPLICATION # 02 TIMINGS (01)	0	0	0	5	5

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
 CREATED: 05-24-2004 REVISED: 10-15-2004 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	06-29-04 P CHEAL	07-08-04 P SORHA	07-08-04 P IPOHE	07-08-04 P CHEAL	07-21-04 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 (4.5AE)	0.773	LAA	0	100	95	98	100	90	
3A>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	98	100	100	100	100	
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1						
4A>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1	62	100	82	98	98	
5A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	93	98	97	88	
6A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	100	100	100	97	
B>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1						
7A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1	60	100	85	97	100	
8A>>GF-1279 (4.0AE)	0.75	LAA	0	97	95	95	95	92	
9A>>GF-1279 (4.0AE)	0.75	LAA	0	98	100	98	100	100	
B>>GF-1279 (4.0AE)	0.75	LAA	1						
10A>>GF-1279 (4.0AE)	0.75	LAA	1	60	100	83	93	100	
11A>>SELECT (2EC)	0.156	LAA	0	92	98	88	97	100	
B ADJUVANT - COC (EC)	1.00	QMA	0						
12A>>SELECT (2EC)	0.156	LAA	0	95	100	98	90	98	
B ADJUVANT - COC (EC)	1.00	QMA	0						
C>>SELECT (2EC)	0.125	LAA	1						
D ADJUVANT - COC (EC)	1.00	QMA	1						
13A>>SELECT (2EC)	0.156	LAA	1	53	100	100	52	100	
B ADJUVANT - COC (EC)	1.00	QMA	1						
14A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSL (0.05)	4.74	2.85	8.76	11.19	3.68
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	2.30	1.39	4.26	5.44	1.79
				COEFFICIENT OF VARIANCE	3.89	2.00	6.49	8.35	2.64
				DAT APPLICATION # 01 TIMINGS (00)	13	22	22	22	35
				DAT APPLICATION # 02 TIMINGS (01)	5	14	14	14	27

TITLE: JOHNSONGRASS CONTROL PROGRAMS IN SOYBEANS
CREATED: 05-24-2004 **REVISED:** 10-15-2004 **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			011 RAW	012 RAW	013 RAW	014 RAW	015 RAW
		RATE	UNIT	TM	07-21-04 P CHEAL	07-21-04 P IPOHE	08-09-04 P SORHA	08-09-04 P CHEAL	08-09-04 P IPOHE
				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	
1A	UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A	»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	97	100	88	100	100
3A	»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	98	100	100	100
B	»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1					
4A	»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1	92	88	100	100	100
5A	»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	97	98	92	93	100
6A	»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	98	98	100	100
B	»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1					
7A	»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1	92	90	95	95	100
8A	»GF-1279 (4.0AE)	0.75	LAA	0	93	97	90	80	100
9A	»GF-1279 (4.0AE)	0.75	LAA	0	100	100	100	100	100
B	»GF-1279 (4.0AE)	0.75	LAA	1					
10A	»GF-1279 (4.0AE)	0.75	LAA	1	90	93	98	90	97
11A	»SELECT (2EC)	0.156	LAA	0	90	97	100	87	97
B	ADJUVANT - COC (EC)	1.00	QMA	0					
12A	»SELECT (2EC)	0.156	LAA	0	83	100	100	87	100
B	ADJUVANT - COC (EC)	1.00	QMA	0					
C	»SELECT (2EC)	0.125	LAA	1					
D	ADJUVANT - COC (EC)	1.00	QMA	1					
13A	»SELECT (2EC)	0.156	LAA	1	30	97	95	23	97
B	ADJUVANT - COC (EC)	1.00	QMA	1					
14A	UNTREATED CHECK	0.00	NA	1	0	0	0	0	0
				LSD (0.05)	13.11	7.07	5.00	18.18	4.49
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	6.37	3.44	2.43	8.84	2.18
				COEFFICIENT OF VARIANCE	10.28	5.10	3.60	14.37	3.14
				DAT APPLICATION # 01 TIMINGS (00)	35	35	54	54	54
				DAT APPLICATION # 02 TIMINGS (01)	27	27	46	46	46

» = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = POSPOS / EARLY POSTEMERGENCE - 3-4 WAP 06-16-2004(1)
 01 = MID POS / MID-POSTEMERGENCE - 6-8 WAP 06-24-2004(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 %	06-24-2004	02	P	GLXMA	15	RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SORHA	CON %	06-24-2004	01	P	SORHA	14	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	IPOHE	CON %	06-24-2004	03	P	IPOHE	16	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SORHA	CON %	06-29-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	IPOHE	CON %	06-29-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	IPOHE	CON %	06-29-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SORHA	CON %	07-08-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	IPOHE	CON %	07-08-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	IPOHE	CON %	07-08-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SORHA	CON %	07-21-2004	01	P	SORHA		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	CTR	SS	NOTE
011	IPOHE	CON %	07-21-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	IPOHE	CON %	07-21-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	SORHA	CON %	08-09-2004	01	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	IPOHE	CON %	08-09-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
015	IPOHE	CON %	08-09-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

* VARIETY CODES

VAR 02 = DEKALB CX 44-51RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = DEKALB CX 44-51RR

* STAGE CODE

14 = 4 LEAVES UNFOLDED
 15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES
 16 = 6TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WP ALTERNATE ID#: WY 16 2004
 PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R
 CREATED: 05-24-2004 REVISED: 11-13-2004 COMPLETED: Y
 TITLE: UTILITY OF KIH-485 IN CONVENTIONAL SOYBEAN
 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: EFF
% SILT: 59	PH: 5.8	ACTUAL REPS: 3	ACTUAL BLOCKS: 1
% CLAY: 20	CEC: 5.9	ACTUAL TRTS: 12	ACTUAL SUB-BLOCKS: 12
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 05/25/2004. Variety - DeKalb 44-51RR.
2. Pre treatments applied 05/25/2004.
3. Study harvested 11/02/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-25-04	USA
TIME - BEGIN	13:00	24H
TIME - END	14:00	24H
AIR TEMPERATURE	86	F
% REL. HUMIDITY	50	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	CLEAR	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	72/4.00	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

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
05-25-2004 00 --- IND . . . IN NA

02 P SETFA - FOXTAIL, GIANT

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
05-25-2004 00 --- IND . . . IN NA

03 P GLXMA - SOYBEAN

CULTIVAR: DEKALB 44-51RR
TARGET: CROP SITE: FG POPULATION: 6.00 FTR PLANTED: 05-25-2004
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
05-25-2004 00 MED 6.00 FTR . . . IN NA

04 P DATST - JIMSONWEED

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
05-25-2004 00 --- IND . . . IN ---

05 P IPOHE - MORNINGGLORY, IVYLEAF, ANNUAL

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
05-25-2004 00 --- IND . . . IN ---

06 P ABUTH - VELVETLEAF

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
05-25-2004 00 --- IND . . . IN ---

07 P GLXMA - SOYBEAN

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
05-25-2004 --- --- IND . . . IN ---

* STAGE CODE -- GENERAL
00 = DRY SEED; DORMANCY
* STAGE CODE -- SOYBEAN
--- = TO BE SELECTED
00 = DRY SEED

TITLE: UTILITY OF KIH-485 IN CONVENTIONAL SOYBEAN
 CREATED: 05-24-2004 REVISED: 11-13-2004 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	06-16-04 P GLXMA	06-16-04 P SETFA	06-16-04 P DATST	06-29-04 P SETFA	06-29-04 P DATST	
				VAR 03 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»KIH-485 (60WG)	0.108	LAA	0	7	95	90	92	73	
3A»KIH-485 (60WG)	0.144	LAA	0	8	98	93	95	75	
4A»KIH-485 (60WG)	0.181	LAA	0	13	100	95	100	80	
5A»KIH-485 (60WG)	0.217	LAA	0	20	100	93	100	90	
6A»KIH-485 (60WG)	0.362	LAA	0	28	100	98	100	97	
7A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	10	100	88	95	53	
8A»DUAL II MAGNUM (7.64EC)	3.10	LAA	0	18	100	92	100	83	
9A»KIH-485 (60WG)	0.144	LAA	0	12	100	100	100	100	
B»CANOPY XL (56.3 WDG)	0.176	LAA	0						
10A»KIH-485 (60WG)	0.181	LAA	0	20	100	100	100	100	
B»CANOPY XL (56.3 WDG)	0.176	LAA	0						
11A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	15	100	100	100	100	
B»CANOPY XL (56.3 WDG)	0.176	LAA	0						
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSD (0.05)	5.88	2.82	4.36	2.82	25.07
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	2.84	1.36	2.10	1.36	12.09
				COEFFICIENT OF VARIANCE	27.47	2.00	3.25	2.00	20.86
				DAT APPLICATION # 01 TIMINGS (00)	22	22	22	35	35

TITLE: UTILITY OF KIH-485 IN CONVENTIONAL SOYBEAN
CREATED: 05-24-2004 **REVISED:** 11-13-2004 **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)	0.108	LAA	0	68	90	60	93	87
3A»KIH-485 (60WG)	0.144	LAA	0	67	93	67	92	88
4A»KIH-485 (60WG)	0.181	LAA	0	97	98	93	97	98
5A»KIH-485 (60WG)	0.217	LAA	0	95	98	90	97	97
6A»KIH-485 (60WG)	0.362	LAA	0	100	100	100	100	100
7A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	63	95	53	32	95
8A»DUAL II MAGNUM (7.64EC)	3.10	LAA	0	43	100	43	82	100
9A»KIH-485 (60WG)	0.144	LAA	0	98	95	98	100	93
B»CANOPY XL (56.3 WDG)	0.176	LAA	0					
10A»KIH-485 (60WG)	0.181	LAA	0	100	98	100	100	100
B»CANOPY XL (56.3 WDG)	0.176	LAA	0					
11A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	100	98	100	100	98
B»CANOPY XL (56.3 WDG)	0.176	LAA	0					
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
		LSD (0.05)		37.37	4.52	34.57	28.18	7.36
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		18.00	2.18	16.67	13.59	3.55
		COEFFICIENT OF VARIANCE		31.84	3.32	30.43	22.39	5.45
		DAT APPLICATION # 01 TIMINGS (00)		35	50	50	50	77

TITLE: UTILITY OF KIH-485 IN CONVENTIONAL SOYBEAN
CREATED: 05-24-2004 **REVISED:** 11-13-2004 **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 PL ALL	VAR 03 YLD LB PL SD	VAR 03 YLD BU A SD
	RATE	UNIT	TM			
1A UNTREATED CHECK	0.00	NA	0	0	10.8	32.0
2A»KIH-485 (60WG)	0.108	LAA	0	92	16.6	48.0
3A»KIH-485 (60WG)	0.144	LAA	0	93	15.2	45.0
4A»KIH-485 (60WG)	0.181	LAA	0	97	13.8	40.0
5A»KIH-485 (60WG)	0.217	LAA	0	97	16.5	48.0
6A»KIH-485 (60WG)	0.362	LAA	0	100	14.1	41.0
7A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	30	14.4	42.0
8A»DUAL II MAGNUM (7.64EC)	3.10	LAA	0	77	15.6	45.0
9A»KIH-485 (60WG)	0.144	LAA	0	100	16.3	47.0
B»CANOPY XL (56.3 WDG)	0.176	LAA	0			
10A»KIH-485 (60WG)	0.181	LAA	0	100	16.6	48.0
B»CANOPY XL (56.3 WDG)	0.176	LAA	0			
11A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	100	16.2	47.0
B»CANOPY XL (56.3 WDG)	0.176	LAA	0			
12A UNTREATED CHECK	0.00	NA	0	0	9.5	27.0
LSD (0.05)				27.00	3.00	8.63
SIGNIFICANCE OF F				**	**	**
STANDARD DEVIATION				13.00	1.43	4.16
COEFFICIENT OF VARIANCE				21.59	12.00	12.00
DAT APPLICATION # 01 TIMINGS (00)				77	161	161

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-25-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	GLXMA	PHY %	06-16-2004	03	P	GLXMA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	06-16-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	06-16-2004	04	P	DATST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-29-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-29-2004	04	P	DATST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	IPOHE	CON %	06-29-2004	05	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	07-14-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	IPOHE	CON %	07-14-2004	05	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	ABUTH	CON %	07-14-2004	06	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	ABUTH	CON %	08-10-2004	06	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	YIELD	LB/PLOT	11-02-2004	03	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 03 = DEKALB 44-51RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = DEKALB 44-51RR

* USER DEFINED CALCULATIONS

US 005/04/01 001 WP--- 012 -- {RAW} * (2.904)

*** USER DEFINED CALCULATIONS**

US 005/04/01 001 WP--- 012 -- {RAW} * (2.904)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WQ ALTERNATE ID#: WY 17 2004
PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
CREATED BY: US RITTER R
CREATED: 05-24-2004 REVISED: 11-13-2004 COMPLETED: Y
TITLE: GLYPHOSATE COMPARISONS 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 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: 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 05/25/2004. Variety - DeKalb 44-51RR.
2. Early post applications made 06/09/2004.
3. Mid post applications made 06/24/2004.
4. Study harvested 11/02/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	06-09-04	06-24-04	USA
TIME - BEGIN	12:00	14:00	24H
TIME - END	13:00	15:00	24H
AIR TEMPERATURE	85	85	F
% REL. HUMIDITY	50	30	
WIND DIRECTION	SOUTHWEST	SOUTH	
WIND SPEED	3.0	3.0	M/H
CLOUD COVER	HAZY SUN	PARTCLDY	
DEW	NO	NO	
SOIL MOISTURE	MOIST/MOI	DRY/MOIST	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	76/4.00	83/4.00	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
01 = MID POS / MID-POSTEMERGENCE

* NOZZLE DESCRIPTION

01 = SS-8003
02 = 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
 05-25-2004 00 --- --- IND . . . IN NA
 06-09-2004 --- --- --- IND . . . IN ---
 06-24-2004 --- --- --- 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
 05-25-2004 00 --- --- IND . . . IN NA
 06-09-2004 13 HGH 12.00 SQF 1.50 1.50 1.50 IN TUR
 06-24-2004 --- --- --- IND . . . IN ---

03 P GLXMA - SOYBEAN

CULTIVAR: DEKALB 44-51RR
 TARGET: CROP SITE: FG POPULATION: 6.00 FTR PLANTED: 05-25-2004
 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
 05-25-2004 00 MED 6.00 FTR . . . IN NA
 06-09-2004 12 MED 6.00 FTR 2.00 2.00 2.00 IN TUR
 06-24-2004 15 MED 6.00 FTR 7.00 7.00 7.00 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
 05-25-2004 00 MED 6.00 FTR . . . IN NA
 06-09-2004 10 MED 6.00 SQF 1.00 1.00 1.00 IN TUR
 06-24-2004 --- --- --- IND . . . IN ---

* STAGE CODE -- GENERAL

--- = TO BE SELECTED

00 = DRY SEED; DORMANCY

10 = 1ST LEAF EMERGED; COTYLEDONS 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: GLYPHOSATE COMPARISONS IN CONVENTIONAL SOYBEANS

CREATED: 05-24-2004 REVISED: 11-13-2004 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	06-16-04 P GLXMA	06-16-04 P SETFA	06-16-04 P DATST	06-24-04 P GLXMA	06-24-04 P SETFA	
				VAR 03 PHY % 1.00 PL ALL	CON % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 03 PHY % 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 (4.5AE)	0.773	LAA	0	15	100	100	7	100	
B»DUAL II MAGNUM (7.64EC)	1.59	LAA	0						
3A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	12	100	100	7	100	
B»OUTLOOK (6EC)	0.75	LAA	0						
4A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	18	100	100	10	100	
B»DUAL II MAGNUM (7.64EC)	1.59	LAA	0						
5A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	8	100	100	3	100	
B»OUTLOOK (6EC)	0.75	LAA	0						
6A»GF-1279 (4.0AE)	0.75	LAA	0	17	100	100	10	100	
B»DUAL II MAGNUM (7.64EC)	1.59	LAA	0						
7A»GF-1279 (4.0AE)	0.75	LAA	0	8	100	100	7	100	
B»OUTLOOK (6EC)	0.75	LAA	0						
8A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	0	100	100	0	100	
9A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	0	100	100	0	100	
10A»GF-1279 (4.0AE)	0.75	LAA	0	0	100	100	0	100	
11A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	0	100	100	0	100	
B»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1						
12A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	0	100	100	0	100	
B»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1						
13A»GF-1279 (4.0AE)	0.75	LAA	0	0	100	100	0	100	
B»GF-1279 (4.0AE)	0.75	LAA	1						
14A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSD (0.05)	3.68	0.00	0.00	5.18	0.00
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	1.79	0.00	0.00	2.52	0.00
				COEFFICIENT OF VARIANCE	39.19	0.00	0.00	99.70	0.00
				DAT APPLICATION # 01 TIMINGS (00)	7	7	7	15	15
				DAT APPLICATION # 02 TIMINGS (01)	NA	NA	NA	0	0

TITLE: GLYPHOSATE COMPARISONS IN CONVENTIONAL SOYBEANS

CREATED: 05-24-2004 REVISED: 11-13-2004 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	06-24-04 P DATST	07-08-04 P SETFA	07-08-04 P DATST	07-21-04 P SETFA	08-10-04 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>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	100	100	100	100	
B>>DUAL II MAGNUM (7.64EC)	1.59	LAA	0						
3A>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	100	100	97	100	
B>>OUTLOOK (6EC)	0.75	LAA	0						
4A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	100	98	100	100	
B>>DUAL II MAGNUM (7.64EC)	1.59	LAA	0						
5A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	100	100	97	97	
B>>OUTLOOK (6EC)	0.75	LAA	0						
6A>>GF-1279 (4.0AE)	0.75	LAA	0	100	100	98	100	100	
B>>DUAL II MAGNUM (7.64EC)	1.59	LAA	0						
7A>>GF-1279 (4.0AE)	0.75	LAA	0	100	100	100	98	100	
B>>OUTLOOK (6EC)	0.75	LAA	0						
8A>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	90	98	83	90	
9A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	93	97	93	98	
10A>>GF-1279 (4.0AE)	0.75	LAA	0	100	92	98	88	93	
11A>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	100	100	100	100	
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1						
12A>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	100	100	100	100	
B>>TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1						
13A>>GF-1279 (4.0AE)	0.75	LAA	0	100	100	100	100	100	
B>>GF-1279 (4.0AE)	0.75	LAA	1						
14A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSD (0.05)	0.00	1.80	2.74	6.57	5.69
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	0.00	0.874	1.33	3.20	2.77
				COEFFICIENT OF VARIANCE	0.00	1.27	1.92	4.74	4.00
				DAT APPLICATION # 01 TIMINGS (00)	15	29	29	42	62
				DAT APPLICATION # 02 TIMINGS (01)	0	14	14	27	47

TITLE: GLYPHOSATE COMPARISONS IN CONVENTIONAL SOYBEANS

CREATED: 05-24-2004 REVISED: 11-13-2004 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	11-02-04 P GLXMA	11-02-04 P GLXMA
1A UNTREATED CHECK	0.00	NA	0	9.0	26.2
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	17.4	50.4
B»DUAL II MAGNUM (7.64EC)	1.59	LAA	0		
3A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	17.9	52.1
B»OUTLOOK (6EC)	0.75	LAA	0		
4A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	18.4	53.4
B»DUAL II MAGNUM (7.64EC)	1.59	LAA	0		
5A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	18.4	53.5
B»OUTLOOK (6EC)	0.75	LAA	0		
6A»GF-1279 (4.0AE)	0.75	LAA	0	18.2	52.7
B»DUAL II MAGNUM (7.64EC)	1.59	LAA	0		
7A»GF-1279 (4.0AE)	0.75	LAA	0	17.8	51.8
B»OUTLOOK (6EC)	0.75	LAA	0		
8A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	18.4	53.4
9A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	18.4	53.5
10A»GF-1279 (4.0AE)	0.75	LAA	0	18.7	54.2
11A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	18.6	54.0
B»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	1		
12A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	18.3	53.3
B»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	1		
13A»GF-1279 (4.0AE)	0.75	LAA	0	19.1	55.4
B»GF-1279 (4.0AE)	0.75	LAA	1		
14A UNTREATED CHECK	0.00	NA	1	16.9	49.1
				VAR 03 YLD LB	VAR 03 YLD BU
				1.00	1.00
				PL SD	A SD
				3.20	9.29
				**	**
				1.56	4.52
				10.88	10.87
				146	146
				131	131

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE 06-09-2004(1)
 01 = MID POS / MID-POSTEMERGENCE 06-24-2004(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 %	06-16-2004	03	P	GLXMA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SETFA	CON %	06-16-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	DATST	CON %	06-16-2004	04	P	DATST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	GLXMA	PHYTO %	06-24-2004	03	P	GLXMA	15	RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	SETFA	CON %	06-24-2004	02	P	SETFA	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	DATST	CON %	06-24-2004	04	P	DATST	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	SETFA	CON %	07-08-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	DATST	CON %	07-08-2004	04	P	DATST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TITLE: GLYPHOSATE COMPARISONS IN CONVENTIONAL SOYBEANS

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
009	SETFA	CON %	07-21-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	08-10-2004	02	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	YIELD	LB/PLOT	11-02-2004	03	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 03 = DEKALB 44-51RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

03 = DEKALB 44-51RR

* STAGE CODE

--- = TO BE SELECTED

15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES

* USER DEFINED CALCULATIONS

US 005/04/01 001 WQ--- 011 -- {RAW} * (2.904)

US 005/04/01 001 WQ--- 011 -- {RAW} * (2.904)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WR ALTERNATE ID#: WY 18 2004
PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
CREATED BY: US RITTER R
CREATED: 05-24-2004 REVISED: 11-13-2004 COMPLETED: Y
TITLE: POSTEMERGENCE COMBINATIONS FOR 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 **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 05/25/2004. Variety - DeKalb 44-51RR.
2. Early post applications made 06/17/2004.
3. Study harvested 11/02/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	06-17-04	USA
TIME - BEGIN	14:30	24H
TIME - END	15:00	24H
AIR TEMPERATURE	90	F
% REL. HUMIDITY	65	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	5.0	M/H
CLOUD COVER	HAZY SUN	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	88/4.00	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:** 05-25-2004
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
05-25-2004	00	MED	6.00 FTR	.	.	. IN		NA	
06-17-2004	14	MED	6.00 FTR	4.00	4.00	4.00 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
05-25-2004	00	---	IND	.	.	. IN		NA	
06-17-2004	19	MED	3.00 SQF	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
05-25-2004	00	---	IND	.	.	. IN		NA	
06-17-2004	15	MED	5.00 SQF	3.00	3.00	3.00 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
05-25-2004	00	---	IND	.	.	. IN		NA	
06-17-2004	12	LOW	3.00 SQY	2.00	2.00	2.00 IN		TUR	

- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 12 = 2ND TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * **STAGE CODE -- GENERAL GRASS**
- 15 = 5 LEAVES UNFOLDED
- * **STAGE CODE -- SOYBEAN**
- 00 = DRY SEED
- 14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS

CREATED: 05-24-2004 REVISED: 11-13-2004 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	CON %				
		001 RAW 06-24-04 P SETFA	002 RAW 06-24-04 P CHEAL	003 RAW 06-24-04 P DATST	004 RAW 06-29-04 P SETFA	005 RAW 06-29-04 P CHEAL
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 0	100	92	100	100	95
3A»ROUNDUP WEATHER MAX (4.5AE) B CLASSIC (25WG)	0.773 LAA 0 0.005 LAA 0	100	95	100	100	97
4A»ROUNDUP WEATHER MAX (4.5AE) B»FIRSTRATE (84 WG)	0.773 LAA 0 0.016 LAA 0	100	93	100	100	98
5A»ROUNDUP WEATHER MAX (4.5AE) B»HARMONY GT (75WG)	0.773 LAA 0 0.004 LAA 0	100	88	100	100	90
6A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 0	100	92	100	100	97
7A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG)	0.781 LAA 0 0.005 LAA 0	100	95	100	100	97
8A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG)	0.781 LAA 0 0.016 LAA 0	100	95	100	100	100
9A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG)	0.781 LAA 0 0.004 LAA 0	100	93	100	100	97
10A»GF-1279 (4.0AE)	0.75 LAA 0	100	92	100	100	93
11A»GF-1279 (4.0AE) B CLASSIC (25WG)	0.75 LAA 0 0.005 LAA 0	100	97	100	100	98
12A»GF-1279 (4.0AE) B»FIRSTRATE (84 WG)	0.75 LAA 0 0.016 LAA 0	100	92	100	100	92
13A»GF-1279 (4.0AE) B»HARMONY GT (75WG)	0.75 LAA 0 0.004 LAA 0	100	90	100	100	90
14A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
	LSD (0.05)	0.00	4.94	0.00	0.00	6.38
	SIGNIFICANCE OF F	**	**	**	**	**
	STANDARD DEVIATION	0.00	2.40	0.00	0.00	3.10
	COEFFICIENT OF VARIANCE	0.00	3.70	0.00	0.00	4.65
	DAT APPLICATION # 01 TIMINGS (00)	7	7	7	12	12

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS

CREATED: 05-24-2004 REVISED: 11-13-2004 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	006 RAW 07-14-04 P SETFA		007 RAW 07-14-04 P CHEAL		008 RAW 07-26-04 P SETFA		009 RAW 07-26-04 P CHEAL		010 RAW 08-10-04 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	CON % 1.00 PL ALL				
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0	0	0	0		
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 0	98	87	90	83	90					
3A»ROUNDUP WEATHER MAX (4.5AE) B CLASSIC (25WG)	0.773 LAA 0 0.005 LAA 0	97	90	95	88	95					
4A»ROUNDUP WEATHER MAX (4.5AE) B»FIRSTRATE (84 WG)	0.773 LAA 0 0.016 LAA 0	98	92	97	92	97					
5A»ROUNDUP WEATHER MAX (4.5AE) B»HARMONY GT (75WG)	0.773 LAA 0 0.004 LAA 0	97	87	97	82	93					
6A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 0	97	92	93	93	93					
7A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG)	0.781 LAA 0 0.005 LAA 0	98	95	97	95	97					
8A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG)	0.781 LAA 0 0.016 LAA 0	98	95	97	95	97					
9A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG)	0.781 LAA 0 0.004 LAA 0	95	88	92	85	93					
10A»GF-1279 (4.0AE)	0.75 LAA 0	97	87	93	78	95					
11A»GF-1279 (4.0AE) B CLASSIC (25WG)	0.75 LAA 0 0.005 LAA 0	95	92	92	85	90					
12A»GF-1279 (4.0AE) B»FIRSTRATE (84 WG)	0.75 LAA 0 0.016 LAA 0	100	87	100	87	100					
13A»GF-1279 (4.0AE) B»HARMONY GT (75WG)	0.75 LAA 0 0.004 LAA 0	97	83	95	80	95					
14A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0	0	0	0		
	LSD (0.05)	3.72	5.83	3.46	10.19	3.89					
	SIGNIFICANCE OF F	**	**	**	**	**					
	STANDARD DEVIATION	1.81	2.83	1.68	5.00	1.89					
	COEFFICIENT OF VARIANCE	2.66	4.53	2.54	8.15	2.85					
	DAT APPLICATION # 01 TIMINGS (00)	27	27	39	39	54					

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS

CREATED: 05-24-2004 REVISED: 11-13-2004 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 01	VAR 01
	RATE	UNIT	TM	PL ALL	YLD LB PL SD	YLD BU A SD
1A UNTREATED CHECK	0.00	NA	0	0	6.0	17.5
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	80	14.8	43.1
3A»ROUNDUP WEATHER MAX (4.5AE) B CLASSIC (25WG)	0.773 0.005	LAA LAA	0 0	85	15.2	44.1
4A»ROUNDUP WEATHER MAX (4.5AE) B»FIRSTRATE (84 WG)	0.773 0.016	LAA LAA	0 0	88	13.5	39.1
5A»ROUNDUP WEATHER MAX (4.5AE) B»HARMONY GT (75WG)	0.773 0.004	LAA LAA	0 0	80	15.2	44.1
6A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	92	14.8	43.0
7A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG)	0.781 0.005	LAA LAA	0 0	95	15.6	45.4
8A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG)	0.781 0.016	LAA LAA	0 0	93	15.8	45.8
9A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG)	0.781 0.004	LAA LAA	0 0	85	16.3	47.2
10A»GF-1279 (4.0AE)	0.75	LAA	0	73	15.2	44.2
11A»GF-1279 (4.0AE) B CLASSIC (25WG)	0.75 0.005	LAA LAA	0 0	78	14.5	42.1
12A»GF-1279 (4.0AE) B»FIRSTRATE (84 WG)	0.75 0.016	LAA LAA	0 0	80	15.4	44.7
13A»GF-1279 (4.0AE) B»HARMONY GT (75WG)	0.75 0.004	LAA LAA	0 0	75	14.7	42.7
14A UNTREATED CHECK	0.00	NA	0	0	8.4	24.4
LSD (0.05)				14.11	2.27	6.58
SIGNIFICANCE OF F				**	**	**
STANDARD DEVIATION				6.86	1.10	3.20
COEFFICIENT OF VARIANCE				11.71	9.68	9.67
DAT APPLICATION # 01 TIMINGS (00)				54	138	138

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-17-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
001	SETFA	CON %	06-24-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	CHEAL	CON %	06-24-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	DATST	CON %	06-24-2004	04	P	DATST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	SETFA	CON %	06-29-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	CHEAL	CON %	06-29-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	SETFA	CON %	07-14-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	CHEAL	CON %	07-14-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SETFA	CON %	07-26-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	CHEAL	CON %	07-26-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	SETFA	CON %	08-10-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TITLE: POSTEMERGENCE COMBINATIONS FOR 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
011	CHEAL	CON %	08-10-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	YIELD	LB/PLOT	11-02-2004	01	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 01 = DEKALB 44-51RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 44-51RR

* USER DEFINED CALCULATIONS

US 005/04/01 001 WR--- 012 -- {RAW} * (2.904)

US 005/04/01 001 WR--- 012 -- {RAW} * (2.904)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WS ALTERNATE ID#: WY 19 2004
PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/01/01
CREATED BY: US RITTER R
CREATED: 05-24-2004 REVISED: 11-14-2004 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
COUNTY: 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
SOIL GEN: M

TRIAL INFORMATION

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

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 05/25/2004. Variety - DeKalb 44-51RR.
2. 1 week application made 06/03/2004.
3. 2 week application made 06/09/2004.
4. 3 week application made 06/16/2004.
5. 4 week application made 06/24/2004.
6. 5 week application made 06/29/2004.
7. 6 week application made 07/08/2004.
8. 7 week application made 07/13/2004.
9. 8 week application made 07/21/2004.
10. 9 week application made 07/26/2004.
11. 10 week application made 08/04/2004.
12. 11 week application made 08/10/2004.
13. 12 week application made 08/17/2004.
14. Study harvested 11/0/2004.

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	06-03-04	06-09-04	06-16-04	06-24-04	06-29-04	07-08-04	07-13-04	07-21-04	USA
TIME - BEGIN	17:30	10:00	15:00	14:00	13:30	18:00	11:30	17:00	24H
TIME - END	17:45	10:15	15:15	14:15	14:00	18:15	12:00	17:30	24H
AIR TEMPERATURE	77	83	84	85	84	78	76	88	F
% REL. HUMIDITY	20	60	60	30	30	60	80	65	
WIND DIRECTION	WEST	SOUTHEAST	SOUTHWEST	SOUTH	NORTHWEST	WEST	SOUTHWEST	WEST	M/H
WIND SPEED	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
CLOUD COVER	PARTCLDY	HAZY SUN	HAZY SUN	PARTCLDY	PARTCLDY	CLOUDY	CLOUDY	HAZY SUN	
DEW	---	NO	NO	NO	NO	NO	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	DRY/MOIST	DRY/MOIST	DRY/MOIST	WET/WET	WET/WET	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	FRIABLE	FRIABLE	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	78/4.00	74/4.00	82/4.00	83/4.00	80/4.00	76/4.00	76/4.00	88/4.00	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	07-26-04	08-04-04	08-10-04	08-17-04	USA
TIME - BEGIN	16:30	14:00	16:00	11:00	24H
TIME - END	17:00	14:15	16:15	11:15	24H
AIR TEMPERATURE	78	86	86	86	F
% REL. HUMIDITY	60	80	60	60	
WIND DIRECTION	WEST	WEST	SOUTHEAST	SOUTHEAST	
WIND SPEED	3.0	3.0	3.0	3.0	M/H
CLOUD COVER	OVERCAST	HAZY SUN	OVERCAST	PARTCLDY	
DEW	NO	NO	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	78/4.00	84/4.00	85/4.00	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 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
05-25-2004	00	---	---	IND	.	.	.	IN	NA
06-03-2004	---	---	---	IND	.	.	.	IN	---
06-09-2004	---	---	---	IND	.	.	.	IN	---
06-16-2004	---	---	---	IND	.	.	.	IN	---
06-24-2004	---	---	---	IND	.	.	.	IN	---
06-29-2004	---	---	---	IND	.	.	.	IN	---
07-08-2004	---	---	---	IND	.	.	.	IN	---
07-13-2004	---	---	---	IND	.	.	.	IN	---
07-21-2004	---	---	---	IND	.	.	.	IN	---
07-26-2004	---	---	---	IND	.	.	.	IN	---
08-04-2004	---	---	---	IND	.	.	.	IN	---
08-10-2004	---	---	---	IND	.	.	.	IN	---
08-17-2004	---	---	---	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
05-25-2004	00	---	---	IND	.	.	.	IN	NA
06-03-2004	12	HGH	12.00	SQF	1.00	1.00	1.00	IN	TUR
06-09-2004	13	HGH	12.00	SQF	1.50	1.50	1.50	IN	TUR
06-16-2004	15	HGH	12.00	SQF	3.00	3.00	3.00	IN	TUR
06-24-2004	15	HGH	12.00	SQF	8.00	8.00	8.00	IN	TUR
06-29-2004	15	HGH	12.00	SQF	10.00	10.00	10.00	IN	TUR
07-08-2004	15	HGH	12.00	SQF	18.00	18.00	18.00	IN	TUR
07-13-2004	15	HGH	12.00	SQF	22.00	22.00	22.00	IN	---
07-21-2004	16	HGH	12.00	SQF	28.00	28.00	28.00	IN	TUR
07-26-2004	61	HGH	12.00	SQF	28.00	28.00	28.00	IN	TUR
08-04-2004	51	HGH	12.00	SQF	30.00	30.00	30.00	IN	---
08-10-2004	55	HGH	12.00	SQF	34.00	34.00	34.00	IN	TUR
08-17-2004	59	HGH	12.00	SQF	40.00	40.00	40.00	IN	TUR

03 P GLXMA - SOYBEAN

TARGET: CROP SITE: FG POPULATION: 6.00 FTR PLANTED: 05-25-2004
PLANTING DEPTH: 1.0 IN ROW WIDTH: 30.0 IN

STAGE ON	STAGE CODE	POP.GEN.	POPULATION	MN SIZE	MX SIZE	AV SIZE	CROP	VIGOR	NOTES
05-25-2004	00	MED	6.00	FTR	.	.	.	IN	NA
06-03-2004	10	MED	6.00	FTR	1.00	1.50	1.25	IN	TUR
06-09-2004	12	MED	6.00	FTR	2.00	2.00	2.00	IN	TUR
06-16-2004	14	MED	6.00	FTR	4.00	4.00	4.00	IN	TUR
06-24-2004	15	MED	6.00	FTR	7.00	7.00	7.00	IN	TUR
06-29-2004	16	MED	6.00	FTR	10.00	10.00	10.00	IN	TUR
07-08-2004	18	MED	6.00	FTR	15.00	15.00	15.00	IN	TUR
07-13-2004	51	MED	6.00	FTR	18.00	18.00	18.00	IN	TUR
07-21-2004	62	MED	6.00	FTR	24.00	24.00	24.00	IN	TUR
07-26-2004	67	MED	6.00	FTR	24.00	24.00	24.00	IN	TUR
08-04-2004	71	MED	6.00	FTR	24.00	24.00	24.00	IN	TUR
08-10-2004	75	MED	6.00	FTR	30.00	30.00	30.00	IN	TUR
08-17-2004	77	MED	6.00	FTR	36.00	36.00	36.00	IN	TUR

* STAGE CODE -- GENERAL

--- = TO BE SELECTED

00 = DRY SEED; DORMANCY

* STAGE CODE -- GENERAL GRASS

12 = 2 LEAVES UNFOLDED

13 = 3 LEAVES UNFOLDED

15 = 5 LEAVES UNFOLDED

16 = 6 LEAVES UNFOLDED

51 = BEGINNING OF HEADING: TIP OF INFLORESCENCE EMERGED FROM SHEATH, FIRST SPIKELET J

55 = MIDDLE OF HEADING: HALF OF INFLORESCENCE EMERGED

59 = END OF HEADING: INFLORESCENCE FULLY EMERGED

61 = BEGINNING OF FLOWERING: FIRST ANTHERS VISIBLE

* STAGE CODE -- SOYBEAN

00 = DRY SEED

10 = COTYLEDONS COMPLETELY UNFOLDED

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

*** STAGE CODE -- SOYBEAN**

14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES
15 = 5TH LEAF (3RD TRIFOLIATE LEAF) UNFOLDED, 4 NODES
16 = 6TH LEAF (4TH TRIFOLIATE LEAF) UNFOLDED, 5 NODES
18 = 8TH LEAF (6TH TRIFOLIATE LEAF) UNFOLDED, 7 NODES
51 = FIRST FLOWER BUDS VISIBLE
62 = 20% OF FLOWERS OPEN (DETERMINATE)
67 = FLOWERING DECLINING
71 = 10% OF PODS FINAL SIZE (DETERMINATE); BEGIN POD DEVELOPMENT (INDETERM.)
75 = 50% OF PODS FINAL SIZE (DETERMINATE); MAIN POD DEVELOPMENT PERIOD (INDETERM.)
77 = 70% OF PODS FINAL SIZE (DETERMINATE); ADVANCED POD FILLING (INDETERM.)

TITLE: GLYPHOSATE TIMING STUDY IN SOYBEAN

CREATED: 05-24-2004 REVISED: 11-14-2004 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	06-24-04 P SETFA 15	07-13-04 P SETFA 15	08-10-04 P SETFA 55	11-02-04 P GLXMA	11-02-04 P GLXMA	
				CON % 1.00 PL ALL	CON % 1.00 PL ALL	CON % 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	7.0	20.3	
2A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	0	85	72	55	14.3	41.4	
3A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	1	98	93	90	18.0	52.3	
4A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	2	97	100	100	18.0	52.4	
5A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	3	0	98	100	18.0	52.2	
6A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	4	0	100	100	17.9	52.0	
7A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	5	0	70	92	16.0	46.5	
8A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	6	0	0	97	14.3	41.4	
9A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	7	0	0	95	14.3	41.5	
10A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	8	0	0	100	12.9	37.4	
11A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	9	0	0	88	12.4	35.9	
12A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	10	0	0	0	13.3	38.5	
13A»TOUCHDOWN TOTAL (4.17AE)	0.78	LAA	11	0	0	0	10.6	30.9	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	10.4	30.1	
				LSD (0.05)	2.94	2.30	5.34	3.79	11.00
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	1.43	1.12	2.60	1.85	5.36
				COEFFICIENT OF VARIANCE	8.76	3.60	4.86	16.00	16.00
				DAT APPLICATION # 01 TIMINGS (00)	21	40	68	152	152
				DAT APPLICATION # 02 TIMINGS (01)	15	34	62	146	146
				DAT APPLICATION # 03 TIMINGS (02)	8	27	55	139	139
				DAT APPLICATION # 04 TIMINGS (03)	0	19	47	131	131
				DAT APPLICATION # 05 TIMINGS (04)	NA	14	42	126	126
				DAT APPLICATION # 06 TIMINGS (05)	NA	5	33	117	117
				DAT APPLICATION # 07 TIMINGS (06)	NA	0	28	112	112
				DAT APPLICATION # 08 TIMINGS (07)	NA	NA	20	104	104
				DAT APPLICATION # 09 TIMINGS (08)	NA	NA	15	99	99
				DAT APPLICATION # 10 TIMINGS (09)	NA	NA	6	90	90
				DAT APPLICATION # 11 TIMINGS (10)	NA	NA	0	84	84
				DAT APPLICATION # 12 TIMINGS (11)	NA	NA	NA	77	77

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = POSPOS / POSTEMERGENCE - 1 WEEK 06-03-2004 (1)
- 01 = POSPOS / POSTEMERGENCE - 2 WEEK 06-09-2004 (2)
- 02 = POSPOS / POSTEMERGENCE - 3 WEEK 06-16-2004 (3)
- 03 = POSPOS / POSTEMERGENCE - 4 WEEK 06-24-2004 (4)
- 04 = POSPOS / POSTEMERGENCE - 5 WEEK 06-29-2004 (5)
- 05 = POSPOS / POSTEMERGENCE - 6 WEEK 07-08-2004 (6)
- 06 = POSPOS / POSTEMERGENCE - 7 WEEK 07-13-2004 (7)
- 07 = POSPOS / POSTEMERGENCE - 8 WEEK 07-21-2004 (8)
- 08 = POSPOS / POSTEMERGENCE - 9 WEEK 07-26-2004 (9)
- 09 = POSPOS / POSTEMERGENCE - 10 WEEK 08-04-2004 (10)
- 10 = POSPOS / POSTEMERGENCE - 11 WEEK 08-10-2004 (11)
- 11 = POSPOS / POSTEMERGENCE - 12 WEEK 08-17-2004 (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 %	06-24-2004	02	P	SETFA	15	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
002	SETFA	CON %	07-13-2004	02	P	SETFA	15	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
003	SETFA	CON %	08-10-2004	02	P	SETFA	55	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
004	YIELD	LB/PLOT	11-02-2004	03	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE%						CALC	SD	YLD	BU	H	1.00 A				

* STAGE CODE

15 = 5 LEAVES UNFOLDED

55 = MIDDLE OF HEADING: HALF OF INFLORESCENCE EMERGED

* USER DEFINED CALCULATIONS

US 005/04/01 001 WS--- 004 -- {RAW}*(2.904)

US 005/04/01 001 WS--- 004 -- {RAW}*(2.904)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WU **ALTERNATE ID#:** WY 21 2004
PROTOCOL#: US 005/04/01 **ALTERNATE ID#:** US 003/04/01
CREATED BY: US RITTER R
CREATED: 06-11-2004 **REVISED:** 11-23-2004 **COMPLETED:** Y
TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS 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. 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: NOT	DESIGN: RCB	RESIDUE TRIAL: EFF
% 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: -			
% RESIDUE: 0			
PLOT WIDTH: 10.00 FT			
PLOT LENGTH: 20.00 FT			

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Early winter application made 12/23/2003.
2. 45 day preplant application made 04/20/2004.
3. Study planted 06/09/2004. Variety - DeKalb 44-51RR.
4. Study harvested 11/02/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	12-23-03	04-20-04	USA
TIME - BEGIN	15:00	14:00	24H
TIME - END	16:00	15:00	24H
AIR TEMPERATURE	55	75	F
% REL. HUMIDITY	20	25	
WIND DIRECTION	WEST	NORTHWEST	
WIND SPEED	10.0	10.0	M/H
CLOUD COVER	CLEAR	PARTCLDY	
DEW	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	50/4.00	68/4.00	F /
METHOD	SPRAY	SPRAY	
EQUIPMENT	SPTMRO	SPTMRO	
PROPELLANT	PUMP	PUMP	
PLACEMENT	BRFOSO	BRFOSO	
NOZZLE	FLATFAN	FLATFAN	
NOZZLE VOLUME			GPM
NOZZLE NUMBER			
NOZZLE SPACING			IN
SWATH WIDTH			FT
BOOM HEIGHT			IN
SPEED			M/H
MIX SIZE			
MIX SIZE UNIT			
SPRAY VOLUME			
VOLUME UNIT			
PRESSURE			PSI
DILUENT	WATER	WATER	
INC. DATE			USA
INC. START			24H
INC. END			24H
INC. DEPTH			IN
INC. EQUIPMENT	---	---	

* TIMING CODES

00 = PREPLA / PREPLANT - FALL
 01 = PREPLA / PREPLANT - LATE WINTER - 45DPP

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
 04-20-2004 65 MED 1.00 SQF 6.00 6.00 6.00 IN TUR
 12-23-2004 00 --- IND . . . 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
 12-23-2003 00 --- IND . . . IN NA
 04-20-2004 00 --- IND . . . IN NA

03 P POAN - BLUEGRASS, 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
 12-23-2003 00 --- IND . . . IN NA
 04-20-2004 65 MED 3.00 SQF 3.00 3.00 3.00 IN TUR

04 P TAROF - DANDELION, 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
 12-23-2003 00 --- IND . . . IN NA
 04-20-2004 65 LOW 1.00 SQY 6.00 6.00 6.00 IN TUR

05 P PANDI - PANICUM, FALL
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
 12-23-2003 00 --- IND . . . IN NA
 04-20-2004 00 --- IND . . . IN NA

06 P GLXMA - SOYBEAN **CULTIVAR:** DEKALB CX 44-51RR
TARGET: CROP **SITE:** FG **POPULATION:** 4.50 FTR **PLANTED:** 06-09-2004
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
 12-23-2003 00 --- IND . . . IN NA
 04-20-2004 00 --- IND . . . IN NA
 06-09-2004 00 MED 4.50 FTR . . . IN NA

- * **STAGE CODE -- GENERAL**
- 00 = DRY SEED; DORMANCY
- 65 = FULL FLOWERING; 50% OF FLOWERS OPEN, FIRST PETALS CAN FALL OR DRY
- * **STAGE CODE -- SOYBEAN**
- 00 = DRY SEED

TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS FOR FULL-SEASON NO-TILL SOYBEANS
CREATED: 06-11-2004 **REVISED:** 11-23-2004 **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	04-20-04 P STEME 65	04-20-04 P POAAN 65	04-20-04 P TAROF 65	05-19-04 P STEME	05-19-04 P POAAN
				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 CLASSIC (25WG)	0.031	LAA	0	100	93	100	100	93
B EXPRESS (75WG)	0.009	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
3A CLASSIC (25WG)	0.031	LAA	1	0	0	0	97	40
B EXPRESS (75WG)	0.009	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D ADJUVANT - COC (EC)	1.00	PMV	1					
4A CLASSIC (25WG)	0.026	LAA	0	100	82	100	100	82
B»AUTHORITY (75DF)	0.132	LAA	0					
C EXPRESS (75WG)	0.009	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
5A CLASSIC (25WG)	0.026	LAA	1	0	0	0	100	65
B»AUTHORITY (75DF)	0.132	LAA	1					
C EXPRESS (75WG)	0.009	LAA	1					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
E ADJUVANT - COC (EC)	1.00	PMV	1					
6A CLASSIC (25WG)	0.023	LAA	0	100	72	100	100	80
B EXPRESS (75WG)	0.007	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
7A CLASSIC (25WG)	0.023	LAA	1	0	0	0	100	22
B EXPRESS (75WG)	0.007	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D ADJUVANT - COC (EC)	1.00	PMV	1					
8A CLASSIC (25WG)	0.021	LAA	0	100	78	100	100	78
B»AUTHORITY (75DF)	0.103	LAA	0					
C EXPRESS (75WG)	0.007	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
9A CLASSIC (25WG)	0.021	LAA	1	0	0	0	100	12
B»AUTHORITY (75DF)	0.103	LAA	1					
C EXPRESS (75WG)	0.007	LAA	1					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
E ADJUVANT - COC (EC)	1.00	PMV	1					
10A CLASSIC (25WG)	0.016	LAA	0	98	60	100	100	60
B EXPRESS (75WG)	0.005	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
11A CLASSIC (25WG)	0.016	LAA	1	0	0	0	100	12
B EXPRESS (75WG)	0.005	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D ADJUVANT - COC (EC)	1.00	PMV	1					
12A CLASSIC (25WG)	0.015	LAA	0	100	70	100	100	70
B»AUTHORITY (75DF)	0.073	LAA	0					
C EXPRESS (75WG)	0.005	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					

TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS FOR FULL-SEASON NO-TILL SOYBEANS

TRT TREATMENT NUM COMPONENT	DOSAGE RATE UNIT TM	001 RAW	002 RAW	003 RAW	004 RAW	005 RAW
		04-20-04 P STEME 65	04-20-04 P POAAN 65	04-20-04 P TAROF 65	05-19-04 P STEME	05-19-04 P POAAN
		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 CLASSIC (25WG)	0.015 LAA 1	0	0	0	100	38
B»AUTHORITY (75DF)	0.073 LAA 1					
C EXPRESS (75WG)	0.005 LAA 1					
D (G)2,4-D-ESTER (4EC)	0.50 LAA 1					
E ADJUVANT - COC (EC)	1.00 PMV 1					
14A»ROUNDUP WEATHER MAX (5.5 SL)	1.00 LAA 0	100	92	97	100	53
B (G)2,4-D-ESTER (4EC)	0.50 LAA 0					
15A»ROUNDUP WEATHER MAX (5.5 SL)	1.00 LAA 1	0	0	0	100	100
B (G)2,4-D-ESTER (4EC)	0.50 LAA 1					
16A UNTREATED CHECK	0.00 NA 1	0	0	0	0	0
	LSD (0.05)	1.20	20.75	1.20	2.41	40.07
	SIGNIFICANCE OF F	**	**	**	**	**
	STANDARD DEVIATION	0.589	10.16	0.589	1.18	19.62
	COEFFICIENT OF VARIANCE	1.65	36.42	1.66	1.65	47.77
	DAT APPLICATION # 01 TIMINGS (00)	119	119	119	148	148
	DAT APPLICATION # 02 TIMINGS (01)	0	0	0	29	29

TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS FOR FULL-SEASON NO-TILL SOYBEANS
CREATED: 06-11-2004 **REVISED:** 11-23-2004 **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	05-19-04 P TAROF	05-19-04 P ERICA	06-07-04 P ERICA	06-07-04 P PANDI	07-14-04 P ERICA
				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 CLASSIC (25WG)	0.031	LAA	0	100	98	98	58	100
B EXPRESS (75WG)	0.009	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
3A CLASSIC (25WG)	0.031	LAA	1	100	100	100	95	100
B EXPRESS (75WG)	0.009	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D ADJUVANT - COC (EC)	1.00	PMV	1					
4A CLASSIC (25WG)	0.026	LAA	0	100	100	100	40	100
B»AUTHORITY (75DF)	0.132	LAA	0					
C EXPRESS (75WG)	0.009	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
5A CLASSIC (25WG)	0.026	LAA	1	100	100	100	88	100
B»AUTHORITY (75DF)	0.132	LAA	1					
C EXPRESS (75WG)	0.009	LAA	1					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
E ADJUVANT - COC (EC)	1.00	PMV	1					
6A CLASSIC (25WG)	0.023	LAA	0	100	100	100	38	100
B EXPRESS (75WG)	0.007	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
7A CLASSIC (25WG)	0.023	LAA	1	100	100	100	95	100
B EXPRESS (75WG)	0.007	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D ADJUVANT - COC (EC)	1.00	PMV	1					
8A CLASSIC (25WG)	0.021	LAA	0	100	100	100	47	100
B»AUTHORITY (75DF)	0.103	LAA	0					
C EXPRESS (75WG)	0.007	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
9A CLASSIC (25WG)	0.021	LAA	1	100	100	98	93	100
B»AUTHORITY (75DF)	0.103	LAA	1					
C EXPRESS (75WG)	0.007	LAA	1					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
E ADJUVANT - COC (EC)	1.00	PMV	1					
10A CLASSIC (25WG)	0.016	LAA	0	100	100	100	28	97
B EXPRESS (75WG)	0.005	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
11A CLASSIC (25WG)	0.016	LAA	1	100	100	100	97	100
B EXPRESS (75WG)	0.005	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D ADJUVANT - COC (EC)	1.00	PMV	1					
12A CLASSIC (25WG)	0.015	LAA	0	100	100	100	27	100
B»AUTHORITY (75DF)	0.073	LAA	0					
C EXPRESS (75WG)	0.005	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					

TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS FOR FULL-SEASON NO-TILL SOYBEANS

TRT TREATMENT NUM COMPONENT	DOSAGE			006 RAW	007 RAW	008 RAW	009 RAW	010 RAW
	RATE	UNIT	TM	05-19-04 P TAROF	05-19-04 P ERICA	06-07-04 P ERICA	06-07-04 P PANDI	07-14-04 P ERICA
				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 CLASSIC (25WG)	0.015	LAA	1	100	100	100	92	100
B»AUTHORITY (75DF)	0.073	LAA	1					
C EXPRESS (75WG)	0.005	LAA	1					
D (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
E ADJUVANT - COC (EC)	1.00	PMV	1					
14A»ROUNDUP WEATHER MAX (5.5 SL)	1.00	LAA	0	43	77	20	10	27
B (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
15A»ROUNDUP WEATHER MAX (5.5 SL)	1.00	LAA	1	100	100	83	37	53
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
16A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0
		LSD (0.05)		21.39	16.81	9.00	34.65	26.70
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		10.47	8.23	4.40	17.00	13.08
		COEFFICIENT OF VARIANCE		15.28	11.73	6.64	39.35	20.07
		DAT APPLICATION # 01 TIMINGS (00)		148	148	167	167	204
		DAT APPLICATION # 02 TIMINGS (01)		29	29	48	48	85

TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS FOR FULL-SEASON NO-TILL SOYBEANS
 CREATED: 06-11-2004 REVISED: 11-23-2004 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	UNIT	TM	011 RAW	011 CALC
					11-02-04	11-02-04
NUM	COMPONENT	RATE			VAR 06	VAR 06
					YLD LB	YLD BU
					PL SD	A SD
					P GLXMA	P GLXMA
1A	UNTREATED CHECK	0.00	NA	0	16.5	47.8
2A	CLASSIC (25WG)	0.031	LAA	0	16.2	47.0
	B EXPRESS (75WG)	0.009	LAA	0		
	C (G)2,4-D-ESTER (4EC)	0.50	LAA	0		
	D ADJUVANT - COC (EC)	1.00	PMV	0		
3A	CLASSIC (25WG)	0.031	LAA	1	16.1	46.7
	B EXPRESS (75WG)	0.009	LAA	1		
	C (G)2,4-D-ESTER (4EC)	0.50	LAA	1		
	D ADJUVANT - COC (EC)	1.00	PMV	1		
4A	CLASSIC (25WG)	0.026	LAA	0	17.0	49.5
	B»AUTHORITY (75DF)	0.132	LAA	0		
	C EXPRESS (75WG)	0.009	LAA	0		
	D (G)2,4-D-ESTER (4EC)	0.50	LAA	0		
	E ADJUVANT - COC (EC)	1.00	PMV	0		
5A	CLASSIC (25WG)	0.026	LAA	1	16.7	48.6
	B»AUTHORITY (75DF)	0.132	LAA	1		
	C EXPRESS (75WG)	0.009	LAA	1		
	D (G)2,4-D-ESTER (4EC)	0.50	LAA	1		
	E ADJUVANT - COC (EC)	1.00	PMV	1		
6A	CLASSIC (25WG)	0.023	LAA	0	17.0	49.3
	B EXPRESS (75WG)	0.007	LAA	0		
	C (G)2,4-D-ESTER (4EC)	0.50	LAA	0		
	D ADJUVANT - COC (EC)	1.00	PMV	0		
7A	CLASSIC (25WG)	0.023	LAA	1	15.9	46.2
	B EXPRESS (75WG)	0.007	LAA	1		
	C (G)2,4-D-ESTER (4EC)	0.50	LAA	1		
	D ADJUVANT - COC (EC)	1.00	PMV	1		
8A	CLASSIC (25WG)	0.021	LAA	0	17.6	51.2
	B»AUTHORITY (75DF)	0.103	LAA	0		
	C EXPRESS (75WG)	0.007	LAA	0		
	D (G)2,4-D-ESTER (4EC)	0.50	LAA	0		
	E ADJUVANT - COC (EC)	1.00	PMV	0		
9A	CLASSIC (25WG)	0.021	LAA	1	16.7	48.6
	B»AUTHORITY (75DF)	0.103	LAA	1		
	C EXPRESS (75WG)	0.007	LAA	1		
	D (G)2,4-D-ESTER (4EC)	0.50	LAA	1		
	E ADJUVANT - COC (EC)	1.00	PMV	1		
10A	CLASSIC (25WG)	0.016	LAA	0	16.4	47.6
	B EXPRESS (75WG)	0.005	LAA	0		
	C (G)2,4-D-ESTER (4EC)	0.50	LAA	0		
	D ADJUVANT - COC (EC)	1.00	PMV	0		
11A	CLASSIC (25WG)	0.016	LAA	1	15.6	45.3
	B EXPRESS (75WG)	0.005	LAA	1		
	C (G)2,4-D-ESTER (4EC)	0.50	LAA	1		
	D ADJUVANT - COC (EC)	1.00	PMV	1		
12A	CLASSIC (25WG)	0.015	LAA	0	16.4	47.6
	B»AUTHORITY (75DF)	0.073	LAA	0		
	C EXPRESS (75WG)	0.005	LAA	0		
	D (G)2,4-D-ESTER (4EC)	0.50	LAA	0		
	E ADJUVANT - COC (EC)	1.00	PMV	0		

TITLE: FALL VERSUS SPRING KNOCK-DOWN PROGRAMS FOR FULL-SEASON NO-TILL SOYBEANS

TRT TREATMENT NUM COMPONENT	DOSAGE			011 RAW		011 CALC	
	RATE	UNIT	TM	PL	SD	PL	SD
13A CLASSIC (25WG)	0.015	LAA	1	14.9		43.2	
B»AUTHORITY (75DF)	0.073	LAA	1				
C EXPRESS (75WG)	0.005	LAA	1				
D (G)2,4-D-ESTER (4EC)	0.50	LAA	1				
E ADJUVANT - COC (EC)	1.00	PMV	1				
14A»ROUNDUP WEATHER MAX (5.5 SL)	1.00	LAA	0	17.9		51.9	
B (G)2,4-D-ESTER (4EC)	0.50	LAA	0				
15A»ROUNDUP WEATHER MAX (5.5 SL)	1.00	LAA	1	15.5		45.1	
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1				
16A UNTREATED CHECK	0.00	NA	1	17.1		49.8	
				LSD (0.05)		3.00	8.77
				SIGNIFICANCE OF F		ns	ns
				STANDARD DEVIATION		1.48	4.29
				COEFFICIENT OF VARIANCE		11.00	11.00
				DAT APPLICATION # 01 TIMINGS (00)		315	315
				DAT APPLICATION # 02 TIMINGS (01)		196	196

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / PREPLANT - FALL 12-23-2003(1)
01 = PREPLA / PREPLANT - LATE WINTER - 45DPP 04-20-2004(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 %	04-20-2004	01	P	STEME	65	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
002	POAAN	CON %	04-20-2004	03	P	POAAN	65	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
003	TAROF	CON %	04-20-2004	04	P	TAROF	65	RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
004	STEME	CON %	05-19-2004	01	P	STEME		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
005	POAAN	CON %	05-19-2004	03	P	POAAN		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
006	TAROF	CON %	05-19-2004	04	P	TAROF		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
007	ERICA	CON %	05-19-2004	02	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
008	ERICA	CON %	06-07-2004	02	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
009	PANDI	CON %	06-07-2004	05	P	PANDI		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
010	ERICA	CON %	07-14-2004	02	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
011	YIELD	LB/PLOT	11-02-2004	06	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 06 = DEKALB CX 44-51RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

06 = DEKALB CX 44-51RR

* STAGE CODE

65 = FULL FLOWERING; 50% OF FLOWERS OPEN, FIRST PETALS CAN FALL OR DRY

* USER DEFINED CALCULATIONS

US 005/04/01 001 WU--- 011 -- {RAW}*(2.904)

US 005/04/01 001 WU--- 011 -- {RAW}*(2.904)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 005/04/01 001 WV ALTERNATE ID#: WY 22 2004
PROTOCOL#: US 005/04/01 ALTERNATE ID#: US 005/04/01
CREATED BY: US RITTER R REVISED: 10-15-2004 COMPLETED: Y
TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II

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
COUNTY: 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: 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

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
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 05/24/2004. Variety - DeKalb 44-51RR.
 2. Post applications made 06/16/2004.
 3. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	06-16-04	USA
TIME - BEGIN	12:00	24H
TIME - END	13:00	24H
AIR TEMPERATURE	82	F
% REL. HUMIDITY	65	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	80/4.00	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

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II

CREATED: 06-11-2004 REVISED: 10-15-2004 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	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	0	100	100	88	100	
3A»ROUNDUP WEATHER MAX (4.5AE) B CLASSIC (25WG)	0.773 0.005	LAA LAA	0 0	0	100	100	88	100	
4A»ROUNDUP WEATHER MAX (4.5AE) B»FIRSTRATE (84 WG)	0.773 0.016	LAA LAA	0 0	0	100	100	83	100	
5A»ROUNDUP WEATHER MAX (4.5AE) B»HARMONY GT (75WG)	0.773 0.004	LAA LAA	0 0	0	100	100	78	100	
6A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	0	100	100	82	100	
7A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG)	0.781 0.005	LAA LAA	0 0	0	100	100	73	100	
8A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG)	0.781 0.016	LAA LAA	0 0	0	100	100	80	100	
9A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG)	0.781 0.004	LAA LAA	0 0	0	100	100	82	100	
10A»GF-1279 (4.0AE)	0.75	LAA	0	0	100	100	78	100	
11A»GF-1279 (4.0AE) B CLASSIC (25WG)	0.75 0.005	LAA LAA	0 0	0	100	100	82	100	
12A»GF-1279 (4.0AE) B»FIRSTRATE (84 WG)	0.75 0.016	LAA LAA	0 0	0	100	100	88	100	
13A»GF-1279 (4.0AE) B»HARMONY GT (75WG)	0.75 0.004	LAA LAA	0 0	0	100	100	80	100	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSD (0.05)	0.00	0.00	0.00	11.81	0.00
				SIGNIFICANCE OF F	ns	**	**	**	**
				STANDARD DEVIATION	0.00	0.00	0.00	5.74	0.00
				COEFFICIENT OF VARIANCE	0.00	0.00	0.00	10.00	0.00
				DAT APPLICATION # 01 TIMINGS (00)	8	8	8	8	13

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II

CREATED: 06-11-2004 REVISED: 10-15-2004

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	06-29-04 P CHEAL	06-29-04 P IPOHE	07-08-04 P SORHA	07-08-04 P CHEAL	07-08-04 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	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	95	92	97	98	90	
3A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	93	100	100	95	
B CLASSIC (25WG)	0.005	LAA	0						
4A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	98	92	98	97	97	
B»FIRSTRATE (84 WG)	0.016	LAA	0						
5A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	88	98	100	90	
B»HARMONY GT (75WG)	0.004	LAA	0						
6A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	90	98	100	93	
7A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	80	98	100	85	
B CLASSIC (25WG)	0.005	LAA	0						
8A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	88	100	100	92	
B»FIRSTRATE (84 WG)	0.016	LAA	0						
9A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	100	87	97	97	85	
B»HARMONY GT (75WG)	0.004	LAA	0						
10A»GF-1279 (4.0AE)	0.75	LAA	0	100	87	97	98	92	
11A»GF-1279 (4.0AE)	0.75	LAA	0	100	90	100	100	92	
B CLASSIC (25WG)	0.005	LAA	0						
12A»GF-1279 (4.0AE)	0.75	LAA	0	100	95	98	97	95	
B»FIRSTRATE (84 WG)	0.016	LAA	0						
13A»GF-1279 (4.0AE)	0.75	LAA	0	100	88	100	100	88	
B»HARMONY GT (75WG)	0.004	LAA	0						
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSL (0.05)	2.51	9.67	4.82	4.08	10.22
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	1.22	4.70	2.34	2.00	5.00
				COEFFICIENT OF VARIANCE	1.76	7.53	3.40	2.87	7.79
				DAT APPLICATION # 01 TIMINGS (00)	13	13	22	22	22

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II

CREATED: 06-11-2004 REVISED: 10-15-2004 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	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	88	90	90	85	88	
3A»ROUNDUP WEATHER MAX (4.5AE) B CLASSIC (25WG)	0.773 0.005	LAA LAA	0 0	97	95	93	97	98	
4A»ROUNDUP WEATHER MAX (4.5AE) B»FIRSTRATE (84 WG)	0.773 0.016	LAA LAA	0 0	97	93	95	93	93	
5A»ROUNDUP WEATHER MAX (4.5AE) B»HARMONY GT (75WG)	0.773 0.004	LAA LAA	0 0	95	95	92	88	95	
6A»TOUCHDOWN TOTAL (4.17AE)	0.781	LAA	0	97	95	92	93	100	
7A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG)	0.781 0.005	LAA LAA	0 0	97	100	87	93	100	
8A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG)	0.781 0.016	LAA LAA	0 0	95	98	98	92	100	
9A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG)	0.781 0.004	LAA LAA	0 0	92	90	88	83	92	
10A»GF-1279 (4.0AE)	0.75	LAA	0	92	90	93	93	92	
11A»GF-1279 (4.0AE) B CLASSIC (25WG)	0.75 0.005	LAA LAA	0 0	97	100	97	97	97	
12A»GF-1279 (4.0AE) B»FIRSTRATE (84 WG)	0.75 0.016	LAA LAA	0 0	98	95	97	95	100	
13A»GF-1279 (4.0AE) B»HARMONY GT (75WG)	0.75 0.004	LAA LAA	0 0	97	95	90	92	100	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSD (0.05)	6.09	11.42	10.10	7.63	10.00
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	3.00	5.56	4.91	3.71	4.85
				COEFFICIENT OF VARIANCE	4.45	8.38	7.58	5.77	7.20
				DAT APPLICATION # 01 TIMINGS (00)	35	35	35	54	54

TITLE: POSTEMERGENCE COMBINATIONS FOR ROUNDUP-READY SOYBEANS - II

CREATED: 06-11-2004 REVISED: 10-15-2004 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

016 RAW
08-09-04
P IPOHE

TRT TREATMENT NUM COMPONENT	DOSAGE RATE UNIT TM	CON % 1.00 PL ALL
1A UNTREATED CHECK	0.00 NA 0	0
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 0	100
3A»ROUNDUP WEATHER MAX (4.5AE) B CLASSIC (25WG)	0.773 LAA 0 0.005 LAA 0	100
4A»ROUNDUP WEATHER MAX (4.5AE) B»FIRSTRATE (84 WG)	0.773 LAA 0 0.016 LAA 0	97
5A»ROUNDUP WEATHER MAX (4.5AE) B»HARMONY GT (75WG)	0.773 LAA 0 0.004 LAA 0	100
6A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 0	98
7A»TOUCHDOWN TOTAL (4.17AE) B CLASSIC (25WG)	0.781 LAA 0 0.005 LAA 0	100
8A»TOUCHDOWN TOTAL (4.17AE) B»FIRSTRATE (84 WG)	0.781 LAA 0 0.016 LAA 0	100
9A»TOUCHDOWN TOTAL (4.17AE) B»HARMONY GT (75WG)	0.781 LAA 0 0.004 LAA 0	100
10A»GF-1279 (4.0AE)	0.75 LAA 0	97
11A»GF-1279 (4.0AE) B CLASSIC (25WG)	0.75 LAA 0 0.005 LAA 0	100
12A»GF-1279 (4.0AE) B»FIRSTRATE (84 WG)	0.75 LAA 0 0.016 LAA 0	100
13A»GF-1279 (4.0AE) B»HARMONY GT (75WG)	0.75 LAA 0 0.004 LAA 0	100
14A UNTREATED CHECK	0.00 NA 0	0
LSD (0.05)		3.92
SIGNIFICANCE OF F		**
STANDARD DEVIATION		1.91
COEFFICIENT OF VARIANCE		2.74
DAT APPLICATION # 01 TIMINGS (00)		54

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-16-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	GLXMA	PHYTO %	06-24-2004	01	P	GLXMA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	SORHA	CON %	06-24-2004	02	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	06-24-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	IPOHE	CON %	06-24-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	SORHA	CON %	06-29-2004	02	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	CHEAL	CON %	06-29-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	IPOHE	CON %	06-29-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	SORHA	CON %	07-08-2004	02	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	CHEAL	CON %	07-08-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	IPOHE	CON %	07-08-2004	03	P	IPOHE		RAW	ALL	CON	%	---	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	CTR1	SS	NOTE
011	SORHA	CON %	07-21-2004	02	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	CHEAL	CON %	07-21-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	IPOHE	CON %	07-21-2004	03	P	IPOHE		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	SORHA	CON %	08-09-2004	02	P	SORHA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
015	CHEAL	CON %	08-09-2004	04	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
016	IPOHE	CON %	08-09-2004	03	P	IPOHE		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 003/03/01 001 HF ALTERNATE ID#: HF 06 2003
 PROTOCOL#: US 003/03/01 ALTERNATE ID#: 2003 HF PROTOCOL
 CREATED BY: US RITTER R
 CREATED: 05-28-2003 REVISED: 11-24-2004 COMPLETED: Y
 TITLE: DOCK CONTROL IN GRASS PASTURES - STRIP TRIAL
 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: 62 TILLAGE: NA
 % SILT: 25 PH: 6.8
 % CLAY: 13 CEC: 8.3
 TEXTURE: SL % OM: 2.2

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 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: 70.00 FT

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. This is non-replicated strip trial. Plots are 10' X 70'.
2. Treatments applied 05/30/2003.
3. Study re-evaluated for regrowth in 2004 and then abandoned.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-30-03	USA
TIME - BEGIN	15:30	24H
TIME - END	16:00	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	80	
WIND DIRECTION	WEST	
WIND SPEED	5.0	M/H
CLOUD COVER	HAZY SUN	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	78/4.00	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 - SPRING

* NOZZLE DESCRIPTION
01 = SS-8003

01 P RUMOB - DOCK, BROADLEAF

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
05-30-2003	65	LOW	1.00 SQY	3.00	4.00	3.50 IN	TUR	

* STAGE CODE -- GENERAL

65 = FULL FLOWERING; 50% OF FLOWERS OPEN, FIRST PETALS CAN FALL OR DRY

TITLE: DOCK CONTROL IN GRASS PASTURES - STRIP TRIAL
CREATED: 05-28-2003 **REVISED:** 11-24-2004 **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 70.00 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
001 RAW				1.00	1.00	1.00	1.00	1.00
06-09-03								
P RUMOB								
002 RAW								
07-15-03								
P RUMOB								
003 RAW								
07-30-03								
P RUMOB								
004 RAW								
06-04-04								
P RUMOB								
005 RAW								
06-24-04								
P RUMOB								
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A CLARITY (4SL)	0.50	LAA	0	35	50	30	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
3A (G)2,4-D-ESTER (4EC)	0.50	LAA	0	30	80	50	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
4A CLARITY (4SL)	0.50	LAA	0	35	90	80	30	30
B (G)2,4-D-ESTER (4EC)	0.50	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
5A»DISTINCT (70WG)	0.175	LAA	0	35	90	70	30	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
6A»DISTINCT (70WG)	0.263	LAA	0	35	90	70	30	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
7A»HARMONY GT (75WG)	0.023	LAA	0	60	95	100	80	85
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
8A»CIMARRON (60WG)	0.009	LAA	0	60	95	100	100	95
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
9A»CIMARRON (60WG)	0.019	LAA	0	65	92	100	100	95
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
10A»RANGE STAR (3.88SL)	0.485	LAA	0	30	80	50	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
11A»RANGE STAR (3.88SL)	0.97	LAA	0	75	95	85	100	95
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
12A»CIMARRON (60WG)	0.009	LAA	0	50	95	100	100	95
B»RANGE STAR (3.88SL)	0.485	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
13A»CIMARRON (60WG)	0.019	LAA	0	65	95	100	100	100
B»RANGE STAR (3.88SL)	0.97	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
14A»CIMARRON (60WG)	0.0375	LAA	0	75	95	100	100	100
B»RANGE STAR (3.88SL)	1.94	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
LSD (0.05)				0.00	2.59	0.00	0.00	0.00
SIGNIFICANCE OF F				**	**	**	**	**
STANDARD DEVIATION				0.00	1.26	0.00	0.00	0.00
COEFFICIENT OF VARIANCE				0.00	1.89	0.00	0.00	0.00
DAT APPLICATION # 01 TIMINGS (00)				10	46	61	371	391

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - SPRING 05-30-2003(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	RUMOB	CON %	06-09-2003	01	P	RUMOB		RAW	ALL	CON %	H		1.00 PL	NO	0001	0	N
002	RUMOB	CON %	07-15-2003	01	P	RUMOB		RAW	ALL	CON %	H		1.00 PL	NO	0001	0	N
003	RUMOB	CON %	07-30-2003	01	P	RUMOB		RAW	ALL	CON %	H		1.00 PL	NO	0001	0	N

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HG ALTERNATE ID#: HF 07 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: 2003 HF PROTOCOL
 CREATED BY: US RITTER R
 CREATED: 09-15-2003 REVISED: 10-08-2004 COMPLETED: Y
 TITLE: HERBICIDE PROGRAMS FOR 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
 COUNTY: PRINCE GEORGE'S ZIP: 20705
 COUNTRY: UNITED STATES
 WEATHER SITE: HF -- HAYDEN FARM DISTANCE TO TRIAL: 1000.0 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: MEDSA - ALFALFA
 % 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. Dormant applications made 03/09/2004. Alfalfa had broken dormancy.
2. First cutting made 05/06/2004.
3. Second cutting made 06/04/2004.
4. Third cutting made 07/09/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	03-09-04	USA
TIME - BEGIN	16:00	24H
TIME - END	17:00	24H
AIR TEMPERATURE	53	F
% REL.HUMIDITY	35	
WIND DIRECTION	NORTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	48/4.00	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

01 P MEDSA - ALFALFA
 TARGET: CROP SITE: FG POPULATION: 20.00 LPA PLANTED: 09-06-2002
 PLANTING DEPTH: 1.0 IN ROW WIDTH: 6.0 IN
 INFESTATION DATE: - - METHOD: NA
 STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 03-09-2004 12 MED 20.00 LPA 1.00 1.00 1.00 IN TUR

02 P VERAR - SPEEDWELL, CORN
 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
 03-09-2004 55 LOW 3.00 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
 03-09-2004 --- --- IND : : . IN ---
 04-05-2004 --- --- IND : : . IN ---

* STAGE CODE -- GENERAL
 --- = TO BE SELECTED
 12 = 2ND TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
 55 = FIRST FLOWERS VISIBLE (STILL CLOSED); MID-HEADING (50% EMERGED)

TITLE: HERBICIDE PROGRAMS FOR ALFALFA - DORMANT APPLICATIONS
CREATED: 09-15-2003 **REVISED:** 10-08-2004 **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
				03-18-04	03-18-04	03-25-04	03-25-04	04-08-04
				P MEDSA	P VERAR	P MEDSA	P VERAR	P MEDSA
				VAR 01		VAR 01		VAR 01
				PHY %	CON %	PHY %	CON %	PHY %
				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 PURSUIT DG (70WG)	0.047	LAA	0	0	48	0	60	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
3A PURSUIT DG (70WG)	0.063	LAA	0	0	52	0	62	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
4A PURSUIT DG (70WG)	0.095	LAA	0	0	60	0	70	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
5A»RAPTOR (1AS)	0.03	LAA	0	0	40	0	68	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
6A»RAPTOR (1AS)	0.039	LAA	0	0	50	0	80	3
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
7A»RAPTOR (1AS)	0.047	LAA	0	0	55	0	75	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
8A SENCOR DF (75WG)	0.25	LAA	0	0	30	3	77	3
9A SENCOR DF (75WG)	0.375	LAA	0	0	27	10	85	0
10A SENCOR DF (75WG)	0.50	LAA	0	0	30	10	83	3
11A»GRAMOXONE MAX (3L)	0.28	LAA	0	75	90	23	92	7
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
12A»GRAMOXONE MAX (3L)	0.49	LAA	0	83	100	60	100	57
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
13A»GRAMOXONE MAX (3L)	0.75	LAA	0	90	100	60	100	50
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
14A»HARMONY GT (75WG)	0.023	LAA	0	0	20	0	68	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
15A»HARMONY GT (75WG)	0.031	LAA	0	0	20	0	70	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
16A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
		LSD (0.05)		1.20	14.43	2.76	8.32	6.70
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		0.589	7.06	1.35	4.07	3.28
		COEFFICIENT OF VARIANCE		4.65	19.18	15.90	7.32	52.40
		DAT APPLICATION # 01 TIMINGS (00)		9	9	16	16	30

TITLE: HERBICIDE PROGRAMS FOR ALFALFA - DORMANT APPLICATIONS
 CREATED: 09-15-2003 REVISED: 10-08-2004 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			CON %		VAR 01	VAR 01	VAR 01
		RATE	UNIT	TM	PL ALL	PL ALL	YLD LB PL ALL	YLD TNS A ALL	YLD LB PL ALL
					006 RAW 04-08-04 P VERAR	007 RAW 04-08-04 P STEME	008 RAW 05-06-04 P MEDSA	008 CALC 05-06-04 P MEDSA	009 RAW 06-04-04 P MEDSA
1A	UNTREATED CHECK	0.00	NA	0	0	0	17.5	2.1	12.2
2A	PURSUIT DG (70WG)	0.047	LAA	0	77	90	14.2	1.7	8.7
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
3A	PURSUIT DG (70WG)	0.063	LAA	0	82	90	13.8	1.7	10.3
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
4A	PURSUIT DG (70WG)	0.095	LAA	0	88	93	14.8	1.8	9.5
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
5A»	RAPTOR (1AS)	0.03	LAA	0	82	88	14.8	1.8	11.2
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
6A»	RAPTOR (1AS)	0.039	LAA	0	85	90	11.7	1.4	7.7
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
7A»	RAPTOR (1AS)	0.047	LAA	0	83	83	13.8	1.7	10.0
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
8A	SENCOR DF (75WG)	0.25	LAA	0	85	77	12.3	1.5	8.5
9A	SENCOR DF (75WG)	0.375	LAA	0	95	85	15.3	1.8	13.3
10A	SENCOR DF (75WG)	0.50	LAA	0	93	93	13.7	1.6	10.2
11A»	GRAMOXONE MAX (3L)	0.28	LAA	0	92	95	15.2	1.8	14.5
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
12A»	GRAMOXONE MAX (3L)	0.49	LAA	0	100	100	8.8	1.1	9.8
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
13A»	GRAMOXONE MAX (3L)	0.75	LAA	0	100	100	8.7	1.1	9.7
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
14A»	HARMONY GT (75WG)	0.023	LAA	0	73	77	13.3	1.6	9.3
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
15A»	HARMONY GT (75WG)	0.031	LAA	0	75	80	13.5	1.6	10.5
	B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
16A	UNTREATED CHECK	0.00	NA	0	0	0	17.8	2.1	12.5
					LSL (0.05)		7.90	9.35	5.28
					SIGNIFICANCE OF F		**	**	ns
					STANDARD DEVIATION		3.87	4.58	2.58
					COEFFICIENT OF VARIANCE		6.27	7.22	23.09
					DAT APPLICATION # 01 TIMINGS (00)		30	30	58
							58	58	87

TITLE: HERBICIDE PROGRAMS FOR ALFALFA - DORMANT APPLICATIONS
 CREATED: 09-15-2003 REVISED: 10-08-2004 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			009 CALC	010 RAW	010 CALC	
				RATE	UNIT	TM	06-04-04	07-09-04	07-09-04	
							P MEDSA	P MEDSA	P MEDSA	
							VAR 01	VAR 01	VAR 01	
							YLD TNS	YLD LB	YLD TNS	
							1.00	1.00	1.00	
							A ALL	PL ALL	A ALL	
1A	UNTREATED CHECK			0.00	NA	0	1.5	16.0	1.9	
2A	PURSUIT DG (70WG)			0.047	LAA	0	1.0	12.8	1.5	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
3A	PURSUIT DG (70WG)			0.063	LAA	0	1.3	16.5	2.0	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
4A	PURSUIT DG (70WG)			0.095	LAA	0	1.1	15.8	1.9	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
5A»	RAPTOR (1AS)			0.03	LAA	0	1.4	15.0	1.8	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
6A»	RAPTOR (1AS)			0.039	LAA	0	0.9	13.2	1.6	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
7A»	RAPTOR (1AS)			0.047	LAA	0	1.2	14.3	1.7	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
8A	SENCOR DF (75WG)			0.25	LAA	0	1.0	10.3	1.2	
9A	SENCOR DF (75WG)			0.375	LAA	0	1.6	16.2	1.9	
10A	SENCOR DF (75WG)			0.50	LAA	0	1.2	14.0	1.7	
11A»	GRAMOXONE MAX (3L)			0.28	LAA	0	1.8	19.3	2.3	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
12A»	GRAMOXONE MAX (3L)			0.49	LAA	0	1.2	10.8	1.3	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
13A»	GRAMOXONE MAX (3L)			0.75	LAA	0	1.2	14.0	1.7	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
14A»	HARMONY GT (75WG)			0.023	LAA	0	1.1	14.5	1.7	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
15A»	HARMONY GT (75WG)			0.031	LAA	0	1.3	16.2	1.9	
	B SURFACTANT - NON-IONIC (SL)			0.25	PMV	0				
16A	UNTREATED CHECK			0.00	NA	0	1.5	15.3	1.8	
							LSD (0.05)	0.667	6.77	0.806
							SIGNIFICANCE OF F	ns	ns	ns
							STANDARD DEVIATION	0.327	3.32	0.394
							COEFFICIENT OF VARIANCE	31.60	27.72	27.51
							DAT APPLICATION # 01 TIMINGS (00)	87	122	122

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - DORMANT 03-09-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	MEDSA	PHY %	03-18-2004	01	P	MEDSA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	VERAR	CON %	03-18-2004	02	P	VERAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	MEDSA	PHY %	03-25-2004	01	P	MEDSA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
004	VERAR	CON %	03-25-2004	02	P	VERAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	MEDSA	PHY %	04-08-2004	01	P	MEDSA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N

TITLE: HERBICIDE PROGRAMS FOR 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
006	VERAR	CON %	04-08-2004	02	P	VERAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	STEME	CON %	04-08-2004	03	P	STEME		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	MEDSA	YLD/PLOT	05-06-2004	01	P	MEDSA		RAW	ALL	YLD	LB	H	1.00 PL	UDC	0001	0	N
	MEDSA	YLD/ACRE						CALC	ALL	YLD	TNS	H	1.00 A				
009	MEDSA	YLD/PLOT	06-04-2004	01	P	MEDSA		RAW	ALL	YLD	LB	H	1.00 PL	UDC	0001	0	N
	MEDSA	YLD/ACRE						CALC	ALL	YLD	TNS	H	1.00 A				
010	MEDSA	YLD/PLOT	07-09-2004	01	P	MEDSA		RAW	ALL	YLD	LB	H	1.00 PL	UDC	0001	0	N
	MEDSA	TNS/ACRE						CALC	ALL	YLD	TNS	H	1.00 A				

* VARIETY CODES

VAR 01 = PIONEER 54V54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 54V54

* USER DEFINED CALCULATIONS

US 003/04/01 001 HG--- 008 -- {RAW}*(0.12)

US 003/04/01 001 HG--- 008 -- {RAW}*(0.12)

US 003/04/01 001 HG--- 009 -- {RAW}*(0.12)

US 003/04/01 001 HG--- 009 -- {RAW}*(0.12)

US 003/04/01 001 HG--- 010 -- {RAW}*(0.12)

US 003/04/01 001 HG--- 010 -- {RAW}*(0.12)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HJ ALTERNATE ID#: HF 10 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: 2003 HF PROTOCOL
 CREATED BY: US RITTER R
 CREATED: 09-15-2003 REVISED: 10-08-2004 COMPLETED: Y
 TITLE: USE OF CLEARFIELD WHEAT FOR ITALIAN RYEGRASS CONTROL
 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: TRZAW - WHEAT, WINTER
 % RESIDUE: 0
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 15.00 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 10/25/2003. Variety AgriPro AP112CL.
2. Italian ryegrass planted 10/26/2003.
3. Ground received 5,000 gal/acre of liquid manure on 10/08/2003.
4. Preemergence treatments applied 11/04/2003.
5. Early winter treatments applied 12/22/2003.
6. Late winter treatments applied 03/09/2004.
7. Study harvested 06/22/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	11-04-03	12-22-04	03-09-04	USA
TIME - BEGIN	15:30	15:00	15:00	24H
TIME - END	16:00	16:00	16:00	24H
AIR TEMPERATURE	68	60	55	F
% REL. HUMIDITY	40	30	30	
WIND DIRECTION	NORTHWEST	NORTHWEST	NORTHWEST	
WIND SPEED	3.0	3.0	3.0	M/H
CLOUD COVER	CLEAR	CLEAR	CLOUDY	
DEW	NO	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	63/4.00	54/4.00	48/4.00	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 / POSTEMERGENCE - EARLY WINTER
02 = POSPOS / POSTEMERGENCE - LATE WINTER

* NOZZLE DESCRIPTION

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

01 P TRZAW - WHEAT, WINTER

CULTIVAR: AP112CL

TARGET: CROP SITE: FG POPULATION: 9.00 FTR PLANTED: 10-25-2003

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
10-25-2003	00	MED	9.00 FTR	.	.	. IN	---	
11-04-2003	00	MED	9.00 FTR	.	.	. IN	NA	
12-22-2003	13	MED	9.00 FTR	3.00	3.00	3.00 IN	TUR	
03-09-2004	13	MED	9.00 FTR	3.00	3.00	3.00 IN	TUR	
12-22-2004	---	---	IND	.	.	. IN	---	

02 P LOLMU - RYEGRASS, ITALIAN

TARGET: PEST SITE: FG POPULATION: 20.00 LPA PLANTED: 10-26-2003

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
10-26-2003	00	MED	20.00 LPA	.	.	. IN	---	
11-04-2003	00	MED	20.00 LPA	.	.	. IN	NA	
12-22-2003	13	MED	12.00 SQF	2.00	2.00	2.00 IN	TUR	
03-09-2004	13	MED	12.00 SQF	2.00	2.00	2.00 IN	TUR	
12-22-2004	---	---	IND	.	.	. IN	---	

*** STAGE CODE -- CEREALS**

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

*** STAGE CODE -- GENERAL GRASS**

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

TITLE: USE OF CLEARFIELD WHEAT FOR ITALIAN RYEGRASS CONTROL
 CREATED: 09-15-2003 REVISED: 10-08-2004 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	002 RAW 03-17-04 P TRZAW		003 RAW 03-17-04 P LOLMU		004 RAW 03-30-04 P TRZAW		005 RAW 03-30-04 P LOLMU		006 RAW 04-13-04 P TRZAW	
		VAR 01 PHY %		CON %		VAR 01 PHY %		CON %		VAR 01 PHY %	
		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 1	0	0	0	0	0	0	0	0	0	0
2A»BEYOND (1AS)	0.031 LAA 1	18	97	12	100	12	100	12	100	12	12
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
C FERTILIZER - 28%UAN	2.50 PMV 1										
3A»BEYOND (1AS)	0.039 LAA 1	35	100	22	100	22	100	22	100	22	17
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
C FERTILIZER - 28%UAN	2.50 PMV 1										
4A»BEYOND (1AS)	0.031 LAA 2	0	10	20	55	20	55	20	55	20	22
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 2										
C FERTILIZER - 28%UAN	2.50 PMV 2										
5A»BEYOND (1AS)	0.039 LAA 2	0	10	5	60	5	60	5	60	5	10
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 2										
C FERTILIZER - 28%UAN	2.50 PMV 2										
6A»BEYOND (1AS)	0.031 LAA 1	10	98	45	100	45	100	45	100	45	17
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
C FERTILIZER - 28%UAN	2.50 PMV 1										
D»BEYOND (1AS)	0.031 LAA 2										
E SURFACTANT - NON-IONIC (SL)	0.25 PMV 2										
F FERTILIZER - 28%UAN	2.50 PMV 2										
7A»BEYOND (1AS)	0.031 LAA 1	25	98	25	100	25	100	25	100	25	25
B HARMONY EXTRA (75WG)	0.023 LAA 1										
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
D FERTILIZER - 28%UAN	2.50 PMV 1										
8A»BEYOND (1AS)	0.031 LAA 2	0	10	23	55	23	55	23	55	23	33
B HARMONY EXTRA (75WG)	0.023 LAA 2										
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 2										
D FERTILIZER - 28%UAN	2.50 PMV 2										
9A»BAS 777 (6SL)	0.28 LAA 1	23	95	23	97	23	97	23	97	23	45
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
C FERTILIZER - 28%UAN	2.50 PMV 1										
10A»BAS 777 (6SL)	0.35 LAA 1	27	93	17	97	17	97	17	97	17	17
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
C FERTILIZER - 28%UAN	2.50 PMV 1										
11A»BAS 777 (6SL)	0.28 LAA 2	0	10	20	62	20	62	20	62	20	27
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 2										
C FERTILIZER - 28%UAN	2.50 PMV 2										
12A»BAS 777 (6SL)	0.35 LAA 2	0	0	20	52	20	52	20	52	20	22
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 2										
C FERTILIZER - 28%UAN	2.50 PMV 2										
13A»PROWL H20 (3.8CS)	1.00 LAA 0	7	77	7	75	7	75	7	75	7	7
14A»HOELON (3EC)	1.00 LAA 1	25	98	32	100	32	100	32	100	32	30
B ADJUVANT - COC (EC)	1.00 QMA 1										
15A»HOELON (3EC)	1.00 LAA 2	0	7	13	67	13	67	13	67	13	20
B ADJUVANT - COC (EC)	1.00 QMA 2										
16A UNTREATED CHECK	0.00 NA 2	0	0	0	0	0	0	0	0	0	0
	LSL (0.05)	9.00	7.85	25.00	11.25	25.00	11.25	25.00	11.25	25.00	25.20
	SIGNIFICANCE OF F	**	**	ns	**	ns	**	ns	**	ns	ns
	STANDARD DEVIATION	4.42	3.85	12.24	5.51	12.24	5.51	12.24	5.51	12.24	12.34
	COEFFICIENT OF VARIANCE	51.00	9.38	84.67	9.66	84.67	9.66	84.67	9.66	84.67	80.18
	DAT APPLICATION # 01 TIMINGS (00)	134	134	147	147	147	147	147	147	147	161
	---	---	---	---	---	---	---	---	---	---	---

TITLE: USE OF CLEARFIELD WHEAT FOR ITALIAN RYEGRASS CONTROL
DAT APPLICATION # 03 TIMINGS (02) 8 8 21 21 35

TITLE: USE OF CLEARFIELD WHEAT FOR ITALIAN RYEGRASS CONTROL
CREATED: 09-15-2003 **REVISED:** 10-08-2004 **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 % PL ALL	VAR 01 PHY % PL ALL	CON % PL ALL	VAR 01 YLD BU A SD	
	RATE	UNIT	TM					
1A UNTREATED CHECK	0.00	NA	1	0	0	0	31.5	
2A»BEYOND (1AS)	0.031	LAA	1	100	7	100	71.5	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
C FERTILIZER - 28%UAN	2.50	PMV	1					
3A»BEYOND (1AS)	0.039	LAA	1	100	5	100	64.0	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
C FERTILIZER - 28%UAN	2.50	PMV	1					
4A»BEYOND (1AS)	0.031	LAA	2	85	0	100	62.7	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
C FERTILIZER - 28%UAN	2.50	PMV	2					
5A»BEYOND (1AS)	0.039	LAA	2	87	0	100	71.8	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
C FERTILIZER - 28%UAN	2.50	PMV	2					
6A»BEYOND (1AS)	0.031	LAA	1	100	3	100	60.0	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
C FERTILIZER - 28%UAN	2.50	PMV	1					
D»BEYOND (1AS)	0.031	LAA	2					
E SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
F FERTILIZER - 28%UAN	2.50	PMV	2					
7A»BEYOND (1AS)	0.031	LAA	1	100	5	100	63.6	
B HARMONY EXTRA (75WG)	0.023	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
D FERTILIZER - 28%UAN	2.50	PMV	1					
8A»BEYOND (1AS)	0.031	LAA	2	85	10	100	58.1	
B HARMONY EXTRA (75WG)	0.023	LAA	2					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
D FERTILIZER - 28%UAN	2.50	PMV	2					
9A»BAS 777 (6SL)	0.28	LAA	1	100	3	100	63.3	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
C FERTILIZER - 28%UAN	2.50	PMV	1					
10A»BAS 777 (6SL)	0.35	LAA	1	100	7	100	59.4	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
C FERTILIZER - 28%UAN	2.50	PMV	1					
11A»BAS 777 (6SL)	0.28	LAA	2	82	8	100	54.5	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
C FERTILIZER - 28%UAN	2.50	PMV	2					
12A»BAS 777 (6SL)	0.35	LAA	2	67	15	100	49.8	
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	2					
C FERTILIZER - 28%UAN	2.50	PMV	2					
13A»PROWL H20 (3.8CS)	1.00	LAA	0	53	0	53	43.0	
14A»HOELON (3EC)	1.00	LAA	1	100	3	100	53.8	
B ADJUVANT - COC (EC)	1.00	QMA	1					
15A»HOELON (3EC)	1.00	LAA	2	97	12	100	54.1	
B ADJUVANT - COC (EC)	1.00	QMA	2					
16A UNTREATED CHECK	0.00	NA	2	0	0	0	22.9	
				LSD (0.05)	11.79	12.86	10.49	14.11
				SIGNIFICANCE OF F	**	ns	**	**
				STANDARD DEVIATION	5.77	6.30	5.14	6.91
				COEFFICIENT OF VARIANCE	9.00	157.53	7.44	15.31
				DAT APPLICATION # 01 TIMINGS (00)	161	176	176	231
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TITLE: USE OF CLEARFIELD WHEAT FOR ITALIAN RYEGRASS CONTROL
DAT APPLICATION # 03 TIMINGS (02)

35 50 50 105

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 11-04-2003(1)
01 = POSPOS / POSTEMERGENCE - EARLY WINTER 12-22-2004(2)
02 = POSPOS / POSTEMERGENCE - LATE WINTER 03-09-2004(3)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
002	TRZAW	CON %	03-17-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
003	LOLMU	CON %	03-17-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	LOLMU	CON %	03-30-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	LOLMU	CON %	03-30-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	TRZAW	PHYTO %	04-13-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
007	LOLMU	CON %	04-13-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	TRZAW	PHYTO %	04-28-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
009	LOLMU	CON %	04-28-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
001	TRZAW	BU/ACRE	06-22-2004	01	P	TRZAW		CALC	SD	YLD	BU	H	1.00 A	UDC	0001	0	N

* VARIETY CODES

VAR 01 = AP112CL

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = AP112CL

* USER DEFINED CALCULATIONS

US 003/04/01 001 HJ--- 001 -- {RAW}*(9.84)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HK ALTERNATE ID#: HF 11 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R REVISED: 10-08-2004 COMPLETED: Y
 TITLE: ITALIAN RYEGRASS CONTROL IN WHEAT
 COORDINATOR: US 001 Ron Ritter
 TRIAL TYPE: HERBICIDE
 PROJECT#2:
 RESEARCHER: RITTER AND MENBERE CONFIDENCE: TO BE SELECTED
 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: TRZAW - WHEAT, WINTER
 % 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: 16 ACTUAL SUB-BLOCKS: 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 10/25/2003. Variety - Pioneer 25R37.
2. Ryegrass planted 10/25/2003 at 20 lb/acre.
3. 5,000 gal/acre of liquid manure applied 10/08/2003.
4. Preemergence applications made 11/04/2003.
5. Early winter applications made 12/22/2003.
6. Late winter applications made 03/09/2004.
7. Study harvested 06/22/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	11-04-03	12-22-03	03-09-04	USA
TIME - BEGIN	15:30	15:00	15:00	24H
TIME - END	16:00	16:00	16:00	24H
AIR TEMPERATURE	68	60	55	F
% REL. HUMIDITY	40	30	30	
WIND DIRECTION	NORTHWEST	NORTHWEST	NORTHWEST	
WIND SPEED	3.0	3.0	3.0	M/H
CLOUD COVER	CLEAR	CLEAR	CLOUDY	
DEW	NO	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	---	
SOIL TEMP/DEPTH	63/4.00	54/4.00	48/4.00	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 / DELAYED PREEMERGENCE - WHEAT EMERGENCE
01 = POSPOS / POSTEMERGENCE - EARLY WINTER - 1 TO 3 LEAF RYEGRASS
02 = POSPOS / POSTEMERGENCE - LATE WINTER - 1 TO 2 TILLER RYEGRASS

* NOZZLE DESCRIPTION

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

01 P TRZAW - WHEAT, WINTER CULTIVAR: PIONEER 25R37
TARGET: CROP **SITE:** FG **POPULATION:** 9.00 FTR **PLANTED:** 10-25-2003
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
10-25-2003	00	MED	9.00 FTR	.	.	. IN	---	
11-04-2003	11	MED	9.00 FTR	1.00	1.00	1.00 IN	TUR	
12-22-2003	13	MED	9.00 FTR	3.00	3.00	3.00 IN	TUR	
03-09-2004	13	MED	9.00 FTR	3.00	3.00	3.00 IN	TUR	

02 P LOLMU - RYEGRASS, ITALIAN CULTIVAR: PIONEER 25R37
TARGET: PEST **SITE:** FG **POPULATION:** 20.00 LPA **PLANTED:** 10-26-2003
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
10-26-2003	00	MED	20.00 LPA	.	.	. IN	---	
11-04-2003	11	MED	12.00 SQF	0.75	0.75	0.75 IN	TUR	
12-22-2003	13	MED	12.00 SQF	2.00	2.00	2.00 IN	TUR	
03-09-2004	13	MED	12.00 SQF	2.00	2.00	2.00 IN	TUR	

03 P TRZAW - WHEAT, WINTER CULTIVAR: AP112CL
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
11-04-2003	---	---	IND	.	.	. IN	---	
12-22-2003	---	---	IND	.	.	. IN	---	
01-01-2004	00	---	IND	.	.	. IN	---	
03-09-2004	---	---	IND	.	.	. IN	---	

*** STAGE CODE -- CEREALS**

- = TO BE SELECTED
- 00 = DRY SEED (CARYOPSIS)
- 11 = FIRST LEAF UNFOLDED
- 13 = 3 LEAVES UNFOLDED

*** STAGE CODE -- GENERAL GRASS**

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

TITLE: ITALIAN RYEGRASS CONTROL IN WHEAT
CREATED: 09-15-2003 **REVISED:** 10-08-2004 **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			002 RAW	003 RAW	004 RAW	005 RAW	006 RAW	
	RATE	UNIT	TM	03-17-04 P TRZAW	03-17-04 P LOLMU	03-30-04 P TRZAW	03-30-04 P LOLMU	04-13-04 P TRZAW	
				VAR 01 PHY % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 01 PHY % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 01 PHY % 1.00 PL ALL	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»DUAL II MAGNUM (7.64EC)	0.48	LAA	0	0	100	5	100	8	
3A»DUAL II MAGNUM (7.64EC)	0.96	LAA	0	10	100	10	100	18	
4A»KIH - 485 (3.57SC)	0.06	LAA	0	8	100	13	100	20	
5A»KIH - 485 (3.57SC)	0.124	LAA	0	17	100	25	100	37	
6A»HOELON (3EC)	0.75	LAA	0	3	100	0	100	3	
7A»DEFINE (4SC)	0.28	LAA	0	12	100	15	100	25	
8A»DEFINE (4SC)	0.675	LAA	0	32	100	42	100	48	
9A»OSPREY (4.5G) B»DESTINY (MSO)	0.013 1.30	LAA NA	1 1	0	93	0	95	7	
10A»DEFINE (4SC) B»OSPREY (4.5G) C»DESTINY (MSO)	0.28 0.013 1.30	LAA LAA NA	1 1 1	0	93	0	97	5	
11A HOELON 3EC B ADJUVANT - COC (EC)	0.75 1.00	LAA QMA	1 1	0	100	0	100	3	
12A»OSPREY (4.5G) B»DESTINY (MSO)	0.013 1.30	LAA NA	2 2	0	7	0	40	3	
13A»OSPREY (4.5G) B»DESTINY (MSO) C FERTILIZER - 28%UAN	0.013 1.30 3.80	LAA NA PMA	2 2 2	0	10	5	57	7	
14A HOELON 3EC B ADJUVANT - COC (EC)	0.75 1.00	LAA QMA	2 2	0	8	3	60	15	
15A»OSPREY (4.5G) B»DESTINY (MSO) C FERTILIZER - 28%UAN	0.0267 2.60 7.60	LAA NA PMA	2 2 2	0	10	8	53	10	
16A UNTREATED CHECK	0.00	NA	2	0	0	0	0	0	
				LSLSD (0.05)	11.69	4.20	16.38	6.63	18.83
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	5.73	2.06	8.00	3.25	9.22
				COEFFICIENT OF VARIANCE	137.42	3.95	124.13	5.29	86.07
				DAT APPLICATION # 01 TIMINGS (00)	134	134	147	147	161
				DAT APPLICATION # 02 TIMINGS (01)	86	86	99	99	113
				DAT APPLICATION # 03 TIMINGS (02)	8	8	21	21	35

TITLE: ITALIAN RYEGRASS CONTROL IN WHEAT
CREATED: 09-15-2003 **REVISED:** 10-08-2004 **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			007 RAW 04-13-04 P LOLMU		008 RAW 04-28-04 P TRZAW		009 RAW 04-28-04 P LOLMU		010 RAW 05-12-04 P LOLMU		001 RAW 06-22-04 P TRZAW	
	RATE	UNIT	TM	CON % 1.00 PL ALL	VAR 01 PHY % 1.00 PL ALL	CON % 1.00 PL ALL	CON % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 01 YLD LB 1.00 PL SD				
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	2.3				
2A»DUAL II MAGNUM (7.64EC)	0.48	LAA	0	100	0	100	100	5.8					
3A»DUAL II MAGNUM (7.64EC)	0.96	LAA	0	100	3	100	100	5.5					
4A»KIH - 485 (3.57SC)	0.06	LAA	0	100	7	100	97	6.0					
5A»KIH - 485 (3.57SC)	0.124	LAA	0	100	20	100	98	5.5					
6A»HOELON (3EC)	0.75	LAA	0	100	0	100	100	5.6					
7A»DEFINE (4SC)	0.28	LAA	0	100	13	100	97	5.8					
8A»DEFINE (4SC)	0.675	LAA	0	100	33	100	100	4.8					
9A»OSPREY (4.5G)	0.013	LAA	1	100	3	100	97	6.1					
B»DESTINY (MSO)	1.30	NA	1										
10A»DEFINE (4SC)	0.28	LAA	1	100	0	100	100	6.1					
B»OSPREY (4.5G)	0.013	LAA	1										
C»DESTINY (MSO)	1.30	NA	1										
11A HOELON 3EC	0.75	LAA	1	100	0	100	97	5.4					
B ADJUVANT - COC (EC)	1.00	QMA	1										
12A»OSPREY (4.5G)	0.013	LAA	2	85	0	100	100	6.3					
B»DESTINY (MSO)	1.30	NA	2										
13A»OSPREY (4.5G)	0.013	LAA	2	87	3	100	98	5.4					
B»DESTINY (MSO)	1.30	NA	2										
C FERTILIZER - 28%UAN	3.80	PMA	2										
14A HOELON 3EC	0.75	LAA	2	93	7	100	93	5.5					
B ADJUVANT - COC (EC)	1.00	QMA	2										
15A»OSPREY (4.5G)	0.0267	LAA	2	88	3	100	100	5.5					
B»DESTINY (MSO)	2.60	NA	2										
C FERTILIZER - 28%UAN	7.60	PMA	2										
16A UNTREATED CHECK	0.00	NA	2	0	0	0	0	3.1					
				LSL (0.05)	3.00	15.37	0.00	4.90	1.17				
				SIGNIFICANCE OF F	**	**	**	**	**				
				STANDARD DEVIATION	1.46	7.53	0.00	2.40	0.571				
				COEFFICIENT OF VARIANCE	2.11	158.08	0.00	3.42	13.21				
				DAT APPLICATION # 01 TIMINGS (00)	161	176	176	190	231				
				DAT APPLICATION # 02 TIMINGS (01)	113	128	128	142	183				
				DAT APPLICATION # 03 TIMINGS (02)	35	50	50	64	105				

TITLE: ITALIAN RYEGRASS CONTROL IN WHEAT
CREATED: 09-15-2003 **REVISED:** 10-08-2004 **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			YLD BU 1.00 A SD
	RATE	UNIT	TM	
001 CALC 06-22-04 P TRZAW				
1A UNTREATED CHECK	0.00	NA	0	22.3
2A»DUAL II MAGNUM (7.64EC)	0.48	LAA	0	56.7
3A»DUAL II MAGNUM (7.64EC)	0.96	LAA	0	54.5
4A»KIH - 485 (3.57SC)	0.06	LAA	0	58.7
5A»KIH - 485 (3.57SC)	0.124	LAA	0	54.1
6A»HOELON (3EC)	0.75	LAA	0	55.4
7A»DEFINE (4SC)	0.28	LAA	0	57.4
8A»DEFINE (4SC)	0.675	LAA	0	47.2
9A»OSPREY (4.5G)	0.013	LAA	1	60.0
B»DESTINY (MSO)	1.30	NA	1	
10A»DEFINE (4SC)	0.28	LAA	1	59.7
B»OSPREY (4.5G)	0.013	LAA	1	
C»DESTINY (MSO)	1.30	NA	1	
11A HOELON 3EC	0.75	LAA	1	52.8
B ADJUVANT - COC (EC)	1.00	QMA	1	
12A»OSPREY (4.5G)	0.013	LAA	2	61.7
B»DESTINY (MSO)	1.30	NA	2	
13A»OSPREY (4.5G)	0.013	LAA	2	53.2
B»DESTINY (MSO)	1.30	NA	2	
C FERTILIZER - 28%UAN	3.80	PMA	2	
14A HOELON 3EC	0.75	LAA	2	54.4
B ADJUVANT - COC (EC)	1.00	QMA	2	
15A»OSPREY (4.5G)	0.0267	LAA	2	54.5
B»DESTINY (MSO)	2.60	NA	2	
C FERTILIZER - 28%UAN	7.60	PMA	2	
16A UNTREATED CHECK	0.00	NA	2	30.8
LSD (0.05)				11.47
SIGNIFICANCE OF F				**
STANDARD DEVIATION				5.62
COEFFICIENT OF VARIANCE				13.21
DAT APPLICATION # 01 TIMINGS (00)				231
DAT APPLICATION # 02 TIMINGS (01)				183
DAT APPLICATION # 03 TIMINGS (02)				105

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / DELAYED PREEMERGENCE - WHEAT EMERGENCE 11-04-2003(1)
 01 = POSPOS / POSTEMERGENCE - EARLY WINTER - 1 TO 3 LEAF RYEGRASS 12-22-2003(2)
 02 = POSPOS / POSTEMERGENCE - LATE WINTER - 1 TO 2 TILLER RYEGRASS 03-09-2004(3)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
002	TRZAW	CON %	03-17-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
003	LOLMU	CON %	03-17-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TITLE: ITALIAN RYEGRASS CONTROL IN WHEAT

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
004	LOLMU	CON %	03-30-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	LOLMU	CON %	03-30-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	TRZAW	PHYTO %	04-13-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
007	LOLMU	CON %	04-13-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	TRZAW	PHYTO %	04-28-2004	01	P	TRZAW		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
009	LOLMU	CON %	04-28-2004	02	P	LOLMU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	LOLMU	CON %	05-12-2004	02	P	LOLMU		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
001	TRZAW	YLD/PLOT	06-22-2004	01	P	TRZAW		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	TRZAW	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 01 = PIONEER 25R37

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = PIONEER 25R37

* USER DEFINED CALCULATIONS

US 003/04/01 001 HK--- 001 -- {RAW}*(9.84)

US 003/04/01 001 HK--- 001 -- {RAW}*(9.84)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HM ALTERNATE ID#: HF 13 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R
 CREATED: 03-09-2004 REVISED: 10-08-2004 COMPLETED: Y
 TITLE: VELPAR TANK-MIX COMPARISONS IN SEMI-DORMANT ALFALFA
 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: 1000.0 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: 8.0	ACTUAL TRTS: 12	ACTUAL SUB-BLOCKS: 12
TEXTURE: SL	% OM: 2.3		
SOIL GEN: C			
PREVIOUS CROP: MEDSA - ALFALFA			
% RESIDUE: 0			
PLOT WIDTH: 10.00 FT			
PLOT LENGTH: 15.00 FT			

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Dormant applications made 03/10/2004. Alfalfa had broken dormancy.
2. First cutting made 05/06/2004.
3. Second cutting made 06/04/2004.
4. Third cutting made 07/09/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	03-10-04	USA
TIME - BEGIN	16:00	24H
TIME - END	17:00	24H
AIR TEMPERATURE	49	F
% REL. HUMIDITY	20	
WIND DIRECTION	NORTHEAST	
WIND SPEED	5.0	M/H
CLOUD COVER	CLOUDY	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	45/4.00	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 - SEMI-DORMANT

* NOZZLE DESCRIPTION

01 = SS-8003

01 P MEDSA - ALFALFA
TARGET: CROP **SITE:** FG **CULTIVAR:** PIONEER 54V54
PLANTING DEPTH: 1.0 IN **POPULATION:** 20.00 LPA **PLANTED:** 09-06-2002
INFESTATION DATE: - - **METHOD:** NA **ROW WIDTH:** 6.0 IN
STAGE ON STAGE CODE POP.GEN. POPULATION MN SIZE MX SIZE AV SIZE CROP VIGOR NOTES
 03-10-2004 13 MED 20.00 LPA 1.00 1.00 1.00 IN TUR

02 P VERAR - SPEEDWELL, CORN
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
 03-10-2004 55 LOW 5.00 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
 03-10-2004 --- --- IND . . . IN ---
 04-05-2004 00 --- --- IND . . . IN ---

*** STAGE CODE -- GENERAL**

- = TO BE SELECTED
- 00 = DRY SEED; DORMANCY
- 13 = 3RD TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 55 = FIRST FLOWERS VISIBLE (STILL CLOSED); MID-HEADING (50% EMERGED)

TITLE: VELPAR TANK-MIX COMPARISONS IN SEMI-DORMANT ALFALFA
CREATED: 03-09-2004 **REVISED:** 10-08-2004 **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	PHY %	CON %	PHY %	CON %	PHY %	CON %	PHY %	CON %	PHY %	CON %
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	0	0	0	0	0
2A»VELPAR (75WG)	0.375	LAA	0	0	0	20	88	10					
B»KARMEX (80DF)	0.60	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
3A»VELPAR (75WG)	0.50	LAA	0	0	7	20	90	12					
B»KARMEX (80DF)	0.60	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
4A»VELPAR (75WG)	0.375	LAA	0	0	7	32	88	10					
B»KARMEX (80DF)	0.80	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
5A»VELPAR (75WG)	0.50	LAA	0	0	0	23	92	13					
B»KARMEX (80DF)	0.80	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
6A»VELPAR (75WG)	0.75	LAA	0	0	7	30	88	20					
B»KARMEX (80DF)	1.20	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
7A»VELPAR (75WG)	0.375	LAA	0	0	0	22	83	10					
B»SINBAR (80DF)	0.20	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
8A»VELPAR (75WG)	0.50	LAA	0	0	0	20	88	10					
B»SINBAR (80DF)	0.20	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
9A»VELPAR (75WG)	0.75	LAA	0	0	0	20	88	13					
B»SINBAR (80DF)	0.40	LAA	0										
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0										
10A»VELPAR (75WG)	0.75	LAA	0	30	88	30	100	17					
B»GRAMOXONE MAX (3L)	0.47	LAA	0										
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0										
11A SENCOR DF (75WG)	0.25	LAA	0	30	92	32	100	20					
B»GRAMOXONE MAX (3L)	0.47	LAA	0										
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0										
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0					
		LSD (0.05)		0.00	10.32	8.71	5.50	7.11					
		SIGNIFICANCE OF F		**	**	**	**	**					
		STANDARD DEVIATION		0.00	5.00	4.20	2.65	3.43					
		COEFFICIENT OF VARIANCE		0.00	36.56	24.85	4.30	37.31					
		DAT APPLICATION # 01 TIMINGS (00)		8	8	15	15	29					

TITLE: VELPAR TANK-MIX COMPARISONS IN SEMI-DORMANT ALFALFA
CREATED: 03-09-2004 **REVISED:** 10-08-2004 **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	009 RAW
	RATE	UNIT	TM	04-08-04 P VERAR	04-08-04 P STEME	05-06-04 P MEDSA	05-06-04 P MEDSA	06-04-04 P MEDSA
				CON % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 01 YLD LB 1.00 PL ALL	VAR 01 YLD TNS 1.00 A ALL	VAR 01 YLD LB 1.00 PL ALL
1A UNTREATED CHECK	0.00	NA	0	0	0	14.3	1.3	9.3
2A»VELPAR (75WG)	0.375	LAA	0	100	100	11.0	1.0	9.3
B»KARMEX (80DF)	0.60	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
3A»VELPAR (75WG)	0.50	LAA	0	100	100	9.8	0.9	8.8
B»KARMEX (80DF)	0.60	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
4A»VELPAR (75WG)	0.375	LAA	0	100	100	10.0	0.9	8.8
B»KARMEX (80DF)	0.80	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
5A»VELPAR (75WG)	0.50	LAA	0	100	100	10.0	0.9	8.5
B»KARMEX (80DF)	0.80	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
6A»VELPAR (75WG)	0.75	LAA	0	100	100	9.0	0.8	8.3
B»KARMEX (80DF)	1.20	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
7A»VELPAR (75WG)	0.375	LAA	0	100	100	11.7	1.0	10.7
B»SINBAR (80DF)	0.20	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
8A»VELPAR (75WG)	0.50	LAA	0	100	100	10.8	1.0	9.5
B»SINBAR (80DF)	0.20	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
9A»VELPAR (75WG)	0.75	LAA	0	100	100	10.8	1.0	9.5
B»SINBAR (80DF)	0.40	LAA	0					
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0					
10A»VELPAR (75WG)	0.75	LAA	0	100	100	8.7	0.8	10.0
B»GRAMOXONE MAX (3L)	0.47	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
11A SENCOR DF (75WG)	0.25	LAA	0	100	100	9.7	0.9	8.7
B»GRAMOXONE MAX (3L)	0.47	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
12A UNTREATED CHECK	0.00	NA	0	0	0	14.3	1.3	9.7
		LSD (0.05)		0.00	0.00	3.56	0.322	2.00
		SIGNIFICANCE OF F		**	**	*	ns	ns
		STANDARD DEVIATION		0.00	0.00	1.72	0.155	1.00
		COEFFICIENT OF VARIANCE		0.00	0.00	19.40	19.48	12.58
		DAT APPLICATION # 01 TIMINGS (00)		29	29	57	57	86

TITLE: VELPAR TANK-MIX COMPARISONS IN SEMI-DORMANT ALFALFA
CREATED: 03-09-2004 **REVISED:** 10-08-2004 **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			009 CALC	010 RAW	010 CALC	
	RATE	UNIT	TM	06-04-04 P MEDSA	07-09-04 P MEDSA	07-09-04 P MEDSA	
				VAR 01 YLD TNS 1.00 A ALL	VAR 01 YLD LB 1.00 PL ALL	VAR 01 YLD TNS 1.00 A ALL	
1A UNTREATED CHECK	0.00	NA	0	0.9	12.8	1.2	
2A»VELPAR (75WG)	0.375	LAA	0	0.8	11.3	1.0	
B»KARMEX (80DF)	0.60	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
3A»VELPAR (75WG)	0.50	LAA	0	0.8	12.0	1.1	
B»KARMEX (80DF)	0.60	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
4A»VELPAR (75WG)	0.375	LAA	0	0.8	11.7	1.1	
B»KARMEX (80DF)	0.80	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
5A»VELPAR (75WG)	0.50	LAA	0	0.8	10.7	0.9	
B»KARMEX (80DF)	0.80	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
6A»VELPAR (75WG)	0.75	LAA	0	0.8	11.3	1.0	
B»KARMEX (80DF)	1.20	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
7A»VELPAR (75WG)	0.375	LAA	0	1.0	13.5	1.2	
B»SINBAR (80DF)	0.20	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
8A»VELPAR (75WG)	0.50	LAA	0	0.8	12.0	1.1	
B»SINBAR (80DF)	0.20	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
9A»VELPAR (75WG)	0.75	LAA	0	0.9	12.8	1.2	
B»SINBAR (80DF)	0.40	LAA	0				
C ADJUVANT - VEGETABLE OIL	1.00	PMV	0				
10A»VELPAR (75WG)	0.75	LAA	0	0.9	12.0	1.1	
B»GRAMOXONE MAX (3L)	0.47	LAA	0				
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0				
11A SENCOR DF (75WG)	0.25	LAA	0	0.8	12.0	1.1	
B»GRAMOXONE MAX (3L)	0.47	LAA	0				
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0				
12A UNTREATED CHECK	0.00	NA	0	0.9	12.8	1.1	
				LSL (0.05)	0.17	3.00	0.276
				SIGNIFICANCE OF F	ns	ns	ns
				STANDARD DEVIATION	0.082	1.44	0.133
				COEFFICIENT OF VARIANCE	12.00	14.58	15.00
				DAT APPLICATION # 01 TIMINGS (00)	86	121	121

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - SEMI-DORMANT 03-10-2004 (1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	MEDSA	PHY %	03-18-2004	01	P	MEDSA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	VERAR	CON %	03-18-2004	02	P	VERAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	MEDSA	PHY %	03-25-2004	01	P	MEDSA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
004	VERAR	CON %	03-25-2004	02	P	VERAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TITLE: VELPAR TANK-MIX COMPARISONS IN SEMI-DORMANT ALFALFA

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
005	MEDSA	PHY %	04-08-2004	01	P	MEDSA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
006	VERAR	CON %	04-08-2004	02	P	VERAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	VERAR	CON %	04-08-2004	03	P	STEME		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	MEDSA	LB/PLOT	05-06-2004	01	P	MEDSA		RAW	ALL	YLD	LB	H	1.00 PL	UDC	0001	0	N
	MEDSA	TNS/ACRE						CALC	ALL	YLD	TNS	H	1.00 A				
009	MEDSA	LB/PLOT	06-04-2004	01	P	MEDSA		RAW	ALL	YLD	LB	H	1.00 PL	UDC	0001	0	N
	MEDSA	TNS/ACRE						CALC	ALL	YLD	TNS	H	1.00 A				
010	MEDSA	LB/PLOT	07-09-2004	01	P	MEDSA		RAW	ALL	YLD	LB	H	1.00 PL	UDC	0001	0	N
	MEDSA	TNS/ACRE						CALC	ALL	YLD	TNS	H	1.00 A				

* VARIETY CODES
VAR 01 = PIONEER 54V54

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)
01 = PIONEER 54V54

* USER DEFINED CALCULATIONS
US 003/04/01 001 HM--- 008 -- {RAW}*(0.09)
US 003/04/01 001 HM--- 008 -- {RAW}*(0.09)
US 003/04/01 001 HM--- 009 -- {RAW}*(0.09)
US 003/04/01 001 HM--- 009 -- {RAW}*(0.09)
US 003/04/01 001 HM--- 010 -- {RAW}*(0.09)
US 003/04/01 001 HM--- 010 -- {RAW}*(0.09)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HQ ALTERNATE ID#: HF 17 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-05-2004 REVISED: 10-08-2004 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

% SAND: 81 TILLAGE: NOT
 % SILT: 14 PH: 5.8
 % CLAY: 5 CEC: 5.3
 TEXTURE: SL % OM: 1.9
 SOIL GEN: C
 PREVIOUS CROP: -
 % 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 to corn on 05/15/2004. Variety - Doeblers 797 RRYG
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 05/15/2004.
7. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-15-04	USA
TIME - BEGIN	16:00	24H
TIME - END	18:00	24H
AIR TEMPERATURE	84	F
% REL. HUMIDITY	50	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	76/4.00	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
 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
 05-15-2004 00 --- IND . . . IN NA

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
 05-15-2004 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
 05-15-2004 00 --- IND . . . IN NA

04 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DOEBLER'S 797RYG
 TARGET: CROP SITE: FG POPULATION: 26500.00 IPA PLANTED: 05-15-2004
 PLANTING DEPTH: 1.7 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
 05-15-2004 00 MED 26500.00 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: 04-05-2004 **REVISED:** 10-08-2004 **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 04				
		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»DUAL II MAGNUM (7.64EC)	1.59 LAA 0	0	98	98	93	83
3A»OUTLOOK (6EC)	0.75 LAA 0	0	97	97	90	85
4A»DEFINE (4SC)	0.56 LAA 0	0	100	95	92	87
5A HARNESS (7EC)	1.97 LAA 0	0	100	98	95	90
6A»DEGREE (3.8CS)	2.00 LAA 0	0	97	95	88	77
7A»TOPNOTCH (3.2CS)	2.00 LAA 0	0	100	97	95	90
8A»BALANCE PRO (4SC)	0.07 LAA 0	0	95	88	72	68
9A PROWL 3.3EC	1.50 LAA 0	0	90	77	35	20
10A»PROWL H20 (3.8CS)	1.50 LAA 0	0	88	75	43	10
11A»KIH-485 (60WG)	0.144 LAA 0	0	100	97	92	87
12A»KIH-485 (60WG)	0.181 LAA 0	0	100	98	98	97
13A PRINCEP 4L (SC)	1.25 LAA 0	0	82	43	12	0
14A UNTREATED CHECK	0.00 NA 0	0	0	0	0	0
	LSD (0.05)	0.00	8.23	15.21	27.66	21.94
	SIGNIFICANCE OF F	ns	**	**	**	**
	STANDARD DEVIATION	0.00	4.00	7.40	13.45	10.67
	COEFFICIENT OF VARIANCE	0.00	6.00	12.00	25.49	23.07
	DAT APPLICATION # 01 TIMINGS (00)	12	12	26	38	58

TITLE: A COMPARISON OF PREEMERGENCE GRASS HERBICIDES IN CONVENTIONAL CORN
CREATED: 04-05-2004 **REVISED:** 10-08-2004 **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

006 RAW
08-11-04
P DIGSA

TRT TREATMENT NUM COMPONENT	DOSAGE RATE	UNIT	TM	CON % 1.00 PL ALL
1A UNTREATED CHECK	0.00	NA	0	0
2A»DUAL II MAGNUM (7.64EC)	1.59	LAA	0	73
3A»OUTLOOK (6EC)	0.75	LAA	0	85
4A»DEFINE (4SC)	0.56	LAA	0	80
5A HARNESS (7EC)	1.97	LAA	0	87
6A»DEGREE (3.8CS)	2.00	LAA	0	63
7A»TOPNOTCH (3.2CS)	2.00	LAA	0	78
8A»BALANCE PRO (4SC)	0.07	LAA	0	63
9A PROWL 3.3EC	1.50	LAA	0	10
10A»PROWL H20 (3.8CS)	1.50	LAA	0	0
11A»KIH-485 (60WG)	0.144	LAA	0	85
12A»KIH-485 (60WG)	0.181	LAA	0	97
13A PRINCEP 4L (SC)	1.25	LAA	0	0
14A UNTREATED CHECK	0.00	NA	0	0

LSD (0.05) 23.63
SIGNIFICANCE OF F **
STANDARD DEVIATION 11.49
COEFFICIENT OF VARIANCE 27.31
DAT APPLICATION # 01 TIMINGS (00) 88

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-15-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	ZEAMX	PHYTO %	05-27-2004	04	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	DIGSA	CON %	05-27-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	DIGSA	CON %	06-10-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	DIGSA	CON %	06-22-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HR **ALTERNATE ID#:** HF 18 2004
PROTOCOL#: US 003/04/01 **ALTERNATE ID#:** US 005/02/01
CREATED BY: US RITTER R
CREATED: 04-05-2004 **REVISED:** 10-08-2004 **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
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: 81 **TILLAGE:** NOT
% SILT: 14 **PH:** 5.8
% CLAY: 5 **CEC:** 5.3
TEXTURE: SL **% OM:** 1.9
SOIL GEN: C
PREVIOUS CROP: -
% 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 to corn on 05/15/2004. Variety - Doeblers 797 RRYG
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 05/15/2004.
7. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-15-04	USA
TIME - BEGIN	16:00	24H
TIME - END	18:00	24H
AIR TEMPERATURE	84	F
% REL.HUMIDITY	50	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	76/4.00	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
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
 05-15-2004 00 --- IND . . . IN NA

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
 05-15-2004 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
 05-15-2004 00 --- IND . . . IN NA

04 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** DOEBLER'S 797RYG
TARGET: CROP **SITE:** FG **POPULATION:** 26500.00 IPA **PLANTED:** 05-15-2004
PLANTING DEPTH: 1.7 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
 05-15-2004 00 MED 26500.00 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: 04-05-2004 REVISED: 10-08-2004 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			VAR 04				
	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
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	97	93
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	98	95
4A HARNNESS XTRA 5.6(SC)	3.36	LAA	0	0	100	100	100	97
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	0	100	100	100	98
6A»FULTIME (4CS)	3.30	LAA	0	0	100	100	98	95
7A»DEFINE (4SC)	0.56	LAA	0	0	100	98	97	95
B ATRAZINE 4L (SC)	1.25	LAA	0					
8A»BALANCE PRO (4SC)	0.07	LAA	0	0	98	95	87	72
B ATRAZINE 4L (SC)	1.25	LAA	0					
9A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	98	93
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	0	100	100	97	90
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	0	100	100	100	95
12A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	100	98	93
13A»A14224 (3.7SC)	2.78	LAA	0	0	100	100	97	93
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
		LSD (0.05)		0.00	1.30	2.51	3.27	7.71
		SIGNIFICANCE OF F		ns	**	**	**	**
		STANDARD DEVIATION		0.00	0.63	1.22	1.59	3.75
		COEFFICIENT OF VARIANCE		0.00	0.901	1.76	2.34	5.79
		DAT APPLICATION # 01 TIMINGS (00)		12	12	26	38	58

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

CREATED: 04-05-2004 REVISED: 10-08-2004 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	PL ALL	PL ALL	PL ALL
1A UNTREATED CHECK	0.00	NA	0	0	0	0
2A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	72	93	52
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	87	87	85
4A HARNESX XTRA 5.6(SC)	3.36	LAA	0	100	93	97
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	75	97	67
6A»FULTIME (4CS)	3.30	LAA	0	100	87	97
7A»DEFINE (4SC)	0.56	LAA	0	77	93	72
B ATRAZINE 4L (SC)	1.25	LAA	0			
8A»BALANCE PRO (4SC)	0.07	LAA	0	100	62	100
B ATRAZINE 4L (SC)	1.25	LAA	0			
9A»KEYSTONE (5.25SE)	3.67	LAA	0	100	88	100
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	97	90	97
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	100	92	100
12A»LUMAX (3.94 SE)	2.46	LAA	0	100	90	100
13A»A14224 (3.7SC)	2.78	LAA	0	98	92	98
14A UNTREATED CHECK	0.00	NA	0	0	0	0
				18.50	15.67	28.00
				**	**	**
				9.00	7.62	13.62
				14.00	12.29	22.00
				58	88	88

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-15-2004(1)

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 %	05-27-2004	04	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	DIGSA	CON %	05-27-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	DIGSA	CON %	06-10-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	DIGSA	CON %	06-22-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	CHEAL	CON %	07-12-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	DIGSA	CON %	08-11-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	CHEAL	CON %	08-11-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

* VARIETY CODES

VAR 04 = DOEBLER'S 797RYG

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

04 = DOEBLER'S 797RYG

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HS ALTERNATE ID#: HF 19 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-05-2004 REVISED: 10-08-2004 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

% SAND: 81 TILLAGE: NOT
 % SILT: 14 PH: 5.8
 % CLAY: 5 CEC: 5.3
 TEXTURE: SL % OM: 1.9
 SOIL GEN: C
 PREVIOUS CROP: -
 % 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 to corn on 05/15/2004. Variety - Doeblers 797 RRYG
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 05/26/2004.
7. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-26-04	USA
TIME - BEGIN	13:00	24H
TIME - END	14:00	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	35	
WIND DIRECTION	WEST	
WIND SPEED	5.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	72/4.00	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
MLX 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 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
 05-15-2004 00 --- --- IND . . . IN NA
 05-26-2004 --- --- --- IND . . . IN ---

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
 05-15-2004 00 --- --- IND . . . IN NA
 05-26-2004 13 HGH 6.00 SQF 1.00 1.00 1.00 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
 05-15-2004 00 --- --- IND . . . IN NA
 05-26-2004 --- --- --- IND . . . IN ---

04 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DOEBLER'S 797RYG

TARGET: CROP SITE: FG POPULATION: 26500.00 IPA PLANTED: 05-15-2004
 PLANTING DEPTH: 1.7 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
 05-15-2004 00 MED 26500.00 IPA . . . IN NA
 05-26-2004 13 MED 26500.00 IPA 8.00 8.00 8.00 IN TUR

05 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
 05-15-2004 00 --- --- IND . . . IN NA
 05-26-2004 14 HGH 6.00 SQF 1.00 1.00 1.00 IN TUR

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)

13 = 3 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

--- = TO BE SELECTED

00 = DRY SEED; DORMANCY

14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

13 = 3 LEAVES UNFOLDED

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - EARLY POSTEMERGENCE
CREATED: 04-05-2004 **REVISED:** 10-08-2004 **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	06-04-04 P ZEAMX	06-04-04 P DIGSA	06-04-04 P CHEAL	06-10-04 P ZEAMX	06-10-04 P DIGSA	
				VAR 04 PHY % 1.00	CON % 1.00	CON % 1.00	VAR 04 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»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	78	78	0	70	
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	65	77	0	58	
4A HARNES XTRA 5.6(SC)	3.36	LAA	0	0	87	93	0	82	
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	0	23	73	0	27	
6A»FULTIME (4CS)	3.30	LAA	0	0	63	77	0	67	
7A»DEFINE (4SC)	0.56	LAA	0	0	75	83	0	72	
B ATRAZINE 4L (SC)	1.25	LAA	0						
8A»BALANCE PRO (4SC)	0.07	LAA	0	27	95	100	7	95	
B ATRAZINE 4L (SC)	1.25	LAA	0						
9A»KEYSTONE (5.25SE)	3.67	LAA	0	0	90	87	0	85	
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	0	47	100	0	58	
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	0	70	100	0	68	
12A»LUMAX (3.94 SE)	2.46	LAA	0	3	87	100	0	80	
13A»A14224 (3.7SC)	2.78	LAA	0	10	88	100	7	82	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSD (0.05)	3.80	23.18	41.76	3.73	20.25
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	1.85	11.28	20.31	1.82	9.85
				COEFFICIENT OF VARIANCE	79.26	22.27	32.60	233.49	20.00
				DAT APPLICATION # 01 TIMINGS (00)	9	9	9	15	15

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - EARLY POSTEMERGENCE
CREATED: 04-05-2004 **REVISED:** 10-08-2004 **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	57	62	57	23	53	
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	57	53	42	10	32	
4A HARNES XTRA 5.6(SC)	3.36	LAA	0	87	62	73	33	73	
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	67	13	67	7	67	
6A»FULTIME (4CS)	3.30	LAA	0	63	28	43	12	43	
7A»DEFINE (4SC)	0.56	LAA	0	73	58	67	43	67	
B ATRAZINE 4L (SC)	1.25	LAA	0						
8A»BALANCE PRO (4SC)	0.07	LAA	0	100	90	100	80	100	
B ATRAZINE 4L (SC)	1.25	LAA	0						
9A»KEYSTONE (5.25SE)	3.67	LAA	0	67	70	65	53	60	
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	100	57	97	28	97	
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	100	62	97	33	97	
12A»LUMAX (3.94 SE)	2.46	LAA	0	100	67	100	27	100	
13A»A14224 (3.7SC)	2.78	LAA	0	100	70	100	47	100	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSD (0.05)	56.88	30.57	63.24	37.31	63.85
				SIGNIFICANCE OF F	**	**	*	**	*
				STANDARD DEVIATION	27.67	14.87	30.76	18.15	31.06
				COEFFICIENT OF VARIANCE	48.91	36.86	58.17	78.45	59.95
				DAT APPLICATION # 01 TIMINGS (00)	15	27	27	47	47

TITLE: A COMPARISON OF PRE-PACKS AND TANK-MIXES FOR CONVENTIONAL CORN - EARLY POSTEMERGENCE
 CREATED: 04-05-2004 REVISED: 10-08-2004 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

011 RAW
08-11-04
P DIGSA

TRT TREATMENT NUM COMPONENT	DOSAGE			CON %	
	RATE	UNIT	TM	PL	ALL
1A UNTREATED CHECK	0.00	NA	0	0	
2A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	20	
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	
4A HARNES XTRA 5.6(SC)	3.36	LAA	0	0	
5A»DEGREE XTRA (4 CS)	3.70	LAA	0	0	
6A»FULTIME (4CS)	3.30	LAA	0	0	
7A»DEFINE (4SC)	0.56	LAA	0	10	
B ATRAZINE 4L (SC)	1.25	LAA	0		
8A»BALANCE PRO (4SC)	0.07	LAA	0	57	
B ATRAZINE 4L (SC)	1.25	LAA	0		
9A»KEYSTONE (5.25SE)	3.67	LAA	0	27	
10A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	10	
11A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	10	
12A»LUMAX (3.94 SE)	2.46	LAA	0	10	
13A»A14224 (3.7SC)	2.78	LAA	0	20	
14A UNTREATED CHECK	0.00	NA	0	0	
				LSD (0.05)	25.13
				SIGNIFICANCE OF F	**
				STANDARD DEVIATION	12.22
				COEFFICIENT OF VARIANCE	128.30
				DAT APPLICATION # 01 TIMINGS (00)	77

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / EARLY POSTEMERGENCE 05-26-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	ZEAMX	PHYTO %	06-04-2004	04	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	DIGSA	CON %	06-04-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	06-04-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	ZEAMX	PHYTO %	06-10-2004	04	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	DIGSA	CON %	06-10-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	CHEAL	CON %	06-10-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	DIGSA	CON %	06-22-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	CHEAL	CON %	06-22-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	CHEAL	CON %	07-12-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	DIGSA	CON %	08-11-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

* VARIETY CODES

VAR 04 = DOEBLER'S 797RYG

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

04 = DOEBLER'S 797RYG

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HT ALTERNATE ID#: HF 20 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 04-13-2004 REVISED: 10-08-2004 COMPLETED: Y
 TITLE: TANK-MIX COMPARISONS 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

% SAND: 81 TILLAGE: COT
 % SILT: 14 PH: 5.8
 % CLAY: 5 CEC: 5.3
 TEXTURE: SL % OM: 1.9
 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: 12 ACTUAL SUB-BLOCKS: 12

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted to corn on 05/15/2004. Variety - Doeblers 797 RRYG
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 05/15/2004.
7. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-15-04	USA
TIME - BEGIN	16:00	24H
TIME - END	18:00	24H
AIR TEMPERATURE	84	F
% REL. HUMIDITY	50	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	76/4.00	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

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
05-15-2004 00 --- IND . . . IN NA

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
05-15-2004 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
05-15-2004 00 --- IND . . . IN NA

04 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: DOEBLER'S 797RYG
TARGET: CROP SITE: FG POPULATION: 26500.00 IPA PLANTED: 05-15-2004
PLANTING DEPTH: 1.7 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
05-15-2004 00 MED 26500.00 IPA . . . IN NA

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

TITLE: TANK-MIX COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-13-2004 REVISED: 10-08-2004 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	05-27-04 P ZEAMX	05-27-04 P DIGSA	06-10-04 P DIGSA	06-22-04 P DIGSA	07-12-04 P DIGSA
				VAR 04 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
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	98	97	93
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	98
B»PROWL H20 (3.8CS)	1.50	LAA	0					
4A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	97
5A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	98
B»HORNET (78.5DF)	0.147	LAA	0					
6A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	98	98	97
B»PYTHON (80WG)	0.04	LAA	0					
7A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	98	95	90
8A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	97	95	88
B»BASIS (75 DF)	0.0156	LAA	0					
9A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	98	95	83
B»BASIS (75 DF)	0.023	LAA	0					
10A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	100	95	90
11A»A14224 (3.7SC)	2.78	LAA	0	0	100	98	95	88
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
		LSD (0.05)		0.00	0.00	3.43	3.21	6.00
		SIGNIFICANCE OF F		ns	**	**	**	**
		STANDARD DEVIATION		0.00	0.00	1.65	1.55	2.88
		COEFFICIENT OF VARIANCE		0.00	0.00	2.46	2.35	4.58
		DAT APPLICATION # 01 TIMINGS (00)		12	12	26	38	58

TITLE: TANK-MIX COMPARISONS IN CONVENTIONAL CORN
CREATED: 04-13-2004 **REVISED:** 10-08-2004 **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

006 RAW 007 RAW 008 RAW
 07-12-04 08-11-04 08-11-04
 P CHEAL P DIGSA P CHEAL

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»GUARDSMAN MAX (5L)	2.50	LAA	0	65	87	65	
3A»GUARDSMAN MAX (5L)	2.50	LAA	0	100	95	100	
B»PROWL H20 (3.8CS)	1.50	LAA	0				
4A»KEYSTONE (5.25SE)	3.67	LAA	0	98	92	98	
5A»KEYSTONE (5.25SE)	3.67	LAA	0	100	90	100	
B»HORNET (78.5DF)	0.147	LAA	0				
6A»KEYSTONE (5.25SE)	3.67	LAA	0	100	90	100	
B»PYTHON (80WG)	0.04	LAA	0				
7A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	55	87	50	
8A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	92	88	90	
B»BASIS (75 DF)	0.0156	LAA	0				
9A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	100	80	100	
B»BASIS (75 DF)	0.023	LAA	0				
10A»LUMAX (3.94 SE)	2.46	LAA	0	97	80	97	
11A»A14224 (3.7SC)	2.78	LAA	0	100	77	100	
12A UNTREATED CHECK	0.00	NA	0	0	0	0	
				LSL (0.05)	37.88	15.00	36.86
				SIGNIFICANCE OF F	**	**	**
				STANDARD DEVIATION	18.26	7.22	17.77
				COEFFICIENT OF VARIANCE	29.60	12.27	29.00
				DAT APPLICATION # 01 TIMINGS (00)	58	88	88

» = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

00 = PREPRE / PREEMERGENCE 05-15-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	ZEAMX	PHYTO %	05-27-2004	04	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	DIGSA	CON %	05-27-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	DIGSA	CON %	06-10-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	DIGSA	CON %	06-22-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	CHEAL	CON %	07-12-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	DIGSA	CON %	08-11-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	CHEAL	CON %	08-11-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

*** VARIETY CODES**

VAR 04 = DOEBLER'S 797RYG

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

04 = DOEBLER'S 797RYG

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HU ALTERNATE ID#: HF 21 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R REVISED: 10-12-2004 COMPLETED: Y
 TITLE: PREEMERGENCE USE OF A14224 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

% SAND: 84 TILLAGE: NOT
 % SILT: 9 PH: 6.4
 % CLAY: 7 CEC: 7.2
 TEXTURE: SL % OM: 1.8
 SOIL GEN: C
 PREVIOUS CROP: -
 % 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 to corn on 05/15/2004. Variety - Doeblers 797 RRYG
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 05/15/2004.
7. Study harvested 10/07/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-15-04	USA
TIME - BEGIN	16:00	24H
TIME - END	18:00	24H
AIR TEMPERATURE	84	F
% REL. HUMIDITY	50	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	76/4.00	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

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
 05-15-2004 00 --- IND . . . IN NA

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
 05-15-2004 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
 05-15-2004 00 --- IND . . . IN NA

04 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: DOEBLER'S 797RYG
 TARGET: CROP SITE: FG POPULATION: 26500.00 IPA PLANTED: 05-15-2004
 PLANTING DEPTH: 1.7 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
 05-15-2004 00 MED 26500.00 IPA . . . IN NA

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

TITLE: PREEMERGENCE USE OF A14224 IN CONVENTIONAL CORN
 CREATED: 04-07-2004 REVISED: 10-12-2004 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			VAR 04		CON %		CON %	
	RATE	UNIT	TM	PHY % PL ALL	CON % PL ALL	CON % PL ALL	CON % PL ALL	CON % PL ALL	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»A14224 (3.7SC)	2.31	LAA	0	0	100	98	98	95	
3A»A14224 (3.7SC)	2.78	LAA	0	3	100	100	100	98	
4A»A14224 (3.7SC)	3.24	LAA	0	3	100	100	100	100	
5A»A14224 (3.7SC)	2.78	LAA	0	0	100	100	100	100	
B PRINCEP 4L (SC)	1.00	LAA	0						
6A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	97	
7A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	100	100	98	
8A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	100	
9A»GUARDSMAN MAX (5L)	2.50	LAA	0	0	100	100	100	98	
B»PROWL H20 (3.8CS)	1.50	LAA	0						
10A»EPIC (58DF)	0.35	LAA	0	13	100	98	100	97	
11A»HARNES XTRA (5.6FL)	3.36	LAA	0	0	100	100	100	98	
12A»KEYSTONE (5.25SE)	3.67	LAA	0	0	100	100	100	98	
13A»FULTIME (4CS)	3.30	LAA	0	0	100	100	98	98	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
		LSD (0.05)		4.00	0.00	1.76	1.87	4.36	
		SIGNIFICANCE OF F		**	**	**	**	**	
		STANDARD DEVIATION		1.94	0.00	0.856	0.908	2.12	
		COEFFICIENT OF VARIANCE		166.12	0.00	1.23	1.30	3.08	
		DAT APPLICATION # 01 TIMINGS (00)		12	12	26	38	58	

TITLE: PREEMERGENCE USE OF A14224 IN CONVENTIONAL CORN
 CREATED: 04-07-2004 REVISED: 10-12-2004 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 04	VAR 04	
	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	15.4	113.9	
2A»A14224 (3.7SC)	2.31	LAA	0	98	95	97	31.4	232.0	
3A»A14224 (3.7SC)	2.78	LAA	0	100	98	100	30.8	227.3	
4A»A14224 (3.7SC)	3.24	LAA	0	100	100	100	25.0	184.2	
5A»A14224 (3.7SC) B PRINCEP 4L (SC)	2.78 1.00	LAA LAA	0 0	100	100	100	27.8	205.4	
6A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	42	97	32	26.5	195.6	
7A»LUMAX (3.94 SE)	2.46	LAA	0	100	98	100	28.5	210.1	
8A»GUARDSMAN MAX (5L)	2.50	LAA	0	95	100	95	31.6	233.5	
9A»GUARDSMAN MAX (5L) B»PROWL H20 (3.8CS)	2.50 1.50	LAA LAA	0 0	100	100	98	27.3	201.2	
10A»EPIC (58DF)	0.35	LAA	0	100	95	98	30.1	221.9	
11A»HARNESS XTRA (5.6FL)	3.36	LAA	0	98	97	98	29.8	219.9	
12A»KEYSTONE (5.25SE)	3.67	LAA	0	98	97	98	33.4	246.7	
13A»FULTIME (4CS)	3.30	LAA	0	98	97	97	28.0	206.6	
14A UNTREATED CHECK	0.00	NA	0	0	0	0	17.8	131.6	
				LSD (0.05)	22.09	4.47	24.76	5.53	40.80
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	10.74	2.18	12.00	2.69	19.84
				COEFFICIENT OF VARIANCE	16.30	3.18	18.55	12.00	12.00
				DAT APPLICATION # 01 TIMINGS (00)	58	88	88	145	145

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-15-2004(1)

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 %	05-27-2004	04	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	O	N
002	DIGSA	CON %	05-27-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
003	DIGSA	CON %	06-10-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
004	DIGSA	CON %	06-22-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
005	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
006	CHEAL	CON %	07-12-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
007	DIGSA	CON %	08-11-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
008	CHEAL	CON %	08-11-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
009	ZEAMX	YLD/PLOT	10-07-2004	04	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	O	N
	ZEAMX	YLD/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 04 = DOEBLER'S 797RYG

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

04 = DOEBLER'S 797RYG

* USER DEFINED CALCULATIONS

US 003/04/01 001 HU--- 009 -- {RAW}*(7.38)

*** USER DEFINED CALCULATIONS**

US 003/04/01 001 HU--- 009 -- {RAW}*(7.38)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HV ALTERNATE ID#: HF 22 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R
 CREATED: 04-07-2004 REVISED: 10-08-2004 COMPLETED: Y
 TITLE: UTILITY OF KIH-485 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: 84 TILLAGE: NOT
 % SILT: 9 PH: 6.4
 % CLAY: 7 CEC: 7.2
 TEXTURE: SL % OM: 1.8
 SOIL GEN: C
 PREVIOUS CROP: SECCE - RYE, VOLUNTEER
 % RESIDUE: 90
 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 05/13/2004. Variety - Doeblers 797 RYG.
2. Seed treated with Poncho 1250. 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 05/13/2004.
7. Gramoxone Max applied to entire area at 2 pt/acre on 05/17/2004.
8. Study harvested 09/29/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-13-04	USA
TIME - BEGIN	15:00	24H
TIME - END	16:00	24H
AIR TEMPERATURE	82	F
% REL. HUMIDITY	35	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	75/4.00	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 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
 05-13-2004 00 --- IND . . . IN NA

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
 05-13-2004 00 --- IND . . . IN NA

03 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
 05-13-2004 00 --- IND . . . IN NA

04 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
 05-13-2004 00 --- IND . . . IN NA

05 P ZEAMX - CORN, VOLUNTEER, FIELD **CULTIVAR:** DOEBLER'S 797RYG
TARGET: CROP **SITE:** FG **POPULATION:** 26500.00 IPA **PLANTED:** 05-13-2004
PLANTING DEPTH: 1.7 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
 05-13-2004 00 MED 26500.00 IPA . . . IN NA

06 P IPOLA - MORNINGGLORY, PITTED, SMALL WHITE
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
 05-13-2004 00 --- IND . . . IN ---

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

TITLE: UTILITY OF KIH-485 IN NO-TILL CORN
 CREATED: 04-07-2004 REVISED: 10-08-2004 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			VAR 05	001 RAW	002 RAW	003 RAW	004 RAW	005 RAW
	RATE	UNIT	TM	PHY % 1.00	06-04-04 P ZEAMX	06-04-04 P IPOLA	06-10-04 P IPOLA	06-22-04 P IPOLA	07-12-04 P IPOLA
				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)	0.108	LAA	0	0	72	65	68	57	
3A»KIH-485 (60WG)	0.144	LAA	0	0	80	77	77	63	
4A»KIH-485 (60WG)	0.181	LAA	0	0	92	87	87	83	
5A»KIH-485 (60WG)	0.217	LAA	0	0	83	78	82	78	
6A»KIH-485 (60WG)	0.362	LAA	0	0	93	92	88	83	
7A»DUAL II MAGNUM (7.64EC)	1.55	LAA	0	0	82	75	77	70	
8A»DUAL II MAGNUM (7.64EC)	3.10	LAA	0	0	60	53	50	38	
9A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	0	93	90	92	90	
10A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	0	93	95	98	97	
11A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	93	93	98	97	
12A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	0
				LSD (0.05)	0.00	27.17	26.28	28.33	40.78
				SIGNIFICANCE OF F	ns	**	**	**	**
				STANDARD DEVIATION	0.00	13.10	12.67	13.66	19.66
				COEFFICIENT OF VARIANCE	0.00	22.88	23.14	24.58	38.19
				DAT APPLICATION # 01 TIMINGS (00)	22	22	28	40	60

TITLE: UTILITY OF KIH-485 IN NO-TILL CORN
CREATED: 04-07-2004 **REVISED:** 10-08-2004 **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	CON % PL ALL	006 RAW		007 RAW		007 CALC	
			08-11-04	P IPOLA	09-29-04	P ZEAMX	09-29-04	P ZEAMX
			VAR 05		VAR 05			
			YLD LB	YLD BU	YLD LB	YLD BU	YLD LB	YLD BU
			PL SD	PL SD	PL SD	PL SD	PL SD	PL SD
1A UNTREATED CHECK	0.00 NA 0	0	17.7	126.4				
2A»KIH-485 (60WG)	0.108 LAA 0	55	24.2	172.8				
3A»KIH-485 (60WG)	0.144 LAA 0	52	25.6	182.8				
4A»KIH-485 (60WG)	0.181 LAA 0	80	25.3	180.6				
5A»KIH-485 (60WG)	0.217 LAA 0	78	24.5	175.2				
6A»KIH-485 (60WG)	0.362 LAA 0	80	30.4	216.8				
7A»DUAL II MAGNUM (7.64EC)	1.55 LAA 0	55	28.5	203.3				
8A»DUAL II MAGNUM (7.64EC)	3.10 LAA 0	32	20.3	144.7				
9A»KIH-485/ATRAZINE (57.8WG)	1.34 LAA 0	87	26.2	187.3				
10A»KIH-485/ATRAZINE (55.7WG)	1.77 LAA 0	95	27.1	193.7				
11A»BICEP II MAGNUM (5.5SC)	2.89 LAA 0	95	30.2	215.9				
12A UNTREATED CHECK	0.00 NA 0	0	27.2	194.2				
	LSLSD (0.05)	48.10	9.88	70.54				
	SIGNIFICANCE OF F	**	ns	ns				
	STANDARD DEVIATION	23.19	4.76	34.00				
	COEFFICIENT OF VARIANCE	48.12	22.79	22.79				
	DAT APPLICATION # 01 TIMINGS (00)	90	139	139				

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-13-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	ZEAMX	CON %	06-04-2004	05	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	IPOLA	CON %	06-04-2004	06	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	IPOLA	CON %	06-10-2004	06	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	IPOLA	CON %	06-22-2004	06	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	IPOLA	CON %	07-12-2004	06	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	IPOLA	CON %	08-11-2004	06	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	ZEAMX	YLD/PLOT	09-29-2004	05	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	ZEAMX	BU/ACRE						CALC	SD	YLD	BU	H	1.00 PL				

* VARIETY CODES

VAR 05 = DOEBLER'S 797RYG

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

05 = DOEBLER'S 797RYG

* USER DEFINED CALCULATIONS

US 003/04/01 001 HV--- 007 -- {RAW}*(7.14)

US 003/04/01 001 HV--- 007 -- {RAW}*(7.14)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HW ALTERNATE ID#: HF 23 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R REVISD: 10-08-2004 COMPLETED: Y
 TITLE: POSTEMERGENCE COMPARISONS 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

% SAND: 81 TILLAGE: COT
 % SILT: 14 PH: 5.8
 % CLAY: 5 CEC: 5.3
 TEXTURE: SL % OM: 1.9
 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: 10 ACTUAL SUB-BLOCKS: 10

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/15/2004. Variety - Doeblers 797 RYG.
2. Seed treated with Poncho 1250. 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 06/04/2004.
7. Mid post applications made 06/18/2004.
8. Study harvested 10/05/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	01	02	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	06-04-04	06-18-04	USA
TIME - BEGIN	09:30	17:00	24H
TIME - END	10:30	17:30	24H
AIR TEMPERATURE	65	90	F
% REL. HUMIDITY	30	60	
WIND DIRECTION	SOUTHEAST	SOUTHEAST	
WIND SPEED	3.0	3.0	M/H
CLOUD COVER	CLOUDY	HAZY SUN	
DEW	YES	NO	
SOIL MOISTURE	DRY/MOIST	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	64/4.00	85/4.00	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 - CORN 5 INCHES
 02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
 02 = 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
05-15-2004	00	---	IND	.	.	. IN		NA	
06-04-2004	---	---	IND	.	.	. IN		---	
06-04-2004	---	---	IND	.	.	. IN		---	
06-18-2004	---	---	IND	.	.	. IN		---	
06-18-2004	---	---	IND	.	.	. IN		---	

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
05-15-2004	00	---	IND	.	.	. IN		NA	
06-04-2004	22	HGH	12.00 SQF	2.00	2.00	2.00 IN		TUR	
06-18-2004	15	LOW	1.00 SQY	4.00	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
05-15-2004	00	---	IND	.	.	. IN		NA	
06-04-2004	14	MED	6.00 SQF	6.00	6.00	6.00 IN		TUR	
06-18-2004	---	---	IND	.	.	. IN		---	
06-18-2004	---	---	IND	.	.	. IN		---	

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
05-15-2004	00	---	IND	.	.	. IN		NA	
06-04-2004	---	---	IND	.	.	. IN		---	
06-04-2004	---	---	IND	.	.	. IN		---	
06-18-2004	---	---	IND	.	.	. IN		---	
06-18-2004	---	---	IND	.	.	. IN		---	

05 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: DOEBLER'S 797RYG

TARGET: CROP SITE: FG POPULATION: 265000.00 IPA PLANTED: 05-15-2004

PLANTING DEPTH: 1.7 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
05-15-2004	00	MED	26500.00 IPA	.	.	. IN		NA	
06-04-2004	15	MED	26500.00 IPA	9.00	9.00	9.00 IN		TUR	
06-18-2004	17	MED	26500.00 IPA	20.00	20.00	20.00 IN		TUR	

07 P AMACH - PIGWEED, SMOOTH

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
05-15-2004	00	---	IND	.	.	. IN		NA	
06-04-2004	18	MED	8.00 SQF	5.00	5.00	5.00 IN		TUR	
06-18-2004	---	---	IND	.	.	. IN		---	
06-18-2004	---	---	IND	.	.	. IN		---	

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)

15 = 5 LEAVES UNFOLDED

17 = 7 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

--- = TO BE SELECTED

00 = DRY SEED; DORMANCY

18 = 8TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

* STAGE CODE -- GENERAL GRASS

14 = 4 LEAVES UNFOLDED

15 = 5 LEAVES UNFOLDED

22 = 2 TILLERS DETECTABLE

TITLE: POSTEMERGENCE COMPARISONS IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 10-08-2004 **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 06-10-04 P AMACH		002 RAW 06-10-04 P DIGSA		003 RAW 06-18-04 P DIGSA 15		004 RAW 06-18-04 P AMACH ---		005 RAW 06-29-04 P AMACH	
		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 1	0	0	0	0	0	0	0	0	0	
2A>>STEADFAST ATZ (89.3WG)	0.78 LAA 1	23	27	32	87	100					
B CLARITY (4SL)	0.125 LAA 1										
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 1										
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1										
3A>>STEADFAST ATZ (89.3WG)	0.78 LAA 1	23	28	32	90	100					
B>>CALLISTO (4SC)	0.0625 LAA 1										
C ADJUVANT - COC (EC)	1.00 PMV 1										
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1										
4A>>EQUIP (62WG)	0.058 LAA 1	30	37	50	97	100					
B CLARITY (4SL)	0.125 LAA 1										
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1										
D FERTILIZER - 28%UAN	1.00 QMA 1										
5A>>EQUIP (62WG)	0.058 LAA 1	30	30	47	97	100					
B>>CALLISTO (4SC)	0.0625 LAA 1										
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1										
D FERTILIZER - 28%UAN	1.00 QMA 1										
6A>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 1	95	100	97	100	100					
B>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 2										
7A>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	95	100	97	100	100					
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 2										
8A>>GF-1279 (4.0AE)	0.75 LAA 1	95	100	97	100	100					
B>>GF-1279 (4.0AE)	0.75 LAA 2										
9A>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	95	100	97	100	100					
B>>DISTINCT (70WG)	0.175 LAA 1										
10A UNTREATED CHECK	0.00 NA 2	0	0	0	0	0					
	LSD (0.05)	4.18	8.47	7.67	4.78	0.00					
	SIGNIFICANCE OF F	**	**	**	**	**					
	STANDARD DEVIATION	2.00	4.00	3.65	2.28	0.00					
	COEFFICIENT OF VARIANCE	5.00	9.46	8.18	3.62	0.00					
	DAT APPLICATION # 01 TIMINGS (01)	6	6	14	14	25					
	DAT APPLICATION # 02 TIMINGS (02)	NA	NA	0	0	11					

TITLE: POSTEMERGENCE COMPARISONS IN CONVENTIONAL CORN
 CREATED: 04-08-2004 REVISED: 10-08-2004 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 008 RAW 009 RAW 010 RAW					VAR 05 YLD LB 1.00 PL SD
		06-29-04 P DIGSA	07-12-04 P DIGSA	07-26-04 P DIGSA	08-11-04 P DIGSA	10-05-04 P ZEAMX	
		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	9.0	
2A»STEADFAST ATZ (89.3WG)	0.78 LAA 1	23	7	0	0	26.7	
B CLARITY (4SL)	0.125 LAA 1						
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1						
3A»STEADFAST ATZ (89.3WG)	0.78 LAA 1	23	0	0	0	21.3	
B»CALLISTO (4SC)	0.0625 LAA 1						
C ADJUVANT - COC (EC)	1.00 PMV 1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1						
4A»EQUIP (62WG)	0.058 LAA 1	47	22	10	0	27.2	
B CLARITY (4SL)	0.125 LAA 1						
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1						
D FERTILIZER - 28%UAN	1.00 QMA 1						
5A»EQUIP (62WG)	0.058 LAA 1	43	22	10	10	24.1	
B»CALLISTO (4SC)	0.0625 LAA 1						
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1						
D FERTILIZER - 28%UAN	1.00 QMA 1						
6A»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 1	100	100	100	95	27.3	
B»TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 2						
7A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	100	100	98	95	25.0	
B»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 2						
8A»GF-1279 (4.0AE)	0.75 LAA 1	100	100	100	95	28.6	
B»GF-1279 (4.0AE)	0.75 LAA 2						
9A»ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	98	93	62	92	31.4	
B»DISTINCT (70WG)	0.175 LAA 1						
10A UNTREATED CHECK	0.00 NA 2	0	0	0	0	14.4	
	LSD (0.05)	10.65	14.27	33.44	9.61	5.78	
	SIGNIFICANCE OF F	**	**	**	**	**	
	STANDARD DEVIATION	5.07	6.79	15.91	4.57	2.75	
	COEFFICIENT OF VARIANCE	11.60	18.76	51.29	14.49	14.35	
	DAT APPLICATION # 01 TIMINGS (01)	25	38	52	68	123	
	DAT APPLICATION # 02 TIMINGS (02)	11	24	38	54	109	

TITLE: POSTEMERGENCE COMPARISONS IN CONVENTIONAL CORN
CREATED: 04-08-2004 **REVISED:** 10-08-2004 **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 1	64.0
2A>>STEADFAST ATZ (89.3WG)	0.78 LAA 1	190.6
B CLARITY (4SL)	0.125 LAA 1	
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 1	
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1	
3A>>STEADFAST ATZ (89.3WG)	0.78 LAA 1	151.8
B>>CALLISTO (4SC)	0.0625 LAA 1	
C ADJUVANT - COC (EC)	1.00 PMV 1	
D FERTILIZER-21% AMMONIUM SULFATE	2.00 LMA 1	
4A>>EQUIP (62WG)	0.058 LAA 1	194.2
B CLARITY (4SL)	0.125 LAA 1	
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1	
D FERTILIZER - 28%UAN	1.00 QMA 1	
5A>>EQUIP (62WG)	0.058 LAA 1	172.1
B>>CALLISTO (4SC)	0.0625 LAA 1	
C ADJUVANT - VEGETABLE OIL	1.50 PMA 1	
D FERTILIZER - 28%UAN	1.00 QMA 1	
6A>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 1	194.7
B>>TOUCHDOWN TOTAL (4.17AE)	0.781 LAA 2	
7A>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	178.3
B>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 2	
8A>>GF-1279 (4.0AE)	0.75 LAA 1	204.0
B>>GF-1279 (4.0AE)	0.75 LAA 2	
9A>>ROUNDUP WEATHER MAX (4.5AE)	0.773 LAA 1	224.2
B>>DISTINCT (70WG)	0.175 LAA 1	
10A UNTREATED CHECK	0.00 NA 2	103.0
	LSD (0.05)	41.26
	SIGNIFICANCE OF F	**
	STANDARD DEVIATION	19.64
	COEFFICIENT OF VARIANCE	14.34
	DAT APPLICATION # 01 TIMINGS (01)	123
	DAT APPLICATION # 02 TIMINGS (02)	109

>> = SUPPLEMENTAL CHEMICAL

*** TIMING CODES**

01 = POSPOS / EARLY POSTEMERGENCE - CORN 5 INCHES 06-04-2004(1)
 02 = MID POS / MID-POSTEMERGENCE - CORN 12 INCHES 06-18-2004(2)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTRT	SS	NOTE
001	AMACH	CON %	06-10-2004	07	P	AMACH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
002	DIGSA	CON %	06-10-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
003	DIGSA	CON %	06-18-2004	02	P	DIGSA	15	RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
004	AMACH	CON %	06-18-2004	07	P	AMACH	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
005	AMACH	CON %	06-29-2004	07	P	AMACH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
006	DIGSA	CON %	06-29-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
007	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
008	DIGSA	CON %	07-26-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
009	DIGSA	CON %	08-11-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	O	N
010	ZEAMX	YLD/PLOT	10-05-2004	05	P	ZEAMX		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	O	N
	ZEAMX	BY/ACRE						CALC	SD	YLD	BU	H	1.00 A				

*** VARIETY CODES**

VAR 05 = DOEBLER'S 797RYG

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

05 = DOEBLER'S 797RYG

*** STAGE CODE**

--- = TO BE SELECTED

15 = 5 LEAVES UNFOLDED

*** USER DEFINED CALCULATIONS**

US 003/04/01 001 HW--- 010 -- {RAW}*(7.14)

US 003/04/01 001 HW--- 010 -- {RAW}*(7.14)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HY ALTERNATE ID#: HF 25 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R
 CREATED: 04-14-2004 REVISED: 10-08-2004 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
 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: 82 TILLAGE: NOT
 % SILT: 13 PH: 6.7
 % CLAY: 5 CEC: 9.3
 TEXTURE: SL % OM: 1.9
 SOIL GEN: C
 PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
 % RESIDUE: 65
 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 05/13/2004. Variety - Garst 8362IT.
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 05/13/2004.
7. Gramoxone Max applied to entire area at 2 pt/acre on 05/17/2004.
8. Early post applications made 06/02/2004.
9. Study harvested 09/25/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	05-13-04	06-02-04	USA
TIME - BEGIN	17:00	18:00	24H
TIME - END	18:00	19:00	24H
AIR TEMPERATURE	84	78	F
% REL. HUMIDITY	50	30	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	
WIND SPEED	3.0	5.0	M/H
CLOUD COVER	PARTCLDY	PARTCLDY	
DEW	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	75/4.00	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 = PREPRE / PREEMERGENCE
01 = POSPOS / EARLY POSTEMERGENCE - CORN < 12 INCHES

* NOZZLE DESCRIPTION

01 = SS-8003
02 = SS-8003

01 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
05-13-2004	00	---	IND	.	.	. IN		NA	
06-02-2004	---	---	IND	.	.	. IN		---	
06-02-2004	---	---	IND	.	.	. IN		---	
06-02-2004	---	---	IND	.	.	. IN		---	

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
05-13-2004	00	---	IND	.	.	. IN		NA	
06-02-2004	---	---	IND	.	.	. IN		---	
06-02-2004	---	---	IND	.	.	. IN		---	
06-02-2004	---	---	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
05-13-2004	00	---	IND	.	.	. IN		NA	
06-02-2004	13	LOW	3.00 SQF	5.00	5.00	5.00 IN		TUR	

04 P ZEAMX - CORN, VOLUNTEER, FIELD

CULTIVAR: GARST 8362 IT

TARGET: CROP SITE: FG

POPULATION: 26500.00 IPA

PLANTED: 05-13-2004

PLANTING DEPTH: 1.7 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
05-13-2004	00	MED	26500.00 IPA	.	.	. IN		NA	
06-02-2004	16	MED	26500.00 IPA	12.00	12.00	12.00 IN		TUR	

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)

16 = 6 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

--- = TO BE SELECTED

00 = DRY SEED; DORMANCY

* STAGE CODE -- GENERAL GRASS

13 = 3 LEAVES UNFOLDED

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
 CREATED: 04-14-2004 REVISED: 10-08-2004 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	PL ALL	PL ALL	PL ALL	PL ALL	PL ALL	PL ALL	PL ALL	PL ALL	YLD LB	VAR 04
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	0	0	0	17.9	
2A»GUARDSMAN MAX (5L)	2.50	LAA	0	85	93	75	92	25.9					
3A»GUARDSMAN MAX (5L)	1.25	LAA	0	97	95	95	90	22.3					
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	98	92	98	88	20.2					
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	97	98	93	22.0					
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	97	93	97	88	24.5					
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	97	98	97	97	23.8					
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	97	90	97	83	23.6					
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	98	95	97	90	21.7					
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	98	98	97	93	21.9					
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	97	100	93	92	21.0					
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	22.8					
				LSD (0.05)	5.83	5.83	7.72	8.39	6.62				
				SIGNIFICANCE OF F	**	**	**	**	ns				
				STANDARD DEVIATION	2.81	2.81	3.72	4.00	3.19				
				COEFFICIENT OF VARIANCE	4.29	4.34	5.80	6.56	17.52				
				DAT APPLICATION # 01 TIMINGS (00)	60	60	90	90	135				
				DAT APPLICATION # 02 TIMINGS (01)	40	40	70	70	115				

TITLE: USE OF LIGHTNING IN CLEARFIELD CORN
 CREATED: 04-14-2004 REVISED: 10-08-2004 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	YLD BU A SD
	RATE	UNIT			
					005 CALC 09-25-04 P ZEAMX VAR 04 YLD BU 1.00
1A UNTREATED CHECK	0.00	NA	0		128.0
2A»GUARDSMAN MAX (5L)	2.50	LAA	0		185.2
3A»GUARDSMAN MAX (5L)	1.25	LAA	0		159.0
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		144.5
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		157.3
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		175.2
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		170.0
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		168.2
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		155.0
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		156.6
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		149.9
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		162.5
					LSD (0.05) 47.25 SIGNIFICANCE OF F ns STANDARD DEVIATION 22.78 COEFFICIENT OF VARIANCE 17.52 DAT APPLICATION # 01 TIMINGS (00) 135 DAT APPLICATION # 02 TIMINGS (01) 115

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-13-2004(1)

*** TIMING CODES**

01 = POSPOS / EARLY POSTEMERGENCE - CORN < 12 INCHES 06-02-2004(2)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR1	SS	NOTE
001	SETFA	CON %	07-12-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	AMBEL	CON %	07-12-2004	01	P	AMBEL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	SETFA	CON %	08-11-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	AMBEL	CON %	08-11-2004	01	P	AMBEL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	ZEAMX	YLD/PLOT	09-25-2004	04	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 04 = GARST 8362 IT

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

04 = GARST 8362 IT

*** USER DEFINED CALCULATIONS**

US 003/04/01 001 HY--- 005 -- {RAW}*(7.14)

US 003/04/01 001 HY--- 005 -- {RAW}*(7.14)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 HZ ALTERNATE ID#: HF 26 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/02/01
 CREATED BY: US RITTER R REVISID: 10-08-2004 COMPLETED: Y
 CREATED: 04-14-2004
 TITLE: USE OF LIBERTY AND LIBERTY-LINK 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: 82 TILLAGE: COT
 % SILT: 13 PH: 6.7
 % CLAY: 5 CEC: 9.3
 TEXTURE: SL % OM: 1.9
 SOIL GEN: C
 PREVIOUS CROP: SECCE - RYE, VOLUNTEER
 % RESIDUE: 90
 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 05/13/2004. Variety - Pioneer 33G29.
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 05/13/2004.
7. Gramoxone Max applied to entire area at 2 pt/acre on 05/17/2004.
8. Early post applications made 06/02/2004.
9. Mid-post applications made 06/10/2004.
10. Study harvested 09/29/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-13-04	06-02-04	06-10-04	USA
TIME - BEGIN	15:00	18:00	10:00	24H
TIME - END	16:00	19:00	10:30	24H
AIR TEMPERATURE	82	78	82	F
% REL. HUMIDITY	35	30	50	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTHEAST	
WIND SPEED	3.0	5.0	3.0	M/H
CLOUD COVER	PARTCLDY	PARTCLDY	OVERCAST	
DEW	NO	NO	YES	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	DRY/MOIST	
SOIL CONDITION	---	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	75/4.00	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 - CORN < 6 INCHES
- 02 = MID POS / MID-POSTEMERGENCE - CORN < 12 INCHES

* NOZZLE DESCRIPTION

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

01 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
05-13-2004	00	---		IND	.	. IN		NA	
06-02-2004	---	---		IND	.	. IN		---	
06-02-2004	---	---		IND	.	. IN		---	
06-10-2004	---	---		IND	.	. IN		---	
06-10-2004	---	---		IND	.	. IN		---	

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
05-13-2004	00	---		IND	.	. IN		NA	
06-02-2004	19	LOW	1.00	SQF	4.00	4.00 IN		TUR	
06-10-2004	19	LOW	1.00	SQY	4.00	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
05-13-2004	00	---		IND	.	. IN		NA	
06-02-2004	---	---		IND	.	. IN		---	
06-02-2004	---	---		IND	.	. IN		---	
06-10-2004	---	---		IND	.	. IN		---	
06-10-2004	---	---		IND	.	. IN		---	

04 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 33G29

TARGET: CROP SITE: FG POPULATION: 26500.00 IPA PLANTED: 05-13-2004

PLANTING DEPTH: 1.7 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
05-13-2004	00	MED	26500.00	IPA	.	. IN		NA	
06-02-2004	16	MED	26500.00	IPA	12.00	12.00 IN		TUR	
06-10-2004	18	MED	26500.00	IPA	22.00	22.00 IN		TUR	

05 P IPOLA - MORNINGGLORY, PITTED, SMALL WHITE

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
05-13-2004	00	---		IND	.	. IN		NA	
06-02-2004	14	LOW	1.00	SQY	2.00	4.00 IN		TUR	
06-10-2004	---	---		IND	.	. IN		---	
06-10-2004	---	---		IND	.	. IN		---	

06 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
05-13-2004	00	---		IND	.	. IN		NA	
06-02-2004	15	MED	3.00	SQF	1.00	2.00 IN		TUR	
06-10-2004	---	---		IND	.	. IN		---	
06-10-2004	---	---		IND	.	. IN		---	

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)

16 = 6 LEAVES UNFOLDED

18 = 8 LEAVES UNFOLDED

* STAGE CODE -- GENERAL

--- = TO BE SELECTED

00 = DRY SEED; DORMANCY

14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

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

* STAGE CODE -- GENERAL GRASS

15 = 5 LEAVES UNFOLDED

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
 CREATED: 04-14-2004 REVISED: 10-08-2004 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	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)	0.37	LAA	1	100		90		92		90		92	
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
3A»LIBERTY (1.67 EC)	0.42	LAA	1	100		88		93		83		93	
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
4A»LIBERTY (1.67 EC)	0.37	LAA	1	100		93		100		92		100	
B ATRAZINE 4L (SC)	0.50	LAA	1										
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
5A»LIBERTY (1.67 EC)	0.42	LAA	1	100		95		100		92		100	
B ATRAZINE 4L (SC)	0.50	LAA	1										
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
6A»LIBERTY (1.67 EC)	0.37	LAA	1	100		93		100		88		100	
B ATRAZINE 4L (SC)	1.00	LAA	1										
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
7A»LIBERTY (1.67 EC)	0.42	LAA	1	100		95		100		92		98	
B ATRAZINE 4L (SC)	1.00	LAA	1										
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
8A»DEFINE (4SC)	0.56	LAA	0	20		92		88		87		87	
B»LIBERTY (1.67 EC)	0.37	LAA	2										
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2										
9A»DEFINE (4SC)	0.28	LAA	0	10		93		93		93		93	
B»LIBERTY (1.67 EC)	0.37	LAA	2										
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2										
10A»DEFINE (4SC)	0.56	LAA	0	30		95		98		90		100	
B»EQUIP (62WG)	0.058	LAA	2										
C»DISTINCT (70WG)	0.0875	LAA	2										
D ADJUVANT - VEGETABLE OIL	1.50	PMA	2										
E FERTILIZER - 28%UAN	1.50	QMA	2										
11A»LIBERTY (1.67 EC)	0.37	LAA	1	100		88		93		82		93	
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1										
C»LIBERTY (1.67 EC)	0.37	LAA	2										
D FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2										
12A UNTREATED CHECK	0.00	NA	0	0		0		0		0		0	
		LSL (0.05)			12.51	6.15	5.00	10.39	5.88				
		SIGNIFICANCE OF F			**	**	**	**	**				
		STANDARD DEVIATION			6.00	3.00	2.40	5.00	2.84				
		COEFFICIENT OF VARIANCE			11.66	4.72	3.68	8.29	4.36				
		DAT APPLICATION # 01 TIMINGS (00)			28	60	60	90	90				
		DAT APPLICATION # 02 TIMINGS (01)			8	40	40	70	70				
		DAT APPLICATION # 03 TIMINGS (02)			0	32	32	62	62				

TITLE: USE OF LIBERTY AND LIBERTY-LINK CORN
 CREATED: 04-14-2004 REVISED: 10-08-2004 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	09-29-04 P ZEAMX	09-29-04 P ZEAMX
				VAR 04 YLD LB	VAR 04 YLD BU
				1.00	1.00
				PL SD	A SD
1A UNTREATED CHECK	0.00	NA	0	14.4	106.5
2A>LIBERTY (1.67 EC)	0.37	LAA	1	26.8	197.8
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
3A>LIBERTY (1.67 EC)	0.42	LAA	1	20.5	151.0
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
4A>LIBERTY (1.67 EC)	0.37	LAA	1	25.4	187.7
B ATRAZINE 4L (SC)	0.50	LAA	1		
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
5A>LIBERTY (1.67 EC)	0.42	LAA	1	20.0	147.6
B ATRAZINE 4L (SC)	0.50	LAA	1		
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
6A>LIBERTY (1.67 EC)	0.37	LAA	1	25.7	189.4
B ATRAZINE 4L (SC)	1.00	LAA	1		
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
7A>LIBERTY (1.67 EC)	0.42	LAA	1	24.4	180.1
B ATRAZINE 4L (SC)	1.00	LAA	1		
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
8A>DEFINE (4SC)	0.56	LAA	0	26.0	191.9
B>LIBERTY (1.67 EC)	0.37	LAA	2		
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2		
9A>DEFINE (4SC)	0.28	LAA	0	23.5	173.7
B>LIBERTY (1.67 EC)	0.37	LAA	2		
C FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2		
10A>DEFINE (4SC)	0.56	LAA	0	24.4	179.8
B>EQUIP (62WG)	0.058	LAA	2		
C>DISTINCT (70WG)	0.0875	LAA	2		
D ADJUVANT - VEGETABLE OIL	1.50	PMA	2		
E FERTILIZER - 28%UAN	1.50	QMA	2		
11A>LIBERTY (1.67 EC)	0.37	LAA	1	25.5	188.4
B FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	1		
C>LIBERTY (1.67 EC)	0.37	LAA	2		
D FERTILIZER-21% AMMONIUM SULFATE	3.00	LMA	2		
12A UNTREATED CHECK	0.00	NA	0	18.9	139.8
				LSD (0.05)	8.52
				SIGNIFICANCE OF F	ns
				STANDARD DEVIATION	4.11
				COEFFICIENT OF VARIANCE	21.92
				DAT APPLICATION # 01 TIMINGS (00)	139
				DAT APPLICATION # 02 TIMINGS (01)	119
				DAT APPLICATION # 03 TIMINGS (02)	111

>> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-13-2004(1)
 01 = POSPOS / EARLY POSTEMERGENCE - CORN < 6 INCHES 06-02-2004(2)
 02 = MID POS / MID-POSTEMERGENCE - CORN < 12 INCHES 06-10-2004(3)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	CHEAL	CON %	06-10-2004	02	P	CHEAL	19	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

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	CTR	SS	NOTE
002	ELEIN	CON %	07-12-2004	06	P	ELEIN		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	07-12-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	ELEIN	CON %	08-11-2004	06	P	ELEIN		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	CHEAL	CON %	08-11-2004	02	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	ZEAMX	LB/ACRE	09-29-2004	04	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 04 = PIONEER 33G29

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

04 = PIONEER 33G29

* STAGE CODE

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

* USER DEFINED CALCULATIONS

US 003/04/01 001 HZ--- 006 -- {RAW}*(7.38)

US 003/04/01 001 HZ--- 006 -- {RAW}*(7.38)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 AH ALTERNATE ID#: HF 27 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R REVISED: 10-15-2004 COMPLETED: Y
 CREATED: 04-26-2004
 TITLE: EARLY PREPLANT CONTROL OF MARESTAIL IN 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: 15.00 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. Early preplant applications made 04/21/2004.
2. Study planted 05/18/2004. Variety - Northrup King S39-Q4
3. Study harvested 10/12/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	04-21-04	USA
TIME - BEGIN	11:00	24H
TIME - END	12:00	24H
AIR TEMPERATURE	75	F
% REL. HUMIDITY	30	
WIND DIRECTION	SOUTHEAST	
WIND SPEED	3.0	M/H
CLOUD COVER	CLEAR	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
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 = PREPLA / EARLY 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
04-21-2004	19	LOW	3.00 SQY	3.00	6.00	4.00 IN	TUR	

02 P GLXMA - SOYBEAN

CULTIVAR: NORTHRUP KING S39-Q4RR

TARGET: CROP SITE: FG

POPULATION: 4.50 FTR

PLANTED: 05-18-2004

PLANTING DEPTH: 1.0 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
04-21-2004	00	---	IND	.	.	. IN	---	
05-18-2004	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: EARLY PREPLANT CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS
 CREATED: 04-26-2004 REVISED: 10-15-2004 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	05-06-04 P ERICA	05-20-04 P ERICA	06-04-04 P ERICA	06-18-04 P ERICA	06-29-04 P ERICA
				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	1	0	0
2A CLASSIC (25WG)	0.0156	LAA	0	25	27	27	20	10
B EXPRESS (75WG)	0.005	LAA	0					
C ADJUVANT - COC (EC)	1.00	PMV	0					
3A CLASSIC (25WG)	0.0156	LAA	0	42	83	82	72	63
B EXPRESS (75WG)	0.005	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.25	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
4A CLASSIC (25WG)	0.0156	LAA	0	27	33	28	0	0
B EXPRESS (75WG)	0.005	LAA	0					
C SENCOR DF (75WG)	0.188	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
5A CLASSIC (25WG)	0.0156	LAA	0	52	95	95	90	88
B EXPRESS (75WG)	0.005	LAA	0					
C SENCOR DF (75WG)	0.188	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
6A CLASSIC (25WG)	0.0156	LAA	0	35	35	37	22	17
B EXPRESS (75WG)	0.005	LAA	0					
C»VALOR SX (51WG)	0.078	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
7A CLASSIC (25WG)	0.0156	LAA	0	60	90	90	78	68
B EXPRESS (75WG)	0.005	LAA	0					
C»VALOR SX (51WG)	0.078	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
8A CLASSIC (25WG)	0.0147	LAA	0	23	57	53	48	37
B»AUTHORITY (75DF)	0.073	LAA	0					
C EXPRESS (75WG)	0.005	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
9A CLASSIC (25WG)	0.0147	LAA	0	35	88	85	77	57
B»AUTHORITY (75DF)	0.073	LAA	0					
C EXPRESS (75WG)	0.005	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					
10A CLASSIC (25WG)	0.03	LAA	0	47	83	80	67	65
B EXPRESS (75WG)	0.009	LAA	0					
C ADJUVANT - COC (EC)	1.00	PMV	0					
11A CLASSIC (25WG)	0.03	LAA	0	43	92	90	83	78
B EXPRESS (75WG)	0.009	LAA	0					
C (G)2,4-D-ESTER (4EC)	0.25	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
12A CLASSIC (25WG)	0.03	LAA	0	28	38	38	17	10
B EXPRESS (75WG)	0.009	LAA	0					
C SENCOR DF (75WG)	0.188	LAA	0					
D ADJUVANT - COC (EC)	1.00	PMV	0					
13A CLASSIC (25WG)	0.03	LAA	0	38	97	97	93	92
B EXPRESS (75WG)	0.009	LAA	0					
C SENCOR DF (75WG)	0.188	LAA	0					
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0					
E ADJUVANT - COC (EC)	1.00	PMV	0					

TITLE: EARLY PREPLANT CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS

TRT TREATMENT NUM COMPONENT	DOSAGE			001 RAW	002 RAW	003 RAW	004 RAW	005 RAW	
	RATE	UNIT	TM	05-06-04 P ERICA	05-20-04 P ERICA	06-04-04 P ERICA	06-18-04 P ERICA	06-29-04 P ERICA	
				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	
14A CLASSIC (25WG)	0.03	LAA	0	45	67	58	38	35	
B EXPRESS (75WG)	0.009	LAA	0						
C»VALOR SX (51WG)	0.078	LAA	0						
D ADJUVANT - COC (EC)	1.00	PMV	0						
15A CLASSIC (25WG)	0.03	LAA	0	57	93	92	83	80	
B EXPRESS (75WG)	0.009	LAA	0						
C»VALOR SX (51WG)	0.078	LAA	0						
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
E ADJUVANT - COC (EC)	1.00	PMV	0						
16A CLASSIC (25WG)	0.026	LAA	0	37	75	73	67	57	
B»AUTHORITY (75DF)	0.132	LAA	0						
C EXPRESS (75WG)	0.005	LAA	0						
D ADJUVANT - COC (EC)	1.00	PMV	0						
17A CLASSIC (25WG)	0.026	LAA	0	37	90	90	85	80	
B»AUTHORITY (75DF)	0.132	LAA	0						
C EXPRESS (75WG)	0.005	LAA	0						
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
E ADJUVANT - COC (EC)	1.00	PMV	0						
18A SENCOR DF (75WG)	0.188	LAA	0	52	97	95	95	93	
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
C ADJUVANT - COC (EC)	1.00	PMV	0						
19A»GRAMOXONE MAX (3L)	0.488	LAA	0	33	20	13	0	0	
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
C ADJUVANT - COC (EC)	1.00	PMV	0						
20A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	97	98	98	98	98	
B FERTILIZER-21% AMMONIUM SULFATE	17.00	PMG	0						
21A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	98	100	100	100	100	
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
C FERTILIZER-21% AMMONIUM SULFATE	17.00	PMG	0						
22A»VALOR SX (51WG)	0.078	LAA	0	38	82	78	67	55	
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
C ADJUVANT - COC (EC)	1.00	PMV	0						
23A»AUTHORITY (75DF)	0.188	LAA	0	38	87	82	72	63	
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0						
C ADJUVANT - COC (EC)	1.00	PMV	0						
24A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
				LSD (0.05)	15.31	17.35	19.61	26.05	26.83
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	7.66	8.68	9.80	13.00	13.41
				COEFFICIENT OF VARIANCE	22.81	15.68	18.21	27.91	31.63
				DAT APPLICATION # 01 TIMINGS (00)	15	29	44	58	69

TITLE: EARLY PREPLANT CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS
CREATED: 04-26-2004 **REVISED:** 10-15-2004 **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 NUM	TREATMENT COMPONENT	DOSAGE			006 RAW	007 RAW	009 RAW	009 CALC
		RATE	UNIT	TM	07-12-04 P ERICA	08-11-04 P ERICA	10-12-04 P GLXMA	10-12-04 P GLXMA
				CON %	CON %	VAR 02	VAR 02	
				1.00	1.00	YLD LB	YLD BU	
				PL ALL	PL ALL	PL SD	A SD	
1A	UNTREATED CHECK	0.00	NA	0	0	0	5.4	19.5
2A	CLASSIC (25WG)	0.0156	LAA	0	10	10	6.7	24.3
	B EXPRESS (75WG)	0.005	LAA	0				
	C ADJUVANT - COC (EC)	1.00	PMV	0				
3A	CLASSIC (25WG)	0.0156	LAA	0	58	53	9.4	34.0
	B EXPRESS (75WG)	0.005	LAA	0				
	C (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
	D ADJUVANT - COC (EC)	1.00	PMV	0				
4A	CLASSIC (25WG)	0.0156	LAA	0	0	0	9.0	32.7
	B EXPRESS (75WG)	0.005	LAA	0				
	C SENCOR DF (75WG)	0.188	LAA	0				
	D ADJUVANT - COC (EC)	1.00	PMV	0				
5A	CLASSIC (25WG)	0.0156	LAA	0	83	83	8.7	31.4
	B EXPRESS (75WG)	0.005	LAA	0				
	C SENCOR DF (75WG)	0.188	LAA	0				
	D (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
	E ADJUVANT - COC (EC)	1.00	PMV	0				
6A	CLASSIC (25WG)	0.0156	LAA	0	17	17	8.9	32.4
	B EXPRESS (75WG)	0.005	LAA	0				
	C VALOR SX (51WG)	0.078	LAA	0				
	D ADJUVANT - COC (EC)	1.00	PMV	0				
7A	CLASSIC (25WG)	0.0156	LAA	0	65	60	8.8	32.1
	B EXPRESS (75WG)	0.005	LAA	0				
	C VALOR SX (51WG)	0.078	LAA	0				
	D (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
	E ADJUVANT - COC (EC)	1.00	PMV	0				
8A	CLASSIC (25WG)	0.0147	LAA	0	37	37	9.0	32.7
	B AUTHORITY (75DF)	0.073	LAA	0				
	C EXPRESS (75WG)	0.005	LAA	0				
	D ADJUVANT - COC (EC)	1.00	PMV	0				
9A	CLASSIC (25WG)	0.0147	LAA	0	50	48	10.7	39.0
	B AUTHORITY (75DF)	0.073	LAA	0				
	C EXPRESS (75WG)	0.005	LAA	0				
	D (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
	E ADJUVANT - COC (EC)	1.00	PMV	0				
10A	CLASSIC (25WG)	0.03	LAA	0	53	52	10.2	37.1
	B EXPRESS (75WG)	0.009	LAA	0				
	C ADJUVANT - COC (EC)	1.00	PMV	0				
11A	CLASSIC (25WG)	0.03	LAA	0	72	65	8.6	31.3
	B EXPRESS (75WG)	0.009	LAA	0				
	C (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
	D ADJUVANT - COC (EC)	1.00	PMV	0				
12A	CLASSIC (25WG)	0.03	LAA	0	0	0	8.5	30.7
	B EXPRESS (75WG)	0.009	LAA	0				
	C SENCOR DF (75WG)	0.188	LAA	0				
	D ADJUVANT - COC (EC)	1.00	PMV	0				
13A	CLASSIC (25WG)	0.03	LAA	0	85	82	9.8	35.4
	B EXPRESS (75WG)	0.009	LAA	0				
	C SENCOR DF (75WG)	0.188	LAA	0				
	D (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
	E ADJUVANT - COC (EC)	1.00	PMV	0				

TITLE: EARLY PREPLANT CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS

TRT TREATMENT NUM COMPONENT	DOSAGE			006 RAW	007 RAW	009 RAW	009 CALC
	RATE	UNIT	TM	07-12-04 P ERICA	08-11-04 P ERICA	10-12-04 P GLXMA	10-12-04 P GLXMA
				CON % 1.00 PL ALL	CON % 1.00 PL ALL	VAR 02 YLD LB 1.00 PL SD	VAR 02 YLD BU 1.00 A SD
14A CLASSIC (25WG)	0.03	LAA	0	33	33	8.9	32.3
B EXPRESS (75WG)	0.009	LAA	0				
C»VALOR SX (51WG)	0.078	LAA	0				
D ADJUVANT - COC (EC)	1.00	PMV	0				
15A CLASSIC (25WG)	0.03	LAA	0	78	75	9.2	33.4
B EXPRESS (75WG)	0.009	LAA	0				
C»VALOR SX (51WG)	0.078	LAA	0				
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
E ADJUVANT - COC (EC)	1.00	PMV	0				
16A CLASSIC (25WG)	0.026	LAA	0	47	27	8.6	31.4
B»AUTHORITY (75DF)	0.132	LAA	0				
C EXPRESS (75WG)	0.005	LAA	0				
D ADJUVANT - COC (EC)	1.00	PMV	0				
17A CLASSIC (25WG)	0.026	LAA	0	75	70	12.2	44.3
B»AUTHORITY (75DF)	0.132	LAA	0				
C EXPRESS (75WG)	0.005	LAA	0				
D (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
E ADJUVANT - COC (EC)	1.00	PMV	0				
18A SENCOR DF (75WG)	0.188	LAA	0	90	88	11.0	39.8
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
C ADJUVANT - COC (EC)	1.00	PMV	0				
19A»GRAMOXONE MAX (3L)	0.488	LAA	0	0	0	5.9	21.3
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
C ADJUVANT - COC (EC)	1.00	PMV	0				
20A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	97	97	13.0	47.1
B FERTILIZER-21% AMMONIUM SULFATE	17.00	PMG	0				
21A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	100	12.1	43.9
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
C FERTILIZER-21% AMMONIUM SULFATE	17.00	PMG	0				
22A»VALOR SX (51WG)	0.078	LAA	0	35	25	6.9	25.0
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
C ADJUVANT - COC (EC)	1.00	PMV	0				
23A»AUTHORITY (75DF)	0.188	LAA	0	52	48	9.4	34.0
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0				
C ADJUVANT - COC (EC)	1.00	PMV	0				
24A UNTREATED CHECK	0.00	NA	0	0	0	6.8	24.6
		LSD (0.05)		30.17	31.74	3.65	13.23
		SIGNIFICANCE OF F		**	**	*	*
		STANDARD DEVIATION		15.09	15.87	1.82	6.62
		COEFFICIENT OF VARIANCE		39.00	43.60	24.64	24.63
		DAT APPLICATION # 01 TIMINGS (00)		82	112	174	174

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / EARLY PREPLANT 04-21-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	ERICA	CON %	05-06-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
002	ERICA	CON %	05-20-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
003	ERICA	CON %	06-04-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
004	ERICA	CON %	06-18-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
005	ERICA	CON %	06-29-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
006	ERICA	CON %	07-12-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N

TITLE: EARLY PREPLANT CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
007	ERICA	CON %	08-11-2004	01	P	ERICA		RAW	ALL	CON	%	H	1.00 PL	NO	0001	0	N
009	GLXMA	LBL0T	10-12-2004	02	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	GLXMA	BUCRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 02 = NORTHRUP KING S39-Q4RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = NORTHRUP KING S39-Q4RR

* USER DEFINED CALCULATIONS

US 003/04/01 001 AH--- 009 -- {RAW} * (3.63)

US 003/04/01 001 AH--- 009 -- {RAW} * (3.63)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 BH ALTERNATE ID#: HF 28 2004
 PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
 CREATED BY: US RITTER R
 CREATED: 05-04-2004 REVISED: 11-23-2004 COMPLETED: Y
 TITLE: KNOCK-DOWN CONTROL OF MARESTAIL IN 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

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: 22	ACTUAL SUB-BLOCKS: 22
TEXTURE: SL	% OM: 1.3		
SOIL GEN: C			
PREVIOUS CROP: GLXMA - SOYBEAN			
% RESIDUE: 30			
PLOT WIDTH: 10.00 FT			
PLOT LENGTH: 15.00 FT			

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. 30 DPP application made 05/06/2004.
2. 15 DPP application made 05/17/2004.
3. Study planted to soybeans on 06/03/2004. Variety - Pioneer 94B73RR.
4. Study harvested 11/06/2004.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	05-06-04	05-17-04	USA
TIME - BEGIN	14:30	16:00	24H
TIME - END	15:30	16:30	24H
AIR TEMPERATURE	75	80	F
% REL. HUMIDITY	30	30	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	
WIND SPEED	3.0	3.0	M/H
CLOUD COVER	CLEAR	CLOUDY	
DEW	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	70/4.00	70/4.00	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 = PREPLA / EARLY PREPLANT - 30 DPP
01 = PREPLA / EARLY PREPLANT - 14 DPP

* NOZZLE DESCRIPTION

01 = SS-8003
02 = 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
05-06-2004	19	MED	3.00 SQY	4.00	8.00	4.00 IN		TUR	
05-17-2004	19	MED	3.00 SQY	8.00	14.00	10.00 IN		TUR	

02 P GLXMA - SOYBEAN

CULTIVAR: PIONEER 94B73RR

TARGET: CROP SITE: FG

POPULATION: 165000.00 IPA PLANTED: 06-03-2004

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
05-06-2004	00	---		IND	.	. IN		NA	
05-17-2004	00	---		IND	.	. IN		NA	
06-03-2004	00	MED	165000.00 IPA	.	.	. IN		NA	

* STAGE CODE -- GENERAL

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

* STAGE CODE -- SOYBEAN

00 = DRY SEED

TITLE: KNOCK-DOWN CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS
CREATED: 05-04-2004 **REVISED:** 11-23-2004 **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	05-17-04 P ERICA 19	06-04-04 P ERICA	06-18-04 P ERICA	06-29-04 P ERICA	07-12-04 P ERICA
				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 (G)2,4-D-ESTER (4EC)	1.00	LAA	0	80	92	92	92	87
3A (G)2,4-D-ESTER (4EC)	0.50	LAA	0	48	50	50	48	33
4A (G)2,4-D-ESTER (4EC)	0.25	LAA	0	32	33	33	27	13
5A CLARITY (4SL)	1.00	LAA	0	87	100	100	100	100
6A CLARITY (4SL)	0.50	LAA	0	73	100	100	100	100
7A CLARITY (4SL)	0.25	LAA	0	63	90	95	95	88
8A»VALOR SX (51WG)	0.063	LAA	0	3	0	0	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
9A»VALOR SX (51WG)	0.096	LAA	0	0	0	0	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
10A»FIRSTRATE (84 WG)	0.016	LAA	0	47	62	63	60	50
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
11A»GRAMOXONE MAX (3L)	0.75	LAA	0	78	73	62	60	57
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
12A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	67	100	100	100	97
13A (G)2,4-D-ESTER (4EC)	0.50	LAA	1	0	30	45	43	45
14A (G)2,4-D-ESTER (4EC)	0.25	LAA	1	0	23	28	28	22
15A CLARITY (4SL)	0.50	LAA	1	0	57	73	83	90
16A CLARITY (4SL)	0.25	LAA	1	0	33	57	77	65
17A»VALOR SX (51WG)	0.063	LAA	1	0	0	0	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
18A»VALOR SX (51WG)	0.096	LAA	1	0	0	0	0	0
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
19A»FIRSTRATE (84 WG)	0.016	LAA	1	0	77	77	75	65
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
20A»GRAMOXONE MAX (3L)	0.75	LAA	1	0	97	97	97	97
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
21A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	0	80	92	93	93
22A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0
		LSD (0.05)		24.94	21.45	22.17	23.23	25.08
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		12.47	10.72	11.09	11.62	12.54
		COEFFICIENT OF VARIANCE		58.11	26.35	25.68	26.56	30.67
		DAT APPLICATION # 01 TIMINGS (00)		11	29	43	54	67
		DAT APPLICATION # 02 TIMINGS (01)		0	18	32	43	56

TITLE: KNOCK-DOWN CONTROL OF MARESTAIL IN FULL-SEASON NO-TILL SOYBEANS
 CREATED: 05-04-2004 REVISED: 11-23-2004 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 % PL ALL	006 RAW	007 RAW	007 CALC
	RATE	UNIT	TM		08-11-04 P ERICA	11-06-04 P GLXMA	11-06-04 P GLXMA
					VAR 02 YLD LB PL SD	VAR 02 YLD BU A SD	
1A UNTREATED CHECK	0.00	NA	0	0	2.6	12.4	
2A (G)2,4-D-ESTER (4EC)	1.00	LAA	0	87	3.6	17.4	
3A (G)2,4-D-ESTER (4EC)	0.50	LAA	0	17	4.5	21.9	
4A (G)2,4-D-ESTER (4EC)	0.25	LAA	0	0	2.6	12.7	
5A CLARITY (4SL)	1.00	LAA	0	100	4.8	23.2	
6A CLARITY (4SL)	0.50	LAA	0	100	3.1	15.0	
7A CLARITY (4SL)	0.25	LAA	0	85	5.8	28.2	
8A»VALOR SX (51WG) B SURFACTANT - NON-IONIC (SL)	0.063 0.25	LAA PMV	0 0	0	2.8	13.6	
9A»VALOR SX (51WG) B SURFACTANT - NON-IONIC (SL)	0.096 0.25	LAA PMV	0 0	0	2.3	11.0	
10A»FIRSTRATE (84 WG) B SURFACTANT - NON-IONIC (SL)	0.016 0.25	LAA PMV	0 0	30	3.1	14.9	
11A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL)	0.75 0.25	LAA PMV	0 0	43	5.9	28.6	
12A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	97	5.0	24.0	
13A (G)2,4-D-ESTER (4EC)	0.50	LAA	1	38	3.4	16.6	
14A (G)2,4-D-ESTER (4EC)	0.25	LAA	1	0	2.9	13.9	
15A CLARITY (4SL)	0.50	LAA	1	82	4.3	20.6	
16A CLARITY (4SL)	0.25	LAA	1	50	3.8	18.5	
17A»VALOR SX (51WG) B SURFACTANT - NON-IONIC (SL)	0.063 0.25	LAA PMV	1 1	0	1.8	8.7	
18A»VALOR SX (51WG) B SURFACTANT - NON-IONIC (SL)	0.096 0.25	LAA PMV	1 1	0	2.2	10.6	
19A»FIRSTRATE (84 WG) B SURFACTANT - NON-IONIC (SL)	0.016 0.25	LAA PMV	1 1	53	3.9	18.7	
20A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL)	0.75 0.25	LAA PMV	1 1	95	5.4	26.1	
21A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	87	4.3	20.6	
22A UNTREATED CHECK	0.00	NA	1	0	3.0	14.7	
		LSD (0.05)		29.23	2.13	10.31	
		SIGNIFICANCE OF F		**	**	**	
		STANDARD DEVIATION		14.62	1.07	5.16	
		COEFFICIENT OF VARIANCE		40.88	35.44	35.43	
		DAT APPLICATION # 01 TIMINGS (00)		97	184	184	
		DAT APPLICATION # 02 TIMINGS (01)		86	173	173	

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / EARLY PREPLANT - 30 DPP 05-06-2004(1)

* TIMING CODES

01 = PREPLA / EARLY PREPLANT - 14 DPP 05-17-2004(2)

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 %	05-17-2004	01	P	ERICA	19	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	ERICA	CON %	06-04-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	ERICA	CON %	06-18-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	ERICA	CON %	06-29-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	ERICA	CON %	07-12-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	ERICA	CON %	08-11-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	YIELD	LB/PLOT	11-06-2004	02	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 02 = PIONEER 94B73RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = PIONEER 94B73RR

* STAGE CODE

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

* USER DEFINED CALCULATIONS

US 003/04/01 001 BH--- 007 -- {RAW}*(4.84)

US 003/04/01 001 BH--- 007 -- {RAW}*(4.84)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 CH ALTERNATE ID#: HF 29 2004
PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
CREATED BY: US RITTER R
CREATED: 05-04-2004 REVISED: 10-08-2004 COMPLETED: Y
TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - ROUNDUP-READY CORN

COORDINATOR: US 001 Ron Ritter
TRIAL TYPE: HERBICIDE

PROJECT#2:
RESEARCHER: RITTER AND MENBERE
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. KEVIN CONOVER
LOCATION: HAYDEN FARM
CITY: BELTSVILLE
COUNTY: PRINCE GEORGE'S
COUNTRY: UNITED STATES

CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
DATA SOURCE: UNIVERSITY
TYPE: FIELD TRIAL
STATE: MARYLAND
ZIP: 20705

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
% SILT: 18 PH: 6.3
% CLAY: 9 CEC: 4.8
TEXTURE: SL % OM: 1.3
SOIL GEN: C
PREVIOUS CROP: SECCE - RYE, VOLUNTEER
% RESIDUE: 90
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

DESIGN: RCB RESIDUE TRIAL: EFF
ACTUAL REPS: 3 ACTUAL BLOCKS: 1
ACTUAL TRTS: 8 ACTUAL SUB-BLOCKS: 8

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/13/2004. Variety - DeKalb C63-81RR.
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 05/13/2004.
7. Gramoxone Max applied to entire area at 2 pt/acre on 05/17/2004.
8. Early post applications made 06/04/2004.
9. Mid-post applications made 06/10/2004.
10. Study harvested 10/05/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-13-04	06-04-04	06-10-04	USA
TIME - BEGIN	17:00	09:30	09:30	24H
TIME - END	18:00	10:30	10:00	24H
AIR TEMPERATURE	84	65	82	F
% REL. HUMIDITY	50	30	50	
WIND DIRECTION	SOUTHWEST	SOUTHEAST	SOUTHEAST	
WIND SPEED	3.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	HAZY SUN	
DEW	NO	YES	YES	
SOIL MOISTURE	MOIST/MOI	DRY/MOIST	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	75/4.00	64/4.00	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 - 2 TO 4" WEEDS
02 = POSPOS / LATE POSTEMERGENCE - 4 TO 6" WEEDS

* NOZZLE DESCRIPTION

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

01 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: DEKALB 63-81RR
TARGET: CROP **SITE:** FG **POPULATION:** 26500.00 IPA **PLANTED:** 05-13-2004
PLANTING DEPTH: 1.7 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
05-13-2004	00	MED	26500.00	IPA	.	. IN	NA	
06-04-2004	15	MED	26500.00	IPA	9.00	9.00 IN	TUR	
06-10-2004	18	MED	26500.00	IPA	22.00	22.00 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
05-13-2004	00	---		IND	.	. IN	NA	
06-04-2004	23	LOW	3.00	SQY	3.00	3.00 IN	TUR	
06-10-2004	---	---		IND	.	. IN	---	
06-10-2004	---	---		IND	.	. IN	---	

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
05-13-2004	00	---		IND	.	. IN	NA	
06-04-2004	19	LOW	1.00	SQY	6.00	6.00 IN	TUR	
06-10-2004	19	LOW	1.00	SQY	8.00	12.00 IN	TUR	

04 P IPOLA - MORNINGGLORY, PITTED, SMALL WHITE
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
05-13-2004	00	---		IND	.	. IN	NA	
06-04-2004	19	LOW	1.00	SQY	8.00	8.00 IN	TUR	
06-10-2004	19	LOW	1.00	SQY	4.00	12.00 IN	TUR	

05 P AMACH - PIGWEED, SMOOTH
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
05-13-2004	00	---		IND	.	. IN	NA	
06-04-2004	14	LOW	5.00	SQY	2.00	2.00 IN	TUR	
06-10-2004	---	---		IND	.	. IN	---	
06-10-2004	---	---		IND	.	. IN	---	

- * STAGE CODE -- CORN
- 00 = DRY SEED (CARYOPSIS)
- 15 = 5 LEAVES UNFOLDED
- 18 = 8 LEAVES UNFOLDED
- * STAGE CODE -- GENERAL
- 14 = 4TH TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- 19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED
- * STAGE CODE -- GENERAL GRASS
- = TO BE SELECTED
- 00 = DRY SEED (CARYOPSIS)
- 23 = 3 TILLERS DETECTABLE

TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - ROUNDUP-READY CORN

CREATED: 05-04-2004 REVISED: 10-08-2004 COMPLETED: Y
 PROJECT TYPE: HERBICIDE RESEARCHED BY: RITTER AND MENBERE
 LOCATION: HAYDEN FARM 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	05-28-04 P ZEAMX	05-28-04 P DIGSA	05-28-04 P IPOLA	06-10-04 P DIGSA ---	06-10-04 P IPOLA 19	
				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	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A HARNESS XTRA 5.6(SC)	3.36	LAA	0	0	100	70	100	20	
B»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	2						
3A HARNESS XTRA 5.6(SC)	1.68	LAA	0	0	100	80	98	30	
B»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	2						
4A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	0	0	0	100	90	
B HARNESS XTRA 5.6(SC)	1.68	LAA	1						
5A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	97	97	93	
6A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	98	88	97	63	
B»CALLISTO (4SC)	0.094	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
7A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	0	0	0	87	77	
B CLARITY (4SL)	0.125	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	LAA	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
8A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSD (0.05)	0.00	1.79	12.73	5.53	25.20
				SIGNIFICANCE OF F	ns	**	**	**	**
				STANDARD DEVIATION	0.00	0.833	5.93	2.58	11.75
				COEFFICIENT OF VARIANCE	0.00	2.00	17.36	4.37	30.83
				DAT APPLICATION # 01 TIMINGS (00)	15	15	15	28	28
				DAT APPLICATION # 02 TIMINGS (01)	NA	NA	NA	6	6
				DAT APPLICATION # 03 TIMINGS (02)	NA	NA	NA	0	0

TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - ROUNDUP-READY CORN

CREATED: 05-04-2004 REVISED: 10-08-2004 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	06-22-04 P DIGSA	06-22-04 P IPOLA	07-12-04 P DIGSA	07-12-04 P IPOLA	08-11-04 P DIGSA	
				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 HARNESS XTRA 5.6(SC)	3.36	LAA	0	100	60	92	77	90	
B»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	2						
3A HARNESS XTRA 5.6(SC)	1.68	LAA	0	100	68	95	67	90	
B»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	2						
4A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	100	97	98	97	97	
B HARNESS XTRA 5.6(SC)	1.68	LAA	1						
5A»LUMAX (3.94 SE)	2.46	LAA	0	95	97	93	97	93	
6A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	97	82	97	87	97	
B»CALLISTO (4SC)	0.094	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
7A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	93	97	88	98	85	
B CLARITY (4SL)	0.125	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	LAA	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
8A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSD (0.05)	4.11	22.00	7.12	10.38	9.34
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	1.92	10.27	3.32	4.84	4.35
				COEFFICIENT OF VARIANCE	3.21	20.12	5.77	9.09	7.73
				DAT APPLICATION # 01 TIMINGS (00)	40	40	60	60	90
				DAT APPLICATION # 02 TIMINGS (01)	18	18	38	38	68
				DAT APPLICATION # 03 TIMINGS (02)	12	12	32	32	62

TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - ROUNDUP-READY CORN

CREATED: 05-04-2004 REVISED: 10-08-2004 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 BU PL SD	YLD BU A SD
011 RAW					012 RAW	012 CALC
08-11-04					10-05-04	10-05-04
P IPOLA					P ZEAMX	P ZEAMX
1A UNTREATED CHECK	0.00	NA	0	0	19.8	151.5
2A HARNESS XTRA 5.6(SC)	3.36	LAA	0	75	25.4	194.1
B>ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	2			
3A HARNESS XTRA 5.6(SC)	1.68	LAA	0	65	23.1	176.5
B>ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	2			
4A>ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	97	26.9	205.5
B HARNESS XTRA 5.6(SC)	1.68	LAA	1			
5A>LUMAX (3.94 SE)	2.46	LAA	0	97	22.9	174.7
6A>BICEP II MAGNUM (5.5SC)	2.89	LAA	0	87	26.9	205.8
B>CALLISTO (4SC)	0.094	LAA	2			
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2			
7A>STEADFAST ATZ (89.3WG)	0.78	LAA	1	97	21.8	166.5
B CLARITY (4SL)	0.125	LAA	1			
C SURFACTANT - NON-IONIC (SL)	0.25	LAA	1			
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1			
8A UNTREATED CHECK	0.00	NA	1	0	15.3	116.9
					LSD (0.05)	10.49
					SIGNIFICANCE OF F	**
					STANDARD DEVIATION	4.89
					COEFFICIENT OF VARIANCE	9.27
					DAT APPLICATION # 01 TIMINGS (00)	90
					DAT APPLICATION # 02 TIMINGS (01)	68
					DAT APPLICATION # 03 TIMINGS (02)	62

> = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-13-2004(1)
 01 = POSPOS / EARLY POSTEMERGENCE - 2 TO 4" WEEDS 06-04-2004(2)
 02 = POSPOS / LATE POSTEMERGENCE - 4 TO 6" WEEDS 06-10-2004(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 %	05-28-2004	01	P	ZEAMX		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	DIGSA	CON %	05-28-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	IPOLA	CON %	05-28-2004	04	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	DIGSA	CON %	06-10-2004	02	P	DIGSA	---	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	IPOLA	CON %	06-10-2004	04	P	IPOLA	19	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	DIGSA	CON %	06-22-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	IPOLA	CON %	06-22-2004	04	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	DIGSA	CON %	07-12-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	IPOLA	CON %	07-12-2004	04	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
010	DIGSA	CON %	08-11-2004	02	P	DIGSA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	IPOLA	CON %	08-11-2004	04	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	ZEAMX	LB/PLOT	10-05-2004	01	P	ZEAMX		RAW	SD	YLD	BU	H	1.00 PL	UDC	0001	0	N
	ZEAMX	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 01 = DEKALB 63-81RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

01 = DEKALB 63-81RR

*** STAGE CODE**

--- = TO BE SELECTED

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

*** USER DEFINED CALCULATIONS**

US 003/04/01 001 CH--- 012 -- {RAW}*(7.64)

US 003/04/01 001 CH--- 012 -- {RAW}*(7.64)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 DH ALTERNATE ID#: HF 30 2004
PROTOCOL#: US 003/04/01 ALTERNATE ID#: US 003/04/01
CREATED BY: US RITTER R REVISED: 10-08-2004 COMPLETED: Y
CREATED: 05-04-2004
TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - 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: 8 ACTUAL SUB-BLOCKS: 8
TEXTURE: SL % OM: 1.3
SOIL GEN: C
PREVIOUS CROP: SECCE - RYE, VOLUNTEER
% RESIDUE: 90
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

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

ABSTRACT

A. Trial Initiation

1. Study planted 05/13/2004. Variety - Pioneer 33B51.
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 05/13/2004.
7. Gramoxone Max applied to entire area at 2 pt/acre on 05/17/2004.
8. Early post applications made 06/04/2004.
9. Mid-post applications made 06/10/2004.
10. Study harvested 10/05/2004.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	05-13-04	06-04-04	06-10-04	USA
TIME - BEGIN	17:00	09:30	09:30	24H
TIME - END	18:00	10:30	10:00	24H
AIR TEMPERATURE	84	65	82	F
% REL. HUMIDITY	50	30	50	
WIND DIRECTION	SOUTHWEST	SOUTHEAST	SOUTHEAST	
WIND SPEED	3.0	3.0	3.0	M/H
CLOUD COVER	PARTCLDY	CLOUDY	HAZY SUN	
DEW	NO	YES	YES	
SOIL MOISTURE	MOIST/MOI	DRY/MOIST	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	75/4.00	64/4.00	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 / PREEMERGNCE
01 = POSPOS / EARLY POSTEMERGNCE - 2 TO 4" WEEDS
02 = POSPOS / LATE POSTEMERGNCE - 4 TO 6" WEEDS

* NOZZLE DESCRIPTION

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

TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - CONVENTIONAL CORN

CREATED: 05-04-2004 REVISED: 10-08-2004 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	05-28-04 P ZEAMX	05-28-04 P DIGSA	05-28-04 P IPOLA	06-10-04 P DIGSA ---	06-10-04 P IPOLA 19	
				VAR 06 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	
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A»LUMAX (3.94 SE)	2.46	LAA	0	0	100	100	100	97	
3A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	100	100	97	
B»CALLISTO (4SC)	0.094	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
4A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	0	0	0	80	87	
B CLARITY (4SL)	0.125	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
5A HARNESS XTRA 5.6(SC)	3.36	LAA	0	0	100	100	93	83	
B»YUKON (67.5WG)	0.169	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
6A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	0	100	93	100	68	
B»NORTHSTAR (47.4WG)	0.148	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
7A HARNESS XTRA 5.6(SC)	3.36	LAA	0	0	100	100	100	98	
B»PROWL H2O (3.8CS)	1.50	LAA	0						
8A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSL (0.05)	0.00	0.00	7.15	7.52	23.08
				SIGNIFICANCE OF F	ns	**	**	**	**
				STANDARD DEVIATION	0.00	0.00	3.33	3.51	10.76
				COEFFICIENT OF VARIANCE	0.00	0.00	6.62	6.00	19.89
				DAT APPLICATION # 01 TIMINGS (00)	15	15	15	28	28
				DAT APPLICATION # 02 TIMINGS (01)	NA	NA	NA	6	6
				DAT APPLICATION # 03 TIMINGS (02)	NA	NA	NA	0	0

TITLE: ACADEMIC CORN PROTOCOL STUDY - 2004 - CONVENTIONAL CORN

CREATED: 05-04-2004 REVISED: 10-08-2004 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	06-22-04 P DIGSA	06-22-04 P IPOLA	07-12-04 P DIGSA	07-12-04 P IPOLA	08-11-04 P DIGSA	
				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»LUMAX (3.94 SE)	2.46	LAA	0	95	95	90	92	90	
3A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	95	97	92	97	90	
B»CALLISTO (4SC)	0.094	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
4A»STEADFAST ATZ (89.3WG)	0.78	LAA	1	78	97	63	97	55	
B CLARITY (4SL)	0.125	LAA	1						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1						
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1						
5A HARNESS XTRA 5.6(SC)	3.36	LAA	0	87	92	73	92	68	
B»YUKON (67.5WG)	0.169	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
6A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	97	90	85	92	80	
B»NORTHSTAR (47.4WG)	0.148	LAA	2						
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	2						
7A HARNESS XTRA 5.6(SC)	3.36	LAA	0	97	97	92	95	92	
B»PROWL H2O (3.8CS)	1.50	LAA	0						
8A UNTREATED CHECK	0.00	NA	1	0	0	0	0	0	
				LSD (0.05)	11.12	7.05	13.73	6.19	20.28
				SIGNIFICANCE OF F	**	**	**	**	**
				STANDARD DEVIATION	5.19	3.29	6.40	2.89	9.45
				COEFFICIENT OF VARIANCE	9.27	5.69	12.67	5.00	19.50
				DAT APPLICATION # 01 TIMINGS (00)	40	40	60	60	90
				DAT APPLICATION # 02 TIMINGS (01)	18	18	38	38	68
				DAT APPLICATION # 03 TIMINGS (02)	12	12	32	32	62

*** STAGE CODE**

--- = TO BE SELECTED
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

*** USER DEFINED CALCULATIONS**

US 003/04/01 001 DH--- 012 -- {RAW}*(7.64)
US 003/04/01 001 DH--- 012 -- {RAW}*(7.64)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 EH **ALTERNATE ID#:** HF 31 2004
PROTOCOL#: US 003/04/01 **ALTERNATE ID#:** US 003/00/01
CREATED BY: US RITTER R
CREATED: 05-26-2004 **REVISED:** 10-12-2004 **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: 76 **TILLAGE:** COT
% SILT: 17 **PH:** 6.9
% CLAY: 7 **CEC:** 14.9
TEXTURE: SL **% OM:** 2.1
SOIL GEN: C
PREVIOUS CROP: SECCE - RYE, VOLUNTEER
% RESIDUE: 100
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: 16 **ACTUAL SUB-BLOCKS:** 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/28/2004.
2. Preemergence applications made 05/28/2004.
3. Study had a rye cover which was burned back with Gramoxone Max at 2.0 pt/acre on 05/29/2004.
4. 75 lb N/acre as UAN applied 05/29/2004 to entire study.
5. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-28-04	USA
TIME - BEGIN	15:00	24H
TIME - END	16:00	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	50	
WIND DIRECTION	WEST	
WIND SPEED	5.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	78/4.00	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
 TARGET: CROP SITE: FG POPULATION: 21000.00 IPA PLANTED: 05-28-2004
 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
 05-28-2004 00 MED 21000.00 IPA . . . IN NA

02 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
 05-28-2004 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
 05-28-2004 00 --- IND . . . IN NA

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
 05-28-2004 00 --- IND . . . IN NA

05 P IPOLA - MORNINGGLORY, PITTED, SMALL WHITE
 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
 05-28-2004 00 --- IND . . . IN NA

06 P HELSS - SUNFLOWER
 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
 05-28-2004 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
 05-28-2004 00 --- IND . . . IN ---

* STAGE CODE -- GENERAL GRASS
 00 = DRY SEED (CARYOPSIS)
 * STAGE CODE -- SUNFLOWER
 00 = DRY SEED (ACHENE)

TITLE: WEED CONTROL IN SUNFLOWERS
 CREATED: 05-26-2004 REVISED: 10-12-2004 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			PHY %	CON %	CON %	PHY %	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 07-12-04 P HELSS								
002 RAW 07-12-04 P IPOLA								
003 RAW 07-12-04 P XANST								
004 RAW 08-11-04 P HELSS								
005 RAW 08-11-04 P IPOLA								
1A UNTREATED CHECK	0.00	NA	0	3	0	0	0	0
2A»DUAL II MAGNUM (7.64EC)	1.27	LAA	0	3	0	10	3	0
3A»AUTHORITY (75DF)	0.375	LAA	0	53	90	87	53	90
4A»PROWL H20 (3.8CS)	1.00	LAA	0	0	0	33	0	0
5A»DUAL II MAGNUM (7.64EC) B»AUTHORITY (75DF)	1.27 0.25	LAA LAA	0 0	28	97	95	18	93
6A»DUAL II MAGNUM (7.64EC) B»AUTHORITY (75DF)	1.27 0.375	LAA LAA	0 0	47	100	87	37	90
7A»DUAL II MAGNUM (7.64EC) B»AUTHORITY (75DF)	1.27 0.50	LAA LAA	0 0	75	95	97	77	93
8A»PROWL H20 (3.8CS) B»AUTHORITY (75DF)	1.00 0.25	LAA LAA	0 0	30	92	83	27	90
9A»PROWL H20 (3.8CS) B»AUTHORITY (75DF)	1.00 0.375	LAA LAA	0 0	55	97	97	53	93
10A»PROWL H20 (3.8CS) B»AUTHORITY (75DF)	1.00 0.50	LAA LAA	0 0	90	100	100	90	100
11A»VALOR (50WDG)	0.063	LAA	0	23	50	48	13	43
12A»VALOR (50WDG)	0.078	LAA	0	27	35	33	23	20
13A»DUAL II MAGNUM (7.64EC) B»VALOR (50WDG)	1.27 0.063	LAA LAA	0 0	15	10	25	10	0
14A»PROWL H20 (3.8CS) B»VALOR (50WDG)	1.00 0.063	LAA LAA	0 0	20	58	65	10	50
15A»PROWL H20 (3.8CS)	1.50	LAA	0	7	57	88	0	37
16A UNTREATED CHECK	0.00	NA	0	18	33	0	0	0
		LSD (0.05)		41.00	48.41	52.50	38.54	34.40
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		20.07	23.71	25.71	18.87	16.85
		COEFFICIENT OF VARIANCE		79.46	50.87	53.13	89.12	41.26
		DAT APPLICATION # 01 TIMINGS (00)		45	45	45	75	75

TITLE: WEED CONTROL IN SUNFLOWERS
 CREATED: 05-26-2004 REVISED: 10-12-2004 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 %
	RATE	UNIT	TM	PL ALL	PL ALL
1A UNTREATED CHECK	0.00	NA	0	0	30
2A»DUAL II MAGNUM (7.64EC)	1.27	LAA	0	0	53
3A»AUTHORITY (75DF)	0.375	LAA	0	87	63
4A»PROWL H20 (3.8CS)	1.00	LAA	0	33	52
5A»DUAL II MAGNUM (7.64EC) B»AUTHORITY (75DF)	1.27 0.25	LAA LAA	0 0	90	68
6A»DUAL II MAGNUM (7.64EC) B»AUTHORITY (75DF)	1.27 0.375	LAA LAA	0 0	83	80
7A»DUAL II MAGNUM (7.64EC) B»AUTHORITY (75DF)	1.27 0.50	LAA LAA	0 0	92	32
8A»PROWL H20 (3.8CS) B»AUTHORITY (75DF)	1.00 0.25	LAA LAA	0 0	73	65
9A»PROWL H20 (3.8CS) B»AUTHORITY (75DF)	1.00 0.375	LAA LAA	0 0	93	68
10A»PROWL H20 (3.8CS) B»AUTHORITY (75DF)	1.00 0.50	LAA LAA	0 0	100	22
11A»VALOR (50WDG)	0.063	LAA	0	37	92
12A»VALOR (50WDG)	0.078	LAA	0	33	80
13A»DUAL II MAGNUM (7.64EC) B»VALOR (50WDG)	1.27 0.063	LAA LAA	0 0	10	60
14A»PROWL H20 (3.8CS) B»VALOR (50WDG)	1.00 0.063	LAA LAA	0 0	63	92
15A»PROWL H20 (3.8CS)	1.50	LAA	0	53	83
16A UNTREATED CHECK	0.00	NA	0	0	0
	LSD (0.05)			55.17	50.54
	SIGNIFICANCE OF F			**	*
	STANDARD DEVIATION			27.00	24.75
	COEFFICIENT OF VARIANCE			62.41	51.59
	DAT APPLICATION # 01 TIMINGS (00)			75	75

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-28-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
001	HELSS	PHYTO %	07-12-2004	06	P	HELSS		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
002	IPOLA	CON %	07-12-2004	05	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	07-12-2004	07	P	XANST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	HELSS	PHYTO %	08-11-2004	06	P	HELSS		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	IPOLA	CON %	08-11-2004	05	P	IPOLA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	CHEAL	CON %	08-11-2004	07	P	XANST		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	AMBEL	CON %	08-11-2004	04	P	AMBEL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 003/04/01 001 KH **ALTERNATE ID#:** HF 36 2004
PROTOCOL#: US 003/04/01 **ALTERNATE ID#:** US 003/04/01
CREATED BY: US RITTER R
CREATED: 06-02-2004 **REVISED:** 11-13-2004 **COMPLETED:** Y
TITLE: CUTLEAF EVENING PRIMROSE CONTROL IN 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: 84 **TILLAGE:** NOT
% 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: 16 **ACTUAL SUB-BLOCKS:** 16

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 06/03/2004. Variety - Pioneer 94B73RR.
2. Pre applications made 06/03/2004.
3. Study harvested 11/06/2004.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	06-03-04	USA
TIME - BEGIN	12:30	24H
TIME - END	13:30	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	40	
WIND DIRECTION	NORTHWEST	
WIND SPEED	5.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	DRY/MOIST	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	76/4.00	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 PRIVU - PRIMROSE, 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
06-03-2004	68	MED	3.00 SQY	8.00	12.00	12.00 IN	TUR	

02 P GLXMA - SOYBEAN

CULTIVAR: PIONEER 94B73RR

TARGET: CROP SITE: FG

POPULATION: 165000.00 IPA PLANTED: 06-03-2004

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
06-03-2004	00	MED	165000.00 IPA	.	.	. IN	NA	

* STAGE CODE -- GENERAL

68 = 80% OF FLOWERS OPEN

* STAGE CODE -- SOYBEAN

00 = DRY SEED

TITLE: CUTLEAF EVENING PRIMROSE CONTROL IN FULL-SEASON NO-TILL SOYBEANS
 CREATED: 06-02-2004 REVISED: 11-13-2004 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	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	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»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	100	0	100	0	100	0	100	0	100	100
3A»ROUNDUP WEATHER MAX (4.5AE)	1.16	LAA	0	100	0	100	0	100	0	100	0	100	97
4A»ROUNDUP WEATHER MAX (4.5AE) B (G)2,4-D-ESTER (4EC)	0.773 0.25	LAA LAA	0 0	100	3	100	10	100	10	100	100	100	100
5A»ROUNDUP WEATHER MAX (4.5AE) B (G)2,4-D-ESTER (4EC)	0.773 0.50	LAA LAA	0 0	100	3	100	10	100	10	100	100	100	100
6A»ROUNDUP WEATHER MAX (4.5AE) B (G)2,4-D-ESTER (4EC)	0.773 1.00	LAA LAA	0 0	100	17	100	23	100	23	100	100	100	100
7A»GRAMOXONE MAX (3L) B SURFACTANT - NON-IONIC (SL)	0.75 0.25	LAA PMV	0 0	100	0	100	0	100	0	100	100	100	100
8A»GRAMOXONE MAX (3L) B (G)2,4-D-ESTER (4EC) C SURFACTANT - NON-IONIC (SL)	0.75 0.25 0.25	LAA LAA PMV	0 0 0	100	3	100	15	100	15	100	100	100	100
9A»GRAMOXONE MAX (3L) B (G)2,4-D-ESTER (4EC) C SURFACTANT - NON-IONIC (SL)	0.75 0.50 0.25	LAA LAA PMV	0 0 0	100	10	100	13	100	13	100	100	100	95
10A»GRAMOXONE MAX (3L) B (G)2,4-D-ESTER (4EC) C SURFACTANT - NON-IONIC (SL)	0.75 1.00 0.25	LAA LAA PMV	0 0 0	100	23	100	27	100	27	100	100	100	100
11A»LIBERTY (1.67 SL)	0.42	LAA	0	100	0	100	0	100	0	100	100	100	100
12A»LIBERTY (1.67 SL)	0.37	LAA	0	100	0	100	0	100	0	100	100	100	93
13A»ROUNDUP WEATHER MAX (4.5AE) B CLARITY (4SL)	0.773 0.25	LAA LAA	0 0	100	17	100	22	100	22	100	100	100	98
14A»ROUNDUP WEATHER MAX (4.5AE) B CLARITY (4SL)	0.773 0.50	LAA LAA	0 0	100	45	100	53	100	53	100	100	100	100
15A»GRAMOXONE MAX (3L) B CLARITY (4SL) C SURFACTANT - NON-IONIC (SL)	0.75 0.25 0.25	LAA LAA PMV	0 0 0	100	18	100	30	100	30	100	100	100	100
16A»GRAMOXONE MAX (3L) B CLARITY (4SL) C SURFACTANT - NON-IONIC (SL)	0.75 0.50 0.25	LAA LAA PMV	0 0 0	100	33	100	32	100	32	100	100	100	100
LSD (0.05)				0.00	17.00	0.00	17.87	4.29					
SIGNIFICANCE OF F				**	**	**	**	**					
STANDARD DEVIATION				0.00	8.30	0.00	8.75	2.10					
COEFFICIENT OF VARIANCE				0.00	93.85	0.00	73.00	2.78					
DAT APPLICATION # 01 TIMINGS (00)				15	26	26	39	39					

TITLE: CUTLEAF EVENING PRIMROSE CONTROL IN FULL-SEASON NO-TILL SOYBEANS
CREATED: 06-02-2004 **REVISED:** 11-13-2004 **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	007 CALC
	RATE	UNIT	TM	08-11-04 P GLXMA	11-06-04 P GLXMA	11-06-04 P GLXMA
				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	7.6	36.8
2A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	0	10.5	50.7
3A»ROUNDUP WEATHER MAX (4.5AE)	1.16	LAA	0	0	8.5	41.1
4A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	10	7.3	35.5
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0			
5A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	7	8.6	41.5
B (G)2,4-D-ESTER (4EC)	0.50	LAA	0			
6A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	17	8.9	43.2
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0			
7A»GRAMOXONE MAX (3L)	0.75	LAA	0	0	10.4	50.2
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0			
8A»GRAMOXONE MAX (3L)	0.75	LAA	0	10	7.8	37.6
B (G)2,4-D-ESTER (4EC)	0.25	LAA	0			
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0			
9A»GRAMOXONE MAX (3L)	0.75	LAA	0	8	8.1	39.4
B (G)2,4-D-ESTER (4EC)	0.50	LAA	0			
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0			
10A»GRAMOXONE MAX (3L)	0.75	LAA	0	23	7.1	34.2
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0			
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0			
11A»LIBERTY (1.67 SL)	0.42	LAA	0	0	10.7	51.9
12A»LIBERTY (1.67 SL)	0.37	LAA	0	0	10.1	48.9
13A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	15	7.5	36.5
B CLARITY (4SL)	0.25	LAA	0			
14A»ROUNDUP WEATHER MAX (4.5AE)	0.773	LAA	0	52	6.0	28.9
B CLARITY (4SL)	0.50	LAA	0			
15A»GRAMOXONE MAX (3L)	0.75	LAA	0	27	6.5	31.3
B CLARITY (4SL)	0.25	LAA	0			
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0			
16A»GRAMOXONE MAX (3L)	0.75	LAA	0	28	5.7	27.7
B CLARITY (4SL)	0.50	LAA	0			
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0			
		LSL (0.05)		19.63	3.30	16.00
		SIGNIFICANCE OF F		**	ns	ns
		STANDARD DEVIATION		9.61	1.62	7.83
		COEFFICIENT OF VARIANCE		95.79	24.15	24.14
		DAT APPLICATION # 01 TIMINGS (00)		69	156	156

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 06-03-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRRT	SS	NOTE
001	PRIVU	CON %	06-18-2004	01	P	PRIVU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TITLE: CUTLEAF EVENING PRIMROSE CONTROL IN FULL-SEASON NO-TILL SOYBEANS

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
002	GLXMA	PHYTO %	06-29-2004	02	P	GLXMA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
003	PRIVU	CON %	06-29-2004	01	P	PRIVU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	GLXMA	PHYTO %	07-12-2004	02	P	GLXMA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
005	PRIVU	CON %	07-12-2004	01	P	PRIVU		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	GLXMA	PHYTO %	08-11-2004	02	P	GLXMA		RAW	ALL	PHY	%	---	1.00 PL	NO	0001	0	N
007	YIELD	LB/PLOT	11-06-2004	02	P	GLXMA		RAW	SD	YLD	LB	H	1.00 PL	UDC	0001	0	N
	YIELD	BU/ACRE						CALC	SD	YLD	BU	H	1.00 A				

* VARIETY CODES

VAR 02 = PIONEER 94B73RR

* SPECIES COMMON NAME - CULTIVAR (IF APPLICABLE)

02 = PIONEER 94B73RR

* USER DEFINED CALCULATIONS

US 003/04/01 001 KH--- 007 -- {RAW} * (4.84)

US 003/04/01 001 KH--- 007 -- {RAW} * (4.84)

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/04/01 001 CA ALTERNATE ID#: CT 01 2004
 PROTOCOL#: US 007/04/01 ALTERNATE ID#: US 007/04/01
 CREATED BY: US RITTER R
 CREATED: 06-01-2004 REVISED: 10-08-2004 COMPLETED: Y
 TITLE: CANADA THISTLE 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: 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: 100
 PLOT WIDTH: 10.00 FT
 PLOT LENGTH: 10.00 FT

TRIAL INFORMATION

DESIGN: RCB RESIDUE TRIAL: ---
 ACTUAL REPS: 3 ACTUAL BLOCKS: 1
 ACTUAL TRTS: 8 ACTUAL SUB-BLOCKS: 8

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

A. Trial Initiation

1. Study planted 05/11/2004. Variety - Garst 8362IT.
2. Entire study had Gramoxone Max (2.0 pt/acre) plus Guardsman Max (3.5 pt/acre) applied overtop on 05/11/2004.
3. Early post applications made 06/02/2004.
4. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	06-02-04	USA
TIME - BEGIN	16:30	24H
TIME - END	17:30	24H
AIR TEMPERATURE	80	F
% REL.HUMIDITY	55	
WIND DIRECTION	WEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	78/4.00	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

TITLE: CANADA THISTLE CONTROL IN NO-TILL CORN
 CREATED: 06-01-2004 REVISED: 10-08-2004 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 10.00 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	0.00	NA	0	0	0	0	0
002 RAW	0.125	LAA	0	0	23	23	23
003 RAW	0.25	PMV	0	72	82	87	83
004 RAW	0.25	LAA	0	68	83	83	82
001 RAW	0.196	LAA	0	73	83	82	83
002 RAW	0.188	LAA	0	73	87	92	88
003 RAW	0.25	LAA	0	80	98	93	93
004 RAW	0.175	LAA	0	63	78	73	72
LSD (0.05)				10.36	24.92	25.43	27.06
SIGNIFICANCE OF F				**	**	**	**
STANDARD DEVIATION				4.83	11.62	11.86	12.61
COEFFICIENT OF VARIANCE				11.00	21.28	21.78	23.54
DAT APPLICATION # 01 TIMINGS (00)				13	26	57	87

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE 06-02-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV. DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
001	CIRAR	CON %	06-15-2004	02	P	CIRAR		RAW	ALL	CON %		---	1.00 PL	NO	0001	0	N
002	CIRAR	CON %	06-28-2004	02	P	CIRAR		RAW	ALL	CON %		---	1.00 PL	NO	0001	0	N
003	CIRAR	CON %	07-29-2004	02	P	CIRAR		RAW	ALL	CON %		---	1.00 PL	NO	0001	0	N
004	CIRAR	CON %	08-28-2004	02	P	CIRAR		RAW	ALL	CON %		---	1.00 PL	NO	0001	0	N

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/04/01 001 CB **ALTERNATE ID#:** CT 02 2004
PROTOCOL#: US 007/04/01 **ALTERNATE ID#:** US 007/04/01
CREATED BY: US RITTER R
CREATED: 06-01-2004 **REVISED:** 10-08-2004 **COMPLETED:** Y
TITLE: CANADA THISTLE CONTROL IN NO-TILL CORN - STRIP TRIAL
COORDINATOR: US 000 Not Applicable
TRIAL TYPE: HERBICIDE
PROJECT#2:
RESEARCHER: RITTER AND MENBERE **CONFIDENCE:** TO BE SELECTED
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. 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: 6	ACTUAL SUB-BLOCKS: 6
TEXTURE: CL	% OM: 0.0		
SOIL GEN: F			
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 planted 05/11/2004. Variety - Garst 8362IT.
2. Entire study had Gramoxone Max (2.0 pt/acre) plus Guardsman Max (3.5 pt/acre) applied overtop on 05/11/2004.
3. Early post applications made 06/02/2004.
4. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	06-02-04	USA
TIME - BEGIN	16:30	24H
TIME - END	17:30	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	55	
WIND DIRECTION	WEST	
WIND SPEED	3.0	M/H
CLOUD COVER	PARTCLDY	
DEW	---	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	78/4.00	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 CULTIVAR: GARST 8362 IT
TARGET: CROP **SITE:** FG **POPULATION:** 26000.00 IPA **PLANTED:** 05-11-2004
PLANTING DEPTH: 1.7 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
05-11-2004	00	MED	26000.00 IPA	.	.	. IN	NA	
06-02-2004	16	MED	26000.00 IPA	12.00	12.00	12.00 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
05-11-2004	19	HGH	3.00 SQY	12.00	12.00	12.00 IN	TUR	
06-02-2004	19	HGH	3.00 SQY	6.00	6.00	6.00 IN	TUR	

*** STAGE CODE -- CORN**
00 = DRY SEED (CARYOPSIS)
16 = 6 LEAVES UNFOLDED
*** STAGE CODE -- GENERAL**
19 = >8 TRUE LEAVES/LEAF PAIRS/WHORLS UNFOLDED

TITLE: CANADA THISTLE CONTROL IN NO-TILL CORN - STRIP TRIAL
CREATED: 06-01-2004 **REVISED:** 10-08-2004 **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 RATE UNIT TM	CON %			
		1.00 PL ALL	1.00 PL ALL	1.00 PL ALL	1.00 PL ALL
001 RAW		002 RAW	003 RAW	004 RAW	
		06-15-04	06-28-04	07-29-04	08-25-04
		P CIRAR	P CIRAR	P CIRAR	P CIRAR
1A UNTREATED CHECK	0.00 NA 0	0	0	0	0
2A»DISTINCT (70WG)	0.175 LAA 0	65	80	88	88
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 0				
3A»DISTINCT (70WG)	0.263 LAA 0	65	85	88	88
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 0				
4A STINGER (3SL)	0.188 LAA 0	72	88	92	92
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 0				
5A STINGER (3SL)	0.25 LAA 0	72	95	98	98
B SURFACTANT - NON-IONIC (SL)	0.25 PMV 0				
6A»DISTINCT (70WG)	0.0875 LAA 0	65	95	95	95
B STINGER (3SL)	0.124 LAA 0				
C SURFACTANT - NON-IONIC (SL)	0.25 PMV 0				
	LSD (0.05)	7.00	4.60	9.20	9.20
	SIGNIFICANCE OF F	**	**	**	**
	STANDARD DEVIATION	3.13	2.06	4.13	4.13
	COEFFICIENT OF VARIANCE	6.80	3.42	6.57	6.57
	DAT APPLICATION # 01 TIMINGS (00)	13	26	57	84

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES
00 = POSPOS / POSTEMERGENCE 06-02-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
001	CIRAR	CON %	06-15-2004	02	P	CIRAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	CIRAR	CON %	06-28-2004	02	P	CIRAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CIRAR	CON %	07-29-2004	02	P	CIRAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	CIRAR	CON %	08-25-2004	02	P	CIRAR		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 007/04/01 001 LA **ALTERNATE ID#:** LQ 01 2004
PROTOCOL#: US 007/04/01 **ALTERNATE ID#:** US 007/04/01
CREATED BY: US RITTER R
CREATED: 04-26-2004 **REVISED:** 10-08-2004 **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: CAROL 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

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: 16	ACTUAL SUB-BLOCKS: 16
TEXTURE: SL	% OM: 3.4		
SOIL GEN: C			
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD			
% RESIDUE: 25			
PLOT WIDTH: 10.00 FT			
PLOT LENGTH: 20.00 FT			

SUBMITTED BY: _____

REVIEWED BY: _____

DATE: _____

DATE: _____

ABSTRACT

- A. Trial Initiation
1. Study planted 05/10/2004. Variety - Pioneer 36B92RR.
 2. Preemergence treatments applied 05/11/2004.
 3. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	05-11-04	USA
TIME - BEGIN	11:00	24H
TIME - END	12:00	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	70	
WIND DIRECTION	SOUTHWEST	
WIND SPEED	3.0	M/H
CLOUD COVER	HAZY SUN	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	70/4.00	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
 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
 05-11-2004 00 --- IND . . . IN NA

02 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 36B92RR
 TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 05-10-2004
 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
 05-10-2004 00 MED 26000.00 IPA . . . IN NA
 05-11-2004 00 MED 26000.00 IPA . . . 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
 05-11-2004 00 --- IND . . . IN ---

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
 05-11-2004 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: 04-26-2004 **REVISED:** 10-08-2004 **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	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	98	80	92	97	52
3A»LUMAX (3.94 SE)	2.46	LAA	0	98	100	100	98	100
4A»A14224 (3.7SC)	2.78	LAA	0	100	100	100	93	100
5A»KEYSTONE (5.25SE)	3.67	LAA	0	100	98	100	97	97
6A»KEYSTONE (5.25SE) B»HORNET (78.5DF)	3.67 0.147	LAA LAA	0 0	100	98	100	95	98
7A»KEYSTONE (5.25SE) B»PYTHON (80WG)	3.67 0.04	LAA LAA	0 0	100	98	100	95	97
8A»BICEP II MAGNUM (5.5SC) B»BASIS (75 DF)	2.89 0.0156	LAA LAA	0 0	98	88	98	95	75
9A»BICEP II MAGNUM (5.5SC) B»BASIS (75 DF)	2.89 0.023	LAA LAA	0 0	100	78	100	95	42
10A»GUARDSMAN MAX (5L)	2.50	LAA	0	98	52	97	93	40
11A»GUARDSMAN MAX (5L) B»PROWL H20 (3.8CS)	2.50 1.50	LAA LAA	0 0	100	100	100	98	97
12A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	100	98	100	97	97
13A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	100	98	100	98	97
14A»BICEP II MAGNUM (5.5SC) B»BALANCE PRO (4SC)	2.89 0.07	LAA LAA	0 0	100	100	100	98	98
15A ATRAZINE 4L (SC) B PRINCEP 4L (SC)	1.50 1.50	LAA LAA	0 0	93	60	90	87	42
16A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
		LSD (0.05)		3.29	23.60	4.74	5.08	37.26
		SIGNIFICANCE OF F		**	**	**	**	**
		STANDARD DEVIATION		1.61	11.56	2.32	2.49	18.24
		COEFFICIENT OF VARIANCE		2.28	18.12	3.31	3.64	31.64
		DAT APPLICATION # 01 TIMINGS (00)		21	21	21	35	35

TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
CREATED: 04-26-2004 **REVISED:** 10-08-2004 **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 NUM	TREATMENT COMPONENT	DOSAGE			CON %	CON %	CON %	CON %	CON %	
		RATE	UNIT	TM	PL ALL	PL ALL	PL ALL	PL ALL	PL ALL	
					006 RAW 06-15-04 P CHEAL	007 RAW 06-28-04 P SETFA	008 RAW 06-28-04 P ABUTH	009 RAW 06-28-04 P CHEAL	010 RAW 07-29-04 P SETFA	
					1.00	1.00	1.00	1.00	1.00	
1A	UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
2A	BICEP II MAGNUM (5.5SC)	2.89	LAA	0	90	90	32	82	85	
3A	LUMAX (3.94 SE)	2.46	LAA	0	100	95	100	100	93	
4A	A14224 (3.7SC)	2.78	LAA	0	100	92	100	100	87	
5A	KEYSTONE (5.25SE)	3.67	LAA	0	95	92	93	95	87	
6A	KEYSTONE (5.25SE)	3.67	LAA	0	100	90	93	97	82	
	B>HORNET (78.5DF)	0.147	LAA	0						
7A	KEYSTONE (5.25SE)	3.67	LAA	0	100	92	97	100	90	
	B>PYTHON (80WG)	0.04	LAA	0						
8A	BICEP II MAGNUM (5.5SC)	2.89	LAA	0	95	92	63	95	87	
	B>BASIS (75 DF)	0.0156	LAA	0						
9A	BICEP II MAGNUM (5.5SC)	2.89	LAA	0	98	93	10	98	92	
	B>BASIS (75 DF)	0.023	LAA	0						
10A	GUARDSMAN MAX (5L)	2.50	LAA	0	95	92	27	92	92	
11A	GUARDSMAN MAX (5L)	2.50	LAA	0	100	97	97	100	95	
	B>PROWL H2O (3.8CS)	1.50	LAA	0						
12A	KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	100	97	97	98	93	
13A	KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	100	98	97	98	95	
14A	BICEP II MAGNUM (5.5SC)	2.89	LAA	0	100	95	98	97	92	
	B>BALANCE PRO (4SC)	0.07	LAA	0						
15A	ATRAZINE 4L (SC)	1.50	LAA	0	90	82	32	88	78	
	B PRINCEP 4L (SC)	1.50	LAA	0						
16A	UNTREATED CHECK	0.00	NA	0	0	0	0	0	0	
					LSD (0.05)	7.55	5.80	45.43	11.77	10.00
					SIGNIFICANCE OF F	**	**	**	**	**
					STANDARD DEVIATION	3.70	2.84	22.25	5.77	4.88
					COEFFICIENT OF VARIANCE	5.32	4.30	42.12	8.43	7.67
					DAT APPLICATION # 01 TIMINGS (00)	35	48	48	48	79

TITLE: PREEMERGENCE CONTROL OF TRIAZINE-RESISTANT COMMON LAMBSQUARTERS IN NO-TILL CORN
CREATED: 04-26-2004 **REVISED:** 10-08-2004 **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 %
	RATE	UNIT	TM	PL ALL	PL ALL	PL ALL	PL ALL
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0
2A»BICEP II MAGNUM (5.5SC)	2.89	LAA	0	32	70	85	30
3A»LUMAX (3.94 SE)	2.46	LAA	0	100	100	93	100
4A»A14224 (3.7SC)	2.78	LAA	0	100	100	85	100
5A»KEYSTONE (5.25SE)	3.67	LAA	0	87	90	85	85
6A»KEYSTONE (5.25SE) B»HORNET (78.5DF)	3.67 0.147	LAA LAA	0 0	92	97	82	92
7A»KEYSTONE (5.25SE) B»PYTHON (80WG)	3.67 0.04	LAA LAA	0 0	93	100	90	93
8A»BICEP II MAGNUM (5.5SC) B»BASIS (75 DF)	2.89 0.0156	LAA LAA	0 0	63	93	85	63
9A»BICEP II MAGNUM (5.5SC) B»BASIS (75 DF)	2.89 0.023	LAA LAA	0 0	10	93	92	10
10A»GUARDSMAN MAX (5L)	2.50	LAA	0	27	82	92	23
11A»GUARDSMAN MAX (5L) B»PROWL H20 (3.8CS)	2.50 1.50	LAA LAA	0 0	95	100	95	95
12A»KIH-485/ATRAZINE (57.8WG)	1.34	LAA	0	97	98	93	97
13A»KIH-485/ATRAZINE (55.7WG)	1.77	LAA	0	97	97	95	97
14A»BICEP II MAGNUM (5.5SC) B»BALANCE PRO (4SC)	2.89 0.07	LAA LAA	0 0	97	97	92	97
15A ATRAZINE 4L (SC) B PRINCEP 4L (SC)	1.50 1.50	LAA LAA	0 0	32	77	72	32
16A UNTREATED CHECK	0.00	NA	0	0	0	0	0
	LSL (0.05)			45.59	15.00	10.82	43.88
	SIGNIFICANCE OF F			**	**	**	**
	STANDARD DEVIATION			22.33	7.32	5.30	21.49
	COEFFICIENT OF VARIANCE			42.89	11.10	8.41	41.55
	DAT APPLICATION # 01 TIMINGS (00)			79	79	106	106

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPRE / PREEMERGENCE 05-11-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRT	SS	NOTE
001	CHEAL	CON %	06-01-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	ABUTH	CON %	06-01-2004	04	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	06-01-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	CHEAL	CON %	06-15-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	ABUTH	CON %	06-15-2004	04	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	CHEAL	CON %	06-15-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
007	CHEAL	CON %	06-28-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
008	ABUTH	CON %	06-28-2004	04	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
009	CHEAL	CON %	06-28-2004	01	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	CHEAL	CON %	07-29-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
011	ABUTH	CON %	07-29-2004	04	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
012	CHEAL	CON %	07-29-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
013	CHEAL	CON %	08-25-2004	03	P	SETFA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
014	ABUTH	CON %	08-25-2004	04	P	ABUTH		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

**TRIAL SUMMARY
GENERAL SITE INFORMATION**

TRIAL #: US 007/04/01 001 LC ALTERNATE ID#: LQ 03 2004
PROTOCOL#: US 007/04/01 ALTERNATE ID#: US 007/04/01
CREATED BY: US RITTER R
CREATED: 04-26-2004 REVISED: 10-11-2004 COMPLETED: Y
TITLE: COMMON LAMBSQUARTERS CONTROL UNDER CHALLENGING CONDITIONS

COORDINATOR: US 000 Not Applicable
TRIAL TYPE: HERBICIDE

PROJECT#2:
RESEARCHER: RITTER AND MENBERE
REPORTED BY: US Ron Ritter And Ron Ritter
COOPERATOR: MR. CARL SEILER
LOCATION: CARL SEILER FARM
CITY: WESTMINSTER
COUNTY: CARROLL
COUNTRY: UNITED STATES

CONFIDENCE: HIGH CONFIDENCE IN TRIAL DATA
DATA SOURCE: UNIVERSITY
TYPE: FIELD TRIAL
STATE: MARYLAND
ZIP: 21157

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

TRIAL INFORMATION

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

SOIL GEN: C
PREVIOUS CROP: ZEAMX - CORN, VOLUNTEER, FIELD
% RESIDUE: 25
PLOT WIDTH: 10.00 FT
PLOT LENGTH: 20.00 FT

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

ABSTRACT

A. Trial Initiation

1. Study planted 05/10/2004. Variety - Pioneer 36B92RR.
2. Princep at 2 qt/acre applied on entire study on 05/11/2004.
3. Select + COC at 10 oz/acre + 1 qt/acre applied over entire study on 06/15/2004.
4. Post applications made 06/21/2004. Weather conditions:
Last week - hot and humid. Friday night - cold front came in. Day temps over the weekend averaged around 80 with night temps around 50. Post applications made Monday morning. Common lambsquarters and smooth pigweed were rather tall and robust. Corn was dying.
5. Study not taken to yield.

APPL. NUMBER	01	UNIT
TIMINGS	00	
TYPE	LIQMIX	
APPLICATION DATE	06-21-04	USA
TIME - BEGIN	11:30	24H
TIME - END	12:30	24H
AIR TEMPERATURE	80	F
% REL. HUMIDITY	30	
WIND DIRECTION	SOUTH	
WIND SPEED	3.0	M/H
CLOUD COVER	CLEAR	
DEW	NO	
SOIL MOISTURE	MOIST/MOI	
SOIL CONDITION	FRIABLE	
SOIL TEMP/DEPTH	70/4.00	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 - 6 INCH LAMBSQUARTERS

* 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
05-10-2004	00	---	IND	.	.	. IN		NA	
06-21-2004	19	HGH	3.00 SQF	12.00	16.00	12.00 IN		TUR	

02 P ZEAMX - CORN, VOLUNTEER, FIELD CULTIVAR: PIONEER 36B92RR

TARGET: CROP SITE: FG POPULATION: 26000.00 IPA PLANTED: 05-10-2004

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
05-10-2004	00	MED	26000.00 IPA	.	.	. IN		NA	

03 P AMACH - PIGWEED, SMOOTH

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
05-10-2004	00	---	IND	.	.	. IN		NA	
06-21-2004	19	MED	1.00 SQY	18.00	18.00	18.00 IN		TUR	

* STAGE CODE -- CORN

00 = DRY SEED (CARYOPSIS)

* STAGE CODE -- GENERAL

00 = DRY SEED; DORMANCY

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

TITLE: COMMON LAMBSQUARTERS CONTROL UNDER CHALLENGING CONDITIONS

CREATED: 04-26-2004 REVISED: 10-11-2004 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 %
	RATE	UNIT	TM	PL ALL	PL ALL	PL ALL	PL ALL
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0
2A»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	0	70	82	62	43
3A»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	0	67	90	80	65
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
4A»ROUNDUP WEATHER MAX (4.5AE)	1.12	LAA	0	70	90	85	73
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
5A»ROUNDUP ORIGINAL MAX (4.5 AE)	0.75	LAA	0	58	85	67	43
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0				
6A»TOUCHDOWN IQ (4SL)	1.00	LAA	0	58	87	83	55
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
7A»CLEAROUT 41 PLUS (3.0 AE)	0.75	LAA	0	65	85	63	43
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
8A»GLYPHOMAX PLUS (4SL)	1.00	LAA	0	68	85	62	47
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
9A»GLYSTAR PLUS (3.0 AE)	0.75	LAA	0	57	82	63	37
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0				
10A»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	0	65	78	57	45
B»HARMONY GT (75WG)	0.0025	LAA	0				
11A»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	0	58	85	70	45
B»CALLISTO (4SC)	0.05	LAA	0				
12A»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	0	67	90	85	68
B»DISTINCT (70WG)	0.0875	LAA	0				
13A»ROUNDUP WEATHER MAX (4.5AE)	0.75	LAA	0	57	85	88	72
B»DISTINCT (70WG)	0.175	LAA	0				
14A»CALLISTO (4SC)	0.05	LAA	0	10	72	23	7
B ATRAZINE 4L (SC)	0.50	LAA	0				
15A»CALLISTO (4SC)	0.094	LAA	0	10	73	28	0
B ATRAZINE 4L (SC)	0.50	LAA	0				
16A UNTREATED CHECK	0.00	NA	0	0	0	0	0
		LSL (0.05)		17.15	10.69	26.82	39.18
		SIGNIFICANCE OF F		**	**	**	**
		STANDARD DEVIATION		8.40	5.24	13.14	19.19
		COEFFICIENT OF VARIANCE		21.10	8.78	28.08	58.45
		DAT APPLICATION # 01 TIMINGS (00)		7	16	38	65

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = POSPOS / POSTEMERGENCE - 6 INCH LAMBSQUARTERS 06-21-2004(1)

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTRTR	SS	NOTE
001	CHEAL	CON %	06-28-2004	01	P	CHEAL		RAW	ALL	CON %		---	1.00 PL	NO	0001	0	N

TITLE: COMMON LAMBSQUARTERS CONTROL UNDER CHALLENGING CONDITIONS

H#	CUSTOM#1	CUSTOM#2	EV.DATE	S#	TYP	SPECIE	STAGE	RAW	PRT	SYM	MTH	CNF	BASIS	C.M	CTR	SS	NOTE
002	CHEAL	CON %	07-07-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	CHEAL	CON %	07-29-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	CHEAL	CON %	08-25-2004	01	P	CHEAL		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/04/01 001 MA ALTERNATE ID#: MT 01 2004
 PROTOCOL#: US 007/04/01 ALTERNATE ID#: US 007/04/01
 CREATED BY: US RITTER R REVISED: 10-11-2004 COMPLETED: Y
 TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN
 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 DATA SOURCE: UNIVERSITY
 COOPERATOR: CHINO FARMS TYPE: FIELD TRIAL
 LOCATION: CHINO FARMS STATE: MARYLAND
 CITY: CHESTERTOWN ZIP: 21620
 COUNTY: KENT
 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: 22	ACTUAL SUB-BLOCKS: 22
TEXTURE: SL	% OM: 3.4		
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. 30 day preplant applications made 04/26/2004.
 2. 15 day preplant applications made 05/10/2004.
 3. Study planted 05/27/2004.
 4. Early post applications made 06/24/2004.
 5. Study not taken to yield.

APPL. NUMBER	01	02	03	UNIT
TIMINGS	00	01	02	
TYPE	LIQMIX	LIQMIX	LIQMIX	
APPLICATION DATE	04-26-04	05-10-04	06-24-04	USA
TIME - BEGIN	14:30	16:00	10:00	24H
TIME - END	15:30	17:00	11:00	24H
AIR TEMPERATURE	75	82	78	F
% REL. HUMIDITY	20	50	40	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	SOUTH	
WIND SPEED	5.0	5.0	1.0	M/H
CLOUD COVER	PARTCLDY	HAZY SUN	HAZY SUN	
DEW	NO	NO	YES	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	72/4.00	70/4.00	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 PRIOR TO PLANTING
- 01 = PREPLA / 14 DAYS PRIOR TO PLANTING
- 02 = POSPOS / 3 TO 4 WEEKS AFTER PLANTING

*** 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
04-26-2004	19	MED	3.00 SQY	4.00	6.00	4.00 IN		TUR	
05-10-2004	19	MED	2.00 SQY	4.00	8.00	6.00 IN		TUR	
05-27-2004	97	NA		IND	.	. IN		NA	
06-24-2004	19	LOW	1.00 SQY	12.00	12.00	12.00 IN		TUR	

02 P GLXMA - SOYBEAN

TARGET: CROP SITE: FG

POPULATION: 4.00 FTR

PLANTED: 05-27-2004

PLANTING DEPTH: 1.0 IN

ROW WIDTH: 6.0 IN

INFESTATION DATE: - - METHOD: NA

STAGE ON	STAGE CODE	POP.GEN.	POPULATION	MN SIZE	MX SIZE	AV SIZE	CROP	VIGOR	NOTES
04-26-2004	00	---		IND	.	. IN		NA	
05-10-2004	00	---		IND	.	. IN		NA	
05-27-2004	00	MED	4.00 FTR	.	.	. IN		NA	
06-24-2004	14	MED	4.00 FTR	6.00	6.00	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
04-26-2004	00	---		IND	.	. IN		NA	
05-10-2004	00	---		IND	.	. IN		NA	
05-27-2004	00	---		IND	.	. IN		NA	
06-24-2004	15	LOW	3.00 SQY	12.00	12.00	12.00 IN		TUR	

* STAGE CODE -- GENERAL

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

97 = END OF LEAF FALL, PLANTS OR ABOVE GROUND PARTS DEAD OR DORMANT

* STAGE CODE -- GENERAL GRASS

00 = DRY SEED (CARYOPSIS)

15 = 5 LEAVES UNFOLDED

* STAGE CODE -- SOYBEAN

00 = DRY SEED

14 = 4TH LEAF (2ND TRIFOLIATE LEAF) UNFOLDED, 3 NODES

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN
CREATED: 04-26-2004 **REVISED:** 10-11-2004 **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	002 RAW	003 RAW	004 RAW	005 RAW
	RATE	UNIT	TM	05-18-04 P ERICA	05-26-04 P ERICA	06-08-04 P ERICA	06-24-04 P ERICA	07-13-04 P ERICA
1A UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	0	95	95	95	93	95
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0					
C»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
3A»TOUCHDOWN TOTAL (4.17AE)	0.94	LAA	0	98	100	100	98	100
B (G)2,4-D-ESTER (4EC)	0.75	LAA	0					
C FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E»FIRSTRATE (84 WG)	0.016	LAA	2					
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
4A»GRAMOXONE MAX (3L)	0.75	LAA	0	87	87	83	78	100
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
C»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
5A»GRAMOXONE MAX (3L)	0.75	LAA	0	98	100	98	98	98
B CLARITY (4SL)	0.50	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
6A»GRAMOXONE MAX (3L)	1.00	LAA	0	92	92	88	85	98
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
C»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
7A»GRAMOXONE MAX (3L)	1.00	LAA	0	97	97	98	100	100
B CLARITY (4SL)	0.50	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
8A»GRAMOXONE MAX (3L)	0.75	LAA	0	100	97	97	95	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
9A»GRAMOXONE MAX (3L)	1.00	LAA	0	98	98	95	95	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
10A»GRAMOXONE MAX (3L)	0.75	LAA	0	97	97	97	95	98
B SENCOR DF (75WG)	0.187	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
11A»GRAMOXONE MAX (3L)	1.00	LAA	0	97	95	95	92	98
B SENCOR DF (75WG)	0.187	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
12A»GRAMOXONE MAX (3L)	1.00	LAA	1	90	88	87	80	97
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
C»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN

TRT TREATMENT NUM COMPONENT	DOSAGE			001 RAW	002 RAW	003 RAW	004 RAW	005 RAW
	RATE	UNIT	TM	05-18-04 P ERICA	05-26-04 P ERICA	06-08-04 P ERICA	06-24-04 P ERICA	07-13-04 P ERICA
13A>>GRAMOXONE MAX (3L)	1.00	LAA	1	97	95	95	93	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
14A>>GRAMOXONE MAX (3L)	1.00	LAA	1	97	97	98	98	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
15A>>GRAMOXONE MAX (3L)	1.00	LAA	1	97	98	98	98	100
B SENCOR DF (75WG)	0.187	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
16A>>GRAMOXONE MAX (3L)	1.00	LAA	1	98	97	100	100	100
B SENCOR DF (75WG)	0.187	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
E>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
17A>>GRAMOXONE MAX (3L)	1.00	LAA	1	98	100	100	100	100
B SENCOR DF (75WG)	0.187	LAA	1					
C (G)2,4-D-ESTER (4EC)	1.00	LAA	1					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
E>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
18A>>GRAMOXONE MAX (3L)	1.00	LAA	1	100	100	100	100	100
B>>BOUNDARY (6.5EC)	1.71	LAA	1					
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
E>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
19A>>GRAMOXONE MAX (3L)	1.00	LAA	1	100	100	100	100	100
B>>BOUNDARY (6.5EC)	1.71	LAA	1					
C (G)2,4-D-ESTER (4EC)	1.00	LAA	1					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
E>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2					
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2					
20A>>GRAMOXONE MAX (3L)	1.00	LAA	1	100	100	100	100	100
B>>BOUNDARY (6.5EC)	1.71	LAA	1					
C (G)2,4-D-ESTER (4EC)	1.00	LAA	1					
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
E>>FLEXSTAR HL (1.88EC)	0.294	LAA	2					
F FUSION (2.66EC)	0.208	LAA	2					
G ADJUVANT - COC (EC)	1.00	QMA	2					
H FERTILIZER - 28%UAN	2.00	QMA	2					
21A>>GF-1279 (4.0AE)	0.75	LAA	1	90	98	100	100	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C>>PYTHON (80WG)	0.04	LAA	1					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1					
22A>>GF-1279 (4.0AE)	0.75	LAA	1	97	98	100	100	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C>>FIRSTRATE (84 WG)	0.016	LAA	1					
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1					

LSLSD (0.05)	6.18	5.64	7.00	9.39	2.83
SIGNIFICANCE OF F	**	**	**	**	**
STANDARD DEVIATION	3.09	2.82	3.49	4.70	1.42
COEFFICIENT OF VARIANCE	4.12	3.75	4.65	6.33	1.83
DAT APPLICATION # 01 TIMINGS (00)	22	30	43	59	78
DAT APPLICATION # 02 TIMINGS (01)	8	16	29	45	64

TITLE: GLYPHOSATE-RESISTANT MARETAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN
 CREATED: 04-26-2004 REVISED: 10-11-2004 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			TM	CON % 1.00 PL ALL
	RATE	UNIT			
					006 RAW 08-09-04 P ERICA
1A UNTREATED CHECK	0.00	NA	0		0
2A>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	0		100
B FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0		
C>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
3A>>TOUCHDOWN TOTAL (4.17AE)	0.94	LAA	0		100
B (G)2,4-D-ESTER (4EC)	0.75	LAA	0		
C FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E>>FIRSTRATE (84 WG)	0.016	LAA	2		
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
4A>>GRAMOXONE MAX (3L)	0.75	LAA	0		100
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
C>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
5A>>GRAMOXONE MAX (3L)	0.75	LAA	0		100
B CLARITY (4SL)	0.50	LAA	0		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
6A>>GRAMOXONE MAX (3L)	1.00	LAA	0		100
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
C>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
7A>>GRAMOXONE MAX (3L)	1.00	LAA	0		100
B CLARITY (4SL)	0.50	LAA	0		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
8A>>GRAMOXONE MAX (3L)	0.75	LAA	0		100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
9A>>GRAMOXONE MAX (3L)	1.00	LAA	0		100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
10A>>GRAMOXONE MAX (3L)	0.75	LAA	0		100
B SENCOR DF (75WG)	0.187	LAA	0		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
11A>>GRAMOXONE MAX (3L)	1.00	LAA	0		100
B SENCOR DF (75WG)	0.187	LAA	0		
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0		
D>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		
12A>>GRAMOXONE MAX (3L)	1.00	LAA	1		100
B SURFACTANT - NON-IONIC (SL)	0.25	PMV	1		
C>>TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2		
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2		

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN

TRT TREATMENT NUM COMPONENT	DOSAGE			CON % PL ALL
	RATE	UNIT	TM	
				006 RAW 08-09-04 P ERICA
13A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
14A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	1	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
15A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B SENCOR DF (75WG)	0.187	LAA	1	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
D»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
E FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
16A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B SENCOR DF (75WG)	0.187	LAA	1	
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
E»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
17A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B SENCOR DF (75WG)	0.187	LAA	1	
C (G)2,4-D-ESTER (4EC)	1.00	LAA	1	
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
E»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
18A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B»BOUNDARY (6.5EC)	1.71	LAA	1	
C (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
E»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
19A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B»BOUNDARY (6.5EC)	1.71	LAA	1	
C (G)2,4-D-ESTER (4EC)	1.00	LAA	1	
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
E»TOUCHDOWN TOTAL (4.17AE)	0.75	LAA	2	
F FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	2	
20A»GRAMOXONE MAX (3L)	1.00	LAA	1	100
B»BOUNDARY (6.5EC)	1.71	LAA	1	
C (G)2,4-D-ESTER (4EC)	1.00	LAA	1	
D SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
E»FLEXSTAR HL (1.88EC)	0.294	LAA	2	
F FUSION (2.66EC)	0.208	LAA	2	
G ADJUVANT - COC (EC)	1.00	QMA	2	
H FERTILIZER - 28%UAN	2.00	QMA	2	
21A»GF-1279 (4.0AE)	0.75	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C»PYTHON (80WG)	0.04	LAA	1	
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1	
22A»GF-1279 (4.0AE)	0.75	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C»FIRSTRATE (84 WG)	0.016	LAA	1	
D FERTILIZER-21% AMMONIUM SULFATE	2.00	LMA	1	
	LSD (0.05)			0.00
	SIGNIFICANCE OF F			**
	STANDARD DEVIATION			0.00
	COEFFICIENT OF VARIANCE			0.00
	DAT APPLICATION # 01 TIMINGS (00)			105
	DAT APPLICATION # 02 TIMINGS (01)			91

TITLE: GLYPHOSATE-RESISTANT MARESTAIL CONTROL IN FULL-SEASON NO-TILL SOYBEAN

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / 30 DAYS PRIOR TO PLANTING 04-26-2004(1)
 01 = PREPLA / 14 DAYS PRIOR TO PLANTING 05-10-2004(2)
 02 = POSPOS / 3 TO 4 WEEKS AFTER PLANTING 06-24-2004(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 %	05-18-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	ERICA	CON %	05-26-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	ERICA	CON %	06-08-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	ERICA	CON %	06-24-2004	01	P	ERICA	19	RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	ERICA	CON %	07-13-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	ERICA	CON %	08-09-2004	01	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

* STAGE CODE

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

TRIAL SUMMARY
GENERAL SITE INFORMATION

TRIAL #: US 007/04/01 001 MB ALTERNATE ID#: MT 02 2004
 PROTOCOL#: US 007/04/01 ALTERNATE ID#: US 005/04/01
 CREATED BY: US RITTER R
 CREATED: 05-03-2004 REVISED: 10-11-2004 COMPLETED: Y
 TITLE: BURNDOWN TREATMENTS FOR GLYPHOSATE-RESISTANT MARESTAIL
 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: 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: 16	ACTUAL SUB-BLOCKS: 16
TEXTURE: SL	% OM: 3.4		
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. 26 to 34 DPP applications made 04/26/2004.
2. 12 to 18 DPP applications made 05/10/2004.
3. Study planted 05/27/2004.
4. Oversprayed entire study (except weedy checks) on 07/13/2004.
5. Study not taken to yield.

APPL. NUMBER	01	02	UNIT
TIMINGS	00	01	
TYPE	LIQMIX	LIQMIX	
APPLICATION DATE	04-26-04	05-10-04	USA
TIME - BEGIN	14:30	16:00	24H
TIME - END	15:30	17:00	24H
AIR TEMPERATURE	75	82	F
% REL. HUMIDITY	20	50	
WIND DIRECTION	SOUTHWEST	SOUTHWEST	
WIND SPEED	5.0	5.0	M/H
CLOUD COVER	PARTCLDY	HAZY SUN	
DEW	NO	NO	
SOIL MOISTURE	MOIST/MOI	MOIST/MOI	
SOIL CONDITION	FRIABLE	FRIABLE	
SOIL TEMP/DEPTH	65/4.00	72/4.00	F /
METHOD	SPRAY	SPRAY	
EQUIPMENT	SPTRMO	SPRBAC	
PROPELLANT	PUMP	COMCO2	
PLACEMENT	BRFOSO	BRFOSO	
NOZZLE	FLATFAN	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	WATER	
INC. DATE			USA
INC. START			24H
INC. END			24H
INC. DEPTH			IN
INC. EQUIPMENT	---	---	

* TIMING CODES

00 = PREPLA / EARLY PREPLANT - 26 TO 34 DPP
01 = PREPLA / EARLY PREPLANT - 12 TO 18 DPP

* NOZZLE DESCRIPTION

02 = SS-8003

01 P GLXMA - SOYBEAN

TARGET: CROP SITE: FG POPULATION: 4.00 FTR PLANTED: 05-27-2004
PLANTING DEPTH: 1.0 IN ROW WIDTH: 6.0 IN

INFESTATION DATE: - - METHOD: NA

STAGE ON	STAGE CODE	POP.GEN.	POPULATION	MN SIZE	MX SIZE	AV SIZE	CROP	VIGOR	NOTES
04-26-2004	00	---		IND	.	. IN		NA	
05-10-2004	00	---		IND	.	. IN		NA	
05-27-2004	00	MED	4.00 FTR	.	.	. 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
04-26-2004	19	MED	3.00 SQY	4.00	6.00	4.00 IN		TUR	
05-10-2004	19	MED	3.00 SQY	4.00	8.00	6.00 IN		TUR	
05-27-2004	97	---		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
04-26-2004	00	---		IND	.	. IN		NA	
05-10-2004	00	---		IND	.	. IN		NA	
05-27-2004	00	---		IND	.	. IN		NA	

* STAGE CODE -- GENERAL

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

97 = END OF LEAF FALL, PLANTS OR ABOVE GROUND PARTS DEAD OR DORMANT

* STAGE CODE -- GENERAL GRASS

00 = DRY SEED (CARYOPSIS)

* STAGE CODE -- SOYBEAN

00 = DRY SEED

TITLE: BURNDOWN TREATMENTS FOR GLYPHOSATE-RESISTANT MARESTAIL
CREATED: 05-03-2004 **REVISED:** 10-11-2004 **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			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»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	95	97	98	93	88
3A»GRAMOXONE MAX (3L)	0.75	LAA	0	98	97	95	95	90
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
4A»GRAMOXONE MAX (3L)	0.75	LAA	0	93	92	93	92	85
B BANVEL (4SL)	0.125	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
5A»GRAMOXONE MAX (3L)	0.75	LAA	0	88	90	90	87	73
B BANVEL (4SL)	0.25	LAA	0					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0					
6A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	98	100	100	100	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0					
7A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	98	100	100	100	97
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0					
C ADJUVANT - COC (EC)	0.50	PMV	0					
8A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	98	100	100	100	98
B BANVEL (4SL)	0.125	LAA	0					
9A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	98	100	100	100	95
B BANVEL (4SL)	0.25	LAA	0					
10A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	100	100	100	100	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0					
C»CANOPY XL (56.3 WDG)	0.046	LAA	0					
11A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	87	98	100	100	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
12A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	95	98	100	100	98
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C ADJUVANT - COC (EC)	0.50	PMV	1					
13A»ROUNDUP WEATHER MAX (4.5AE)	1.13	LAA	1	93	100	100	100	98
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
14A»GRAMOXONE MAX (3L)	0.75	LAA	1	97	98	97	95	92
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1					
15A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	95	98	100	100	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C»AMPLIFY (84WG)	0.016	LAA	1					
16A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	88	97	100	100	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1					
C»CANOPY XL (56.3 WDG)	0.046	LAA	1					
	LSD (0.05)			6.21	4.92	6.45	7.09	10.38
	SIGNIFICANCE OF F			**	**	**	**	**
	STANDARD DEVIATION			3.00	2.41	3.16	3.47	5.08
	COEFFICIENT OF VARIANCE			4.19	3.22	4.20	4.66	7.00
	DAT APPLICATION # 01 TIMINGS (00)			22	30	43	59	78
	DAT APPLICATION # 02 TIMINGS (01)			8	16	29	45	64

TITLE: BURNDOWN TREATMENTS FOR GLYPHOSATE-RESISTANT MARESTAIL
 CREATED: 05-03-2004 REVISED: 10-11-2004 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

006 RAW
08-09-04
P ERICA

TRT TREATMENT NUM COMPONENT	DOSAGE			CON %
	RATE	UNIT	TM	PL ALL
1A UNTREATED CHECK	0.00	NA	0	0
2A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	92
3A»GRAMOXONE MAX (3L)	0.75	LAA	0	97
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0	
4A»GRAMOXONE MAX (3L)	0.75	LAA	0	100
B BANVEL (4SL)	0.125	LAA	0	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0	
5A»GRAMOXONE MAX (3L)	0.75	LAA	0	97
B BANVEL (4SL)	0.25	LAA	0	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	0	
6A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0	
7A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0	
C ADJUVANT - COC (EC)	0.50	PMV	0	
8A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	100
B BANVEL (4SL)	0.125	LAA	0	
9A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	100
B BANVEL (4SL)	0.25	LAA	0	
10A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	0	100
B (G)2,4-D-ESTER (4EC)	1.00	LAA	0	
C»CANOPY XL (56.3 WDG)	0.046	LAA	0	
11A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
12A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C ADJUVANT - COC (EC)	0.50	PMV	1	
13A»ROUNDUP WEATHER MAX (4.5AE)	1.13	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
14A»GRAMOXONE MAX (3L)	0.75	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C SURFACTANT - NON-IONIC (SL)	0.25	PMV	1	
15A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C»AMPLIFY (84WG)	0.016	LAA	1	
16A»ROUNDUP WEATHER MAX (4.5AE)	0.77	LAA	1	100
B (G)2,4-D-ESTER (4EC)	0.50	LAA	1	
C»CANOPY XL (56.3 WDG)	0.046	LAA	1	
	LSD (0.05)			4.40
	SIGNIFICANCE OF F			**
	STANDARD DEVIATION			2.16
	COEFFICIENT OF VARIANCE			2.85
	DAT APPLICATION # 01 TIMINGS (00)			105
	DAT APPLICATION # 02 TIMINGS (01)			91

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = PREPLA / EARLY PREPLANT - 26 TO 34 DPP 04-26-2004(1)
01 = PREPLA / EARLY PREPLANT - 12 TO 18 DPP 05-10-2004(2)

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 %	05-18-2004	02	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
002	ERICA	CON %	05-26-2004	02	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
003	ERICA	CON %	06-08-2004	02	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
004	ERICA	CON %	06-24-2004	02	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
005	ERICA	CON %	07-13-2004	02	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N
006	ERICA	CON %	08-09-2004	02	P	ERICA		RAW	ALL	CON	%	---	1.00 PL	NO	0001	0	N

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
10-01-2003	23:59	AUT	0.00	61	48	55	M	M
10-02-2003	23:59	AUT	0.00	59	46	53	M	M
10-03-2003	23:59	AUT	0.00	58	37	48	M	M
10-04-2003	23:59	AUT	0.00	67	48	58	M	M
10-05-2003	23:59	AUT	0.00	64	46	55	M	M
10-06-2003	23:59	AUT	0.00	67	44	56	M	M
10-07-2003	23:59	AUT	0.00	69	46	58	M	M
10-08-2003	23:59	AUT	0.00	74	52	63	M	M
10-09-2003	23:59	AUT	0.00	76	53	65	M	M
10-10-2003	23:59	AUT	0.00	71	55	63	M	M
10-11-2003	23:59	AUT	0.01	71	59	65	M	M
10-12-2003	23:59	AUT	0.00	74	58	66	M	M
10-13-2003	23:59	AUT	0.00	70	51	61	M	M
10-14-2003	23:59	AUT	1.07	70	50	60	M	M
10-15-2003	23:59	AUT	0.13	64	54	59	M	M
10-16-2003	23:59	AUT	0.00	67	52	60	M	M
10-17-2003	23:59	AUT	0.05	62	46	54	M	M
10-18-2003	23:59	AUT	0.00	59	41	50	M	M
10-19-2003	23:59	AUT	0.00	66	41	54	M	M
10-20-2003	23:59	AUT	0.00	64	41	53	M	M
10-21-2003	23:59	AUT	0.02	73	56	65	M	M
10-22-2003	23:59	AUT	0.09	60	44	52	M	M
10-23-2003	23:59	AUT	0.00	49	41	45	M	M
10-24-2003	23:59	AUT	0.00	55	32	44	M	M
10-25-2003	23:59	AUT	0.00	64	37	51	M	M
10-26-2003	23:59	AUT	0.01	71	62	67	M	M
10-27-2003	23:59	AUT	1.25	66	48	57	M	M
10-28-2003	23:59	AUT	0.64	54	40	47	M	M
10-29-2003	23:59	AUT	1.02	56	45	51	M	M
10-30-2003	23:59	AUT	0.00	64	40	52	M	M
10-31-2003	23:59	AUT	0.00	71	47	59	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.29	65	47	56	32	

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
11-01-2003	23:59	AUT	M	75	49	62	M	M
11-02-2003	23:59	AUT	M	75	53	64	M	M
11-03-2003	23:59	AUT	M	77	55	66	M	M
11-04-2003	23:59	AUT	M	78	59	69	M	M
11-05-2003	23:59	AUT	1.20	78	63	71	M	M
11-06-2003	23:59	AUT	0.67	66	60	63	M	M
11-07-2003	23:59	AUT	0.04	61	51	56	M	M
11-08-2003	23:59	AUT	M	53	36	45	M	M
11-09-2003	23:59	AUT	M	45	28	37	M	M
11-10-2003	23:59	AUT	M	48	26	37	M	M
11-11-2003	23:59	AUT	M	59	36	48	M	M
11-12-2003	23:59	AUT	0.67	60	52	56	M	M
11-13-2003	23:59	AUT	M	63	39	51	M	M
11-14-2003	23:59	AUT	M	49	36	43	M	M
11-15-2003	23:59	AUT	M	54	38	46	M	M
11-16-2003	23:59	AUT	0.02	54	41	48	M	M
11-17-2003	23:59	AUT	M	59	41	50	M	M
11-18-2003	23:59	AUT	M	58	47	53	M	M
11-19-2003	23:59	AUT	1.09	73	51	62	M	M
11-20-2003	23:59	AUT	M	56	43	50	M	M
11-21-2003	23:59	AUT	M	69	39	54	M	M
11-22-2003	23:59	AUT	M	63	41	52	M	M
11-23-2003	23:59	AUT	M	61	39	50	M	M
11-24-2003	23:59	AUT	0.15	66	40	53	M	M
11-25-2003	23:59	AUT	M	43	30	37	M	M
11-26-2003	23:59	AUT	M	49	31	40	M	M
11-27-2003	23:59	AUT	M	55	35	45	M	M
11-28-2003	23:59	AUT	0.75	67	43	55	M	M
11-29-2003	23:59	AUT	M	46	37	42	M	M
11-30-2003	23:59	AUT	M	52	38	45	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.59	60	43	52	***	

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
12-01-2003	23:59	AUT	M	55	38	47	M	M
12-02-2003	23:59	AUT	M	42	31	37	M	M
12-03-2003	23:59	AUT	M	36	22	29	M	M
12-04-2003	23:59	AUT	0.02	40	22	31	M	M
12-05-2003	23:59	AUT	0.81	40	30	35	M	M
12-06-2003	23:59	AUT	0.23	33	27	30	M	M
12-07-2003	23:59	AUT	M	33	25	29	M	M
12-08-2003	23:59	AUT	M	37	27	32	M	M
12-09-2003	23:59	AUT	M	42	25	34	M	M
12-10-2003	23:59	AUT	0.23	59	33	46	M	M
12-11-2003	23:59	AUT	0.52	58	38	48	M	M
12-12-2003	23:59	AUT	M	42	31	37	M	M
12-13-2003	23:59	AUT	M	36	29	33	M	M
12-14-2003	23:59	AUT	0.99	46	30	38	M	M
12-15-2003	23:59	AUT	M	43	29	36	M	M
12-16-2003	23:59	AUT	M	52	27	40	M	M
12-17-2003	23:59	AUT	0.59	51	32	42	M	M
12-18-2003	23:59	AUT	M	38	31	35	M	M
12-19-2003	23:59	AUT	M	36	28	32	M	M
12-20-2003	23:59	AUT	M	39	29	34	M	M
12-21-2003	23:59	AUT	M	41	28	35	M	M
12-22-2003	23:59	AUT	M	52	35	44	M	M
12-23-2003	23:59	AUT	M	58	42	50	M	M
12-24-2003	23:59	AUT	0.75	58	37	48	M	M
12-25-2003	23:59	AUT	M	42	33	38	M	M
12-26-2003	23:59	AUT	M	43	31	37	M	M
12-27-2003	23:59	AUT	M	49	29	39	M	M
12-28-2003	23:59	AUT	M	48	25	37	M	M
12-29-2003	23:59	AUT	0.03	56	32	44	M	M
12-30-2003	23:59	AUT	M	56	37	47	M	M
12-31-2003	23:59	AUT	M	47	26	37	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.17	45	30	38	***	

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
01-01-2004	23:59	AUT	M	52	34	43	M	M
01-02-2004	23:59	AUT	0.12	47	39	43	M	M
01-03-2004	23:59	AUT	M	66	43	55	M	M
01-04-2004	23:59	AUT	0.01	64	46	55	M	M
01-05-2004	23:59	AUT	0.24	47	41	44	M	M
01-06-2004	23:59	AUT	M	42	23	33	M	M
01-07-2004	23:59	AUT	M	29	19	24	M	M
01-08-2004	23:59	AUT	M	35	25	30	M	M
01-09-2004	23:59	AUT	M	34	14	24	M	M
01-10-2004	23:59	AUT	M	17	71	12	M	M
01-11-2004	23:59	AUT	M	31	81	9	M	M
01-12-2004	23:59	AUT	M	48	30	39	M	M
01-13-2004	23:59	AUT	M	47	31	39	M	M
01-14-2004	23:59	AUT	M	32	21	26	M	M
01-15-2004	23:59	AUT	M	31	17	24	M	M
01-16-2004	23:59	AUT	M	27	13	20	M	M
01-17-2004	23:59	AUT	0.10	31	19	25	M	M
01-18-2004	23:59	AUT	0.46	38	28	33	M	M
01-19-2004	23:59	AUT	M	30	21	26	M	M
01-20-2004	23:59	AUT	M	30	21	25	M	M
01-21-2004	23:59	AUT	M	28	18	23	M	M
01-22-2004	23:59	AUT	M	41	19	30	M	M
01-23-2004	23:59	AUT	M	24	15	19	M	M
01-24-2004	23:59	AUT	M	24	15	20	M	M
01-25-2004	23:59	AUT	0.27	19	13	16	M	M
01-26-2004	23:59	AUT	0.20	24	14	19	M	M
01-27-2004	23:59	AUT	0.21	35	21	28	M	M
01-28-2004	23:59	AUT	M	28	23	26	M	M
01-29-2004	23:59	AUT	M	37	15	26	M	M
01-30-2004	23:59	AUT	M	27	16	22	M	M
01-31-2004	23:59	AUT	M	24	13	18	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			1.61	35	26	31	***	

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
02-01-2004	23:59	AUT	M	36	13	25	M	M
02-02-2004	23:59	AUT	M	44	7	25	M	M
02-03-2004	23:59	AUT	0.48	45	23	34	M	M
02-04-2004	23:59	AUT	M	40	26	33	M	M
02-05-2004	23:59	AUT	M	34	23	29	M	M
02-06-2004	23:59	AUT	1.73	37	30	34	M	M
02-07-2004	23:59	AUT	M	45	31	38	M	M
02-08-2004	23:59	AUT	M	34	24	29	M	M
02-09-2004	23:59	AUT	M	44	25	34	M	M
02-10-2004	23:59	AUT	M	49	32	41	M	M
02-11-2004	23:59	AUT	M	41	28	35	M	M
02-12-2004	23:59	AUT	M	41	28	35	M	M
02-13-2004	23:59	AUT	M	46	29	37	M	M
02-14-2004	23:59	AUT	M	46	25	36	M	M
02-15-2004	23:59	AUT	M	38	24	31	M	M
02-16-2004	23:59	AUT	M	32	16	24	M	M
02-17-2004	23:59	AUT	M	39	18	28	M	M
02-18-2004	23:59	AUT	M	44	28	36	M	M
02-19-2004	23:59	AUT	M	55	32	43	M	M
02-20-2004	23:59	AUT	M	59	31	45	M	M
02-21-2004	23:59	AUT	M	56	41	48	M	M
02-22-2004	23:59	AUT	M	47	35	41	M	M
02-23-2004	23:59	AUT	M	44	27	35	M	M
02-24-2004	23:59	AUT	M	46	33	39	M	M
02-25-2004	23:59	AUT	M	42	28	35	M	M
02-26-2004	23:59	AUT	M	41	26	34	M	M
02-27-2004	23:59	AUT	M	46	30	38	M	M
02-28-2004	23:59	AUT	M	54	27	41	M	M
02-29-2004	23:59	AUT	M	63	28	45	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			2.21	44	26	35	***	

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
03-01-2004	23:59	AUT	M	63	28	46	M	M
03-02-2004	23:59	AUT	0.17	64	31	48	M	M
03-03-2004	23:59	AUT	M	67	62	65	M	M
03-04-2004	23:59	AUT	0.16	62	42	53	M	M
03-05-2004	23:59	AUT	M	56	47	52	M	M
03-06-2004	23:59	AUT	0.85	69	45	57	M	M
03-07-2004	23:59	AUT	0.04	67	49	58	M	M
03-08-2004	23:59	AUT	M	57	42	50	M	M
03-09-2004	23:59	AUT	M	48	37	43	M	M
03-10-2004	23:59	AUT	M	45	30	38	M	M
03-11-2004	23:59	AUT	M	45	30	38	M	M
03-12-2004	23:59	AUT	M	52	35	44	M	M
03-13-2004	23:59	AUT	M	48	35	42	M	M
03-14-2004	23:59	AUT	M	44	29	37	M	M
03-15-2004	23:59	AUT	M	52	27	34	M	M
03-16-2004	23:59	AUT	0.59	60	40	50	M	M
03-17-2004	23:59	AUT	0.03	47	35	41	M	M
03-18-2004	23:59	AUT	0.17	41	33	37	M	M
03-19-2004	23:59	AUT	M	47	30	39	M	M
03-20-2004	23:59	AUT	M	45	30	38	M	M
03-21-2004	23:59	AUT	0.03	56	26	41	M	M
03-22-2004	23:59	AUT	M	57	33	45	M	M
03-23-2004	23:59	AUT	M	39	29	34	M	M
03-24-2004	23:59	AUT	M	46	24	35	M	M
03-25-2004	23:59	AUT	0.16	61	31	46	M	M
03-26-2004	23:59	AUT	M	67	44	56	M	M
03-27-2004	23:59	AUT	0.04	73	52	63	M	M
03-28-2004	23:59	AUT	M	64	54	59	M	M
03-29-2004	23:59	AUT	M	60	41	50	M	M
03-30-2004	23:59	AUT	0.16	52	37	45	M	M
03-31-2004	23:59	AUT	0.20	46	37	42	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			2.60	55	37	46	***	

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
04-01-2004	23:59	AUT	0.82	48	40	44	M	M
04-02-2004	23:59	AUT	0.16	48	44	46	M	M
04-03-2004	23:59	AUT	0.01	47	42	45	M	M
04-04-2004	23:59	AUT	0.12	52	41	47	M	M
04-05-2004	23:59	AUT	M	48	37	43	M	M
04-06-2004	23:59	AUT	M	47	31	39	M	M
04-07-2004	23:59	AUT	M	57	33	45	M	M
04-08-2004	23:59	AUT	M	73	44	59	M	M
04-09-2004	23:59	AUT	0.05	53	42	48	M	M
04-10-2004	23:59	AUT	M	63	42	53	M	M
04-11-2004	23:59	AUT	0.02	60	38	49	M	M
04-12-2004	23:59	AUT	1.23	49	41	45	M	M
04-13-2004	23:59	AUT	0.25	46	43	45	M	M
04-14-2004	23:59	AUT	0.98	65	43	54	M	M
04-15-2004	23:59	AUT	M	54	44	49	M	M
04-16-2004	23:59	AUT	M	60	43	52	M	M
04-17-2004	23:59	AUT	M	61	37	49	M	M
04-18-2004	23:59	AUT	M	77	47	62	M	M
04-19-2004	23:59	AUT	M	84	55	70	M	M
04-20-2004	23:59	AUT	M	83	62	73	M	M
04-21-2004	23:59	AUT	0.01	76	56	66	M	M
04-22-2004	23:59	AUT	M	73	54	64	M	M
04-23-2004	23:59	AUT	0.35	80	65	73	M	M
04-24-2004	23:59	AUT	M	82	52	67	M	M
04-25-2004	23:59	AUT	M	70	51	61	M	M
04-26-2004	23:59	AUT	0.60	64	51	58	M	M
04-27-2004	23:59	AUT	0.08	71	54	63	M	M
04-28-2004	23:59	AUT	M	66	44	55	M	M
04-29-2004	23:59	AUT	M	58	40	49	M	M
04-30-2004	23:59	AUT	M	73	78	76	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.68	63	46	55	***	

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
05-01-2004	23:59	AUT		M 74	58	66	M	M
05-02-2004	23:59	AUT	0.35	77	61	69	M	M
05-03-2004	23:59	AUT	0.49	80	61	70	M	M
05-04-2004	23:59	AUT	0.00	62	45	54	M	M
05-05-2004	23:59	AUT	0.04	59	43	51	M	M
05-06-2004	23:59	AUT		M 70	50	60	M	M
05-07-2004	23:59	AUT	0.24	71	47	59	M	M
05-08-2004	23:59	AUT		M 84	60	72	M	M
05-09-2004	23:59	AUT		M 64	50	57	M	M
05-10-2004	23:59	AUT	0.87	80	49	65	M	M
05-11-2004	23:59	AUT		M 84	61	73	M	M
05-12-2004	23:59	AUT		M 85	68	77	M	M
05-13-2004	23:59	AUT		M 84	68	76	M	M
05-14-2004	23:59	AUT		M 82	69	76	M	M
05-15-2004	23:59	AUT	0.12	84	68	76	M	M
05-16-2004	23:59	AUT		M 85	65	75	M	M
05-17-2004	23:59	AUT		M 79	64	72	M	M
05-18-2004	23:59	AUT	0.02	82	63	73	M	M
05-19-2004	23:59	AUT		M 83	69	76	M	M
05-20-2004	23:59	AUT		M 77	65	71	M	M
05-21-2004	23:59	AUT		M 73	63	68	M	M
05-22-2004	23:59	AUT		M 83	65	74	M	M
05-23-2004	23:59	AUT		M 86	65	76	M	M
05-24-2004	23:59	AUT		M 88	74	81	M	M
05-25-2004	23:59	AUT	1.01	87	74	81	M	M
05-26-2004	23:59	AUT	0.26	85	65	75	M	M
05-27-2004	23:59	AUT		M 82	65	74	M	M
05-28-2004	23:59	AUT	0.17	80	69	75	M	M
05-29-2004	23:59	AUT		M 79	68	74	M	M
05-30-2004	23:59	AUT		M 72	56	64	M	M
05-31-2004	23:59	AUT	0.11	72	56	64	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			3.68	78	61	70	***	

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
06-01-2004	23:59	AUT	0.14	79	60	70	M	M
06-02-2004	23:59	AUT	0.17	79	60	70	M	M
06-03-2004	23:59	AUT	0.01	80	61	71	M	M
06-04-2004	23:59	AUT	0.05	78	61	70	M	M
06-05-2004	23:59	AUT	0.65	69	60	65	M	M
06-06-2004	23:59	AUT	0.10	66	60	63	M	M
06-07-2004	23:59	AUT	M	69	59	64	M	M
06-08-2004	23:59	AUT	M	77	57	67	M	M
06-09-2004	23:59	AUT	M	82	60	71	M	M
06-10-2004	23:59	AUT	M	88	71	80	M	M
06-11-2004	23:59	AUT	0.31	88	71	80	M	M
06-12-2004	23:59	AUT	M	72	54	63	M	M
06-13-2004	23:59	AUT	M	75	53	64	M	M
06-14-2004	23:59	AUT	M	73	57	65	M	M
06-15-2004	23:59	AUT	M	83	67	75	M	M
06-16-2004	23:59	AUT	0.01	84	74	79	M	M
06-17-2004	23:59	AUT	1.17	84	74	79	M	M
06-18-2004	23:59	AUT	M	87	71	79	M	M
06-19-2004	23:59	AUT	M	88	73	81	M	M
06-20-2004	23:59	AUT	M	84	69	77	M	M
06-21-2004	23:59	AUT	M	71	58	65	M	M
06-22-2004	23:59	AUT	0.08	78	55	67	M	M
06-23-2004	23:59	AUT	M	76	65	71	M	M
06-24-2004	23:59	AUT	M	83	64	74	M	M
06-25-2004	23:59	AUT	0.01	84	68	76	M	M
06-26-2004	23:59	AUT	0.04	80	67	74	M	M
06-27-2004	23:59	AUT	M	79	57	68	M	M
06-28-2004	23:59	AUT	M	80	63	72	M	M
06-29-2004	23:59	AUT	M	78	63	71	M	M
06-30-2004	23:59	AUT	M	82	61	72	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			2.74	79	63	71	***	

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
07-01-2004	23:59	AUT		M 85	62	74	M	M
07-02-2004	23:59	AUT		M 88	69	79	M	M
07-03-2004	23:59	AUT		M 88	67	78	M	M
07-04-2004	23:59	AUT		M 85	68	77	M	M
07-05-2004	23:59	AUT	0.06	91	75	83	M	M
07-06-2004	23:59	AUT		M 85	69	77	M	M
07-07-2004	23:59	AUT	0.04	89	67	78	M	M
07-08-2004	23:59	AUT	0.58	87	69	78	M	M
07-09-2004	23:59	AUT		M 84	64	74	M	M
07-10-2004	23:59	AUT		M 83	62	73	M	M
07-11-2004	23:59	AUT		M 87	68	78	M	M
07-12-2004	23:59	AUT	0.79	86	72	79	M	M
07-13-2004	23:59	AUT		M 82	69	76	M	M
07-14-2004	23:59	AUT	0.47	87	68	78	M	M
07-15-2004	23:59	AUT		M 83	70	77	M	M
07-16-2004	23:59	AUT		M 84	69	77	M	M
07-17-2004	23:59	AUT		M 86	66	76	M	M
07-18-2004	23:59	AUT	3.55	78	66	72	M	M
07-19-2004	23:59	AUT		M 81	68	75	M	M
07-20-2004	23:59	AUT		M 83	68	76	M	M
07-21-2004	23:59	AUT		M 86	67	77	M	M
07-22-2004	23:59	AUT	0.73	87	69	78	M	M
07-23-2004	23:59	AUT	0.23	83	72	78	M	M
07-24-2004	23:59	AUT		M 77	69	73	M	M
07-25-2004	23:59	AUT		M 74	58	66	M	M
07-26-2004	23:59	AUT		M 80	66	73	M	M
07-27-2004	23:59	AUT	0.16	86	71	79	M	M
07-28-2004	23:59	AUT	0.19	79	69	74	M	M
07-29-2004	23:59	AUT		M 85	67	76	M	M
07-30-2004	23:59	AUT		M 87	73	80	M	M
07-31-2004	23:59	AUT		M 87	75	81	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			6.80	84	68	76	***	

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
08-01-2004	23:59	AUT	0.27	82	71	77	M	M
08-02-2004	23:59	AUT	0.02	86	71	79	M	M
08-03-2004	23:59	AUT	0.18	84	71	78	M	M
08-04-2004	23:59	AUT	0.42	88	70	79	M	M
08-05-2004	23:59	AUT	0.06	75	66	71	M	M
08-06-2004	23:59	AUT	M	73	56	65	M	M
08-07-2004	23:59	AUT	M	74	54	64	M	M
08-08-2004	23:59	AUT	M	79	55	67	M	M
08-09-2004	23:59	AUT	M	82	61	72	M	M
08-10-2004	23:59	AUT	M	84	66	75	M	M
08-11-2004	23:59	AUT	0.79	85	68	77	M	M
08-12-2004	23:59	AUT	0.03	84	70	77	M	M
08-13-2004	23:59	AUT	0.03	78	70	74	M	M
08-14-2004	23:59	AUT	0.50	71	64	68	M	M
08-15-2004	23:59	AUT	0.05	76	66	71	M	M
08-16-2004	23:59	AUT	0.30	81	65	73	M	M
08-17-2004	23:59	AUT	M	80	63	72	M	M
08-18-2004	23:59	AUT	0.05	82	69	76	M	M
08-19-2004	23:59	AUT	M	85	74	80	M	M
08-20-2004	23:59	AUT	M	89	76	83	M	M
08-21-2004	23:59	AUT	0.78	82	64	73	M	M
08-22-2004	23:59	AUT	M	76	58	67	M	M
08-23-2004	23:59	AUT	M	80	61	71	M	M
08-24-2004	23:59	AUT	M	85	65	75	M	M
08-25-2004	23:59	AUT	M	84	67	76	M	M
08-26-2004	23:59	AUT	M	84	65	75	M	M
08-27-2004	23:59	AUT	M	84	68	76	M	M
08-28-2004	23:59	AUT	M	89	71	80	M	M
08-29-2004	23:59	AUT	M	86	68	77	M	M
08-30-2004	23:59	AUT	0.38	85	69	77	M	M
08-31-2004	23:59	AUT	0.41	83	65	74	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.27	82	66	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
09-01-2004	23:59	AUT		M 81	62	72	M	M
09-02-2004	23:59	AUT		M 81	62	72	M	M
09-03-2004	23:59	AUT		M 82	62	72	M	M
09-04-2004	23:59	AUT		M 80	64	72	M	M
09-05-2004	23:59	AUT		M 80	61	71	M	M
09-06-2004	23:59	AUT		M 78	61	70	M	M
09-07-2004	23:59	AUT		M 83	64	74	M	M
09-08-2004	23:59	AUT	0.01	82	70	76	M	M
09-09-2004	23:59	AUT	0.03	82	70	76	M	M
09-10-2004	23:59	AUT		M 82	64	73	M	M
09-11-2004	23:59	AUT		M 77	59	68	M	M
09-12-2004	23:59	AUT		M 79	57	68	M	M
09-13-2004	23:59	AUT		M 83	60	72	M	M
09-14-2004	23:59	AUT		M 77	63	70	M	M
09-15-2004	23:59	AUT	0.36	70	63	67	M	M
09-16-2004	23:59	AUT		M 79	66	73	M	M
09-17-2004	23:59	AUT	0.20	84	69	77	M	M
09-18-2004	23:59	AUT	1.50	76	58	67	M	M
09-19-2004	23:59	AUT		M 70	51	61	M	M
09-20-2004	23:59	AUT		M 69	49	59	M	M
09-21-2004	23:59	AUT		M 77	51	64	M	M
09-22-2004	23:59	AUT		M 83	55	69	M	M
09-23-2004	23:59	AUT		M 84	59	72	M	M
09-24-2004	23:59	AUT		M 79	59	69	M	M
09-25-2004	23:59	AUT		M 75	55	65	M	M
09-26-2004	23:59	AUT		M 77	57	67	M	M
09-27-2004	23:59	AUT		M 75	59	67	M	M
09-28-2004	23:59	AUT	1.61	79	66	73	M	M
09-29-2004	23:59	AUT	0.07	71	62	67	M	M
09-30-2004	23:59	AUT	0.14	74	54	64	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			3.92	78	60	69	***	

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
10-01-2004	23:59	AUT	M	75	50	62	M	M
10-02-2004	23:59	AUT	0.16	72	63	68	M	M
10-03-2004	23:59	AUT	M	67	54	61	M	M
10-04-2004	23:59	AUT	M	73	55	64	M	M
10-05-2004	23:59	AUT	M	63	44	54	M	M
10-06-2004	23:59	AUT	M	64	41	53	M	M
10-07-2004	23:59	AUT	M	72	45	59	M	M
10-08-2004	23:59	AUT	M	75	50	63	M	M
10-09-2004	23:59	AUT	M	70	56	63	M	M
10-10-2004	23:59	AUT	M	71	51	61	M	M
10-11-2004	23:59	AUT	M	61	44	53	M	M
10-12-2004	23:59	AUT	M	62	41	52	M	M
10-13-2004	23:59	AUT	0.19	63	41	52	M	M
10-14-2004	23:59	AUT	0.09	65	52	59	M	M
10-15-2004	23:59	AUT	0.59	66	53	60	M	M
10-16-2004	23:59	AUT	0.04	62	49	56	M	M
10-17-2004	23:59	AUT	M	61	44	53	M	M
10-18-2004	23:59	AUT	0.15	65	37	51	M	M
10-19-2004	23:59	AUT	0.30	61	54	58	M	M
10-20-2004	23:59	AUT	0.09	56	52	54	M	M
10-21-2004	23:59	AUT	0.02	56	51	54	M	M
10-22-2004	23:59	AUT	M	58	44	51	M	M
10-23-2004	23:59	AUT	M	59	42	51	M	M
10-24-2004	23:59	AUT	M	53	41	47	M	M
10-25-2004	23:59	AUT	M	57	47	52	M	M
10-26-2004	23:59	AUT	M	63	45	54	M	M
10-27-2004	23:59	AUT	M	63	43	53	M	M
10-28-2004	23:59	AUT	M	63	44	54	M	M
10-29-2004	23:59	AUT	M	60	51	56	M	M
10-30-2004	23:59	AUT	M	69	56	63	M	M
10-31-2004	23:59	AUT	M	74	62	68	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			1.63	64	48	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
10-01-2003	23:59	AUT	0.00	52	44	48	M	M
10-02-2003	23:59	AUT	0.01	47	37	42	M	M
10-03-2003	23:59	AUT	0.00	46	31	39	M	M
10-04-2003	23:59	AUT	0.01	54	43	49	M	M
10-05-2003	23:59	AUT	0.00	52	40	46	M	M
10-06-2003	23:59	AUT	0.00	52	40	46	M	M
10-07-2003	23:59	AUT	0.00	55	42	49	M	M
10-08-2003	23:59	AUT	0.01	61	49	55	M	M
10-09-2003	23:59	AUT	0.00	62	51	57	M	M
10-10-2003	23:59	AUT	0.01	60	50	55	M	M
10-11-2003	23:59	AUT	0.00	64	58	61	M	M
10-12-2003	23:59	AUT	0.01	62	49	56	M	M
10-13-2003	23:59	AUT	0.00	60	49	55	M	M
10-14-2003	23:59	AUT	1.41	57	47	52	M	M
10-15-2003	23:59	AUT	0.02	57	43	50	M	M
10-16-2003	23:59	AUT	0.00	56	41	49	M	M
10-17-2003	23:59	AUT	0.00	52	45	49	M	M
10-18-2003	23:59	AUT	0.00	49	39	44	M	M
10-19-2003	23:59	AUT	0.00	53	40	47	M	M
10-20-2003	23:59	AUT	0.00	51	36	44	M	M
10-21-2003	23:59	AUT	0.03	64	54	59	M	M
10-22-2003	23:59	AUT	0.05	52	44	48	M	M
10-23-2003	23:59	AUT	0.00	41	33	37	M	M
10-24-2003	23:59	AUT	0.00	41	28	35	M	M
10-25-2003	23:59	AUT	0.01	49	30	40	M	M
10-26-2003	23:59	AUT	0.41	65	60	63	M	M
10-27-2003	23:59	AUT	1.49	57	43	50	M	M
10-28-2003	23:59	AUT	0.23	46	35	41	M	M
10-29-2003	23:59	AUT	0.87	49	40	45	M	M
10-30-2003	23:59	AUT	0.01	49	35	42	M	M
10-31-2003	23:59	AUT	0.00	54	39	47	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.58	54	42	48	32	

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
11-01-2003	23:59	AUT	0.00	81	45		M	M
11-02-2003	23:59	AUT	0.00	79	52		M	M
11-03-2003	23:59	AUT	0.01	81	53		M	M
11-04-2003	23:59	AUT	0.00	82	49		M	M
11-05-2003	23:59	AUT	1.05	81	63		M	M
11-06-2003	23:59	AUT	0.25	67	64		M	M
11-07-2003	23:59	AUT	M	M	M		M	M
11-08-2003	23:59	AUT	M	M	M		M	M
11-09-2003	23:59	AUT	M	44	25	35	M	M
11-10-2003	23:59	AUT	M	51	21	36	M	M
11-11-2003	23:59	AUT	M	58	32	45	M	M
11-12-2003	23:59	AUT	0.68	62	51	57	M	M
11-13-2003	23:59	AUT	0.01	62	39	51	M	M
11-14-2003	23:59	AUT	M	49	36	43	M	M
11-15-2003	23:59	AUT	M	55	39	47	M	M
11-16-2003	23:59	AUT	0.03	57	40	49	M	M
11-17-2003	23:59	AUT	M	63	39	51	M	M
11-18-2003	23:59	AUT	M	56	36	46	M	M
11-19-2003	23:59	AUT	1.60	70	52	61	M	M
11-20-2003	23:59	AUT	M	56	37	47	M	M
11-21-2003	23:59	AUT	M	72	33	53	M	M
11-22-2003	23:59	AUT	M	67	38	53	M	M
11-23-2003	23:59	AUT	M	61	38	50	M	M
11-24-2003	23:59	AUT	0.22	69	39	54	M	M
11-25-2003	23:59	AUT	M	45	31	38	M	M
11-26-2003	23:59	AUT	M	51	29	40	M	M
11-27-2003	23:59	AUT	M	57	34	46	M	M
11-28-2003	23:59	AUT	0.94	65	43	54	M	M
11-29-2003	23:59	AUT	M	44	34	39	M	M
11-30-2003	23:59	AUT	M	50	35	43	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.79	62	40	51	***	

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
12-01-2003	23:59	AUT	M	54	32	43	M	M
12-02-2003	23:59	AUT	M	41	31	36	M	M
12-03-2003	23:59	AUT	M	37	22	30	M	M
12-04-2003	23:59	AUT	0.03	41	22	32	M	M
12-05-2003	23:59	AUT	1.06	36	30	33	M	M
12-06-2003	23:59	AUT	0.21	33	28	31	M	M
12-07-2003	23:59	AUT	M	35	24	30	M	M
12-08-2003	23:59	AUT	M	40	24	32	M	M
12-09-2003	23:59	AUT	M	43	26	35	M	M
12-10-2003	23:59	AUT	0.22	57	30	44	M	M
12-11-2003	23:59	AUT	0.91	57	38	48	M	M
12-12-2003	23:59	AUT	M	42	28	35	M	M
12-13-2003	23:59	AUT	M	36	26	31	M	M
12-14-2003	23:59	AUT	0.87	37	28	33	M	M
12-15-2003	23:59	AUT	M	42	29	36	M	M
12-16-2003	23:59	AUT	M	54	27	41	M	M
12-17-2003	23:59	AUT	0.79	52	32	42	M	M
12-18-2003	23:59	AUT	M	37	28	33	M	M
12-19-2003	23:59	AUT	M	35	28	32	M	M
12-20-2003	23:59	AUT	M	38	26	32	M	M
12-21-2003	23:59	AUT	M	44	24	34	M	M
12-22-2003	23:59	AUT	M	58	32	45	M	M
12-23-2003	23:59	AUT	0.05	63	46	55	M	M
12-24-2003	23:59	AUT	0.46	56	36	46	M	M
12-25-2003	23:59	AUT	M	42	28	35	M	M
12-26-2003	23:59	AUT	M	43	32	38	M	M
12-27-2003	23:59	AUT	M	53	29	41	M	M
12-28-2003	23:59	AUT	M	54	25	40	M	M
12-29-2003	23:59	AUT	M	62	26	44	M	M
12-30-2003	23:59	AUT	0.05	56	31	44	M	M
12-31-2003	23:59	AUT	M	52	25	39	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.65	46	29	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
01-01-2004	23:59	AUT	M	53	27	40	M	M
01-02-2004	23:59	AUT	0.13	53	39	46	M	M
01-03-2004	23:59	AUT	M	64	42	53	M	M
01-04-2004	23:59	AUT	M	71	46	59	M	M
01-05-2004	23:59	AUT	0.23	47	40	44	M	M
01-06-2004	23:59	AUT	M	41	23	32	M	M
01-07-2004	23:59	AUT	M	30	18	24	M	M
01-08-2004	23:59	AUT	M	34	20	27	M	M
01-09-2004	23:59	AUT	M	34	15	25	M	M
01-10-2004	23:59	AUT	M	19	6	13	M	M
01-11-2004	23:59	AUT	M	31	6	19	M	M
01-12-2004	23:59	AUT	M	48	29	37	M	M
01-13-2004	23:59	AUT	M	51	31	41	M	M
01-14-2004	23:59	AUT	M	31	23	27	M	M
01-15-2004	23:59	AUT	M	32	17	25	M	M
01-16-2004	23:59	AUT	M	27	13	20	M	M
01-17-2004	23:59	AUT	0.01	35	19	27	M	M
01-18-2004	23:59	AUT	0.27	38	27	33	M	M
01-19-2004	23:59	AUT	M	29	22	26	M	M
01-20-2004	23:59	AUT	M	29	20	25	M	M
01-21-2004	23:59	AUT	M	29	17	23	M	M
01-22-2004	23:59	AUT	M	44	19	32	M	M
01-23-2004	23:59	AUT	M	24	15	20	M	M
01-24-2004	23:59	AUT	M	27	18	23	M	M
01-25-2004	23:59	AUT	0.10	21	10	16	M	M
01-26-2004	23:59	AUT	0.35	21	15	18	M	M
01-27-2004	23:59	AUT	0.16	30	21	26	M	M
01-28-2004	23:59	AUT	M	28	17	23	M	M
01-29-2004	23:59	AUT	M	38	13	26	M	M
01-30-2004	23:59	AUT	M	29	15	22	M	M
01-31-2004	23:59	AUT	M	24	11	18	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			1.25	36	21	29	***	

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
02-01-2004	23:59	AUT		M 34	10	22	M	M
02-02-2004	23:59	AUT		M 40	11	26	M	M
02-03-2004	23:59	AUT	0.60	42	24	33	M	M
02-04-2004	23:59	AUT	0.02	41	25	33	M	M
02-05-2004	23:59	AUT	1.49	36	20	28	M	M
02-06-2004	23:59	AUT		M 36	30	33	M	M
02-07-2004	23:59	AUT		M 44	31	38	M	M
02-08-2004	23:59	AUT		M 34	22	28	M	M
02-09-2004	23:59	AUT		M 47	22	35	M	M
02-10-2004	23:59	AUT		M 52	32	42	M	M
02-11-2004	23:59	AUT		M 43	29	36	M	M
02-12-2004	23:59	AUT		M 44	29	37	M	M
02-13-2004	23:59	AUT		M 47	30	39	M	M
02-14-2004	23:59	AUT		M 49	28	39	M	M
02-15-2004	23:59	AUT		M 28	24	26	M	M
02-16-2004	23:59	AUT		M 34	16	25	M	M
02-17-2004	23:59	AUT		M 37	19	28	M	M
02-18-2004	23:59	AUT		M 45	26	36	M	M
02-19-2004	23:59	AUT		M 57	34	46	M	M
02-20-2004	23:59	AUT		M 57	30	44	M	M
02-21-2004	23:59	AUT		M 56	37	47	M	M
02-22-2004	23:59	AUT		M 46	32	39	M	M
02-23-2004	23:59	AUT		M 49	24	37	M	M
02-24-2004	23:59	AUT	0.08	45	32	39	M	M
02-25-2004	23:59	AUT		M 44	27	36	M	M
02-26-2004	23:59	AUT		M 42	23	33	M	M
02-27-2004	23:59	AUT		M 49	32	41	M	M
02-28-2004	23:59	AUT		M 59	27	43	M	M
02-29-2004	23:59	AUT		M 66	27	47	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			2.19	45	26	36	***	

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
03-01-2004	23:59	AUT		M 67	30	49	M	M
03-02-2004	23:59	AUT	0.19	72	54	63	M	M
03-03-2004	23:59	AUT		M 65	42	54	M	M
03-04-2004	23:59	AUT	0.10	58	47	53	M	M
03-05-2004	23:59	AUT		M 76	47	62	M	M
03-06-2004	23:59	AUT	1.08	71	49	60	M	M
03-07-2004	23:59	AUT	0.14	59	38	49	M	M
03-08-2004	23:59	AUT		M 47	35	41	M	M
03-09-2004	23:59	AUT		M 46	26	36	M	M
03-10-2004	23:59	AUT	0.02	45	31	38	M	M
03-11-2004	23:59	AUT		M 56	28	42	M	M
03-12-2004	23:59	AUT		M 47	35	41	M	M
03-13-2004	23:59	AUT		M 46	30	38	M	M
03-14-2004	23:59	AUT		M 53	26	40	M	M
03-15-2004	23:59	AUT		M 62	43	53	M	M
03-16-2004	23:59	AUT	0.47	49	34	42	M	M
03-17-2004	23:59	AUT		M 40	33	37	M	M
03-18-2004	23:59	AUT	0.09	49	31	40	M	M
03-19-2004	23:59	AUT	0.01	46	29	38	M	M
03-20-2004	23:59	AUT	0.01	61	26	44	M	M
03-21-2004	23:59	AUT	0.01	61	32	47	M	M
03-22-2004	23:59	AUT		M 39	27	33	M	M
03-23-2004	23:59	AUT		M 50	21	36	M	M
03-24-2004	23:59	AUT		M 65	28	47	M	M
03-25-2004	23:59	AUT	0.01	71	44	58	M	M
03-26-2004	23:59	AUT		M 77	49	63	M	M
03-27-2004	23:59	AUT	0.15	70	57	64	M	M
03-28-2004	23:59	AUT		M 62	43	53	M	M
03-29-2004	23:59	AUT		M 50	36	43	M	M
03-30-2004	23:59	AUT		M 46	36	41	M	M
03-31-2004	23:59	AUT	0.10	48	42	45	M	M
=====								
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			2.38	57	36	47	***	

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
04-01-2004	23:59	AUT	0.88	48	44	46	M	M
04-02-2004	23:59	AUT	0.31	47	43	45	M	M
04-03-2004	23:59	AUT	0.01	53	43	48	M	M
04-04-2004	23:59	AUT	0.07	47	38	43	M	M
04-05-2004	23:59	AUT	M	46	30	38	M	M
04-06-2004	23:59	AUT	M	60	62	61	M	M
04-07-2004	23:59	AUT	M	75	47	61	M	M
04-08-2004	23:59	AUT	0.04	54	44	49	M	M
04-09-2004	23:59	AUT	0.01	65	41	53	M	M
04-10-2004	23:59	AUT	M	64	39	52	M	M
04-11-2004	23:59	AUT	M	51	42	47	M	M
04-12-2004	23:59	AUT	1.34	46	43	45	M	M
04-13-2004	23:59	AUT	0.29	51	43	47	M	M
04-14-2004	23:59	AUT	0.05	51	47	49	M	M
04-15-2004	23:59	AUT	0.01	62	43	53	M	M
04-16-2004	23:59	AUT	M	67	34	51	M	M
04-17-2004	23:59	AUT	M	82	40	61	M	M
04-18-2004	23:59	AUT	M	88	54	71	M	M
04-19-2004	23:59	AUT	M	90	66	78	M	M
04-20-2004	23:59	AUT	M	79	62	71	M	M
04-21-2004	23:59	AUT	0.01	73	54	64	M	M
04-22-2004	23:59	AUT	M	84	54	69	M	M
04-23-2004	23:59	AUT	0.37	84	57	71	M	M
04-24-2004	23:59	AUT	M	72	52	62	M	M
04-25-2004	23:59	AUT	M	65	49	57	M	M
04-26-2004	23:59	AUT	0.53	68	55	62	M	M
04-27-2004	23:59	AUT	0.03	66	43	55	M	M
04-28-2004	23:59	AUT	M	62	39	51	M	M
04-29-2004	23:59	AUT	M	78	43	61	M	M
04-30-2004	23:59	AUT	M	78	54	66	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			3.95	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
05-01-2004	23:59	AUT	0.05	79	60	70	M	M
05-02-2004	23:59	AUT	0.65	82	60	71	M	M
05-03-2004	23:59	AUT	0.52	60	47	54	M	M
05-04-2004	23:59	AUT	M	62	41	52	M	M
05-05-2004	23:59	AUT	0.01	73	42	58	M	M
05-06-2004	23:59	AUT	M	77	43	60	M	M
05-07-2004	23:59	AUT	0.29	87	53	70	M	M
05-08-2004	23:59	AUT	M	65	54	60	M	M
05-09-2004	23:59	AUT	M	85	49	67	M	M
05-10-2004	23:59	AUT	0.67	90	59	75	M	M
05-11-2004	23:59	AUT	M	88	69	79	M	M
05-12-2004	23:59	AUT	M	87	64	76	M	M
05-13-2004	23:59	AUT	M	86	67	77	M	M
05-14-2004	23:59	AUT	M	86	66	76	M	M
05-15-2004	23:59	AUT	0.10	88	66	77	M	M
05-16-2004	23:59	AUT	0.14	81	65	73	M	M
05-17-2004	23:59	AUT	0.29	83	64	74	M	M
05-18-2004	23:59	AUT	0.13	84	63	74	M	M
05-19-2004	23:59	AUT	0.09	74	64	69	M	M
05-20-2004	23:59	AUT	M	71	64	68	M	M
05-21-2004	23:59	AUT	0.09	83	66	75	M	M
05-22-2004	23:59	AUT	0.01	90	61	76	M	M
05-23-2004	23:59	AUT	M	92	71	82	M	M
05-24-2004	23:59	AUT	M	88	70	79	M	M
05-25-2004	23:59	AUT	0.06	89	66	78	M	M
05-26-2004	23:59	AUT	0.06	84	65	75	M	M
05-27-2004	23:59	AUT	0.02	83	63	73	M	M
05-28-2004	23:59	AUT	0.14	79	66	73	M	M
05-29-2004	23:59	AUT	M	73	53	63	M	M
05-30-2004	23:59	AUT	0.01	70	52	61	M	M
05-31-2004	23:59	AUT	0.23	70	63	67	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			3.56	80	60	70	***	

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
06-01-2004	23:59	AUT	0.03	80	56	68	M	M
06-02-2004	23:59	AUT	0.01	83	55	69	M	M
06-03-2004	23:59	AUT	M	78	58	68	M	M
06-04-2004	23:59	AUT	0.12	68	56	62	M	M
06-05-2004	23:59	AUT	1.17	62	57	60	M	M
06-06-2004	23:59	AUT	0.02	69	56	63	M	M
06-07-2004	23:59	AUT	0.01	80	55	68	M	M
06-08-2004	23:59	AUT	M	86	60	73	M	M
06-09-2004	23:59	AUT	M	92	66	79	M	M
06-10-2004	23:59	AUT	0.42	89	70	80	M	M
06-11-2004	23:59	AUT	0.71	71	57	64	M	M
06-12-2004	23:59	AUT	M	76	53	65	M	M
06-13-2004	23:59	AUT	M	71	54	63	M	M
06-14-2004	23:59	AUT	M	86	67	77	M	M
06-15-2004	23:59	AUT	0.02	89	72	81	M	M
06-16-2004	23:59	AUT	0.01	86	69	78	M	M
06-17-2004	23:59	AUT	0.63	91	71	81	M	M
06-18-2004	23:59	AUT	0.15	90	70	80	M	M
06-19-2004	23:59	AUT	0.01	83	66	75	M	M
06-20-2004	23:59	AUT	M	75	55	65	M	M
06-21-2004	23:59	AUT	M	79	51	65	M	M
06-22-2004	23:59	AUT	0.17	87	68	78	M	M
06-23-2004	23:59	AUT	0.06	76	65	71	M	M
06-24-2004	23:59	AUT	0.01	84	60	72	M	M
06-25-2004	23:59	AUT	0.86	86	66	76	M	M
06-26-2004	23:59	AUT	0.03	81	59	70	M	M
06-27-2004	23:59	AUT	M	81	52	67	M	M
06-28-2004	23:59	AUT	M	81	58	70	M	M
06-29-2004	23:59	AUT	0.01	79	59	69	M	M
06-30-2004	23:59	AUT	M	83	56	70	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.45	81	61	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
07-01-2004	23:59	AUT	0.15	85	61	73	M	M
07-02-2004	23:59	AUT	M	90	64	77	M	M
07-03-2004	23:59	AUT	M	86	65	76	M	M
07-04-2004	23:59	AUT	1.30	79	70	75	M	M
07-05-2004	23:59	AUT	0.62	91	73	82	M	M
07-06-2004	23:59	AUT	0.01	87	68	78	M	M
07-07-2004	23:59	AUT	0.58	87	67	77	M	M
07-08-2004	23:59	AUT	0.01	87	66	77	M	M
07-09-2004	23:59	AUT	M	85	62	74	M	M
07-10-2004	23:59	AUT	M	86	61	74	M	M
07-11-2004	23:59	AUT	M	88	66	77	M	M
07-12-2004	23:59	AUT	M	85	74	80	M	M
07-13-2004	23:59	AUT	M	84	70	77	M	M
07-14-2004	23:59	AUT	0.16	88	70	79	M	M
07-15-2004	23:59	AUT	M	82	62	72	M	M
07-16-2004	23:59	AUT	M	83	64	74	M	M
07-17-2004	23:59	AUT	0.11	86	60	73	M	M
07-18-2004	23:59	AUT	0.26	75	67	71	M	M
07-19-2004	23:59	AUT	M	84	67	76	M	M
07-20-2004	23:59	AUT	M	87	64	76	M	M
07-21-2004	23:59	AUT	0.29	91	64	78	M	M
07-22-2004	23:59	AUT	0.83	88	67	78	M	M
07-23-2004	23:59	AUT	0.11	83	72	78	M	M
07-24-2004	23:59	AUT	0.02	77	68	73	M	M
07-25-2004	23:59	AUT	0.20	73	68	71	M	M
07-26-2004	23:59	AUT	2.81	77	67	72	M	M
07-27-2004	23:59	AUT	0.29	86	70	78	M	M
07-28-2004	23:59	AUT	M	84	70	77	M	M
07-29-2004	23:59	AUT	M	85	64	75	M	M
07-30-2004	23:59	AUT	M	87	70	79	M	M
07-31-2004	23:59	AUT	M	88	74	81	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			7.75	85	67	76	***	

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
08-01-2004	23:59	AUT	0.02	81	72	77	M	M
08-02-2004	23:59	AUT	0.05	85	71	78	M	M
08-03-2004	23:59	AUT	0.30	86	70	78	M	M
08-04-2004	23:59	AUT	0.98	91	68	80	M	M
08-05-2004	23:59	AUT	0.07	75	64	70	M	M
08-06-2004	23:59	AUT	M	73	55	64	M	M
08-07-2004	23:59	AUT	M	74	51	63	M	M
08-08-2004	23:59	AUT	M	82	52	67	M	M
08-09-2004	23:59	AUT	M	86	56	71	M	M
08-10-2004	23:59	AUT	M	87	64	76	M	M
08-11-2004	23:59	AUT	0.14	87	69	78	M	M
08-12-2004	23:59	AUT	1.75	83	67	75	M	M
08-13-2004	23:59	AUT	0.05	79	67	73	M	M
08-14-2004	23:59	AUT	0.29	70	64	67	M	M
08-15-2004	23:59	AUT	M	78	63	71	M	M
08-16-2004	23:59	AUT	M	83	65	74	M	M
08-17-2004	23:59	AUT	M	81	62	72	M	M
08-18-2004	23:59	AUT	M	83	65	74	M	M
08-19-2004	23:59	AUT	M	87	70	79	M	M
08-20-2004	23:59	AUT	M	91	71	81	M	M
08-21-2004	23:59	AUT	0.14	81	62	72	M	M
08-22-2004	23:59	AUT	0.01	80	56	68	M	M
08-23-2004	23:59	AUT	M	84	58	71	M	M
08-24-2004	23:59	AUT	M	86	60	73	M	M
08-25-2004	23:59	AUT	M	72	70	71	M	M
08-26-2004	23:59	AUT	M	83	67	75	M	M
08-27-2004	23:59	AUT	M	85	67	76	M	M
08-28-2004	23:59	AUT	M	89	71	80	M	M
08-29-2004	23:59	AUT	M	87	68	78	M	M
08-30-2004	23:59	AUT	0.02	85	68	77	M	M
08-31-2004	23:59	AUT	M	82	64	73	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			3.82	82	64	73	***	

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
09-01-2004	23:59	AUT	0.01	84	57	71	M	M
09-02-2004	23:59	AUT	M	82	59	71	M	M
09-03-2004	23:59	AUT	M	82	58	70	M	M
09-04-2004	23:59	AUT	M	82	64	73	M	M
09-05-2004	23:59	AUT	0.02	79	60	70	M	M
09-06-2004	23:59	AUT	M	75	63	69	M	M
09-07-2004	23:59	AUT	M	80	65	73	M	M
09-08-2004	23:59	AUT	0.08	78	71	75	M	M
09-09-2004	23:59	AUT	0.93	82	67	75	M	M
09-10-2004	23:59	AUT	M	83	60	72	M	M
09-11-2004	23:59	AUT	0.01	78	58	68	M	M
09-12-2004	23:59	AUT	M	81	59	70	M	M
09-13-2004	23:59	AUT	M	83	58	71	M	M
09-14-2004	23:59	AUT	M	76	60	68	M	M
09-15-2004	23:59	AUT	0.24	69	63	66	M	M
09-16-2004	23:59	AUT	M	78	67	73	M	M
09-17-2004	23:59	AUT	1.04	81	68	75	M	M
09-18-2004	23:59	AUT	0.48	75	59	67	M	M
09-19-2004	23:59	AUT	M	70	45	58	M	M
09-20-2004	23:59	AUT	M	70	45	58	M	M
09-21-2004	23:59	AUT	0.01	82	47	65	M	M
09-22-2004	23:59	AUT	M	85	52	69	M	M
09-23-2004	23:59	AUT	M	85	54	70	M	M
09-24-2004	23:59	AUT	M	78	58	68	M	M
09-25-2004	23:59	AUT	0.01	78	57	68	M	M
09-26-2004	23:59	AUT	M	74	55	65	M	M
09-27-2004	23:59	AUT	M	74	58	66	M	M
09-28-2004	23:59	AUT	1.74	76	67	72	M	M
09-29-2004	23:59	AUT	M	71	63	67	M	M
09-30-2004	23:59	AUT	0.20	75	54	65	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.77	78	59	69	***	

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: 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
05-01-2004	23:59	AUT	M	78	56	67	M	M
05-02-2004	23:59	AUT	0.04	77	64	71	M	M
05-03-2004	23:59	AUT	0.08	75	44	60	M	M
05-04-2004	23:59	AUT	M	60	38	49	M	M
05-05-2004	23:59	AUT	0.03	69	42	56	M	M
05-06-2004	23:59	AUT	M	73	40	57	M	M
05-07-2004	23:59	AUT	0.23	80	54	67	M	M
05-08-2004	23:59	AUT	M	70	49	60	M	M
05-09-2004	23:59	AUT	M	83	45	64	M	M
05-10-2004	23:59	AUT	M	86	56	70	M	M
05-11-2004	23:59	AUT	M	84	64	74	M	M
05-12-2004	23:59	AUT	M	85	62	74	M	M
05-13-2004	23:59	AUT	M	85	62	74	M	M
05-14-2004	23:59	AUT	M	84	63	74	M	M
05-15-2004	23:59	AUT	0.02	85	64	75	M	M
05-16-2004	23:59	AUT	0.68	78	62	70	M	M
05-17-2004	23:59	AUT	M	80	61	71	M	M
05-18-2004	23:59	AUT	0.02	80	62	71	M	M
05-19-2004	23:59	AUT	1.13	77	62	70	M	M
05-20-2004	23:59	AUT	M	69	62	66	M	M
05-21-2004	23:59	AUT	0.39	80	65	73	M	M
05-22-2004	23:59	AUT	0.03	84	60	72	M	M
05-23-2004	23:59	AUT	M	86	69	78	M	M
05-24-2004	23:59	AUT	M	86	69	78	M	M
05-25-2004	23:59	AUT	M	84	63	74	M	M
05-26-2004	23:59	AUT	1.12	79	63	71	M	M
05-27-2004	23:59	AUT	0.03	78	64	71	M	M
05-28-2004	23:59	AUT	0.12	77	64	71	M	M
05-29-2004	23:59	AUT	M	76	52	64	M	M
05-30-2004	23:59	AUT	M	71	51	61	M	M
05-31-2004	23:59	AUT	0.15	68	65	67	M	M
=====								
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			4.07	78	58	68	***	

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
06-01-2004	23:59	AUT	0.40	74	59	67	M	M
06-02-2004	23:59	AUT	M	76	54	65	M	M
06-03-2004	23:59	AUT	0.21	76	57	67	M	M
06-04-2004	23:59	AUT	M	74	54	64	M	M
06-05-2004	23:59	AUT	2.39	66	53	60	M	M
06-06-2004	23:59	AUT	0.10	66	53	60	M	M
06-07-2004	23:59	AUT	M	79	54	67	M	M
06-08-2004	23:59	AUT	M	83	60	72	M	M
06-09-2004	23:59	AUT	M	87	65	76	M	M
06-10-2004	23:59	AUT	0.19	85	70	78	M	M
06-11-2004	23:59	AUT	0.67	73	59	66	M	M
06-12-2004	23:59	AUT	0.19	75	53	64	M	M
06-13-2004	23:59	AUT	M	73	55	64	M	M
06-14-2004	23:59	AUT	0.10	82	63	73	M	M
06-15-2004	23:59	AUT	0.80	87	68	78	M	M
06-16-2004	23:59	AUT	M	84	67	76	M	M
06-17-2004	23:59	AUT	1.07	86	71	79	M	M
06-18-2004	23:59	AUT	M	87	69	78	M	M
06-19-2004	23:59	AUT	M	83	67	75	M	M
06-20-2004	23:59	AUT	M	74	51	63	M	M
06-21-2004	23:59	AUT	0.14	77	49	63	M	M
06-22-2004	23:59	AUT	M	81	64	73	M	M
06-23-2004	23:59	AUT	M	77	66	72	M	M
06-24-2004	23:59	AUT	M	83	58	71	M	M
06-25-2004	23:59	AUT	M	82	65	74	M	M
06-26-2004	23:59	AUT	M	76	65	71	M	M
06-27-2004	23:59	AUT	M	77	49	63	M	M
06-28-2004	23:59	AUT	M	78	55	67	M	M
06-29-2004	23:59	AUT	0.21	76	55	66	M	M
06-30-2004	23:59	AUT	M	80	54	67	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			6.47	79	59	69	***	

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
07-01-2004	23:59	AUT	M	83	58	71	M	M
07-02-2004	23:59	AUT	M	87	61	74	M	M
07-03-2004	23:59	AUT	M	85	63	74	M	M
07-04-2004	23:59	AUT	0.07	83	66	75	M	M
07-05-2004	23:59	AUT	0.19	87	72	80	M	M
07-06-2004	23:59	AUT	0.01	84	66	75	M	M
07-07-2004	23:59	AUT	2.15	85	64	75	M	M
07-08-2004	23:59	AUT	0.10	82	66	74	M	M
07-09-2004	23:59	AUT	M	82	65	74	M	M
07-10-2004	23:59	AUT	M	81	56	69	M	M
07-11-2004	23:59	AUT	M	83	64	74	M	M
07-12-2004	23:59	AUT	0.20	79	70	75	M	M
07-13-2004	23:59	AUT	0.03	80	66	73	M	M
07-14-2004	23:59	AUT	0.06	82	66	74	M	M
07-15-2004	23:59	AUT	M	78	62	70	M	M
07-16-2004	23:59	AUT	M	78	58	68	M	M
07-17-2004	23:59	AUT	M	82	59	71	M	M
07-18-2004	23:59	AUT	0.40	78	64	71	M	M
07-19-2004	23:59	AUT	M	80	63	72	M	M
07-20-2004	23:59	AUT	M	84	61	73	M	M
07-21-2004	23:59	AUT	M	86	62	74	M	M
07-22-2004	23:59	AUT	M	86	65	76	M	M
07-23-2004	23:59	AUT	0.30	83	70	77	M	M
07-24-2004	23:59	AUT	0.15	78	63	71	M	M
07-25-2004	23:59	AUT	0.01	75	65	70	M	M
07-26-2004	23:59	AUT	M	79	61	70	M	M
07-27-2004	23:59	AUT	0.22	83	67	75	M	M
07-28-2004	23:59	AUT	0.19	82	68	75	M	M
07-29-2004	23:59	AUT	M	84	59	72	M	M
07-30-2004	23:59	AUT	M	85	69	77	M	M
07-31-2004	23:59	AUT	M	86	71	79	M	M

 TOTAL AVERAGE AVERAGE AVERAGE AVERAGE
 4.08 82 64 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
08-01-2004	23:59	AUT	1.69	85	69	77	M	M
08-02-2004	23:59	AUT	M	87	68	78	M	M
08-03-2004	23:59	AUT	0.03	88	66	77	M	M
08-04-2004	23:59	AUT	M	87	67	77	M	M
08-05-2004	23:59	AUT	0.04	86	64	75	M	M
08-06-2004	23:59	AUT	M	73	54	64	M	M
08-07-2004	23:59	AUT	M	69	50	60	M	M
08-08-2004	23:59	AUT	M	79	51	65	M	M
08-09-2004	23:59	AUT	M	83	57	70	M	M
08-10-2004	23:59	AUT	M	84	62	73	M	M
08-11-2004	23:59	AUT	0.03	83	67	75	M	M
08-12-2004	23:59	AUT	0.01	80	65	73	M	M
08-13-2004	23:59	AUT	0.64	77	66	72	M	M
08-14-2004	23:59	AUT	0.02	74	59	67	M	M
08-15-2004	23:59	AUT	0.02	78	61	70	M	M
08-16-2004	23:59	AUT	M	80	59	70	M	M
08-17-2004	23:59	AUT	M	80	58	69	M	M
08-18-2004	23:59	AUT	M	81	64	73	M	M
08-19-2004	23:59	AUT	M	86	67	77	M	M
08-20-2004	23:59	AUT	0.74	88	66	77	M	M
08-21-2004	23:59	AUT	0.46	81	69	75	M	M
08-22-2004	23:59	AUT	M	76	54	65	M	M
08-23-2004	23:59	AUT	M	82	55	69	M	M
08-24-2004	23:59	AUT	M	85	61	73	M	M
08-25-2004	23:59	AUT	M	80	66	73	M	M
08-26-2004	23:59	AUT	M	81	66	74	M	M
08-27-2004	23:59	AUT	M	83	69	76	M	M
08-28-2004	23:59	AUT	M	89	67	78	M	M
08-29-2004	23:59	AUT	M	87	68	78	M	M
08-30-2004	23:59	AUT	0.01	85	68	77	M	M
08-31-2004	23:59	AUT	M	80	68	74	M	M
			TOTAL	AVERAGE	AVERAGE	AVERAGE	AVERAGE	
			3.69	82	63	73	***	

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.
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	ivy leaf	Ipomoea hederacea (L.) Jacq.
IPOLA	morningglory	pitted	Ipomoea lacunosa L.
LAMAM	henbit	-----	Lamium alexandrinum L.
LOLMU	ryegrass	annual	Lolium multiflorum Lam.
MOLVE	carpetweed	-----	Mollugo verticillata 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.
VERAR	speedwell	corn	Veronica arvensis L.
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.**

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