United States Department of Agriculture

Federal Crop Insurance Corporation

Product Development Division

FCIC-25240 (12-2002)

HYBRID SEEDS LOSS ADJUSTMENT STANDARDS HANDBOOK

2003 and Succeeding Crop Years

Includes Hybrid Seed Corn and Hybrid Sorghum Seed

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

FEDERAL CROP INSURANCE HANDBOOK	**NUMBER: 25240**
SUBJECT: **HYBRID SEEDS LOSS ADJUSTMENT STANDARDS HANDBOOK 2003 AND SUCCEEDING CROP YEARS**	**DATE: December 5, 2002** **OPI: Product Development Division** **APPROVED: /S:/ Tim B. Witt** **Deputy Administrator, Research and Development**

THIS HANDBOOK CONTAINS THE OFFICIAL FCIC-APPROVED LOSS ADJUSTMENT STANDARDS FOR THIS CROP FOR THE 2003 AND SUCCEEDING CROP YEARS. IN THE ABSENCE OF INDUSTRY-DEVELOPED, FCIC-APPROVED PROCEDURE FOR THIS CROP FOR 2003 AND SUCCEEDING CROP YEARS, ALL REINSURED COMPANIES WILL UTILIZE THESE STANDARDS FOR BOTH LOSS ADJUSTMENT AND LOSS TRAINING.

SUMMARY OF CHANGES/CONTROL CHART

Major Changes: See changes or additions in text which have been highlighted. Three stars (***) identify information that has been removed.

Changes:

A. Reformatted the entire handbook to follow the current approved format for loss adjustment handbooks.

B. Page 1; subsection 2 B (3): Added abbreviations for Hybrid Seed Corn (HSC), Hybrid Sorghum Seed (HSS), and RMA Regional Office (RO).

C. Page 6; subsection 3 A (3) (d): Clarified that coverage is not provided against inadequate germination, even if resulting from an insured cause of loss, unless the insured has given the insurance provider notice of probable loss at least 15 days before the beginning of harvest if inadequate germination is anticipated on any unit.

D. Page 6; subsection 3 B: Clarified that Hail and File Exclusion Provisions are not applicable if additional coverage is less than 65/100 or comparable coverage). Added a note instructing the adjuster to refer to the Crop Insurance Handbook (CIH) and the Loss Adjustment Manual (LAM) for other provisions not applicable to CAT.

E. Page 6; subsection 3 C: Clarified unit divisions guidelines for acreage based and production based contracts.

F. Page 6; subsection 3 D: Changed heading from "Quality Adjustment" to "Moisture Adjustment."

SUMMARY OF CHANGES/CONTROL CHART (Continued)

G. Page 7; subsection 3 E: Revised language concerning mycotoxins.

H. Page 7; section 4: Added statement to clarify that no replanting payment is available for Hybrid Seeds.

I. Page 7; subsection 5 B (4): Revised language instructing adjuster to take not less than the minimum number of representative samples required in **TABLE A**.

J. Page 8; subsection 5 C (2): Revised the procedure for determining row width to match the standard procedure in other crop handbooks

K. Several tables and charts have been moved to the "Reference Material" section.

L. Page 10; subsection 6 A: Added language to "Use" column for stand reduction instructing the adjuster to use the stand reduction method for planted acres with no emerged seed.

M. Page 10; subsection 6 B: Added a note instructing the adjuster to refer to the LAM if the reduction in stand is solely due to non-emerged seed due to insufficient soil moisture.

N. Page 13; subsection 6 C (4) (e): Revised language to instruct the adjuster to round the percent of leaf loss to the nearest 5 percent, to match the entries on **TABLE E.**

O. Page 15; subsection 7 A: Added language to "Use" column for stand reduction instructing the adjuster to use the stand reduction method for planted acres with no emerged seed.

P. Page 15; subsection 7 C: Added a note instructing the adjuster to refer to the LAM if the reduction in stand is solely due to non-emerged seed due to insufficient soil moisture.

Q. Pages 16 and 17: subsection 7 D (2) (b): Revised procedure for determining the percent of head damage to follow the language in the Grain Sorghum Loss Adjustment Standards Handbook.

R. Page 17; subsection 7 D (3) (c): Clarified language for determining stalk damage on hybrid sorghum seed plants.

S Page 19; subsection 8 B: Added a statement clarifying that appraisal modifications require insurance provider authorization.

T. Page 20; subsection 8 B (4): Removed the statements stating "If sample areas are not chosen by the loss adjuster, representative strips the entire length of the field must be left."

U. Page 24; subsection 8 B (1): Added instructions for the adjuster to enter the company name and the claim on the appraisal worksheet.

V. Page 24; subsection 8 B (1) item 7: Added instructions to add the number of determined **female** acres, to tenths, in the field or subfield being appraised.

SUMMARY OF CHANGES/CONTROL CHART (Continued)

W. Page 29; subsection 8 B (2): Added instructions for the adjuster to enter the company name and the claim on the appraisal worksheet.

X. Page 29; subsection 8 B (2) item 7: Added instruction to add the number of female acres in field or subfield.

Y. Page 30, item 15: Added a note instructing the adjuster to show the percent of cripples calculations in the remarks section or on a Special Report.

Z. Page 31, item 16: Added a note instructing the adjuster to show the percent of head damage calculations in the remarks section or on a Special Report.

AA. Page 31; item 19: Added instructions to round result to the nearest 5 percent.

BB. Page 43; subsection 10 A (4): Added statement instructing the adjuster to refer to the Prevented Planting Handbook for information on "Prevented Planting."

CC. Page 47; item E: Clarified that no entry is made if a rate class is not specified on the Actuarial Documents.

DD. Page 48; subsection 10 B items H and I: revised language to refer the adjuster to the Prevented Planting Handbook for proper codes, and to the LAM for information on gleaning.

EE. Page 49; subsection 10 B, item L: Deleted the instructions to enter the dollar and cents value of seed and non-seed production. This will be completed in item N_2. Also instructed to make no entry for Hybrid Sorghum Seed. Threshing Factor is accounted for on the appraisal worksheet.

FF. Page 49; subsection 10 B, item M: Revised the instructions to clarify how to complete the entry if there is a "P" stage code.

GG. Page 50; subsection 10 B item N: Revised the item heading to show N_1 and N_2 to coincide with the instructions.

HH. Page 57; subsection 10 B, Section II item K_1: revised statement to instruct the adjuster to refer to the U.S. Grain Standards and the LAM for information on dockage and foreign material.

II. Page 58; subsection 10 B, Section II item M_1: revised statement to instruct the adjuster to refer to the LAM for information on determining test weight.

JJ. Page 63; section 11, **TABLE B**: Added instruction for calculating sample row lengths for row widths not listed on the table.

HYBRID SEEDS LOSS ADJUSTMENT STANDARDS HANDBOOK

SUMMARY OF CHANGES/CONTROL CHART (Continued)

Control Chart For: Hybrid Seeds Loss Adjustment Standards Handbook						
	SC Page(s)	TC Page(s)	Text Page(s)	Reference Material	Date	FCIC Number
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1. INTRODUCTION

This handbook identifies the crop-specific procedural requirements for adjusting Multiple Peril Crop Insurance (MPCI) losses in a uniform and timely manner. These procedures, which include crop appraisal methods and claims completion instructions, supplement the general (not crop-specific) procedures, forms, and manuals for loss adjustment identified in the Loss Adjustment Manual (LAM).

2. SPECIAL INSTRUCTIONS

This handbook remains in effect until superseded by reissuance of **either** the entire handbook **or** selected portions (through slipsheets or bulletins). If slipsheets have been issued for a handbook, the original handbook as amended by slipsheet pages shall constitute the handbook. A bulletin can supersede either the original handbook or subsequent slipsheets.

A. DISTRIBUTION

The following is the minimum distribution of forms completed by the adjuster for the loss adjustment inspection:

One legible copy to the insured. The original and all remaining copies as instructed by the insurance provider.

NOTE: It is the insurance providers' responsibility to maintain original insurance documents relative to policyholder servicing as designated in their approved plan of operations.

B. TERMS, ABBREVIATIONS, AND DEFINITIONS

(1) Terms, abbreviations, and definitions **general** (not crop specific) to loss adjustment are identified in the LAM.

(2) Terms, abbreviations, and definitions **specific** to hybrid seeds loss adjustment and this handbook, which are not defined in this section, are defined as they appear in the text.

(3) Abbreviation(s)

HSC	Hybrid Seed Corn
HSS	Hybrid Sorghum Seed
RO	RMA Regional Office

(4) Definition(s)

Approved Yield (HSC) (HSS)	In lieu of the definition contained in the Basic Provisions, an amount FCIC determines to be representative of the yield that the female parent plants are expected to produce when grown under a specific production practice. FCIC will establish the approved yield based upon records provided by the seed company and other information it deems appropriate.
Bushel (HSC)	Fifty-six pound avoirdupois of shelled corn, 70 pounds avoirdupois of ear corn, or the number of pounds determined under the seed company's normal conversion chart when the chart is used to determine the approved yield and the claim for indemnity.
Bushel (HSS)	Fifty-six pounds avoirdupois of the insured crop.
Certified Seed Test (HSC) (HSS)	A warm germination test performed on clean seed according to specifications of the "Rules for Testing Seeds" of the Association of Official Seed analysts.
Commercial Hybrid Seed (HSC) (HSS)	The offspring produced by crossing a male and female parent plant, each having a different genetic character. This offspring is the product intended for use by an agricultural producer to produce a commercial field corn crop for grain or a commercial field sorghum crop for grain or forage.
County Yield (HSC) (HSS)	An amount contained in the actuarial documents that is established by FCIC to represent the yield that a producer of hybrid seed would be expected to produce if the acreage had been planted to commercial field corn or commercial field sorghum.
Coverage Level Factor (HSC) (HSS)	A factor contained in the Special Provisions to adjust the county yield for commercial field corn or sorghum to reflect the higher value of hybrid seed corn or hybrid sorghum seed.
Female Parent Plants (HSC)	Corn plants that are grown for the purpose of producing commercial hybrid seed corn and have had the stamens removed or are otherwise male sterile.
Female Parent Plants (HSS)	Sorghum plants that are grown for the purpose of producing commercial hybrid sorghum seed and are male sterile.

Field Run (HSC) (HSS)

Commercial hybrid seed corn or hybrid sorghum seed production before it has been dried, screened, or processed.

Harvest (HSC)

Combining, threshing or picking ears from the female parent plants to obtain commercial hybrid seed corn.

Harvest (HSS)

Combining, threshing or picking of the female parent plants to obtain commercial hybrid sorghum seed.

Hybrid Seed Corn Processor Contract (HSC) (HSS)

An agreement executed (in writing) between the hybrid seed corn or hybrid sorghum seed producer and a seed company containing, at a minimum:

(a) The producer's promise to plant and grow male and female parent plants, and to deliver all commercial hybrid seed corn or hybrid sorghum seed produced from such plants to the seed company;

(b) The seed company's promise to purchase the commercial hybrid seed corn or hybrid sorghum seed produced by the producer; and

(c) Either a fixed price per unit of measure (bushels, hundredweight, etc.) of the commercial hybrid seed corn or hybrid sorghum seed or a formula to determine the value of such seed. Any formula for establishing the value must be based on data provided by a public third party that establishes or provides pricing information to the general public, based on prices paid in the open market (e.g., commodity futures exchanges), to be acceptable for the purpose of the policy.

Inadequate Germination (HSC) (HSS)

Germination of less than 80 percent of the commercial hybrid seed corn or hybrid sorghum seed as determined by using a certified test.

Male Parent Plants (HSC) (HSS)

Corn or sorghum plants grown for the purpose of pollinating female parent plants

Non-seed Production (HSC) (HSS)

Production that does not qualify as seed production because of inadequate germination.

Planting Pattern (HSC) (HSS)	The arrangement of the rows of the male and female parent plants in a field. An example of a planting pattern is four consecutive rows of female parent plants followed by two consecutive rows of male parent plants.
Seed Company (HSC) (HSS)	A business enterprise that possesses all licenses for marketing commercial hybrid seed corn or hybrid sorghum seed required by the state in which it is domiciled or operates, and which possesses facilities with enough storage and drying capacity to accept and process the insured crop within a reasonable amount of time after harvest. If the seed company is the insured, it must also be a corporation.
Type (HSS)	Grain sorghum, forage sorghum or sorghum sudan parent plants.

3. INSURANCE CONTRACT INFORMATION

The insurance provider is to determine that the insured has complied with all policy provisions of the insurance contract. Crop provisions which are to be considered in this determination include (but are not limited to):

A. INSURABILITY

(1) The crop insured will be all the **female parent plants** in the county in which the insured has a share, for which a premium rate is provided by the actuarial documents, and

(a) That are grown under a hybrid seed corn or hybrid sorghum seed contract executed before the acreage reporting date;

(b) That are planted for harvest as commercial hybrid seed corn or hybrid sorghum seed in accordance with the requirements of the hybrid seed corn or hybrid sorghum seed processor contract and the production management practices of the seed company; and

(c) That are not (unless allowed by the Special Provisions or by written agreement);

1 Planted with a mixture of female and male parent seed in the same row;

2 Planted for any purpose other than for commercial hybrid seed corn or hybrid sorghum seed;

3 Interplanted with another crop; or

4 Planted into an established grass or legume.

(d) An instrument in the form of a "lease" under which the insured retains control of the acreage on which the insured crop is grown and that provides for delivery of the crop under substantially the same terms as a hybrid seed corn or hybrid sorghum seed processor contract will be treated as a contract under which the insured has an insurable interest in the crop.

(e) A commercial hybrid seed corn or hybrid sorghum seed producer who is also a commercial hybrid seed corn or hybrid sorghum seed company may be able to insure the hybrid seed corn or hybrid sorghum seed crop if the following requirements are met:

1 The seed company has an insurable interest in the hybrid seed corn or hybrid sorghum seed crop;

2 Prior to the sales closing date, the Board of Directors of the seed company has executed and adopted a corporate resolution containing the same terms as an acceptable hybrid seed corn or hybrid sorghum seed processor contract.

3 Sales records for at least the previous years' seed production must be provided to confirm that the seed company has produced and sold seed. If such records are not available, the crop may be insured under the Coarse Grains Crop Provisions with a written agreement; and

4 An inspection reveals that the storage and drying facilities satisfy the definition of a seed company.

(f) Any of the insured crop that is under contract with different seed companies may be insured under separate policies with different insurance providers provided all acreage of the insured crop in the county is insured. If the insured elects to insure the insured crop with different insurance providers, the insured agrees to pay separate administrative fees for each insurance policy.

(2) Insurance coverage is not provided on acreage:

(a) That is planted and occupied exclusively by male parent plants;

(b) Not in compliance with the rotation requirements contained in the Special Provisions or, if applicable, required by the hybrid seed corn or hybrid sorghum seed processor contract; or

(c) If either the female or male parent plants are damaged before the final planting date and the insurance provider determines that the insured crop is practical to replant but it is not replanted.

(3) In addition to the causes of loss excluded by the Basic Provisions, unless specified otherwise in the Special Provisions, insurance coverage is not provided against loss of production due to:

(a) The use of unadapted, incompatible, or genetically deficient male or female parent plant seed;

(b) Frost or freeze after the date set by the Special Provisions;

(c) Failure to follow the requirements stated in the hybrid seed corn or hybrid sorghum seed processor contract and production management practices of the seed company;

(d) Inadequate germination, even if resulting from an insured cause of loss, unless the insured has given the insurance provider notice of probable loss at least 15 days before the beginning of harvest if inadequate germination is anticipated on any unit; or,

(e) Failure to plant the male parent plant seed at a time or in a manner sufficient to assure adequate pollination of the female parent plants, unless the insured is prevented from planting the male parent plant seed by an insured cause of loss.

B. PROVISIONS NOT APPLICABLE TO CAT COVERAGE

(1) Optional Units.
(2) Written Agreements.
(3) Hail and Fire Exclusion provisions (also not applicable if additional coverage is less than 65/100 or comparable coverage).

NOTE: Refer to the Crop Insurance Handbook (CIH) and LAM for other provisions not applicable to CAT.

C. UNIT DIVISION

Refer to the insurance contract for unit provisions. **NOTE:** Unless limited by the Crop or Special Provisions, a basic unit, as defined in the Basic Provisions, may be divided into optional units if, for each optional unit, all the conditions stated in the applicable provisions are met.

(1) For processor contracts that stipulate the amount of acreage, refer to the Basic Provisions.

(2) For processor contracts that stipulate the amount of production to be delivered, refer to the Crop Provisions.:

(a) There will be no more than one basic unit for all production contracted under each processor contract; and

(b) Optional units will not be established.

(3) For Hybrid Sorghum Seed processor contracts that stipulate a number of acres to be planted, optional units by irrigated and non-irrigated practices are not allowed by the policy.

D. MOISTURE ADJUSTMENT

Moisture adjustment is applied prior to any qualifying quality adjustment factor such as test weight, kernel damage, etc. The moisture adjustment charts for hybrid seed corn and hybrid sorghum seed are found in **TABLE J** and **TABLE P,** respectively.

E. MYCOTOXINS

(1) There is no specific "threshold" level of mycotoxin presence for hybrid seed. Price reduction due to mycotoxin presence will be allowed if the mycotoxin presence results in a reduction in value for the damaged grain and if the damage is due to an insured cause.

***

(2) Refer to the LAM for additional information.

4. REPLANTING PROCEDURE

There is currently no replanting payment available for hybrid seeds. Refer to the Basic Provisions and the crop provisions for replanting requirements prior to the final planting date.

5. HYBRID SEEDS APPRAISALS

A. GENERAL INFORMATION

Potential production will be appraised in accordance with procedures specified in this handbook and the LAM.

B. SELECTING REPRESENTATIVE SAMPLES FOR APPRAISALS

(1) Determine the minimum number of required samples for a field or subfield by the field size, the average stage of growth, age (size) and general capabilities of the plants, and variability of potential production and plant damage within the field or subfield.

(2) Split the field into subfields when:

(a) variable damage causes the crop potential to appear to be significantly different within the same field; or

(b) the insured wishes to destroy a portion of a field.

(3) Each subfield must be appraised separately.

(4) Take not less than the minimum number (count) of representative samples required in **TABLE A**.

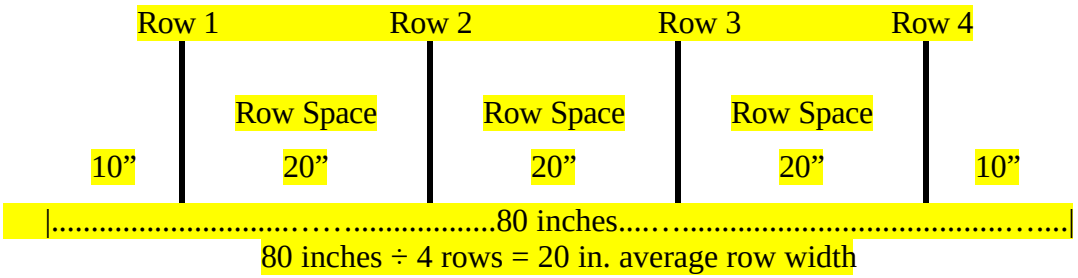
C. MEASURING ROW WIDTH FOR SAMPLE SELECTION

Use these instructions for all appraisal methods that require row width determinations.

(1) Use a measuring tape marked in inches or convert a tape marked in tenths, to inches, to measure row width (refer to the LAM for conversion table).

(2) Measure across FOUR OR MORE rows, from the center of the first row space to the center of the fifth row space (or as many rows as needed), and divide the result by the number of rows measured across, to determine an average row width in whole inches.

EXAMPLE:



80 inches ÷ 4 rows = 20 in. average row width

(3) Where rows are skipped for tractor and planter tires, refer to the LAM.

D. SAMPLING PROCEDURE

(1) Determine average hybrid seed (corn and sorghum) growth stage in selected representative samples.

(2) Establish the stage of growth as the most advanced stage of development in which at least 50% of the plants in the representative sample have reached.

(3) Use the stage of growth at the date of adjustment (the date when the adjuster first appraises crop damage) when determining yield loss.

NOTE: The correct timing of crop-damage appraisals is important to establish growth stage and cause of damage before regrowth occurs.

CORN -- When selecting the sample, make note of the planting pattern (i.e., 2 male rows, 4 female rows, 2 male rows, etc.). The critical dependence upon the male pollinator rows for adequate pollination makes it very important that the sample be representative of all female rows in the planting pattern. **Hybrid seed corn samples consist of 1/100 acre**.

E. STAGES OF GROWTH

Hybrid seed corn and hybrid sorghum seed growth stages identify time interval to next stage in relation to appraisal methods.

(1) Stages of Growth for Hybrid Seed Corn:

(a) Actual leaf count is used to determine stages of growth from emergence to tasseling.

1 Starting with the rounded tip leaf, count all leaves developed up to, and including, the stage indicator leaf. The stage indicator leaf is that leaf which is 50 percent exposed. It is usually the uppermost leaf that is pointing below a horizontal line.

2 If the rounded tip leaf cannot be determined, the node identification system will be used as follows (refer to Descriptive Pictures of the Corn Plant, **EXHIBIT 4)**:

a Pull up the entire plant and carefully split stalk to expose stalk nodes and root whorls.

b The **FIFTH** leaf attaches to the top of the first noticeable elongation between the stalk nodes (an internode).

c After the fifth leaf node is identified, count upward to the stage indicator leaf.

d In the early stages of the plant's development, the internodes are very compact and, therefore, difficult to distinguish. By stage seven or eight, the internode elongation should be easily found.

(b) Ear development is used to determine stage of growth from tassel to maturity.

(c) Stage Definitions. The definitions listed in **EXHIBIT 1** are based on normal or average conditions in the Corn Belt Area for 120-day or full season corn. There are approximately 7 days from planting to emergence, and 21 days from emergence to the 7th actual leaf stage.

(2) Stages of Growth for Hybrid Sorghum Seed

(a) Actual leaf count is used to determine the stage of growth until all the leaves are exposed.

1 Starting with the rounded tip leaf, count all leaves developed up to, and including, the stage indicator leaf. The stage indicator is that leaf which is at least 50 percent exposed. It is usually the uppermost leaf tip that is pointing below a horizontal line.

2 If the rounded tip leaf cannot be determined, the node identification system (Descriptive Pictures of the Sorghum Plant, **EXHIBIT 5)** will be used:

a Pull up the entire plant and carefully split the stalk to expose stalk nodes and root whorls.

b The **SEVENTH** leaf attaches to the top of the first noticeable elongation between the nodes (an internode).

c After the seventh leaf node is identified, count upward to the stage indicator leaf.

d In the early stages of the plant's development, the nodes are very compact and difficult to distinguish; by stage nine or ten, the internode elongation should be easily found.

(b) The development of the head determines the stage of growth after the boot stage [refer to Sorghum Stage Characteristics (Heading through Maturity) **EXHIBIT 5**].

(c) Stage Definitions. The definitions listed in **EXHIBIT 5** are based on the average normal conditions for a 20-leaf, 115-day plant.

6. HYBRID SEED CORN APPRAISAL METHODS

A. GENERAL INFORMATION

These instructions provide information on appraisal methods for:

Appraisal Method…	**Use…**
Stand Reduction Method	for planted acreage with no emerged seed, and for all appraisals from emergence to the milk stage (stand reduction appraisals for hail damage begin with the 7th leaf stage).
Hail Damage Method	for hail-damaged corn appraisals beginning with the 7th leaf stage and until the corn reaches the milk stage.
Maturity Line Weight Method	for all grain appraisals from the milk stage until kernel moisture drops below 40 percent. If at all possible, defer appraisal to weight method.
Weight Method	for all grain appraisals after the corn kernels are physiologically mature (some have developed the black or brown abscission layer in the kernel) moisture drops below 40 percent.

B. STAND REDUCTION METHOD

NOTE: If the reduction in stand is solely due to non-emerged seed due to insufficient soil moisture, do not complete appraisals prior to the time specified in the LAM. Refer to the section in the LAM regarding deferred appraisals and non-emerged seed.

(1) This method is based on the number of surviving plants in a designated sample row length.

(2) Surviving plant counts, at the time of appraisal, are converted to bushels per acre by multiplying the percent of potential remaining by the base yield. Base yield is the appropriate verified yield for the acreage from the "Hybrid Seed Approved Yield" form or the APH form, as appropriate.

(3) Prior to the 11th leaf stage, the "Stand Reduction Chart" is used to determine the percent of potential remaining **(TABLE C)**.

(4) In the 11th leaf to the milk stage, the yield and stand reductions are on a one-to-one ratio. (Example: 80 percent stand = 80 percent potential.)

(5) Samples consist of 1/100 acre.

(6) **Irregular germination or crop development due to insured causes.**

Use the stand reduction method of appraisal based upon the number of plants capable of reaching the milk stage prior to the frost date listed in the actuarial table.

(a) Determine normal plant population by counting all potential (living, dead, missing, or non-emerged) plants in a length of row equivalent to 1/100 acre and enter in item 11.

(b) Determine stage of growth for EARLY-GERMINATING corn and record in item 19.

(c) Determine the stage of growth for each LATE-GERMINATING corn plant and record in item 23 ("notes and calculations" section):

The stage of each plant; and the computation of the number of days from the current stage to the milk stage for each plant and add FIVE days (the additional five days are to account for slower plant development as the frost date approaches).

(d) Compute the number of days from the appraisal date to the frost date (as listed in the actuarial table for hybrid seed corn), and show calculation in item 23.

(e) Count and record in item 12 as "surviving," those plants which will reach the milk stage before the frost date (include early-germinated plants).

(f) The percent of potential, item 15, is equal to the percent of "surviving" plants ("surviving" plant number divided by original plant population).

(g) Percent of potential (item 15) multiplied by the applicable base yield is the per-acre appraisal.

EXAMPLE:

Some plants are in the 5th, 8th, and 10th leaf stages. Date of the appraisal is July 24. Average killing frost date is September 25, 63 days from the date of appraisal.

NOTE: Late-developing plants which will not reach the milk stage prior to the frost date will not be counted as surviving plants. (Refer to chart below.)

Plants in the 10th leaf stage will be counted as surviving, since they will reach the milk stage in 60 days (allowing the additional five days for maturity retardation). Plants in the 8th leaf and earlier stage would not be counted as surviving, as they would not reach the milk stage prior to the frost date.

STAGE	DAYS TO MILK STAGE
5th leaf	75
8th leaf	66
10th leaf	60

C. HAIL DAMAGE METHOD

(1) This method is based on the calculation of direct and indirect damage from hail to determine percent of potential remaining, converted to a bushel-per-acre appraisal.

(2) For damage due to hail, inspections shall be delayed 7 to 10 days after damage for a more accurate damage assessment.

(3) Direct damage includes loss from stand reduction, crippled plants, and damage to the ear and stalk.

(a) Stand Reduction:

1 Prior to the 11th leaf stage, the "Hail Stand Reduction Loss Chart" (**TABLE D**) is used to determine percent of damage due to stand reduction.

2 Beginning with the 11th leaf stage, stand reduction and yield are on a one-to-one ratio. (Example: 80 percent stand = 80 percent potential).

(b) Crippled Plants:

1 Cripples are plants which grow to approximately normal height or less but do not produce a normal, harvestable ear. Naturally barren stalks should not be counted as cripples.

2 Crippled plants must be individually evaluated to determine their contribution to potential yield. CRIPPLES ARE NOT COUNTED AS TOTALLY DESTROYED PLANTS. For example, in a particular sample it may take three ears from crippled plants to make an average ear (3-for-1). If 30 cripples were counted out of 100 remaining plants and evaluated on a 3-for-1 basis (.67 factor since 2 of every 3 plants are considered damaged), the gross cripple damage would be 20 percent (.67 x 30).

(c) Ear Damage:

Ear damage is determined by comparing the number of damaged kernels to the number of total kernels, in a sample of all ears from 10 consecutive representative plants.

(d) Stalk Damage:

Plants having bruises on the stalk should not be counted as destroyed until such time as they actually fall over and become unharvestable. Young bruised plants usually will produce a normal (or near normal) ear. When considerable bruising is evident, the adjustment should be deferred until the actual loss can be determined.

(4) Indirect damage is caused by defoliation (the loss of leaf area) due to hail. To determine defoliation and subsequent yield loss:

(a) Select representative plants;

(b) Remove the leaves which were exposed at the time of hail damage;

(c) Determine the percent of leaf area destroyed (missing or brown areas) on each removed leaf;

(d) Total the leaf-area-loss percentages; and

(e) Divide the total percentage by the total number of leaves to determine the average percent. Apply the average percent (to the nearest 5 percent) to the leaf loss chart, **TABLE E**.

(5) Stage Modification Procedure:

Plant stages may not be accurate for leaf area determination when short season (short stature) field varieties which produce less than 19-21 actual leaves in a season are appraised. The stages used for defoliation determination are modified to reflect this lower potential leaf area. Determine the ultimate number of leaves to be produced by tearing the plant down. After the stage indicator leaf has been identified, dissect the plant and count the nodes or leaves not yet emerged to determine the ultimate number.

(a) If the actual number of leaves to be produced cannot be determined, defer the appraisal until the actual number of leaves can be determined. AT THE TIME OF DEFERRAL, ACCURATELY DETERMINE PERCENT OF DEFOLIATION AS OF DATE OF LOSS.

(b) When the actual leaves to be produced can be determined, refer to **TABLE F** to obtain the modified stage for use with the Leaf Loss Chart **(TABLE E)**.

NOTE: No further determination of defoliation should be made at the time of a later inspection unless further damage occurs.

D. MATURITY LINE WEIGHT METHOD

(1) Select representative samples of 1/100 acre.

(2) This method is based on weighing ear samples which are grouped according to maturity and converting this production to bushels per acre. (RATIO OF CORN TO COB IS NOT AS ACCURATE AS WITH FIELD CORN).

(3) The stage of maturity is established by determining where the line separating the solids and the liquid is located in the grain kernel. The solids start to form at the end opposite the kernel tip. The five stages of maturity and the number of pounds of immature ear corn required to make a bushel of mature shelled corn are as illustrated in Descriptive Pictures of the Corn Plant, **EXHIBIT 4 - FIGURE C.**

(4) Pick and husk all harvestable ears in the sample area. Discard portions of ears without kernels.

(5) Break the ears in half. Take the butt end of each ear, and using a sharp pocket knife, flip out two kernel rows from the broken end to expose at least five representative kernels in an adjacent row. With the knife, make a single cut to dissect the kernels to expose a cross-section of the kernels in the row. With the knife blade tip, locate the line separating the solids and liquid. This will determine the location of the maturity line. Place both parts of each ear in an appropriate stage pile to determine the stage weights. In most samples, the ears will be in only two stages. **(**Descriptive Pictures of the Corn Plant, **EXHIBIT 4 - FIGURE C.)**

(6) Use the appropriate factor on the appraisal worksheet for converting the stage weight to bushels per acre of mature potential production.

E. WEIGHT METHOD

(1) This method is based on weighing the ears in a fraction of an acre, then converting this production to bushels-per-acre.

(2) Select representative samples of 1/100 acre.

(3) Pick and husk all ears in the sample area. Weigh production.

(4) Multiply average sample weight by 1.43 if sample size was 1/100 acre.

The results will be the bushels-per-acre of potential production (not corrected for moisture, test weight, etc.).

(5) Determine shelling percentage factor as follows:

(a) Select a FIVE-pound representative ear corn sample, shell, and weigh.

(b) Divide the weight of the shelled corn by 4 and multiply by 100.

(c) Or, determine in accordance with **TABLE G**.

NOTE: Shelling percent is ONLY applicable to corn in the ear such as weight-method appraisals (or stored as ear corn). If the corn is reported on a shelled basis, the conversion of ear to shelled basis assumes 70 lbs. per bushel ear corn equals 56 lbs. per bushel of shelled corn and no shelling percent is reported.

7. HYBRID SORGHUM SEED APPRAISAL METHODS

A. GENERAL INFORMATION

These instructions provide information on appraisal methods for:

Appraisal Method…	Use…
Stand Reduction Method	for planted acreage with no emerged seed, and from emergence to the milk stage
Hail Damage Method	for hail-damaged sorghum appraisals beginning with the 10th leaf stage and until the sorghum reaches the milk stage.
Headed Weight Method	for all grain appraisals from milk stage through maturity.

B. DELAYED APPRAISALS

(1) Immature hybrid sorghum seed appraisals are counted as seed production. Producers wishing to delay appraisals until maturity by use of representative areas may do so if:

(a) Approved by the contracting seed company;

(b) Representative areas left for sampling consist of at least the planting pattern width (i.e., 2 male, 6 female, 2 male rows, or other appropriate pattern). The length of each row must be sufficient for a 1/100 acre sample if areas are chosen by an adjuster, otherwise, rows the length of the field are to be maintained;

(c) Three barrier rows or the equivalent are left around each representative area to serve as an environmental barrier; and

(d) The insured agrees to maintain representative areas and accept appraisals as representative of the field or subfield.

(2) Sample(s) of mature grain are to be submitted to the contracting seed company for determination of seed production. If such determination is not made, all grain will be considered seed.

C. STAND REDUCTION METHOD

NOTE: If the reduction in stand is solely due to non-emerged seed due to insufficient soil moisture, do not complete appraisals prior to the time specified in the LAM. Refer to the section in the LAM regarding deferred appraisals and non-emerged seed.

(1) This method is based on the number of the surviving plants in a designated sample row length.

(2) Surviving plant counts are converted to bushels per acre by multiplying the percent of potential remaining by the adjusted average yield. This yield is the expected yield level for a specific variety, in bushels per acre, determined by the RMA RO (shown on the "Hybrid Sorghum Seed Approved Yield" form).

(3) Prior to the 12th leaf stage, the "Stand Reduction Chart" is used to determine the percent of potential remaining (**TABLE K)**.

(4) After the 11th leaf stage to the milk stage, the yield and stand reductions are on a one-to-one ratio. (Example: 80 percent stand = 80 percent potential.)

(5) Samples consist of 1/100 acre. Refer to the "Row Width and Length Table" (**TABLE B**).

D. HAIL DAMAGE METHOD

(1) This method is based on the calculation of direct and indirect damage from hail to determine the percent of potential remaining, converted to a bushel-per-acre appraisal.

(2) For damage due to hail, inspections must be delayed at least 7 to 10 days after damage for a more accurate damage assessment.

(3) Direct damage includes stand reduction and damage to the stalk and head.

(a) Stand reduction:

1 Hail damage stand reduction prior to the 10th leaf stage is considered recoverable since the plant growing point is largely protected to this stage; and regrowth will usually show no adverse effects in grain yield.

2 In the 10th leaf to milk stage, the "Hail Stand Reduction Chart" (**TABLE L**) is used to determine percent of damage due to stand reduction.

(b) Head Damage:

The gross percent of damage to hybrid sorghum seed heads caused by hail damage is determined by dividing the average number of destroyed kernels per head by the average total number of kernels per head in a sample of four "average" heads.

To determine the gross percent of head damage:

1 Determine the average total number of kernels and the number of kernels destroyed by hail on four "average" heads by calculating the average number of kernels per spikelet (using four spikelets - one from near the bottom of the head, one a quarter of the way up, one from half way up, and one from three-fourths of the way up). After determining the total number of kernels per spikelet, count the number of kernels that are destroyed by hail. Multiply both counts by the number of spikelets on the head (count the four or five small spikelets in the very top of the head as one average spikelet).

2 Total the number of all kernels (destroyed and not destroyed). Then total the number of destroyed kernels. Divide each result by the total number of heads samples. The result will be the average total number of kernels per head and the average number of kernels destroyed per-head.

3 Divide the average number of kernels destroyed per-head by the average total number of kernels per head to determine the GROSS percent of head damage.

EXAMPLE:

	HEAD 1		HEAD 2		HEAD 3		HEAD4	
SPIKELETS	TOTAL KERNELS	DESTROYED KERNELS	TOTAL KERNELS	DESTROYED KERNELS	TOTAL KERNELS	DESTROYED KERNELS	TOTAL KERNELS	DESTROYED KERNELS
1	47	31	51	23	38	12	45	13
2	86	52	82	35	77	29	79	21
3	95	47	90	40	84	40	88	30
4	77	46	65	28	62	29	71	25
TOTAL	305	176	288	126	261	110	283	89
AVG. PER SPIKELETS	76.3	44	72	31.5	65.3	27.5	70.8	22.3
NO. OF SPIKELETS PER HEAD	70	70	73	73	59	59	62	62
AVG. KERNELS PER HEAD	5,341.0	3,080.0	5,256.0	2,299.5	3,852.7	1,622.5	4,389.6	1,382.6

Total Avg. Kernels per head (from 4 heads) ÷ number of heads = Avg. Kernels per Head
18,839.3 kernels ÷ 4 heads = 4,709.8

Total Avg. Number Destroyed Kernels per head (4 heads) ÷ number of heads = Avg. Destroyed Kernels per Head
8,384.6 kernels ÷ 4 heads = 2,096.2 average destroyed kernels per head

Avg. Destroyed Kernels per Head ÷ Avg. Kernels per Head = **Gross Kernel Damage**
2,096.2 destroyed kernels ÷ 4,709.8 kernels/head = .445 (44.5% - round to nearest 5%) = **45% Gross Kernel Damage**

Percent Damage from Stand Reduction (item 14 rounded to nearest 5%) = **30%**

Apply percent Gross Kernel Damage and Percent Damage from Stand Reduction to **TABLE N.**

Percent Head Damage (item 17 entry from **TABLE N**) = **32%**

(c) Stalk Damage:

Plants having bruises on the stalk should not be counted as destroyed until such time as they actually fall over and become unharvestable. Young bruised plants will usually produce a normal or near-normal head even though stalk damage is present. When considerable bruising is evident, the adjustment should be deferred until the actual loss can be determined.

(4) Indirect damage is caused by defoliation (the loss of leaf area) due to hail. To determine defoliation and subsequent yield loss:

(a) Select representative plants;

(b) Remove the leaves which were exposed at the time of hail damage;

(c) Determine the percent of leaf area destroyed (missing or brown areas) on each removed leaf;

(d) Total the leaf-area-loss percentages; and

(e) Divide the total percentage by the total number of leaves to determine the average percent. Apply the average percent (to the nearest 5 percent) to the leaf loss chart, **TABLE O**.

IF THE DAMAGE OCCURRED PRIOR TO BOOT STAGE, use top portion of the chart. Determine the ultimate number of leaves by tearing the plant down. After the stage indicator leaf has been identified, dissect the plant and count the nodes or leaves not yet emerged to determine the ultimate number. If the actual number of leaves to be produced cannot be determined, defer the appraisal until the actual number of leaves can be determined.

AT THE TIME OF DEFERRAL, ACCURATELY DETERMINE THE PERCENT OF DEFOLIATION AS OF DATE OF HAIL LOSS. No further determination of defoliation should be made at the time of later inspection unless further damage occurs.

IF THE DAMAGE OCCURRED IN THE BOOT THROUGH EARLY MILK STAGE, apply the average percent (determined above) to the lower portion of **TABLE L.**

E. HEADED WEIGHT METHOD

(1) This method is based on weighing the grain heads in a fraction of an acre, then converting this production to bushels per acre.

(2) Select representative samples of:

(a) 1/100 acre if the potential appears to be less than 20 bushels per acre; or

(b) 1/1000 acre if the potential appears to be 20 or more bushels per acre.

(3) Harvest all grain heads in the sample by cutting heads from the stalks as close as possible to the lowest head branch.

(4) Multiply average sample weight by:

(a) 1.34 if the sample size selected was 1/100 acre;

(b) 13.4 if the sample size selected was 1/1000 acre; or

(c) The result will be the bushels per acre of potential production.

(5) If grain is light and chaffy or heads are poorly filled, determine threshing percentage in accordance with **TABLE M**.

(6) If the appraisal for any field or sub-field exceeds the adjusted average yield, explain the high appraisal on the reverse of the appraisal worksheet original.

8. APPRAISAL DEVIATIONS AND MODIFICATIONS

A. DEVIATIONS

Deviations in appraisal methods require FCIC written authorization (as described in the LAM) prior to implementation.

B. MODIFICATIONS

Modifications in appraisal methods require insurance provider authorization (as described in the LAM).

CORN – APPRAISAL MODIFICATIONS

When applicable, with the insurance provider's authorized representative's approval, use the following appraisal modifications in conjunction with the appropriate appraisal methods for damage due to insured causes.

(1) **Insufficient Male Stand to Provide Adequate Pollination of Female Population:**

Identify factors affecting circumstances. Defer appraisal to maturity line method.

(2) **No Pollination Due to Drought, Heat, Hot Winds, and/or Insects:**

Appraise hybrid seed corn as "0" (for the actual acreage so affected) if, after a general survey of the crop, the adjuster finds:

(a) Ear shoots, and the pollination period:

1 has ended. Blisters on the cob are enlarged (wart-like); or

2 is in progress. Blisters on the cob are not enlarged, and all the silk has been eaten off below the husk by insects.

(b) No ear shoots, and the pollination period:

1 is in progress or has ended; or

2 has not begun. The tassel is exposed and the still unexposed ear bud is less than 2 inches in length.

(3) **Poor Pollination Due to Drought, Heat, Hot Winds, and/or Insects:**

Appraise hybrid seed corn based upon stand reduction **ONLY** if the appraisal cannot be deferred. After normal silking to milk stage, stalks with partial pollination are considered surviving plants but only to the extent they contribute to the production of a normal 1/2 - pound ear of corn, i.e., if 3 ears are required to produce the grain equivalent of one normal ear, count only 1/3 of such plants. Barren stalks are not counted as surviving. Individually evaluate ears to determine total surviving plants to be entered on the appraisal worksheet. Document adjustment in the "Note and Calculation section" of the stand reduction appraisal worksheet or on an attached Special Report.

(4) **Severely Drought-Stunted Hybrid Corn:**

Defer the appraisal until the milk stage, at which time the maturity line method is used. If the insured does not wish to leave representative sample areas for this appraisal or it is impractical to do so, use the stand reduction method.

*** **NOTE:** Representative sample areas for hybrid seed corn require seed company approval as well as insurance provider approval, since such production is under seed company contract. Representative areas chosen by an adjuster to be left for sampling must include at least the entire planting pattern (male and female rows), with the length of each row equivalent to 1/100 acre. The sample area must also be bordered by three or more rows or their equivalent, to serve as an environmental barrier. The insured must agree to accept the determination of seed/non seed based on such representative sample areas. If a determination cannot be made, all production will be counted as seed.

Representative strips/sample areas must be maintained just as if all production would be harvested as seed. Such maintenance **INCLUDES** isolation for genetic purity as required by the seed-grower contract. Unless the plants are destroyed prior to pollination, detasselling must be performed at least within the boundaries of such required isolation.

(5) **Permanently Wilted Hybrid Corn:**

Note on appraisal worksheet "no production potential due to permanent wilt" and enter zero appraisal for the affected acres. For acreage with no or minimal damage due to permanent wilt, but wilt conditions have been determined to be in the area, appraise in the normal manner unless the insured agrees to leave representative sample areas for later appraisal. Inform insured to request another appraisal within 30 days of this inspection.

NOTE: Permanent wilt is caused by extremely dry soil conditions and can occur at any immature stage of growth. It is a condition where plants are stressed from lack of moisture to the extent that all leaves remain tightly rolled throughout the night. Lower plant leaves become dry and brittle and will crumble when rolled between the hands. Permanently wilted plants are damaged to the extent that they will die even if supplied moisture.

(6) **Appraisal Modification for Early Freeze Damage:**

WHEN AUTHORIZED by the insurance provider, the Maturity Line Appraisal method may be modified to more closely reflect the actual potential remaining after freeze damage. Apply the following procedure on a case-by-case basis **ONLY** as circumstances warrant. Document on a Special Report, all pertinent information regarding the loss such as the hybrid number, the maturity rating of the corn, whether the late planting provisions apply, planting (and any replanting) dates, the practicality of any late replanting, extent of freeze damage to corn in the area (whether general or isolated), date of normal freeze, date(s) of damaging freeze(s), and specifically why the corn did not escape freeze damage. **DO NOT APPLY** the appraisal modification for early freeze damage if you determine that the insured could have prevented the damage through proper farming practices.

The conditions that determine the extent of damage are the maturity of the plant at the time of freeze and the number of leaves killed above the ear-stalk attachment. If the freeze occurs when the maturity line method of appraisal is applicable (except doughy and extended stages), adjustments to the maturity line appraisal are allowed IF ALL the leaves above the base of the ears are killed by the freeze. For:

(a) 1/4 stage - count 25 percent of the appraisal.

(b) 1/2 stage - count 50 percent of the appraisal.

(c) 3/4 stage - count 75 percent of the appraisal.

The adjustments do not apply if:

1 Kernels are in the doughy or extended stage -- use normal appraisal;

2 Any leaves remain alive above the base of the ear (regardless of stage) -- use normal appraisal; or

3 Kernels are in the pre-1/4 stage -- (leaves are all killed above the base of the ear) ear has no potential. If all ears are in this category, appraise at zero.

NOTE: Germination percentage of frost-damaged hybrid seed declines rapidly with physical damage. Representative sample areas may be left for later appraisal if some production is likely. This would be necessary to avoid counting poorly germinating grain (non-seed) as seed (as specified for appraisals of immature hybrid seed corn). For purposes of this appraisal modification, "early freeze damage" refers to a freeze which occurs early enough in the corn's growth stages to cause damage to the developing ears, without regard to its relationship to the calendar date of occurrence. The calendar date of the freeze is important, however, in determining whether the insured could have prevented the damage through proper farming practices.

SORHGUM – APPRAISAL MODIFICATIONS

When applicable, with the insurance provider's authorized representative's approval, use the following appraisal modifications in conjunction with the appropriate grain appraisal methods for damage due to insured causes.

(1) **Permanent Wilt (Not applicable to irrigated practice).**

(a) When permanent wilt is present:

1 Plants are damaged to the point that the leaves remain tightly rolled throughout the night; and

2 The four lower leaves of the plant are brown and brittle, and during the day, will crumble when rolled between the hands.

(b) When all plants are permanently wilted and stand reduction appraisal is appropriate, note on appraisal sheet "no production potential due to permanent wilt," and enter zero appraisal for acreage so affected.

(c) When permanent wilt has been determined in the area, but not all (or none) of the plants in the field or subfield have been affected, appraise in the normal manner unless the insured agrees to leave representative areas for later appraisal. Inform insured to request another appraisal within 30 days of this inspection.

NOTE: Acreage affected by permanent wilt should be inspected in early-morning hours to confirm turgor has not been restored overnight. Make observations before 9 A.M., if possible. Permanently wilted plants are damaged to the extent that they will die even if supplied moisture.

(2) **Lack of Frost-Free Days:**

If the number of days from the date of appraisal to the date for the end of the insurance period listed in the actuarial table is FEWER THAN the number of days the hybrid sorghum would require to reach the soft-dough stage, frost/freeze damage is probable. (The date listed in the actuarial table for the end of the insurance period roughly approximates the normal killing frost date in most cases.) To adjust appraisals for lack of frost-free days:

(a) Determine the stage of growth on the date of appraisal.

(b) Determine the ultimate number of leaves the plants would have produced if frost were not a factor.

(c) Determine the number of days from the stage of growth on the day of appraisal to the date the hybrid sorghum seed would reach the soft dough stage. When counting, do not count days for leaf stages beyond the determined ultimate number of leaves. For example: Stage of growth on date of appraisal = 14th leaf. Determined ultimate number of leaves = 18. Number of days from 14th to 18th leaf stage (full leaf development) = 12 days. Number of days from full leaf development to soft dough stage = 36 days. Total number of days from 14th leaf stage (through full leaf development) to soft dough stage = 48 days.

(d) Add 5 days (to days calculated in (c) above to account for slower plant development as the frost date approaches.

(e) When the sum of (c) and (d) above **EQUALS OR EXCEEDS** the number of days from date of appraisal to the frost date listed in the actuarial table, appraise the affected acreage at zero potential, if the delay in maturity is due to an insurable cause. Enter "Will not reach soft dough stage by the actuarial table frost date" on the appraisal worksheet or an attached Special Report and show computations.

NOTE: If female plants are incapable of reaching the soft-dough stage before the listed actuarial date, be certain the variety is adapted to the area. Frost damage is insurable only if it occurs BEFORE the date listed in the actuarial table and is DUE TO INSURABLE CAUSES. (Determine if proper farming practices could have prevented the damage.)

(f) If the sum of (c) and (d) above IS LESS THAN the number of days from date of appraisal to the end of the insurance period, appraise in the normal manner. When frost could be a factor for further damage, document on the appraisal sheet why it was not reflected in the appraisal.

9. APPRAISAL WORKSHEET ENTRIES AND COMPLETION PROCEDURES

A. GENERAL INFORMATION

(1) Include the insurance provider's name in the appraisal worksheet title if not preprinted on the insurance provider's worksheet or when a worksheet entry is not provided.

(2) Include the claim number on the appraisal worksheet (when required by the insurance provider), when a worksheet entry is not provided.

(3) Separate appraisal worksheets are required for each unit appraised, and for each field or subfield which has a differing base (Approved) yield or farming practice. Refer to section **5** for sampling requirements.

B. WORKSHEET ENTRIES AND COMPLETION INFORMATION

(1) HYBRID SEED CORN AND HYBRID SORGHUM SEED STAND REDUCTION APPRASIAL WORKSHEET INSTRUCTIONS

Verify or make the following entries:
Item

No. **Information Required**

Company: Name of insurance provider, if not preprinted on the worksheet (Company Name).

Claim Number: Claim number as assigned by the insurance provider.

1. **Insured's Name:** Name of the insured that identifies EXACTLY the person (legal entity) to whom the policy is issued.

2. **Policy Number:** Insured's assigned policy number.

3. **Unit No.:** Five-digit unit number from the Summary of Coverage after it is verified to be correct (e.g., 00100).

4. **Crop:** "Hybrid Seed Corn" or "Hybrid Sorghum Seed."

5. **Crop Year:** Crop year, as defined in the policy, for which the claim is filed.

6. **FSA Farm No.:** FSA farm serial number and HYBRID IDENTIFICATION CODE.

7. **Field No.:** Field or subfield identification symbol.

No. of Acres: Number of determined **female** acres, to tenths, in the field or subfield being appraised.

8. **Row Width:** Row width to nearest inch. Refer to section 5C for row-width determination information.

9. **Base Yield:** The approved yield from the "Hybrid Seed Approved Yield" form. If yield has not been established:

   a. Complete inspection and worksheet except yield and associated entries. Inform insured that he/she will be contacted when yield is established. Forward claim and appraisal worksheet to the insurance provider.

   b. The RO will approve a yield and send yield confirmation to the insurance provider, who will notify the adjuster.

      NOTE: In CRITICAL SITUATIONS, the RMA RO will phone an approved yield to the insurance provider and send a written confirmation.

c. The adjuster will complete the appraisal worksheet and Claim Form entries, arrange for the insured's signature on the worksheet and/or claim and distribute the documents.

10. **Sample Number:** MAKE NO ENTRY.

11. **Normal Plant Population 1/100 Acre:** Normal plant population - determine by counting the potential (living, dead, missing, and non-emerged) plants in a length of row equivalent to 1/100 acre.

12. **Number of Surviving Plants 1/100 Acre:** Number of surviving plants.

13. **Percent of Stand:**

Hybrid Seed Corn - MAKE NO ENTRY.

Hybrid Sorghum Seed - Result, to tenths, of dividing number of surviving plants (item 12) by the normal plant population (item 11).

14. **Round Col. 13 to Nearest 5 Percent:**

Hybrid Seed Corn - MAKE NO ENTRY.

Hybrid Sorghum Seed - Percent of stand (item 13) rounded to the nearest 5 percent.

15. **Percent of Potential:** Enter the percent of potential as follows:

a. Determine the stage at time of damage and enter in item 19.

b. **Hybrid Seed Corn** - Before 11th leaf stage, use Stand Reduction Chart (**TABLE C**) and enter percent potential to nearest whole percent, after interpolating.

Hybrid Sorghum Seed - Before 12th leaf stage, apply item 14 to the Stand Reduction Chart, **(TABLE K)**, and enter in item 15.

c. **Hybrid Seed Corn** - After 10th leaf stage, enter result of dividing item 12 by item 11 (to whole percent).

Hybrid Sorghum Seed - After 11th leaf stage, repeat entry from item 14.

16. **Base Yield:** Repeat the entry from item 9.

17. **Appraisal for Sample:** Result (to the nearest tenth) of multiplying percent of potential (item 15) (expressed as a decimal) by the base yield (item 16).

18. **Total:** Sum of entries in item 17 to (tenths).

19. **Stage of Growth at Time of Damage:** Stages of growth at time of damage (Refer to **EXHIBIT 4 for Hybrid Seed Corn or EXHIBIT 5 for Hybrid Sorghum Seed**).

20. **Total Appraisals for All Sample:** Repeat entry from item 18.

21. **Number of Samples:** Total Number of Samples.

22. **Appraisal Per Acre/Field:** Result (to tenths) of dividing the total appraisals for all samples (item 20) by the total number of samples (item 21).

23. **Notes and Calculations:** Enter pertinent information about the appraisal, including any appropriate calculations, or on a Special Report and attach to the claim when remarks are needed.

24. **Producer's Signature and Date:** Insured's (or insured's authorized representative's) signature and date. Before obtaining insured's signature, REVIEW ALL ENTRIES on the Appraisal Worksheet WITH THE INSURED, particularly explaining codes, etc., which may not be readily understood.

25. **Adjuster's Signature, Code Number and Date:** Signature of adjuster, code number, and date signed **after** the insured (or insured's authorized representative) has signed. If the appraisal is performed prior to the signature date, document the date of the appraisal in the Remarks section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the Production Worksheet.

(FOR ILLUSTRATION PURPOSES ONLY)

STAND REDUCTION APPRAISAL WORKSHEET

(Corn and Grain Sorghum, **HYBRID SEED CORN, HYBRID SORGHUM SEED, POPCORN)**

COMPANY	1. INSURED'S NAME	2. POLICY NUMBER	
ANY COMPANY	**I. M. INSURED**	**XXXXXXXX**	
3. UNIT NO.	CLAIM NUMBER	4. CROP	5 CROP YEAR
00100	**XXXXXXX**	**Hybrid Seed Corn**	**YYYY**

6. FSA FARM NO.	7. FIELD NO.	NO. OF ACRES	8. ROW WIDTH	9. BASE YIELD
106 Hybrid 10 W	**B**	**20.0**	**36"**	**40**

COMPUTATIONS

SAMPLE NUMBER 10	NORMAL PLANT POPULATION 1/100 ACRE 11	NUMBER OF SURVIVING PLANTS 1/100 ACRE 12	GRAIN SORGHUM ONLY: PERCENT OF STAND 13	GRAIN SORGHUM ONLY: ROUND COL. 13 TO NEAREST 5 PERCENT 14	PERCENT OF POTENTIAL 15		BASE YIELD 16		APPRAISAL FOR SAMPLE (COL. 15 X 16) 17
1	**220**	**36**			**37**	X	**40**	=	**14.8**
2	**220**	**32**			**34**	X	**40**	=	**13.6**
3	**220**	**23**			**27**	X	**40**	=	**10.8**
4	**220**	**42**			**41**	X	**40**	=	**16.4**
5	**220**	**51**			**47**	X	**40**	=	**18.8**
6						X		=	
7						X		=	
8						X		=	
9						X		=	
10						X		=	
11						X		=	
12						X		=	
13						X		=	

18. TOTAL **74.4**

19. STAGE OF GROWTH AT TIME OF DAMAGE	20. TOTAL APPRAISALS FOR ALL SAMPLES		21. NUMBER OF SAMPLES		22. APPRAISAL PER ACRE/FIELD	
8th leaf	**74.4**	÷	**5**	=	**14.9**	BU

23. NOTES AND CALCULATIONS

24. PRODUCER'S SIGNATURE	DATE
I.M. INSURED	**MM/DD/YYYY**
25. ADJUSTER'S CODE NUMBER & SIGNATURE	DATE
XXXXX I.M. ADJUSTER	**MM/DD/YYYY**

(FOR ILLUSTRATION PURPOSES ONLY)

STAND REDUCTION APPRAISAL WORKSHEET

(Corn and Grain Sorghum, **HYBRID SEED CORN, HYBRID SORGHUM SEED, POPCORN**)

COMPANY	1. INSURED'S NAME	2. POLICY NUMBER	
ANY COMPANY	**I. M. INSURED**	**XXXXXXXX**	
3. UNIT NO.	CLAIM NUMBER	4. CROP	5. CROP YEAR
00100	**XXXXXXX**	**Hybrid Sorghum Seed**	**YYYY**

6. FSA FARM NO.	7. FIELD NO.	NO. OF ACRES	8. ROW WIDTH	9. BASE YIELD
106 Hybrid 88G	**A**	**32.1**	**38"**	**44**

COMPUTATIONS

SAMPLE NUMBER	NORMAL PLANT POPULATION 1/100 ACRE	NUMBER OF SURVIVING PLANTS 1/100 ACRE	GRAIN SORGHUM ONLY: PERCENT OF STAND	GRAIN SORGHUM ONLY: ROUND COL. 13 TO NEAREST 5 PERCENT	PERCENT OF POTENTIAL		BASE YIELD		APPRAISAL FOR SAMPLE (COL. 15 X 16)
10	11	12	13	14	15		16		17
1	**320**	**21**	**6.6**	**5**	**9**	X	**44**	=	**4.0**
2	**320**	**17**	**5.3**	**5**	**9**	X	**44**	=	**4.0**
3	**320**	**36**	**11.3**	**10**	**17**	X	**44**	=	**7.5**
4	**320**	**39**	**12.2**	**10**	**17**	X	**44**	=	**7.5**
5	**320**	**47**	**14.7**	**15**	**26**	X	**44**	=	**11.4**
6						X		=	
7						X		=	
8						X		=	
9						X		=	
10						X		=	
11						X		=	
12						X		=	
13						X		=	
18. TOTAL									**34.4**

19. STAGE OF GROWTH AT TIME OF DAMAGE	20. TOTAL APPRAISALS FOR ALL SAMPLES		21. NUMBER OF SAMPLES		22. APPRAISAL PER ACRE/FIELD	
10th leaf	**34.4**	÷	**5**	=	**6.9**	**BU**

23. NOTES AND CALCULATIONS

24. INSURED'S SIGNATURE	DATE
I.M. INSURED	**MM/DD/YYYY**
25. ADJUSTER'S CODE NUMBER & SIGNATURE	DATE
XXXXX I.M. ADJUSTER	**MM/DD/YYYY**

(2) HYBRID SEED CORN AND HYBRID SORGHUM SEED HAIL DAMAGE APPRAISAL WORKSHEET INSTRUCTIONS

Verify or make the following entries:

Item No.	Information Required
	Company: Name of insurance provider, if not preprinted on the worksheet (Company Name).
	Claim No.: Claim number as assigned by the insurance provider.
1.	**Insured's Name:** Name of the insured that identifies EXACTLY the person (legal entity) to whom the policy is issued.
2.	**Contract Number:** Insured's assigned policy number.
3.	**Unit Number:** Five-digit unit number from the Summary of Coverage after it is verified to be correct (e.g., 00100).
4.	**Crop:** "Hybrid Seed Corn" or "Hybrid Sorghum Seed."
5.	**Crop Year:** Crop year, as defined in the policy, for which the claim is filed..
6.	**FSA Farm No.:** FSA farm serial number and HYBRID IDENTIFICATION CODE.
7.	**Field No.:** **Hybrid Seed Corn** - Field identification symbol and number of female acres in field or subfield. **Hybrid Sorghum Seed** - Field identification symbol and number of female acres in field or subfield.
8.	**Ultimate No. of Leaves:** **Hybrid Seed Corn** - MAKE NO ENTRY. **Hybrid Sorghum Seed** - Ultimate number of leaves.
9.	**Base:** The approved yield from the "Hybrid Seed Approved Yield" form. If yield has not been established: a. Complete inspection and worksheet except yield and associated entries. Inform insured that he/she will be contacted when yield is established. Forward claim and appraisal worksheet to the insurance provider. b. The RMA RO will approve a yield and send yield confirmation to the insurance provider, who will notify the adjuster.

NOTE: In CRITICAL SITUATIONS, the RMA RO will phone an approved yield to the insurance provider and send a written confirmation.

c. The adjuster will complete an appraisal worksheet and Claim Form entries, arrange for the insured's signature on the worksheet and/or claim, and distribute the documents.

10. **Sample Number:** MAKE NO ENTRY.

11. **Normal Number of Plants 1/100 Acre:** Normal plant population (original stand) - determine by counting the potential (living, dead, missing or non-emerged) plants in a length of row equivalent to 1/100 acre.

12. **No. Plants Totally Destroyed 1/100 Acre:** Number of plants totally destroyed. (If totally destroyed plants cannot be accurately counted, complete item 13, and enter result of subtracting item 13 from item 11.)

13. **Remaining Stand No. Plants:** Number of remaining plants - determine number of remaining plants, or enter the result of subtracting item 12 from item 11.

14. **% Damage Stand Reduction:**

Hybrid Seed Corn - Determine and enter percent of damage (to whole percent).

a. From 7th through 10th leaf stages, use "Hail Stand Reduction Loss Chart" (**TABLE D**) based on entries in items 11 and 13. Interpolate to nearest whole percent.

b. After 10th leaf stage, divide item 12 by item 11.

Hybrid Sorghum Seed - Divide item 13 by item 11. Round to the nearest 5 percent and apply results to Hail Stand Reduction Chart, **TABLE L**. Enter percent of damage from table.

15. **Percent Cripple:**

Hybrid Seed Corn - Determine entry as follows (refer to item 31 for calculations and subsection 6 C (3) (b) for definition):

a. Count the number of cripples in 100 remaining live plants.

b. Individually evaluate the ears on the crippled plants to determine the GROSS damage from cripples.

c. Multiply this Gross percent times the remaining crop (100 - item 14) to obtain the NET percent of damage. Round to nearest tenth.

NOTE: Show all calculations in the "Remarks" section of the appraisal worksheet or on a Special Report.

Hybrid Sorghum Seed - MAKE NO ENTRY.

16. **Percent Damage:**

Hybrid Seed Corn - Percent ear damage

a. If no ear damage – MAKE NO ENTRY.

b. If ear damage - determine NET PERCENT of ear damage by multiplying the GROSS PERCENT times the remaining crop (100 - item 14 - item 15).

If there is non-seed production from hail-caused ear damage, be sure to account for it, and if possible, defer appraisals until weight method appraisal can be used or the crop is harvested. (Subtract the seed production from the appraisal to determine the non-seed.)

Hybrid Sorghum Seed - % Head Damage:

a. Determine the average total number of kernels on 4 "average" heads.

b. Determine the average total number of kernels on 4 "average" heads by calculating the average number of kernels per spikelet (using 4 spikelets - one from near the bottom of the head, one a quarter of the way up, one from half way up, and one from three-fourths of the way up). Multiply by the number of spikelets (count the 4 or 5 small spikelets in the very top of the head as one average spikelet.

c. Divide the average number of kernels destroyed per-head by the average number of total kernels per head (rounded to the nearest 5 percent) to determine the GROSS percent of head damage.

d. Apply the gross percent of head damage ("c" above) and stand reduction percent of damage (item 14, rounded to the nearest 5 percent) to **TABLE N**, to obtain NET percent of head damage. Refer to subsection **7 D (3)(b)3** for an example of this calculation.

e. If no head damage, enter zero ("0.0").

NOTE: Show all calculations in the "Remarks" section of the appraisal worksheet or on a Special Report.

17. **Total Direct Damage:**

Hybrid Seed Corn - Sum of items 14, 15, and 16.

Hybrid Sorghum Seed - Sum of items 14 and 16.

18. **Potential Remaining:** Result of subtracting entry in item 17 from 100.

19. **% Leaf Area Destroyed:** Determine and enter percent of leaf area destroyed, rounded to the nearest 5 percent. Refer to subsection 7 D.

20. **% Damage For Leaf Destruction:**

Hybrid Seed Corn - Percent of damage for leaf destruction based on items 19 and 27 (**TABLE E)**.

Hybrid Sorghum Seed - Percent of damage for leaf destruction based on items 19 and 27. Refer to **TABLE O** and the ultimate number of leaves, item 8.

21. **Net Indirect Damage:** Result (to tenths) of multiplying item 18 by item 20.

22. **% Damage From Hail:** Sum of items 17 and 21 (to tenths).

23. **% Potential Production Remaining:** Result (to tenths) of subtracting item 22 from 100.

24. **Base Yield:** Repeat item 9 entry.

25. **Appraisal For Sample:** Result (to tenths) of multiplying item 23 (expressed as a decimal) by item 24.

26. **Total:** Sum of entries in item 25.

27. **Stage of Plant Growth At Time of Damage:** Stages of growth at time of damage. Refer to **EXHIBIT 4**, Hybrid Seed Corn Characteristics or **EXHIBIT 5**, Hybrid Sorghum Seed Corn Characteristics.

28. **Total All Samples:** Repeat item 26 entry.

29. **No. Samples:** Total Number of Samples.

30. **Per Acre Appraisal:** Result of dividing item 28 by item 29, rounded to the nearest tenth of a bushel.

31. **Remarks:** Enter pertinent information about the appraisal, sampling, conditions in general (e.g.: - very hot and dry), etc. Include any appropriate calculations on a Special Report, and attach to the claim when more space is needed.

32. **Insured's Signature and Date:** Insured's (or insured's authorized representative's) signature and date. BEFORE obtaining insured's signature, REVIEW ALL ENTRIES on the Appraisal Worksheet WITH THE INSURED, particularly explaining codes, etc., which may not be readily understood.

33. **Adjuster's Code No. and Signature, and Date:** Signature of adjuster, code number, and date signed **after** the insured (or insured's authorized representative) has signed. If the appraisal is performed prior to signature date, document the date of appraisal in the Remarks section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the Production Worksheet.

COMPANY: ANY COMPANY **CLAIM NO.: XXXXXX**

(FOR ILLUSTRATION PURPOSES ONLY)

HAIL DAMAGE APPRAISAL WORKSHEET

(Corn and Grain Sorghum)

1. INSURED'S NAME	2. CONTRACT NUMBER	3. UNIT NUMBER	4. CROP
I. M. INSURED	XXXXXXXX	00100	HYBRID SEED CORN

5. CROP YEAR	6. FSA FARM NO.	7. FIELD NO.	8. ULTIMATE NO. OF LEAVES	9. BASE
YYYY	106 HYBRID 10W	C 15.0 Acres		40

COMPUTATIONS

SAMPLE NO.	NORMAL NO. OF PLANTS 1/100 ACRE	NO. PLANTS TOTALLY DESTROYED 1/100 ACRE	REMAINING STAND NO. PLANTS	% DAMAGE FROM STAND REDUCTION (Chart)	% CRIPPLE (Corn Only)	% EAR DAMAGE % HEAD DAMAGE (Grain Sorghum)	TOTAL DIRECT DAMAGE (14 + 15 +116)	POTENTIAL REMAINING (100 – 17)	% LEAF AREA DESTROYED	% DAMAGE FOR LEAF DESTRUCTION (Chart)	NET INDIRECT DAMAGE (18 X 20)	% DAMAGE FROM HAIL (17 + 21)	% POTENTISL PRODUCTION REMAINING (100 - 22)	BASE YIELD	APPRAISAL FOR SAMPLE (23 X 24)
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	240	201	39	63	6.2		69.2	30.8	45	3	0.9	70.1	29.9	40	12.0
2	230	189	41	61	7.8		68.8	31.2	40	2	0.6	69.4	30.6	40	12.2
3	240	198	42	61	7.3		68.3	31.7	40	2	0.6	68.9	31.1	40	12.4
4	235	216	19	77	1.5		78.5	21.5	45	3	0.6	79.1	20.9	40	8.4
5	240	205	35	65	5.9		70.9	29.1	45	3	0.9	71.8	28.2	40	11.3
6															
7															
8															

26. TOTAL 56.3

27. STAGE OF PLANT GROWTH AT TIME OF DAMAGE	28. TOTAL ALL SAMPLES		29. NO. SAMPLES		30. PER ACRE APPRAISAL
9th LEAF	56.3	÷	5	=	11.3

31. REMARKS

NET PERCENT CRIPPLE DAMAGE

SAMPLE NUMBER	PERCENT CRIPPLES		PERCENT DAMAGE FACTOR		PERCENT DAMAGE FROM CRIPPLES		PERCENT REMAIINING PLANTS		NET PERCENT CRIPPLE DAMAGE
1	25	X	.67	=	16.8	X	37	=	6.2
2	30	X	.67	=	20.1	X	39	=	7.8
3	28	X	.67	=	18.8	X	39	=	7.3
4	10	X	.67	=	6.7	X	23	=	1.5
5	25	X	.67	=	16.8	X	35	=	5.9

32. INSURED'S SIGNATURE	DATE
I. M. INSURED	MM/DD/YYYY

33. ADJUSTER'S CODE NO. & SIGNATURE	DATE
XXXXX I. M. ADJUSTER	MM/DD/YYYY

COMPANY: **ANY COMPANY** CLAIM NO.: **XXXXXXX**

FOR ILLUSTRATION PURPOSES ONLY

HAIL DAMAGE APPRAISAL WORKSHEET

(Corn and Grain Sorghum)

1. INSURED'S NAME	2. CONTRACT NUMBER	3. UNIT NUMBER	4. CROP
I. M. INSURED	**XXXXXXXX**	**00100**	**Hybrid Sorghum Seed**

5. CROP YEAR	6. FSA FARM NO.	7. FIELD NO.	8. ULTIMATE NO. OF LEAVES	9. BASE
YYYY	**106 Hybrid 88 G**	**C 9.5 Acres**	**20**	**44**

COMPUTATIONS

SAMPLE NO.	NORMAL NO. OF PLANTS 1/100 ACRE	NO. PLANTS TOTALLY DESTROYED 1/100 ACRE	REMAINING STAND NO. PLANTS	% DAMAGE FROM STAND REDUCTION (Chart)	% CRIPPLE (Corn Only)	% EAR DAMAGE % HEAD DAMAGE (Grain Sorghum)	TOTAL DIRECT DAMAGE (14 + 15 + 16)	POTENTIAL REMAINING (100 – 17)	% LEAF AREA DESTROYED	% DAMAGE FOR LEAF DESTRUCTION (Chart)	NET INDIRECT DAMAGE (18 X 20)	% DAMAGE FROM HAIL (17 + 21)	% POTENTISL PRODUCTION REMAINING (100 - 22)	BASE YIELD	APPRAISAL FOR SAMPLE (23 X 24)
10	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
1	**320**	**176**	**144**	**32**	**-**	**32**	**64**	**36**	**90**	**66**	**23.8**	**87.8**	**12.2**	**44**	**5.4**
2	**320**	**206**	**114**	**43**	**-**	**41**	**84**	**16**	**95**	**72**	**11.5**	**95.5**	**4.5**	**44**	**2.0**
3	**320**	**191**	**129**	**37**	**-**	**36**	**73**	**27**	**90**	**66**	**17.8**	**90.8**	**9.2**	**44**	**4.0**
4															
5															
6															
7															
8															
9															

26 TOTAL **11.4**

27. STAGE OF PLANT GROWTH AT TIME OF DAMAGE	28. TOTAL ALL SAMPLES		29. NO. SAMPLES		30. PER ACRE APPRAISAL
Early Milk	**11.4**	÷	**3**	=	**3.8**

31. REMARKS

32. INSURED'S SIGNATURE **I. M. INSURED** DATE **MM/DD/YYYY**

33. ADJUSTER'S CODE NO. & SIGNATURE **XXXXX I. M. ADJUSTER** DATE **MM/DD/YYYY**

(3) Hybrid Seed Corn Maturity Line Weight Method Appraisal Worksheet Instructions

Complete HEADING items 1 through 7, and PART II items 20 through 32.

Verify or make the following entries:

Item No.	Information Required
	Company: Name of insurance provider, if not preprinted on the worksheet (Company Name).
1.	**Insured's Name:** Name of the insured that identifies EXACTLY the person (legal entity) to whom the policy is issued.
2.	**Policy Number:** Insured's assigned policy number.
3.	**Unit Number:** Five-digit unit number from the Summary of Coverage after it is verified to be correct (e.g., 00100).
3a.	**Claim Number:** Claim number as assigned by the insurance provider.
4.	**Crop:** Hybrid Seed Corn.
5.	**Crop Yr.:** Crop year, as defined in the policy, for which the claim has been filed.
6.	**FSA Farm No.:** FSA farm serial number and HYBRID IDENTIFICATION CODE.
7.	**Kind of Appraisal:** Circle EC for ear corn.
8-19	MAKE NO ENTRY.

PART Il - MATURITY LINE WEIGHT METHOD (from milk stage to 40 percent grain moisture).

Item No.	Information Required
20.	**Field ID:** Field identification symbol.
21.	**Acres in Field:** Number of determined acres, to tenths, in field or subfield being appraised.
22.	**Stage:** MAKE NO ENTRY.
23.	**Fraction of Acre:** Use “1/100.”

24. **Weight by Stage:** Record in each block the pounds per sample plot, to tenths, by stage of maturity.

Determine weights by:

a. Picking and husking all harvestable ears from the sample.

b. Discarding portions of ears having no kernels.

c. Dissecting each ear in order to determine its stage.

d. Sorting ears by stage and weighing all ears in stage (pounds to tenths).

25. **Total Weight All Sample Plots:** Total of sample weights from all sample plots for that stage (to tenths).

26. **Yield Factor:** Use appropriate factor for fraction of an acre used.

27. **Appraisal Per Stage:** Result of multiplying Total Weight All Sample Plots (item 25) by appropriate Yield Factor (item 26), rounded to tenths.

28. **Total Appr. All Stages:** Sum of entries in item 27 (Appraisal Per Stage), to tenths.

29. **Total No. Rep. Sample Plots:** Number of sample plots.

30. **Acre Appraisal:** Result of dividing Total Appraisals All Stages (item 28) by number of Total Number of Representative Sample Plots (item 29).

Remarks: Remarks pertinent to the appraisal, sampling, conditions in general (e.g.: very hot and dry), etc.

31. **Insured's Signature and Date:** Insured's (or insured's authorized representative's) signature and date. BEFORE obtaining insured's signature, REVIEW ALL ENTRIES on the Appraisal Worksheet WITH THE INSURED, particularly explaining codes, etc., which may not be readily understood.

32. **Code Number and Adjuster's Signature, and Date:** Signature of adjuster, code number, signature, and date signed **after** the insured (or insured's authorized representative) has signed. If the appraisal is performed prior to signature date, document the date of appraisal in the Remarks section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the Production Worksheet.

(FOR ILLUSTRATION PURPOSES ONLY) **HYBRID SEED CORN MATURITY LINE WEIGHT METHOD APPRAISAL**

COMPANY	INSURED'S NAME	2. POLICY NUMBER	3. UNIT NUMBER	3a. CLAIM NUMBER	7. KIND OF APPRAISAL CIRCLE APPRAISAL CODE
ANY COMPANY	I. M. INSURED	XXXXXXXX	00200	XXXXXXX	GRAIN SORGHUM – GS EAR CORN – EC POPCORN – PEC CORN SILAGE – CS GRAIN SORGHUM, SILAGE - GSS

3. CROP.	5. CROP YR.	6. FSA FARM NO.	YIELD FACTOR		
			POPCORN	CORN	GRAIN SORGHUM
Hybrid Seed Corn	YYYY	106 Hybrid 100 W	100 if sample size selected was 1/100 acre 1000 if sample size selected was 1/1000 acre	1.43 if sample size selected was 1/100 acre 14.3 if sample size selected was 1/1000 acre.3	1.34 if sample size selected was 1/100 acre 13.4 if sample size selected was 1/1000 acre

PART I – MATURE EAR CORN – POPCORN – HYBRID SEED (corn, grain sorghum) – GRAIN SORGHUM AND SILAGE WEIGHT METHOD

FIELD ID 8	ACRES IN FIELD 9	KIND OF APPR 10.	FRACTION OF ACRE 11	RECORD IN EACH BLOCK THE POUNDS PER SAMPLE PLOT TO TENTHS 12					TOTAL WEIGHT ALL SAMPLE PLOTS 13	NO. OF SAMPLE PLOTS 14	AVG. SAMPLE WEIGHT PER FIELD 15	YIELD FACTOR 16	PER ACRE YIELD (CIRCLE ONE) 17	FOR MATURE CORN POPCORN AND GRAIN SORGHUM PERCENT/FACTOR 18. MOISTURE	19. SHELLING
													BUSHELS TONS POUNDS		
									=	÷	=	X	=		

PART II – MATURITY LINE WEIGHT METHOD (For ear corn from milk stage to 40% moisture)

FIELD ID 20	STAGE 22	FRACTION OF ACRE 23	Record in Each Block the Pounds per Sample Plot to Tenths 24									TOTAL WEIGHT ALL SAMPLE PLOTS 25	YIELD FACTOR 26		APPRAISAL PER STAGE 27
			Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9		Corn	Popcorn	
C	¼	1/100	6.1	3.3	3.3	0.0	0.0					12.7	.7092	40.0	
		1/1000										=	X 7.0920	400.0	= 9.0
Acres In Field to Tenths 21	½	1/100	7.1	6.5	4.4	5.2	6.3					29.5	.7463	42.0	
		1/1000										=	X 7.4630	420.0	= 2.0
20.0	¾	1/100	6.9	4.1	3.2	5.8	0.0					20.0	.8000	45.0	
		1/1000										=	X 8.0000	450.0	= 16.0
	Doughy	1/100	3.5	0.0	0.0	0.0	0.0					3.5	.8475	47.0	
		1/1000										=	X 8.4750	470.0	= 3.0
	Extended	1/100											1.0638	59.0	
		1/1000										=	X 10.6380	590.0	=

REPRESENTATIVE SAMPLES (Popcorn)

1. 1/100 acre if potential appears to be less than 500 lbs/acre.
2. 1/1000 acre if potential appears to be in excess of 500 lbs/acre.

REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)

1. 1/100 acre if potential appears to be less than 20 bushels/acre.
2. 1/1000 acre if potential appears to be in excess of 20 bushels/acre.

TOTAL NO. REP. SAMPLE PLOTS 29	ACRE APPRAISAL 30

REMARKS:

28. TOTAL APPR. ALL STAGES **50.0** ÷ **5** = **10.0**

31. INSURED'S SIGNATURE	DATE	32. CODE NUMBER & ADJUSTER'S SIGNATURE		DATE
I. M. INSURED	MM/DD/YYYY	XXXXX	I. M. ADJUSTER	MM/DD/YYYY

(4) HYBRID SEED CORN AND HYBRID SORGHUM SEED WEIGHT METHOD APPRAISAL WORKSHEET INSTRUCTIONS

Complete HEADING items 1 through 7, PART 1 items 8 through 19, and Part II items 31 and 32.

Verify or make the following entries:

Item No.	Information Required
	Company: Name of insurance provider, if not preprinted on the worksheet (Company Name).
1.	**Insured's Name:** Name of the insured that identifies EXACTLY the person (legal entity) to whom the policy is issued.
2	**Policy Number:** Insured's assigned policy number.
3.	**Unit Number:** Five-digit unit number from the Summary of Coverage after it is verified to be correct (e.g., 00100).
3a.	**Claim Number:** Claim number as assigned by the insurance provider.
4.	**Crop:** Hybrid Seed Corn or Hybrid Sorghum Seed.
5.	**Crop Yr.:** Crop year, as defined in the policy, for which the claim has been filed.
6.	**FSA Farm No.:** FSA farm serial number and HYBRID IDENTIFICATION CODE.
7.	**Kind of Appraisal:**
	Hybrid Seed Corn - Circle EC for EAR CORN and enter in item 10, Part 1.
	Hybrid Sorghum Seed - Circle GS for grain sorghum and enter in item 10, Part 1.

PART I - WEIGHT METHOD

Hybrid Seed Corn - Use this method for hybrid seed corn for grain when grain moisture is 40 PERCENT OR BELOW.

Hybrid Sorghum Seed - Use this method for hybrid sorghum seed for all grain appraisals from the milk stage through maturity.

Verify or make the following entries:

Item No.	Information Required

8. **Field ID:** Field identification symbol.

9. **Acres in Field:** Number of determined acres, to tenths, in field or subfield being appraised.

10. **Kind of Appr.:**

Hybrid Seed Corn - Enter EC" for EAR CORN.

Hybrid Sorghum Seed - Enter GS for grain, forage, or sudan (sorghum) seed production.

11. **Fraction of Acre:**

Hybrid Seed Corn - Enter "1/100."

Hybrid Sorghum Seed - Enter **"1/100"** if the potential appears to be 20 bushels per acre or less, or **"1/1000"** if the potential appears to be in excess of 20 bushels per acre.

12. **Weight Per Sample:** Weight for each sample (pounds, to tenths).

13. **Total Weight All Sample Plots:** Sum of entries in item 12 (weight per sample), pounds to tenths.

14. **No. of Sample Plots:** Number of sample plots.

15. **Avg. Sample Weight per Field:** Result of dividing Total Weight All Samples (item 13) by the Number Of Sample Plots (item 14), rounded to tenths.

16. **Yield Factor:**

Hybrid Seed Corn - Enter the factor (to hundredths) determined by multiplying (1.5) times the whole percentage points of moisture, in excess of 14.0; adding the result to 70; and dividing the sum into 100. Example: 20.5% moisture is 6 whole percentage points in excess of 14.0; 1.5 X 6 = 9; +70 = 79; 100) 79 = 1.27). When moisture is 14 percent or less enter 1.43.

Hybrid Sorghum Seed - If entry in item 11 is "1/100," enter "1.34". If entry in item 11 is "1/1000," enter "13.4."

17. **Per Acre Yield:**

Hybrid Seed Corn - Result to tenths, of multiplying Average Sample Weight (item 15) by Yield Factor (item 16). Circle appropriate unit of measure.

Hybrid Sorghum Seed - Result, to tenths, of multiplying item 15 by item 16. If threshing factor is applied (**TABLE M**), line through appraisal, and enter adjusted appraisal in the space below the original appraisal. Show calculation on worksheet. Circle appropriate unit of measure.

18. **Moisture:**

Hybrid Seed Corn - Moisture percentage (to tenths) if in excess of 14.0 (through 40 percent).

Hybrid Sorghum Seed - Moisture percentage (to tenths).

19. **Shelling:**

Hybrid Seed Corn - Shelling percentage factor (to whole percent). Refer to **TABLE G**.

Hybrid Sorghum Seed - MAKE NO ENTRY.

20. - 28. MAKE NO ENTRY.

Remarks: Remarks pertinent to the appraisal, sampling, general conditions (e.g.: very hot and dry), etc.

31. **Insured's Signature:** Insured's (or insured's authorized representative's) signature and date. BEFORE obtaining insured's signature, REVIEW ALL ENTRIES on the Appraisal Worksheet WITH THE INSURED, particularly explaining codes, etc., which may not be readily understood.

32. **Code Number, Adjuster's Signature, and Date:** Signature of adjuster, code number, signature, and date signed **after** the insured (or insured's authorized representative) has signed. If the appraisal is performed prior to signature date, document the date of appraisal in the Remarks section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the Production Worksheet.

FOR ILLUSTRATION PURPOSES ONLY) **HYBRID SEED CORN WEIGHT METHOD APPRAISAL**

COMPANY	1. INSURED'S NAME	2. POLICY NUMBER	4. UNIT NUMBER	3a. CLAIM NUMBER	7. KIND OF APPRAISAL CIRCLE APPRAISAL CODE
ANY COMPANY	I. M. INSURED	XXXXXXXX	00200	XXXXXXX	GRAIN SORGHUM – GS EAR CORN – (EC) POPCORN – PEC CORN SILAGE – CS GRAIN SORGHUM, SILAGE - GSS

5. CROP.	5. CROP YR.	6. FSA FARM NO.	YIELD FACTOR		
			POPCORN	CORN	GRAIN SORGHUM
Hybrid Seed Corn	YYYY	106 Hybrid 100 W	100 if sample size selected was 1/100 acre 1000 if sample size selected was 1/1000 acre	1.43 if sample size selected was 1/100 acre 14.3 if sample size selected was 1/1000 acre.3	1.34 if sample size selected was 1/100 acre 13.4 if sample size selected was 1/1000 acre

PART I – MATURE EAR CORN – POPCORN – HYBRID SEED (corn, grain sorghum) – GRAIN SORGHUM AND SILAGE WEIGHT METHOD

FIELD ID 8	ACRES IN FIELD 9	KIND OF APPR 10.	FRACTION OF ACRE 11	RECORD IN EACH BLOCK THE POUNDS PER SAMPLE PLOT TO TENTHS 12						TOTAL WEIGHT ALL SAMPLE PLOTS 13		NO. OF SAMPLE PLOTS 14		AVG. SAMPLE WEIGHT PER FIELD 15		YIELD FACTOR 16		PER ACRE YIELD (CIRCLE ONE) 17	FOR MATURE CORN POPCORN AND GRAIN SORGHUM
D	10.1	EC	1/100	4.3	6.2	5.1	3.9	7.0	=	26.5	÷	5	=	5.3	X	1.27	=	BUSHELS 6.7 TONS POUNDS	PERCENT/FACTOR 18. MOISTURE 20.5 19. SHELLING 80
									=		÷		=		X		=	BUSHELS_____ TONS POUNDS	PERCENT/FACTOR 18. MOISTURE 19. SHELLING

PART II – MATURITY LINE WEIGHT METHOD (For ear corn from milk stage to 40% moisture)

FIELD ID 20	STAGE 22	FRACTION OF ACRE 23	Record in Each Block the Pounds per Sample Plot to Tenths 24									TOTAL WEIGHT ALL SAMPLE PLOTS 25		YIELD FACTOR 26		APPRAISAL PER STAGE 27
			Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9			Corn	Popcorn	
	¼	1/100												.7092	40.0	
		1/1000										=	X	7.0920	400.0	=
Acres In Field to Tenths 21	½	1/100												.7463	42.0	
		1/1000										=	X	7.4630	420.0	=
	¾	1/100												.8000	45.0	
		1/1000										=	X	8.0000	450.0	=
	Doughy	1/100												.8475	47.0	
		1/1000										=	X	8.4750	470.0	=
	Extended	1/100												1.0638	59.0	
		1/1000										=	X	10.6380	590.0	=

REPRESENTATIVE SAMPLES (Popcorn)

3. 1/100 acre if potential appears to be less than 500 lbs/acre.
4. 1/1000 acre if potential appears to be in excess of 500 lbs/acre.

REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)

3. 1/100 acre if potential appears to be less than 20 bushels/acre.
4. 1/1000 acre if potential appears to be in excess of 20 bushels/acre.

TOTAL NO. REP. SAMPLE PLOTS 29	ACRE APPRAISAL 30

REMARKS:

28. TOTAL APPR. ALL STAGES ÷ =

33. INSURED'S SIGNATURE	DATE	34. CODE NUMBER & ADJUSTER'S SIGNATURE	DATE
I. M. INSURED	MM/DD/YYYY	XXXXX I. M. ADJUSTER	MM/DD/YYYY

(FOR ILLUSTRATION PURPOSES ONLY) HYBRID SORGHUM SEED WEIGHT METHOD APPRAISAL

COMPANY	2. INSURED'S NAME	2. POLICY NUMBER	6. UNIT NUMBER	3a. CLAIM NUMBER	7. KIND OF APPRAISAL CIRCLE APPRAISAL CODE
ANY COMPANY	I. M. INSURED	XXXXXXXX	00200	XXXXXXX	GRAIN SORGHUM – GS EAR CORN – EC POPCORN – PEC CORN SILAGE – CS GRAIN SORGHUM, SILAGE - GSS

7. CROP.	5. CROP YR.	6. FSA FARM NO.	YIELD FACTOR		
			POPCORN	CORN	GRAIN SORGHUM
Hybrid Sorghum Seed	YYYY	106 Hybrid 88 G	100 if sample size selected was 1/100 acre 1000 if sample size selected was 1/1000 acre	1.43 if sample size selected was 1/100 acre 14.3 if sample size selected was 1/1000 acre.3	1.34 if sample size selected was 1/100 acre 13.4 if sample size selected was 1/1000 acre

PART I – MATURE EAR CORN – POPCORN – HYBRID SEED (corn, grain sorghum) – GRAIN SORGHUM AND SILAGE WEIGHT METHOD

FIELD ID 8	ACRES IN FIELD 9	KIND OF APPR 10.	FRACTION OF ACRE 11	RECORD IN EACH BLOCK THE POUNDS PER SAMPLE PLOT TO TENTHS 12						TOTAL WEIGHT ALL SAMPLE PLOTS 13	NO. OF SAMPLE PLOTS 14	AVG. SAMPLE WEIGHT PER FIELD 15	YIELD FACTOR 16	PER ACRE YIELD (CIRCLE ONE) 17	FOR MATURE CORN POPCORN AND GRAIN SORGHUM
F	10.1	GS	1/100	4.3	5.2	8.4	7.1	8.1	=	33.1	÷ 5	= 6.6	X 1.34	= BUSHELS ~~8.8~~ TONS POUNDS	PERCENT/FACTOR 18. MOISTURE 15.1 19. SHELLING
				Example of appraisal adjusted for low threshing percentage						8.8 bu. X .75 factor = 6.6 bu.				= BUSHELS 6.6 TONS POUNDS	PERCENT/FACTOR 18. MOISTURE 19. SHELLING

PART II – MATURITY LINE WEIGHT METHOD (For ear corn from milk stage to 40% moisture)

FIELD ID 20	STAGE 22	FRACTION OF ACRE 23	Record in Each Block the Pounds per Sample Plot to Tenths 24									TOTAL WEIGHT ALL SAMPLE PLOTS 25	YIELD FACTOR 26		APPRAISAL PER STAGE 27
			Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9		Corn	Popcorn	
	1/4	1/100										=	.7092	40.0	
		1/1000											7.0920	400.0	
Acres In Field to Tenths 21	1/2	1/100										=	.7463	42.0	
		1/1000											7.4630	420.0	
	3/4	1/100										=	.8000	45.0	
		1/1000											8.0000	450.0	
	Doughy	1/100										=	.8475	47.0	
		1/1000											8.4750	470.0	
	Extended	1/100										=	1.0638	59.0	
		1/1000											10.6380	590.0	

REPRESENTATIVE SAMPLES (Popcorn)

5. 1/100 acre if potential appears to be less than 500 lbs/acre.
6. 1/1000 acre if potential appears to be in excess of 500 lbs/acre.

REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)

5. 1/100 acre if potential appears to be less than 20 bushels/acre.
6. 1/1000 acre if potential appears to be in excess of 20 bushels/acre.

TOTAL NO. REP. SAMPLE PLOTS 29	ACRE APPRAISAL 30

REMARKS:

28. TOTAL APPR. ALL STAGES ÷ =

2. INSURED'S SIGNATURE	DATE	3. CODE NUMBER & ADJUSTER'S SIGNATURE	DATE
I. M. INSURED	MM/DD/YYYY	XXXXX I. M. ADJUSTER	MM/DD/YYYY

10. CLAIM FORM ENTRIES AND COMPLETION PROCEDURES

A. GENERAL INFORMATION

(1) The claim form (hereafter referred to as "Production Worksheet") is a progressive form containing all notices of damage for all preliminary and final inspections on a unit.

(2) If a Production Worksheet has been prepared on a prior inspection, verify each entry and enter additional information as needed. If a change or correction is necessary, strike out all entries on the line and re-enter correct entries on a new line. The adjuster and insured should initial any line deletions.

(3) Refer to the LAM for instructions regarding the following:

(a) Acreage report errors.

(b) Delayed notices and delayed claims.

(c) Corrected claims or fire losses (double coverage) and cases involving uninsured causes of loss, unusual situations, controversial claims, concealment, or misrepresentation.

(d) Claims involving a Certification Form (when all the acreage on the unit has been appraised to be put to another use, or other reasons described in the LAM).

(e) "No Indemnity Due" claims (which must be verified by an APPRAISAL or NOTIFICATION from the insured that the production exceeded the guarantee.

(f) Late planting.

(4) Refer to the Prevented Planting Handbook for information on prevented planting.

(5) The adjuster is responsible for determining if any of the insured's requirements under the notice and claim provisions of the policy have not been met. If any have not, the adjuster should contact the insurance provider.

(6) Instructions labeled "**PRELIMINARY**" apply to preliminary inspections only. Instructions labeled "**FINAL**" apply to final inspections only. Instructions not labeled apply to ALL inspections.

B. FORM ENTRIES AND COMPLETION INFORMATION

Verify or make the following entries:

Item No.	Information Required
1.	**Crop/Code #:** "Hybrid Seed Corn" (0062) or "Hybrid Sorghum Seed" (0050).
2.	**Unit #:** Five-digit unit number from the Summary of Coverage after it is verified to be correct (e.g.,00100).
3.	**Legal Description:** Section, township, and range number or other legal description that identifies the location of the unit.
4.	**Date of Damage:** First three letters of the month during which MOST of the insured damage (including progressive damage) occurred for each inspection. Include the SPECIFIC DATE where applicable as in the case of hail damage (e.g., AUG 11).
5.	**Cause of Damage:** Name of insured **cause(s)** of loss for **this crop** as listed in the LAM. If it is evident that no indemnity is due, enter "NONE." If an insured cause of loss is coded as "Other," explain in the "Narrative." **NOTE:** Refer to the Basic Provisions and the crop provisions for this crop for information pertaining to insured and uninsured causes of loss.
6.	**Primary Cause %:** **PRELIMINARY:** MAKE NO ENTRY. **FINAL:** Percent of damage for the cause of damage listed in item 5 above that is determined to be the primary cause of damage, to the nearest whole percent. The primary cause of damage must exceed 50 percent (e.g., 51%). Enter an X for the major secondary cause of damage.
7.	**Company Name/Agency:** Name of company and agency servicing the contract.
8.	**Name of Insured:** Name of the insured that identifies EXACTLY the person (legal entity) to whom the policy is issued.
9.	**Claim #:** Claim number as assigned by the insurance provider**.**
10.	**Policy #:** Insured's assigned policy number.
11.	**Crop Year:** Crop year, as defined in the policy, for which the claim is filed.

12. **Additional Units:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Unit number (s) for ALL non-loss units for the crop at the time of final inspection. A non-loss unit is any unit for which a Production Worksheet has not been completed. Additional non-loss units may be entered on a single Production Worksheet.

NOTE: If more spaces are needed for non-loss units, enter the unit numbers, identified as "Non-Loss Units," in the Narrative or on an attached Special Report.

13. **Est. Prod. Per Acre:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Estimated yield per acre, in whole bushels, of all non-loss units for the crop at the time of final inspection.

14. **Date(s) Notice of Loss:**

PRELIMINARY:

a. Date the notice of damage was given for the unit in item 2.

b. A third preliminary inspection (if needed) requires an additional set of Production Worksheets. Enter the date of notice for a third preliminary inspection in the 1st space of item 14 on the second set.

c. Reserve the "Final" space on the first page of the first set of Production Worksheets for the date of notice for the final inspection.

d. If the inspection is initiated by the insurance provider, enter "Company Insp." instead of the date.

FINAL: Transfer the last date in the 1st or 2nd space to the FINAL space if a final inspection should be made as a result of the notice. Always enter the complete date of notice (month, day, year) for the FINAL inspection in the FINAL space on the first page of the first set of Production Worksheets. For a delayed notice of loss or claim, refer to the LAM.

15. **Companion Policy(s):**

a. If no other person has a share in the unit (insured has 100 percent share), MAKE NO ENTRY.

b. In all cases where the insured has LESS than a 100 percent share of a loss-affected unit, ask the insured if the OTHER person sharing in the unit has a multiple-peril crop insurance contract (i.e., not crop-hail, fire, etc.). If the other person does not, enter "NONE."

(1) If the other person has a multiple-peril crop insurance contract and it can be determined that the SAME insurance provider services it, enter the contract number. Handle these companion policies according to insurance provider instructions.

(2) If the OTHER person has a multiple-peril crop insurance contract and a DIFFERENT insurance provider or agent services it, enter the name of the insurance provider and/or agent (and contract number) if known.

(3) If unable to verify the existence of a companion contract, enter "Unknown," and contact the insurance provider for further instructions.

NOTE: Refer to the LAM for further information regarding companion contracts.

SECTION I – ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

Make separate line entries for varying:

(1) Rate classes, types, or farming practices;
(2) Base Yields;
(3) Appraisals;
(4) Adjustments to appraised mature production (moisture);
(5) Stages or intended use(s) of acreage;
(6) Shares (e.g., 50 percent and 75 percent shares on the same unit); or
(7) Appraisals for damage due to hail or fire if Hail and Fire exclusion is in effect.

Verify or make the following entries:

Item No.	**Information required**
A.	**Field ID:** The field identification symbol from a sketch map or an aerial photo. Refer to the Narrative. In the margin (or in a separate column), enter the date of inspection for the last line entry of each inspection.
B.	**Preliminary Acres:** **PRELIMINARY:** The number of acres, to tenths, occupied by FEMALE PLANTS ONLY, (include E if estimated), for which consent for other use has been given. Determine actual acreage, to tenths, when the boundaries of the appraised acreage may not be determined later. **FINAL:** MAKE NO ENTRY.

C. **Final Acres:** Refer to the LAM for definition of acceptable determined acres used herein.

Determined acres to tenths, occupied by FEMALE PLANTS for hybrid seeds (include "E" if estimated) for which consent is given for other use and/or:

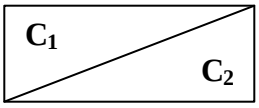
a. Put to other use without consent.
b. Abandoned.
c. Damaged by uninsured causes.
d. For which the insured failed to provide acceptable records of production.

FINAL: Determined acres to tenths.

NOTE: Acreage breakdowns WITHIN a unit may be estimated (enter "E" in front of the acres) if a determination is impractical AND if authorization was received from the insurance provider. Document authorization in the Narrative.

ACCOUNT FOR ALL ACREAGE OCCUPIED BY FEMALE PLANTS FOR HYBRID SEEDS IN THE UNIT. In the event of over-reported acres, handle in accordance with individual insurance provider's instructions. In the event of under-reported acres, draw a diagonal line in Column "C" as shown.

C_1 Enter the ACTUAL acres for the field or subfield.
C_2 Enter the REPORTED acres for the field or subfield.



D. **Interest or Share:** Insured's interest in crop to three decimal places as determined at the time of inspection. If shares vary on the same UNIT, use separate line entries.

E. **Risk:** Three-digit code for the correct "Rate Class" specified on the actuarial documents. If a "Rate Class" or "High Risk Area" is not specified on the actuarial documents, make no entry. Verify with the Summary of Coverage and if the Rate Class is found to be incorrect, revise according to the insurance provider's instructions. Refer to the LAM.

NOTE: Unrated land is uninsurable without a written agreement.

F. **Practice:** Three-digit code number, entered exactly as specified on the actuarial documents, for the practice carried out by the insured. If "No Practice Specified," enter appropriate 3-digit code number from the actuarial documents.

G. **Type/Class/Variety:** Three-digit code number, entered exactly as specified on the actuarial documents, for the type grown by the insured. If "No Type Specified," enter appropriate 3-digit code number from the actuarial documents.

H. **Stage:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Stage abbreviation as shown below.

STAGE	EXPLANATION
"P"……	Acreage abandoned without consent, put to other use without consent, damaged solely by uninsured causes, or for which the insured failed to provide records of production which are acceptable to the insurance provider.
"H"……	Harvested for grain or seed.
"UH"…….	Unharvested or put to other use with consent.

NOTE: Enter H/Grain if crop is harvested as non-seed. Female corn or sorghum plants harvested as silage without prior written consent will be considered destroyed without consent, and the entry should read "Silage WOC."

PREVENTED PLANTING: Refer to the Prevented Planting Handbook for proper codes for any eligible prevented planting acreage.

GLEANED ACREAGE: Refer to the LAM for information on gleaning.

I. **Intended or Final Use:** Use of Acreage. Use the following "Intended Use" abbreviations.

USE	EXPLANATION
"To Soybeans," "Pastured," "Plowed," etc. ……	Use made of acreage
"WOC"……...……..	Other use without consent
"SU"……...…..	Solely uninsured
"ABA"……...…..	Abandoned without consent
"H"……...…….	Harvested
"UH"……...……..	Unharvested

Verify any "Intended Use" entry. If the final use of the acreage was not as indicated, strike out the original line and initial it. Enter all data on a new line showing the correct Final Use.

PREVENTED PLANTING: Refer to the Prevented Planting Handbook for proper codes for any eligible prevented planting acreage.

GLEANED ACREAGE: Refer to the LAM for information on gleaning.

J. **Appraised Potential:** Per-acre appraisal in bushels, to tenths, of POTENTIAL production for the acreage appraised. Refer to subsection 6 ,"Hybrid Seed Corn Appraisal Methods," or subsection 7 ,"Hybrid Sorghum Seed Appraisal Methods," for additional instructions.

NOTE: If there is no potential on UH acreage enter "0."

$K_{1.}$ **Moisture %:** Moisture percent to nearest tenth (for weight method only). For all other appraisals MAKE NO ENTRY. (Sorghum appraised as mature grain).

NOTE: For corn this entry is for documentation purposes only. Moisture correction is computed on the Weight Method Appraisal Worksheet.

$K_{2.}$ **Factor:**

Hybrid Seed Corn - MAKE NO ENTRY.

Hybrid Sorghum Seed – Four-place moisture factor from the Hybrid Sorghum Seed Moisture Factor Table (**TABLE P**).

L. **Shell and/or Quality Factor:**

Hybrid Sorghum Seed - MAKE NO ENTRY.

Hybrid Seed Corn - When a weight-method appraisal is made for mature hybrid seed ear corn, enter the shelling percentage factor rounded to whole percent. (Refer to **TABLE G**); otherwise, MAKE NO ENTRY.

***

NOTE: For mycotoxin-infected production with no market value, refer to the LAM.

M. + **Uninsured Cause:** EXPLAIN IN THE NARRATIVE.

PRELIMINARY and FINAL:

a. Hail and Fire exclusion NOT in effect.

(1) For acreage that is damaged SOLELY by uninsured causes ("P" stage), MAKE NO ENTRY.

(2) For acreage that is damaged PARTLY by uninsured causes, enter the APPRAISED UNINSURED loss of production per acre in bushels, to tenths, for any such acreage.

NOTE: On preliminary inspections, advise the insured to keep the harvested production from any acreage damaged SOLELY by uninsured causes separate from other production.

b. When there is late-planted acreage, the applicable per-acre production guarantee for such acreage is the production guarantee that has been reduced for late-planted acreage.

c. Refer to the LAM when a Hail and Fire Exclusion is in effect and damage is from hail or fire.

d. Enter the result of adding uninsured cause appraisals to hail and fire exclusion appraisals.

NOTE: For fire losses, if the insured also has other fire insurance (double coverage), refer to the LAM.

N_1-N_2 **Adjusted Potential:**

NOTE: FOR "P" STAGE ACREAGE, ENTER THE DOLLAR AMOUNT OF INSURANCE PER ACRE FROM THE SUMMARY OF COVERAGE.

Hybrid Seed Corn – Draw a diagonal line and record adjusted potential (Column "J" times Column "L" plus Column "M") above the line, rounded to bushels to tenths ("N_1") and the ***Dollar Value** per bushel below the line ("N_2") in dollars and cents.

Hybrid Sorghum Seed - Draw a diagonal line and record adjusted potential (Column "J" times Column "K_2" times Column "L" plus Column "M") above the line, rounded to bushels to tenths ("N_1") and the ***Dollar Value** per bushel below the line ("N_2") in dollars and cents.

***Dollar Value:**

a. For line entries showing appraised production considered as seed production, or uninsured cause appraisals, enter the applicable hybrid dollar value per bushel (in dollar and cents). Calculate the hybrid dollar value per bushel by multiplying the coverage level percent times the approved yield listed on the HYBRID SEED APPROVED YIELD form, (refer to **EXHIBIT 2 and EXHIBIT 3** for examples) and dividing the result into the applicable dollar amount of insurance per acre. .

b. For appraised production considered as non-seed production, enter the local per bushel market value of the sorghum or corn on the date of final inspection.

For appraised non-seed production which cannot be valued, enter the local price for No. 2 grain sorghum or corn on the date of final inspection.

c. If at the time of the appraisal it cannot be determined if the crop will make acceptable seed production, the appraisal shall be considered as seed production.

NOTE: Only mature hybrid sorghum seed can qualify as NON-SEED; all appraised production prior to maturity must be counted as seed.

O. **Total to Count:** Column "C" or "C_1" (**actual** acres) times Column "N_1" times "N_2" (rounded to nearest whole dollar).

P. **Per Acre:** Per-Acre Guarantee. Enter the amount of insurance per acre from the insured's policy. **NOTE:** Refer to the LAM for late planting procedures.

Q. **Total:** Column "C_2" (**reported** acres; "C" if acreage is not under-reported) times Column "P," (rounded to nearest whole dollar).

16. **Total Acres:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total Actual Acres [Column "C" (or "C_1" if there are under-reported acres)], to tenths.

FOR ITEM 17. WHEN SEPARATE LINE ENTRIES ARE MADE FOR VARYING SHARES, STAGES, APPROVED YIELDS, PRICE ELECTIONS, TYPES, ETC., WITHIN THE UNIT, AND TOTALS NEED TO BE KEPT SEPARATE FOR CALCULATING INDEMNITIES, MAKE NO ENTRY AND FOLLOW THE INSURANCE PROVIDER'S INSTRUCTIONS; OTHERWISE, MAKE THE FOLLOWING ENTRIES.

17. **Totals:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Totals of Column "O" and total of Column "Q." Record the Hybrid Seed Company Code in the narrative.

NARRATIVE:

If more space is needed, document on a Special /Report, and enter "See Special Report." Attach the Special report to the Production Worksheet.

a. If no acreage is released on the unit, enter "No acreage released," adjuster's initials, and date.

b. If notice of damage was given and "No Inspection" is necessary, enter the unit number(s), "No Inspection," date, and adjuster's initials. The insured's signature is not required.

c. Explain any uninsured causes, unusual, or controversial cases.

d. If there is an appraisal in Section I, item M for uninsured causes due to a hail/fire exclusion, show the original hail/fire liability per acre and the hail/fire indemnity per acre.

e. Document the actual appraisal date if an appraisal was performed prior to the adjuster's signature date on the appraisal worksheet, and the date of the appraisal is not recorded on the appraisal worksheet.

f. State that there is "No other fire insurance" when fire damages or destroys the insured hybrid seed corn or hybrid sorghum seed crop and it is determined that the insured has no other fire insurance. Also refer to the LAM.

g. Explain any errors found on the Summary of Coverage.

h. Explain any commingled production. Refer to the LAM.

i. Explain any entry for "Production Not to Count" in Section II, item "O" and/or any production not included in Section II, item I or item B – E entries (e.g., harvested production from uninsured acreage that can be identified separately from the insured acreage in the unit).

j. Explain a "NO" checked in item 19.

k. Attach a sketch map or aerial photograph to identify the total unit:

(1) If consent is or has been given to put part of the unit to another use;
(2) If uninsured causes are present; or
(3) For unusual or controversial cases.

NOTE: Indicate on the sketch map or aerial photo, the disposition of acreage destroyed or put to other use with or without consent.

l. Explain any difference between date of inspection and signature dates. For an ABSENTEE insured, enter the date of the inspection AND the date of mailing the Production Worksheet for signature.

m. When any other adjuster or supervisor accompanied the adjuster on the inspection, enter the code number of the other adjuster or supervisor and date of inspection.

n. Explain the reason for a "No Indemnity Due" claim. "No Indemnity Due" claims are to be distributed in accordance with the insurance provider's instructions.

o. Explain any delayed notices or delayed claims as instructed in the LAM.

p. Document any authorized estimated acres shown in Section I, item C as follows: "Line 3 'E' acres authorized by insurance provider MM/DD/YYYY."

q. Document the method and calculation used to determine acres for the unit. Refer to the LAM.

r. Specify the type of insects or disease when the insured cause of damage or loss is listed as insects or disease. Explain why control measures did not work.

s. Document field ID's and date and method of destruction of mycotoxin-infested hybrid seed corn or hybrid sorghum seed if they have no market value. For further documentation instructions, refer to the LAM.

t. Document the name and address of the charitable organization when gleaned acreage is applicable. Refer to the LAM for more information on gleaning.

u. For all non-seed production, explain the reason for consideration as non-seed production, and show germination percentage for mature production.

v. Document any other pertinent information, including data to support any factors used to calculate the production.

SECTION II – HARVESTED PRODUCTION

GENERAL INFORMATION:

(1) Account for ALL HARVESTED PRODUCTION (for **ALL ENTITIES** sharing in the crop) except production appraised BEFORE harvest and shown in Section I because the quantity cannot be determined later (e.g., high moisture grain going into air-tight storage, released for other uses, etc.).

(2) Columns B through E are for structure measurements entries (Rectangular, Round, Square, **Conical Pile**, etc.). If structures are a combination of shapes, break into a series of average measurements, if possible. Enter "Odd Shape" if production is stored in an odd shaped structure, "Conical Pile" if the production is stored in a conical pile., or "Cone" if there is a conical pile on top of stored production. Document measurements on a Special Report or other FCIC-approved worksheet used for this purpose.

(3) If farm-stored production has been weighed prior to storage and acceptable weight tickets are available showing gross weights, enter "Weighed and Stored On Farm" in columns "B" through "E". Refer to the LAM for requirements for acceptable weight tickets.

(4) For production commercially stored, sold, etc., make entries in items B through E as follows:

(a) Name and address of storage facility or buyer.

(b) "Seed," "Fed," etc.

(5) Non-seed production to count depends upon the market value. Determine local market price from a representative sample by contacting local grain dealers and livestock producers.

(6) If acceptable sales or weight tickets are not available, refer to the LAM.

(7) If additional lines are necessary, the data may be entered on a continuation sheet. USE SEPARATE LINES FOR:

(a) Separate storage structures.

(b) Varying names and addresses of buyers of sold production.

(c) Varying determinations of production (varying moisture, FM, test weight, value, etc.).

NOTE: Average percent of foreign material (FM) or moisture can be entered when the elevator has calculated the average on the summary sheet, and the determined average is acceptable to the adjuster. Separate line entries are not otherwise required. Refer to the LAM for instructions.

(d) Varying shares; e.g., 50 percent and 75 percent shares on same unit.

(e) Conical piles. Do **NOT** add the cone in the top or bottom of a bin to the height of other grain in the structure. For computing the production in cones and conical piles, refer to the LAM.

(8) There will generally be no harvested production entries in items A through S for preliminary inspections.

(9) If there is harvested production from more than one insured practice (or type) and a separate approved yield has been established for each, the harvested production also must be entered on separate lines in items A through S by type or practice. If production has been commingled, refer to the LAM.

Verify or make the following entries:

Item No.	**Information Required**
18.	**Date Harvest Completed: (Used to determine if there is a delayed notice or a delayed claim. Refer to the LAM.)**

PRELIMINARY: MAKE NO ENTRY.

FINAL:

a. The earlier of the date the ENTIRE acreage on the unit was (1) harvested, (2) totally destroyed, (3) put to other use, (4) a combination of harvested, destroyed, or put to other use, or (5) the calendar date for the end of the insurance period.

b. If at the time of final inspection (if prior to the end of the insurance period), there is any unharvested insured acreage remaining on the unit that the insured does not intend to harvest, enter "**Incomplete**."

c. If at the time of final inspection (if prior to the end of the insurance period), **none** of the insured acreage on the unit has been harvested, and the insured does not intend to harvest such acreage, enter "**No Harvest**."

d. If the case involves a Certification Form, enter the date from the Certification Form when the entire unit is put to another use, etc. Refer to the LAM.

19. **Similar Damage:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Check "Yes" or "No." Check "Yes" if amount and cause of damage due to insurable causes is similar to the experience of other farms in the area. If "No" is checked, explain in the Narrative.

20. **Assignment of Indemnity:** Check "Yes" **only** if an assignment of indemnity is in effect for the crop year; otherwise, check "No." Refer to the LAM.

21. **Transfer of Right to Indemnity:** Check "Yes" **only** if a transfer of right to indemnity is in effect for the unit for the crop year; otherwise, check "No." Refer to the LAM.

A_1. **Share:** RECORD ONLY VARYING SHARES on the SAME unit to three decimal places.

A_2. **FIELD ID:**

a. If only one practice and/or type of harvested production is listed in Section I, MAKE NO ENTRY.

b. If more than one practice and/or type of harvested production is listed in Section I, and a separate approved yield exists, indicate for each practice/type the corresponding Field ID (from Section I, item "A").

B. **Length or Diameter:** Internal measurement in feet to tenths of structural space occupied by crop.

a. Length if rectangular or square.

b. Diameter if round or conical pile. Refer to the LAM to convert circumference to diameter if internal diameter measurement is not possible.

C. **Width:** Internal width measurement in feet to tenths of space occupied by crop in structure if rectangular or square. If round, enter "RND." If conical pile, enter "Cone."

D. **Depth:** Depth measurement in feet to tenths of space occupied by crop in rectangular, round, or square structure. If conical pile, enter the height of the cone. If there is production in the storage structure from other units or sources, refer to the LAM.

E. **Deductions:** Cubic feet, to tenths, of crop space displaced by chutes, vents, studs, crossties, etc. Refer to the LAM for computation instructions.

F. **Net Cubic Feet:** Net cubic feet to tenths, of crop in the storage structure. Refer to the LAM for computation instructions.

G. **Conversion Factor:**
Enter Conversion Factor as follows:
Shelled Corn or Sorghum..... 0.8
Ground Shelled Corn..... 0.7
Ground Ear Corn..... 0.6
Ear Corn..... 0.4

H. **Gross Production:** Multiply Column "F" times Column "G," rounded to tenths of a bushel.

I. **Bu., Ton, Lbs., Cwt.:** Circle "Bu." in column heading. Production in bushels, to tenths, before deductions for grain moisture and foreign material for production:

a. Weighed and stored on the farm.

b. Sold and/or stored in commercial storage - Obtain gross production for the UNIT from the summary and/or settlement sheets. (Individual load slips only WILL NOT suffice unless the storage facility or buyer WILL NOT provide summary and/or settlement sheets to the insured, and this is documented in the Narrative.)

c. Stored in odd-shaped structures. The adjuster must compute the amount of gross production. (Refer to the LAM for cubic footage and production computations). A copy of ALL production calculations must be left in the file folder.

d. Of ground shelled corn.

e. For weighed hybrid seed EAR CORN, to determine the gross bushels, divide the pounds by 70. Do not enter shelling percent for such corn (70 pounds assumes 80 percent shell).

NOTE: For mycotoxin presence in hybrid seed corn or hybrid sorghum seed, enter all production even if it has no market value.

All hybrid seed corn or hybrid sorghum seed DELIVERED to and ACCEPTED by the seed company is considered seed production even if the settlement sheet shows some production bought by the seed company as seed and some as non-seed; however, when the availability of seed corn is delivered, some companies will upgrade production NORMALLY REJECTED by separating bad seed from viable seed. When this happens, the adjuster must follow the following steps when working the claim:

a. Determine the percentage of germination from the ORIGINAL sample to document that this production does not meet the 80 percent requirement.

b. Count as seed production that portion of the production accepted by the seed company AFTER SEPARATING.

c. Count as non-seed production that portion of production which was removed to increase the sample germination.

J. **Shell/Sugar Factor:**

Hybrid Seed Corn - To determine shelling factor for hybrid seed ear corn:

a. Husk 5 lbs. of hybrid seed ear corn.

b. Shell all ears and weigh grain.

c. Apply weight to Table to get shelling percentage factor (**TABLE G**).

d. Enter percentage factor in Column "J."

Hybrid Sorghum Seed - MAKE NO ENTRY

K_1. **FM%:** Make entry to nearest tenth for ONLY foreign material as defined in the U.S. Standards for corn or grain sorghum unless for the situation dockage is allowed (as specified in the LAM)., which the BUYER has deducted (or will deduct if such production has not been sold). If the elevator has averaged foreign material on the settlement/summary sheet, refer to the LAM for instructions.

The terms "dockage" and "foreign material" are often used by buyers to describe the same non-grain material depending on the geographic area of the country. Refer to the Official U.S. Standards for Grain and the LAM for more information regarding FM (dockage if allowed for the crop).

NOTE: Refer to the LAM for information on consolidating loads with the same FM percentage.

K_2. **Factor:** Enter the three-place factor determined by subtracting the percent of FM from 1.000, or subtract the entry in K_1 from 100 and divide by 100. **EXAMPLE:** For 4 percent, enter ".960."

L_1. **Moisture %:** Enter moisture percent to tenths. Moisture adjustment is applied prior to any qualifying adjustments for quality.

L_2. **Factor:** For shelled corn or sorghum, enter the four-place factor from the Hybrid Seed Corn or Hybrid Sorghum Seed Moisture Adjustment Factor Table **(TABLE J or TABLE P)**.

For Hybrid Seed EAR CORN in excess of 14.0 percent moisture, any portion of a percentage point will be disregarded (e.g., 14.7 = 1.000). Refer to **TABLE H**.

$M_{1.}$ **Test Wt.:** Enter test weight (ONLY when storage structure measurements are entered) in whole pounds or tenths (or pounds to tenths IF so instructed by the insurance provider). Refer to the LAM for instructions on determining test weight.

$M_{2.}$ **Factor:** Test Weight Factor - enter the result of dividing the actual test weight by 56, to three decimal places (refer to **TABLE I,** Hybrid Seed Corn and Hybrid Sorghum Seed).

N. **Adjusted Production:** Result of multiplying ("H" or "I") x "J" (Hybrid Seed Corn) x "K_2" x "L_2" x "$M_{2.}$" Round to nearest bushel to tenth.

O. **Production Not to Count:** Net production NOT to count, in bushels to tenths, WHEN ACCEPTABLE RECORDS IDENTIFYING SUCH PRODUCTION ARE AVAILABLE, from harvested acreage which has been assessed an appraisal of not less than the guarantee per acre, or from other sources (e.g., other units or uninsured acreage) in the same storage structure (if the storage entries include such production).

THIS ENTRY MUST NEVER EXCEED PRODUCTION SHOWN ON THE SAME LINE. EXPLAIN THE TOTAL BIN CONTENTS (bin grain depth, etc.) AND ANY "PRODUCTION NOT TO COUNT" IN THE NARRATIVE.

NOTE: Make no entry if only the depth for production to count has been entered in column D, and the depth for production not to count has been entered in the "Narrative." Refer to the example in the LAM.

P. **Production:** Result of subtracting the entry in Column "O" from Column "N," to bushels to tenths.

$Q_{1.}$ **Value:** For hybrid seed production, enter, the dollar-and-cents value per bushel for the acreage which produced the hybrid seed. Obtain this value by multiplying the approved yield from the "HYBRID SEED APPROVED YIELD" form (refer to **EXHIBIT 2 or EXHIBIT 3**) by the coverage level percent, and dividing the result INTO the dollar amount of insurance per acre.

If entry is made in "$Q_{1,}$" MAKE NO ENTRY in "Q_2."

MAKE NO ENTRY for Non- Seed Production.

$Q_{2.}$ **Market Value:**

a. For seed production: MAKE NO ENTRY.

b. For non-seed (hybrid seed corn) (hybrid sorghum seed) production:

(1) Sold or otherwise disposed of - Enter the actual dollar-and-cents value per bushel received or local market price per bushel on the earlier of the day of adjustment or the date such production is sold, taking into account reduction in value due to insurable causes (including mycotoxin).

(2) For mycotoxin-infested production with no market value, refer to the LAM for guidelines. (Refer to the LAM for complete Certification Form-use instructions).

R. **Quality Factor:** Enter the dollar amount from "Q_1" or "Q_2" as applicable. Explain and enter equation in the Narrative.

S. **Production to Count:** Enter result from multiplying Column "P" times Column "R" in whole dollars

NOTE: FOR ITEMS 22-24. WHEN SEPARATE LINE ENTRIES ARE MADE FOR VARYING SHARES, STAGES, APPROVED YIELDS, PRICE ELECTIONS, TYPES, ETC., WITHIN THE UNIT, AND TOTALS NEED TO BE KEPT SEPARATE FOR CALCULATING INDEMNITIES, MAKE NO ENTRY AND FOLLOW THE INSURANCE PROVIDER'S INSTRUCTIONS; OTHERWISE, MAKE THE FOLLOWING ENTRIES.

22. **Section II Total:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total of Column "S."

23. **Section I Total:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Enter figure from Section I, Column "O" total.

24. **Unit Total:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total of 22 and 23.

25. **Adjuster's Signature, Code #, and Date:** Signature of adjuster, code number, and date signed **after** the insured (or insured's authorized representative) has signed. For an absentee insured, enter adjuster's code number ONLY. The signature and date will be entered AFTER the absentee has signed and returned the Production Worksheet.

NOTE: Final indemnity inspections should be signed on the bottom line.

26. **Insured's Signature and Date:** Insured's (or insured's authorized representative's) signature and date. BEFORE obtaining insured's signature, REVIEW ALL ENTRIES on the Production Worksheet WITH THE INSURED, particularly explaining codes, etc., that may not be readily understood.

NOTE: Final indemnity inspections should be signed on the bottom line.

27. **Page Numbers:**

PRELIMINARY: Page numbers – "1," "2," etc., at the time of inspection.

FINAL: Page numbers – (Example: Page 1 of 1, Page 1of 2, Page 2 of 2, etc.).

PRODUCTION WORKSHEET - (FOR ILLUSTRATION PURPOSES ONLY)

1 Crop/Code#	2 Unit #	3 Legal Description
Hybrid Seed Corn 0062	00100	SW9-4N-44W

7 Company ANY COMPANY

Agency ANY AGENCY

8 Name of Insured			
I. M. INSURED			
9 Claim Number		11 Crop Year	
XXXXXXXX		YYYY	
10 Policy Number	XXXXXXX		
14 Date(s) Notice of Loss	1st MM/DD/YYYY	2nd	Final MM/DD/YYYY
15 Companion Policy(s)			

4 Date of Damage	JULY
5 Cause of Damage	DROUGHT
6 Primary Cause %	100%
12 Additional Units	00200
13 Est. Prod Per Acre	40

SECTION I – ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

ACTUARIAL									POTENTIAL YIELD						STAGE GUARANTEE	
A	B	C	D	E	F	G	H	I	J	K_1 / K_2	L	M	N	O	P	Q
Field ID	Prelim Acres	Final Acres	Interest or Share	Risk	Practice	Type Class	Stage	Intended or Final Use	Appraised Potential	Moisture % / Factor	Shell and/or Quality Factor	Uninsured Cause	Adjusted Potential	Total to Count (C x N)	Per Acre	Total (C x P)
A MM/DD		5.0	1.000	A01	002	210	P	WOC					340	1700	340	1700
B MM/DD	20.0	20.0	1.000	A01	002	210	UH	Silage	14.9		.80		11.9 / 9.80	2332	340	6800
C MM/DD		15.0	1.000	A01	002	210	UH	Silage	11.3		.80		9.0 / 9.80	1323	340	5100
D MM/DD		75.0	1.000	A01	002	210	H	H							340	25500
16 TOTAL		115.0											17 TOTALS	5355		39100

NARRATIVE (If more space is needed, attach a Special Report)

Hybrid Seed Corn Company # 209 See attached aerial photo for field ID's. Acreage determined from permanent FSA field measurements. 2000 gross bu. qualified as seed. 746 gross bu. is non-seed production due to low germination (70%) caused by drought. Field A was destroyed without consent.

SECTION II – HARVESTED PRODUCTION

18 Date Harvest Completed	19 Is damage similar to other farms in the area?	20 Assignment of Indemnity?	21 Transfer of Right To Indemnity?
MM/DD/YYYY	Yes ☒ No ☐	Yes ☐ No ☒	Yes ☐ No ☒

MEASUREMENTS					GROSS PRODUCTION				ADJUSTMENTS TO HARVESTED PRODUCTION									
A_1 / A_2	B	C	D	E	F	G	H	I	J	K_1 / K_2	L_1 / L_2	M_1 / M_2	N	O	P	Q_1 / Q_2	R	S
Share Field ID	Length of Diameter	Width	Depth	Deduc-tion	Net Cubic Feet	Conver-Sion Factor	Gross Prod. (F x G)	Bu Ton Lbs. Cwt.	Shell/ Sugar Factor	FM% Factor	Moisture% Factor	Test Wt. Factor	Adjusted Production HorIxJxK2xL2xM2	Prod. Not To Count	Produc-tion (N – O)	Value Mkt. Price	Quality Factor ($Q_1 \div Q_2$)	Production To Count (P X R)
	ABC Seed Company Anytown, Any State							2,000.0					2,000.0		2,000.0	9.80	9.80	19600
	ABC Seed Company Anytown, Any State							340.0					340.0		340.0	2.65	2.65	901
	16.0	8.0	8.0	9.0	1015	.4	406.0		1.00		27.2 / .8536	56 / 1.000	346.6		346.6	2.60	2.60	901

I certify the information provided above, to the best of my knowledge, to be true and complete and that it wi11 be used to determine my loss, if any, to my insured crops. I understand that this Production Worksheet and supporting papers are subject to audit and approval by the company. I understand that this crop insurance is subsidized and reinsured by the Federal Crop Insurance Corporation, an agency of the United States. I understand that any false or inaccurate information may result in the sanctions outlined in my policy and administrative, civil, and criminal sanctions under 18 U.S.C. ''1006 and 1014, 7 U.S.C. '1506, 31 U.S.C. '' 3729 and other federal statues

22 Section II Total	21402
23 Section I Total	5355
24 Unit Total	26757

25 Adjuster's Signature and Code Number		Date	26 Insured's Signature		Date
1st Inspection	I. M. ADJUSTER XXXXX	MM/DD/YYYY	1st Inspection	I. M. INSURED	MM/DD/YYYY
2nd Inspection			2nd Inspection		
Final Inspection	I. M. ADJUSTER XXXXX	MM/DD/YYYY	Final Inspection	I. M. INSURED	MM/DD/YYYY

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PRODUCTION WORKSHEET
(FOR ILLUSTRATION PURPOSES ONLY)

1 Crop/Code#	Hybrid Sorghum Seed 0050
2 Unit #	00100
3 Legal Description	SW 9-5N - 41W
4 Date of Damage	AUG 11
5 Cause of Damage	HAIL
6 Primary Cause %	100%
12 Additional Units	00200
13 Est. Prod Per Acre	45

7 Company ANY COMPANY

Agency ANY AGENCY

8 Name of Insured	I. M. INSURED		
9 Claim Number	XXXXXXXX	11 Crop Year	YYYY
10 Policy Number	XXXXXXX		
14 Date(s) Notice of Loss	1st MM/DD/YYYY	2nd	Final MM/DD/YYYY
15 Companion Policy(s)			

SECTION I – ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

ACTUARIAL									POTENTIAL YIELD						STAGE GUARANTEE	
A	B	C	D	E	F	G	H	I	J	K_1 / K_2	L	M	N	O	P	Q
Field ID	Prelim Acres	Final Acres	Interest or Share	Risk	Practice	Type Class	Stage	Intended or Final Use	Appraised Potential	Moisture % / Factor	Shell and/or Quality Factor	Uninsured Cause	Adjusted Potential	Total to Count (C x N)	Per Acre	Total (C x P)
A MM/DD	32.0	32.1	1.000	A01	997	210	UH	To Pasture	6.9	16.1 / .9628			6.6 / 9.62	2,038	275	8,828
C MM/DD		9.5	1.000	A01	997	210	UH	Silage	3.8	15.0 / .9760			3.7 / 9.62	388	275	2,613
D MM/DD		10.5	1.000	A01	997	210	H	H							275	2,888
16 TOTAL		52.1											17 TOTALS	2,426		14,329

NARRATIVE (If more space is needed, attach a Special Report)

Hybrid Sorghum Seed Company # 209 See attached aerial photo for field ID's. Acreage determined from permanent FSA field measurements. 868.4 gross bu. qualified as seed. 312.2 gross bu. is non-seed production due to low germination (70%) caused by hail.

SECTION II – HARVESTED PRODUCTION

18 Date Harvest Completed	19 Is damage similar to other farms in the area?	20 Assignment of Indemnity?	21 Transfer of Right To Indemnity?
MM/DD/YYYY	Yes ☒ No ☐	Yes ☐ No ☒	Yes ☐ No ☒

MEASUREMENTS					GROSS PRODUCTION				ADJUSTMENTS TO HARVESTED PRODUCTION									
A_1 / A_2	B	C	D	E	F	G	H	I	J	K_1 / K_2	L_1 / L_2	M_1 / M_2	N	O	P	Q_1 / Q_2	R	S
Share Field ID	Length of Diameter	Width	Depth	Deduc-tion	Net Cubic Feet	Conver-Sion Factor	Gross Prod. (F x G)	Bu. Ton Lbs. Cwt.	Shell/ Sugar Factor	FM% Factor	Moisture% Factor	Test Wt. Factor	Adjusted Production $HorIxJxK_2xL_2xM_2$	Prod. Not To Count	Produc-tion (N – O)	Value Mkt. Price	Quality Factor ($Q_1 \div Q_2$)	Production To Count (P X R)
	ABC Feed Yard Anytown, Any State							868.4			14.7 / .9796		850.7		850.7	9.62	9.62	8,184
	ABC Feed Yard Anytown, Any State							312.3			14.3 / .9844		307.4		307.4	1.75	1.75	538

I certify the information provided above, to the best of my knowledge, to be true and complete and that it wi1l be used to determine my loss, if any, to my insured crops. I understand that this Production Worksheet and supporting papers are subject to audit and approval by the company. I understand that this crop insurance is subsidized and reinsured by the Federal Crop Insurance Corporation, an agency of the United States. I understand that any false or inaccurate information may result in the sanctions outlined in my policy and administrative, civil, and criminal sanctions under 18 U.S.C. ¶¶ 1006 and 1014, 7 U.S.C.¶ 1506, 31 U.S.C. ¶¶ 3729 and other federal statues

22 Section II Total	8,722
23 Section I Total	2,426
24 Unit Total	11,148

25 Adjuster's Signature and Code Number		Date	26 Insured's Signature		Date
1st Inspection	I. M. ADJUSTER XXXXX	MM/DD/YYYY	1st Inspection	I. M. INSURED	MM/DD/YYYY
2nd Inspection			2nd Inspection		
Final Inspection	I. M. ADJUSTER XXXXX	MM/DD/YYYY	Final Inspection	I. M. INSURED	MM/DD/YYYY

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11. REFERENCE MATERIAL

TABLE A – MINIMUM REPRESENTATIVE SAMPLE REQUIREMENTS

ACRES IN FIELD OR SUBFIELD	MINIMUM NO. OF SAMPLES
0.1 – 10.0	3
10.1 – 40.0	4
Add one additional sample for each additional 40.0 acres (or fraction thereof) in the field or subfield.	

TABLE B – ROW WIDTH AND LENGTH TABLE

ROW WIDTH	1/100 ACRE	1/1000 ACRE
42”	125’	12.5’
40”	131’	13.1’
38”	138’	13.8’
36”	145’	14.5’
34”	154’	15.4’
32”	163’	16.3
30”	174’	17.4’
28”	187’	18.7’
26”	202’	20.2’
24”	218’	21.8’
22”	238’	23.8
20”	262’	26.2’
18”	290’	29.0’
16”	326’	32.6’
14”	374’	37.4’

For row widths not listed in **TABLE B**, use the following formula:

$$\frac{43{,}560 \text{ sq. ft./acre} \div \left[\frac{\text{row width in inches}}{12"}\right]}{100 \text{ ft. (for 1/100 acre)} \quad \text{or} \quad 1000 \text{ ft. (for 1/1000 acre)}}$$

EXAMPLE:

$$\frac{43{,}560 \text{ sq. ft./acre} \div \frac{25"}{12"}}{100 \text{ ft.}} = \frac{43{,}560 \text{ sq. ft.} \div 2.08}{100 \text{ ft.}} = \frac{20{,}942}{100 \text{ ft.}} = 209.42 \text{ ft. or } 209 \text{ ft. row length}$$

TABLE C - STAND REDUCTION CHART – Hybrid Seed Corn - Percent of Potential Production Remaining

Use from emergence through 10th leaf stage. Interpolate as necessary and round to the nearest whole percent. (Do not use after the 10th leaf stage.)

REMAINING PLANTS IN SAMPLE (1/100 ACRE)																	NORMAL STAND
	320	**310**	**300**	**290**	**280**	**270**	**260**	**250**	**240**	**230**	**220**	**210**	**200**	**190**	**180**	**170**	
	100	99	98	97	96	95	94	93	92	91	89	87	84	82	79	77	**320**
		100	99	98	97	96	95	94	93	92	90	88	86	84	81	79	**310**
			100	99	98	97	96	95	94	93	91	89	88	86	83	80	**300**
				100	99	98	97	96	95	94	92	90	89	87	85	82	**290**
					100	99	98	97	95	94	93	91	90	88	86	84	**280**
						100	99	97	96	95	94	93	91	90	88	86	**270**
							100	99	97	96	95	95	93	91	90	88	**260**
								100	99	98	97	96	94	93	92	90	**250**
EXAMPLE:									100	99	98	97	96	95	94	91	**240**
To interpolate for 39 remaining plants and 240 original plants: 39 is .9 of difference between 30 and 40; .9 x 7 (38-31) = 6.3 31 + 6.3 = 37.3 (rounded to 37) 100 - 37 = 63% damage. (37 is subtracted from 100 because 37% POTENTIAL REMAINING = 63% DAMAGE)										100	99	98	97	96	95	92	**230**
											100	99	98	97	96	93	**220**
												100	99	98	96	94	**210**
													100	99	97	95	**200**
														100	98	96	**190**
															100	98	**180**
																100	**170**

REMAINING PLANTS IN SAMPLE)																	NORMAL STAND
160	**150**	**140**	**130**	**120**	**110**	**100**	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**	**0**	
74	71	68	65	62	59	55	51	47	42	37	32	26	20	14	8	0	**320**
76	73	70	67	64	61	57	53	48	43	38	33	27	21	15	9	0	**310**
77	75	72	69	66	63	59	55	50	45	40	35	29	23	17	11	0	**300**
79	77	74	71	68	65	61	57	52	47	42	37	31	25	19	11	0	**290**
81	79	76	73	70	66	63	59	54	49	44	39	33	27	21	12	0	**280**
84	82	79	76	72	69	65	60	55	50	45	40	34	28	22	13	0	**270**
86	84	81	78	75	71	67	62	57	52	47	42	36	30	23	14	0	**260**
88	86	83	80	77	73	69	64	59	54	49	43	37	30	23	15	0	**250**
90	88	85	82	78	74	71	66	60	55	50	44	38	31	24	15	0	**240**
91	89	86	83	79	75	71	67	61	56	50	44	38	31	24	16	0	**230**
92	90	87	84	80	76	72	67	62	57	52	46	40	33	25	16	0	**220**
93	91	88	84	80	76	73	68	63	58	53	47	41	34	25	16	0	**210**
94	92	89	85	81	77	73	69	64	59	54	48	42	35	26	17	0	**200**
95	93	90	86	83	79	75	70	65	60	55	49	43	36	27	17	0	**190**
96	94	91	88	85	81	77	72	67	62	57	51	45	36	27	17	0	**180**
98	96	93	90	87	83	79	74	69	64	59	53	46	37	27	18	0	**170**
100	98	95	92	89	85	81	76	71	66	61	55	46	38	28	18	0	**160**
	100	97	94	92	88	85	79	74	69	63	57	47	38	28	18	0	**150**
		100	97	94	90	85	80	77	72	66	59	48	39	29	19	0	**140**
			100	97	94	90	85	80	75	69	61	49	39	29	19	0	**130**
				100	97	93	88	83	78	72	63	50	40	30	21	0	**120**
					100	97	92	88	83	74	65	51	40	30	23	0	**110**
						100	96	92	86	79	67	52	41	31	23	0	**100**
							100	96	91	88	69	53	41	31	24	0	**90**
								100	97	91	70	54	42	32	25	0	**80**

TABLE D - HAIL STAND REDUCTION LOSS CHART – HYBRID SEED CORN

		REMAINING PLANTS - 1/100 ACRE																							
		320	310	300	290	280	270	260	250	240	230	220	210	200	190	180	170	160	150	140	130	120	110	100	90	80
		PERCENT OF DAMAGE																								
O	320	0	1	2	3	4	5	6	7	8	9	11	13	16	18	21	23	26	29	32	35	38	41	45	49	53
R	310		0	1	2	3	4	5	6	7	8	10	12	14	16	19	21	24	27	30	33	36	39	43	47	52
I	300			0	1	2	3	4	5	6	7	9	11	12	14	17	20	23	25	29	31	34	37	41	45	50
G.	290				0	1	2	3	4	5	6	8	10	11	13	15	18	21	23	26	29	32	35	39	43	48
	280					0	1	2	3	5	6	7	9	10	12	14	16	19	21	24	27	30	34	37	41	46
P	270						0	1	3	4	5	6	7	9	10	12	14	16	18	21	24	28	31	35	40	45
L	260							0	1	3	4	5	6	7	9	10	12	14	16	19	22	25	29	33	38	43
A	250								0	1	2	3	4	6	7	8	10	12	14	17	20	23	27	31	36	41
N	240									0	1	2	3	4	5	6	9	10	12	15	18	22	26	29	34	40
T	230										0	1	2	3	4	5	8	9	11	14	17	21	25	29	33	39
S	220											0	1	2	3	4	7	8	10	13	16	20	24	28	33	39
	210												0	1	2	4	6	7	9	12	16	20	24	27	32	37
I	200													0	1	3	5	6	8	11	15	19	23	27	31	36
N	190														0	2	4	5	7	10	14	17	21	25	30	35
	180															0	2	4	6	9	12	15	19	23	28	33
1	170																0	2	4	7	10	13	17	21	26	31
/	160																	0	2	5	8	11	15	19	24	29
1	150																		0	3	5	8	12	16	21	26
0	140																			0	3	6	10	14	18	23
0	130																				0	3	6	10	15	20
	120																					0	3	7	12	17
A	110																						0	3	8	12
C	100																							0	4	8
R	90																								0	4
E	80																									0

EXAMPLE: To interpolate for 89 remaining plants and 240 original plants: 89 is .9 of difference between 90 and 80;
.9 X 6(40 - 34) =5.4 34 plus 5.4 = 39.4 (rounded to 39)
NOTE: For less than 80 plants per 1/100 acre remaining, use Stand Reduction TABLE C and enter the remainder of 100 minus the percent of potential.

TABLE E – LEAF LOSS CHART – HYBRID SEED CORN

Stage of Growth	Percent Leaf Area Destroyed																		
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Percent Production Lost																		
7-leaf	0	0	0	0	0	0	1	1	2	3	4	4	5	5	6	7	8	9	9
8-leaf	0	0	0	0	0	1	1	2	3	4	5	5	6	6	7	8	9	10	11
9-leaf	0	0	0	1	1	2	2	3	4	5	6	6	7	7	9	10	11	12	13
10-leaf	0	0	0	1	2	3	4	5	6	7	8	8	9	9	11	13	14	15	16
11-leaf	0	0	1	1	2	3	5	6	7	8	9	10	11	12	14	16	18	20	22
12-leaf	0	0	1	2	3	4	5	7	9	10	11	13	15	16	18	20	23	26	28
13-leaf	0	1	1	2	3	4	6	8	10	11	13	15	17	19	22	25	28	31	34
14-leaf	0	1	2	3	4	6	8	10	13	15	17	20	22	25	28	32	36	40	44
15-leaf	1	1	2	3	5	7	9	12	15	17	20	23	26	30	34	38	42	46	51
16-leaf	1	2	3	4	6	8	11	14	18	20	23	27	31	36	40	44	49	55	61
17-leaf	2	3	4	5	7	9	13	17	21	24	28	32	37	43	48	53	59	65	72
18-leaf	2	3	5	7	9	11	15	19	24	28	33	38	44	50	56	62	69	76	84
19-21 leaf	3	4	6	8	11	14	18	22	27	32	38	43	51	57	64	71	79	87	96
Tassel	3	5	7	9	13	17	21	26	31	36	42	48	55	62	68	75	83	91	100
Silked	3	5	7	9	12	16	20	24	29	34	39	45	51	58	65	72	80	88	97
Silks brown	2	4	6	8	11	15	18	22	27	31	36	41	47	54	60	66	74	81	90
Pre-blister	2	3	5	7	10	13	16	20	24	28	32	37	43	49	54	60	66	73	81
Blister	2	3	5	7	10	13	16	19	22	26	30	34	39	45	50	55	60	66	73
Early milk	2	3	4	6	8	11	14	17	20	24	28	32	36	41	45	50	55	60	66
Milk	1	2	3	5	7	9	12	15	18	21	24	28	32	37	41	45	49	54	59
Late milk	1	2	3	4	6	8	10	12	15	18	21	24	28	32	35	38	42	46	50
Soft dough	1	1	2	2	4	6	8	10	12	14	17	20	23	26	29	32	35	38	41
Early dent	0	0	1	1	2	3	5	7	9	11	13	15	18	21	23	25	27	29	32
Dent	0	0	0	1	2	3	4	6	7	8	10	12	14	15	17	19	20	21	23
Late dent	0	0	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Nearly mature	0	0	0	0	0	0	0	0	1	2	3	4	5	5	6	6	7	7	8
Mature	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE F – STAGE MODIFICATION CHART – HYBRID SEED CORN

Actual Leaves at Date of Loss	TOTAL ACTUAL LEAVES TO BE PRODUCED (ULTIMATE NO. OF LEAVES)													
	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	MODIFIED STAGE													
5	**11**	**10**	**9**	**8**	**8**	**7**	**6**	**5**	**5**	**5**				
6	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**6**	**6**	**5**			
7	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**7**	**7**	**6**	**5**		
8	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**8**	**8**	**7**	**6**	**5**	
9	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**9**	**9**	**8**	**7**	**6**	**5**
10	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**10**	**10**	**9**	**8**	**7**	**6**
11	**18**	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**11**	**11**	**10**	**9**	**8**	**7**
12	**19/ 21**	**18**	**17**	**16**	**15**	**14**	**13**	**12**	**12**	**12**	**11**	**10**	**9**	**8**
13		**19/ 21**	**18**	**17**	**16**	**15**	**14**	**13**	**13**	**13**	**12**	**11**	**10**	**9**
14			**19/ 21**	**18**	**17**	**16**	**15**	**14**	**14**	**14**	**13**	**12**	**11**	**10**
15				**19/ 21**	**18**	**17**	**16**	**15**	**15**	**15**	**14**	**13**	**12**	**11**
16					**19/ 21**	**18**	**17**	**16**	**16**	**16**	**15**	**14**	**13**	**12**
17						**19/ 21**	**18**	**17**	**17**	**17**	**16**	**15**	**14**	**13**
18							**19/ 21**	**18**	**18**	**18**	**17**	**16**	**15**	**14**
19								**19/ 21**	**19/ 21**	**19/ 21**	**18**	**17**	**16**	**15**
20									**19/ 21**	**19/ 21**	**19/ 21**	**18**	**17**	**16**
21										**19/ 21**	**19/ 21**	**19/ 21**	**18**	**17**
22											**19/ 21**	**19/ 21**	**19/ 21**	**18**
23												**19/ 21**	**19/ 21**	**19/ 21**
24													**19/ 21**	**19/ 21**
25														**19/ 21**

TABLE G – SHELLING PERCENTAGE FACTORS – Hybrid Seed Ear Corn

Wt. of Ear Corn Sample: (Lbs.)	Wt. of Shelled Corn Sample: (Lbs.)	Shelling Percentage Factor
5	4.4	1.10
5	4.3	1.08
5	4.2	1.05
5	4.1	1.03
5	4.0	1.00
5	3.9	.98
5	3.8	.95
5	3.7	.93
5	3.6	.90
5	3.5	.88
5	3.4	.85
5	3.3	.83
5	3.2	.80
5	3.1	.78
5	3.0	.75
5	2.9	.73
5	2.8	.70
5	2.7	.68
5	2.6	.65
5	2.5	.63
5	2.4	.60
5	2.3	.58
5	2.2	.55
5	2.1	.53
5	2.0	.50

TABLE H – Conversion Factor Table For Hybrid Seed Ear Corn To Bushel Of Shelled Hybrid Seed Corn

(14 Percent Moisture and 70 Pounds per Bushel)

Percent Moisture	Factor	Percent Moisture	Factor
14.0	1.0000	28.0	.7692
15.0	.9790	29.0	.7568
16.0	.9589	30.0	.7747
17.0	.9396	31.0	.7330
18.0	.9211	32.0	.7216
19.0	.9032	33.0	.7107
20.0	.8861	34.0	.7000
21.0	.8696	35.0	.6897
22.0	.8537	36.0	.6796
23.0	.8383	37.0	.6699
24.0	.8235	38.0	.6604
25.0	.8092	39.0	.6512
26.0	.7955	40.0	.6422
27.0	.7821		

Enter the four-place factor for ear corn in excess of 14.0 percent moisture, (any portion of a percentage point will be disregarded 14.7 = 1.0000). [15 percent moisture ear corn = (70 + 1.5 = 71.5) 71.5 pounds per bushel (71.5 x .9790 = 70)].

TABLE I – Test Weight Factor Table For Computing Net Bushels Of Farm Stored Production – Hybrid Seed Corn Or Hybrid Sorghum Seed

Test Weight Factor = Actual Test Weight / 56

Actual Test Weight	Factor	Actual Test Weight	Factor
30	0.536	47	0.839
31	0.554	48	0.857
32	0.571	49	0.875
33	0.589	50	0.893
34	0.607	51	0.911
35	0.625	52	0.929
36	0.643	53	0.946
37	0.661	54	0.964
38	0.679	55	0.982
39	0.696	**56**	**1.000**
40	0.714	57	1.018
41	0.732	58	1.036
42	0.750	59	1.054
43	0.768	60	1.071
44	0.786	61	1.089
45	0.804	62	1.107
46	0.821		

TABLE J – HYBRID SEED CORN MOISTURE ADJUSTMENT TABLE

MOISTURE ADJUSTMENT FACTOR TABLE										
Whole Percent Moisture	**TENTHS OF PERCENT - MOISTURE**									
	.0	**.1**	**.2**	**.3**	**.4**	**.5**	**.6**	**.7**	**.8**	**.9**
10	1.0600	1.0588	1.0576	1.0564	1.0552	1.0540	1.0528	1.0516	1.0504	1.0492
11	1.0480	1.0468	1.0456	1.0444	1.0432	1.0420	1.0408	1.0396	1.0384	1.0372
12	1.0360	1.0348	1.0336	1.0324	1.0312	1.0300	1.0288	1.0276	1.0264	1.0252
13	1.0240	1.0228	1.0216	1.0204	1.0192	1.0180	1.0168	1.0156	1.0144	1.0132
14	1.0120	1.0108	1.0096	1.0084	1.0072	1.0060	1.0048	1.0036	1.0024	1.0012
15	1.000	.9988	.9976	.9964	.9952	.9940	.9928	.9916	.9904	.9892
16	.9880	.9868	.9856	.9844	.9832	.9820	.9808	.9796	.9784	.9772
17	.9760	.9748	.9736	.9724	.9712	.9700	.9688	.9676	.9664	.9652
18	.9640	.9628	.9616	.9604	.9592	.9580	.9568	.9556	.9544	.9532
19	.9520	.9508	.9496	.9484	.9472	.9460	.9448	.9436	.9424	.9412
20	.9400	.9388	.9376	.9364	.9352	.9340	.9328	.9316	.9304	.9292
21	.9280	.9268	.9256	.9244	.9232	.9220	.9208	.9196	.9184	.9172
22	.9160	.9148	.9136	.9124	.9112	.9100	.9088	.9076	.9064	.9052
23	.9040	.9028	.9016	.9004	.8992	.8980	.8968	.8956	.8944	.8932
24	.8920	.8908	.8896	.8884	.8872	.8860	.8848	.8836	.8824	.8812
25	.8800	.8788	.8776	.8764	.8752	.8740	.8728	.8716	.8704	.8692
26	.8680	.8668	.8656	.8644	.8632	.8620	.8608	.8596	.8584	.8572
27	.8560	.8548	.8536	.8524	.8512	.8500	.8488	.8476	.8464	.8452
28	.8440	.8428	.8416	.8404	.8392	.8380	.8368	.8356	.8344	.8332
29	.8320	.8308	.8296	.8284	.8272	.8260	.8248	.8236	.8224	.8212
30	.8200	.8188	.8176	.8164	.8152	.8140	.8128	.8116	.8104	.8092
31	.8080	.8068	.8056	.8044	.8032	.8020	.8008	.7996	.7984	.7972
32	.7960	.7948	.7936	.7924	.7912	.7900	.7888	.7876	.7864	.7852
33	.7840	.7828	.7816	.7804	.7792	.7780	.7768	.7756	.7744	.7732
34	.7720	.7708	.7696	.7684	.7672	.7660	.7648	.7636	.7624	.7612
35	.7600	.7588	.7576	.7564	.7552	.7540	.7528	.7516	.7504	.7492
36	.7480	.7468	.7456	.7444	.7432	.7420	.7408	.7396	.7384	.7372
37	.7360	.7348	.7336	.7324	.7312	.7300	.7288	.7276	.7264	.7252
38	.7240	.7228	.7216	.7204	.7192	.7180	.7168	.7156	.7144	.7132
39	.7120	.7108	.7096	.7084	.7072	.7060	.7048	.7036	.7024	.7012
40	.7000	.6988	.6976	.6964	.6952	.6940	.6928	.6916	.6904	.6892

TABLE K – STAND REDUCTION CHART –HYBRID SORGHUM SEED

(Round Percent of Stand to the Nearest 5 Percent)

PERCENT OF STAND REMAINING	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
PERCENT OF POTENTIAL PRODUCTION REMAINING THROUGH THE 11TH LEAF STAGE	100	98	96	93	91	88	85	82	79	76	72	68	63	57	50	44	35	26	17	9
PERCENT OF POTENTIAL PRODUCTION REMAINING AFTER THE 11TH LEAF STAGE	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5

TABLE L – HAIL STAND REDUCTION CHART – HYBRID SORGHUM SEED

(Round Percent of Stand to the Nearest 5 Percent)

PERCENT OF STAND REMAINING	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
PERCENT OF DAMAGE BEGINNING WITH THE 10TH LEAF STAGE	0	2	4	7	9	12	15	18	21	24	28	32	37	43	50	56	65	74	83	91

TABLE M – THRESHING FACTOR TABLE – HYBRID SORGHUM SEED

WEIGHT OF GRAIN (WHOLE POUNDS)	SORGHUM THRESHING FACTORS TENTHS OF POUNDS									
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0	.00	.03	.05	.08	.11	.13	.16	.19	.21	.24
1	.27	.29	.32	.35	.37	.40	.43	.45	.48	.51
2	.53	.56	.59	.61	.64	.67	.69	72	.75	.77
3	.80	.83	.85	.88	.91	.93	.96	.99	---	---

TABLE N - NET PERCENT OF HEAD DAMAGE CHART – HYBRID SORGHUM SEED

GROSS PERCENT OF HEAD DAMAGE	PERCENT OF DAMAGE FROM STAND REDUCTION																		
	5	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**	**85**	**90**	**95**
5	5	5	4	4	4	4	3	3	3	3	3	2	2	1	1	1	1	0	0
10	10	9	9	8	8	7	7	6	6	5	4	4	3	3	2	2	1	1	0
15	14	14	13	12	11	11	10	9	8	8	7	6	5	4	4	3	2	1	1
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
25	24	23	21	20	19	18	16	15	14	13	11	10	9	7	6	5	4	2	1
30	29	26	26	24	23	21	20	18	17	15	13	12	10	9	7	6	4	3	1
35	33	32	30	28	26	25	23	21	19	18	16	14	12	10	9	7	5	3	2
40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
45	43	41	38	36	34	32	29	27	25	23	20	18	16	13	11	9	7	4	2
50	48	45	43	40	38	35	33	30	28	25	22	20	17	15	12	10	7	5	2
55	52	49	46	44	41	38	36	33	30	27	25	22	19	16	14	11	8	5	3
60	57	54	51	48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3
65	62	58	55	52	49	45	42	39	36	32	29	26	23	19	16	13	10	6	3
70	66	63	59	56	52	49	45	42	38	35	31	28	24	21	17	14	10	7	3
75	71	67	64	60	56	52	49	45	41	37	34	30	26	22	19	15	11	7	4
80	76	72	68	64	60	56	52	48	44	40	36	32	28	24	20	16	12	8	4
85	81	76	72	68	64	59	55	51	47	42	38	34	30	25	21	17	13	8	4
90	85	81	76	72	67	63	58	54	49	45	40	36	31	27	22	18	13	9	4
95	90	85	81	76	71	66	62	57	52	47	43	38	33	28	24	19	14	9	5
100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5

TABLE O – LEAF LOSS CHART – HYBRID SORGHUM SEED

ULTIMATE NUMBER OF LEAVES ON PLANTS									PERCENT DEFOLIATION (ROUND % OF LEAF AREA DESTROYED TO NEAREST 5%)																		
15	16	17	18	19	20	21	22	23	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
*STAGES OF GROWTH									PERCENT OF DAMAGE																		
					11	11	11	12	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	3	3	3
		11	11	12	12	13	13	14	0	1	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5
	11	12	12	13	13	14	15	15	1	1	1	1	2	2	2	2	3	3	4	4	5	5	6	6	7	7	8
11	12	13	13	14	14	15	16	16	1	2	2	3	3	4	4	5	5	6	7	8	9	10	12	12	14	15	16
11	12	13	14	14	15	16	17	17	2	2	3	4	5	6	7	7	8	10	11	13	14	16	17	19	21	22	24
12	13	14	14	15	16	17	17	18	3	3	4	5	7	8	9	10	11	13	15	17	19	21	24	26	28	31	33
12	13	14	15	16	17	18	18	19	3	4	5	7	9	10	11	13	14	16	19	22	24	27	30	32	35	38	41
13	14	15	16	17	18	19	19	20	4	5	7	8	10	12	14	15	17	20	23	26	30	33	36	39	43	47	50
14	15	16	17	18	19	20	20	21	4	6	7	9	11	14	16	18	20	23	26	30	34	37	41	44	49	53	57
15	16	17	18	19	20	21	22	23	5	7	8	11	13	15	18	20	22	26	30	34	38	42	47	51	56	61	65
FULL LEAF DEVELOPMENT									6	8	10	13	15	18	21	24	26	31	36	41	45	50	55	60	66	72	77

*WHERE THE STAGE OF GROWTH IS REPEATED IN THE SAME COLUMN, USE THE UPPER LINE FOR EARLY AND THE SECOND LINE FOR LATER IN THE STAGE

STAGES OF GROWTH	PERCENT OF DEFOLIATION (ROUND % OF LEAF AREA DESTROYED TO NEAREST 5%)																		
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
BOOT	4	6	10	14	18	21	25	28	31	36	42	48	53	59	65	70	78	84	90
JUST HEADED	4	7	12	16	20	23	27	30	34	39	45	52	58	64	71	76	85	92	98
BLOOM	4	6	11	15	19	23	26	30	33	39	44	51	57	62	69	75	83	90	96
BLISTER	3	5	9	14	17	20	23	26	30	35	40	45	51	56	62	67	74	80	86
EARLY MILK	3	4	8	12	15	18	21	24	26	31	36	41	45	50	55	60	66	72	77

TABLE P – HYBRID SORGHUM SEED MOISTURE ADJUSTMENT FACTOR TABLE

MOISTURE ADJUSTMENT FACTOR TABLE										
Whole Percent Moisture	**TENTHS OF PERCENT - MOISTURE**									
	.0	**.1**	**.2**	**.3**	**.4**	**.5**	**.6**	**.7**	**.8**	**.9**
10	1.0360	1.0348	1.0336	1.0324	1.0312	1.0300	1.0288	1.0276	1.0264	1.0252
11	1.0240	1.0228	1.0216	1.0204	1.0192	1.0180	1.0168	1.0156	1.0144	1.0132
12	1.0120	1.0108	1.0096	1.0084	1.0072	1.0060	1.0048	1.0036	1.0024	1.0012
13	1.0000	.9988	.9976	.9964	.9952	.9940	.9928	.9916	.9904	.9892
14	.9880	.9868	.9856	.9844	.9832	.9820	.9808	.9796	.9784	.9772
15	.9760	.9748	.9736	.9724	.9712	.9700	.9688	.9676	.9664	.9652
16	.9640	.9628	.9616	.9604	.9592	.9580	.9568	.9556	.9544	.9532
17	.9520	.9508	.9496	.9484	.9472	.9460	.9448	.9436	.9424	.9412
18	.9400	.9388	.9376	.9364	.9352	.9340	.9328	.9316	.9304	.9292
19	.9280	.9268	.9256	.9244	.9232	.9220	.9208	.9196	.9184	.9172
20	.9160	.9148	.9136	.9124	.9112	.9100	.9088	.9076	.9064	.9052
21	.9040	.9028	.9016	.9004	.8992	.8980	.8968	.8956	.8944	.8932
22	.8920	.8908	.8896	.8884	.8872	.8860	.8848	.8836	.8824	.8812
23	.8800	.8788	.8776	.8764	.8752	.8740	.8728	.8716	.8704	.8692
24	.8680	.8668	.8656	.8644	.8632	.8620	.8608	.8596	.8584	.8572
25	.8560	.8548	.8536	.8524	.8512	.8500	.8488	.8476	.8464	.8452
26	.8440	.8428	.8416	.8404	.8392	.8380	.8368	.8356	.8344	.8332
27	.8320	.8308	.8296	.8284	.8272	.8260	.8248	.8236	.8224	.8212
28	.8200	.8188	.8176	.8164	.8152	.8140	.8128	.8116	.8104	.8092
29	.8080	.8068	.8056	.8044	.8032	.8020	.8008	.7996	.7984	.7972
30	.7960	.7948	.7936	.7924	.7912	.7900	.7888	.7876	.7864	.7852
31	.7840	.7828	.7816	.7804	.7792	.7780	.7768	.7756	.7744	.7732
32	.7720	.7708	.7696	.7684	.7672	.7660	.7648	.7636	.7624	.7612
33	.7600	.7588	.7576	.7564	.7552	.7540	.7528	.7516	.7504	.7492
34	.7480	.7468	.7456	.7444	.7432	.7420	.7408	.7396	.7384	.7372
35	.7360	.7348	.7336	.7324	.7312	.7300	.7288	.7276	.7264	.7252
36	.7240	.7228	.7216	.7204	.7192	.7180	.7168	.7156	.7144	.7132
37	.7120	.7108	.7096	.7084	.70-72	.7060	.7048	.7036	.7024	.7012
38	.7000	.6988	.6976	.6964	.6952	.6940	.6928	.6916	.6904	.6892
39	.6880	.6868	.6856	.6844	.6832	.6820	.6808	.6796	.6784	.6772
40	.6760	.6748	.6736	.6724	.6712	.6700	.6688	.6676	.6664	.6652

EXHIBIT 1
HYBRID SEED CORN TERMINIOLOGY

ASPIRATORS/GRAVITY TABLE – Air operated process which removes undesirable kernels. Method by which low germinating seed can be separated from high germinating seed.

BLENDING – (a) the mixing of at least 20 percent fertile with male sterile seed in order to insure pollination; (b) The mixing of not more than 25 percent reserve seed with new crop seed.

CLEANING – Process used to remove most cracked kernels and other foreign matter using round and slotted hole screens (25/64 round hole to 12/64 slotted).

CONDEMNED – Rejection of areas found unsuitable for harvest as seed line.

CONTAMINATION – Pollination of the seed line by other than the donor male line (self or outside source pollination).

CROSS, DOUBLE – Plants resulting from the crossing of 2 single crosses.

CROSS, SINGLE – Plants resulting from the crossing of 2 inbred lines.

CROSS, THREE WAY – Plants resulting from the crossing of a single cross and an inbred line.

DETASSELING – Removal of the tassel from the female (seed line) plants before pollination occurs so as to prevent self pollination.

DRYING – Process of removing moisture from the ear corn (30-40% down to 10-12%) using low heat (100-110 degrees) and forced air in a 4-5 day process.

FAST GREEN TEST – A staining process which tests for mechanical damage done by insects or rough handling during harvest or conditioning.

GERMINATION COLD TEST – A seed evaluation process for determining potential field emergence under unfavorable conditions (7 days @ 50 then 7 days @ 77 degrees with light).

GERMINATION WARM TEST – A germination test for determining the percent germination producing normal seedlings under favorable conditions (warm, wet environment – 7 days @ 77 degrees).

HEAT UNITS – A measurement using degree days to determine approximate dates for tasseling and maturity (100 heat units to germinate: 600 to 800 heat units to pollination).

HUSKING BED – Machinery which removes husks from the ear before the corn is sorted.

HYBRID SEED CORN – Product of crosses between two unrelated genetic lines (strains) of corn.

INBRED – Self-pollinated pure genetic line.

ISOLATION – Area required to be planted to either the donor male line or some crop other than corn in order to prevent genetic contamination of the seed line from wind-born pollen from neighboring fields. (The smaller the field the larger the percent of isolation; prevailing winds require more isolation on the South and West sides.)

MALE LINE – The male parent, pollen donor, or pollinator (which is not insurable).

MALE-STERILE CYTOPLASM – Plants which have a sterile gene that prevents the production of viable pollen.

EXHIBIT 1
HYBRID SEED CORN TERMINIOLOGY

NICK – The matching of the stages of development between the male lines (pollination) and the seed line (silking) to insure proper pollination.

NON-SEED PRODUCTION TO COUNT – All corn not qualifying as seed due to insurable causes for which there is a market value (refer to Exhibit 5, item 13 and the policy for details).

OPEN POLLINATED CORN – Forerunner to hybrid seed corn which lacked vigor, and disease resistance, etc.

RESTORER POLLINATORS – Plants which have a gene that will restore a male sterile seed line to fertile in the next generation.

ROGUE – Off-type plant or impurity.

SCALPING – A screening process used to remove cobs and dirt (normally prior to storage).

SEED LINE – Female parent plants (only insurable plants).

SEED PRODUCTION TO COUNT – All corn accepted by the seed company, or if rejected, has 80 percent or more germination (warm test) on a cleaned sample and will pass over a prescribed screen, or that corn damaged or rejected due to uninsured causes. (refer to the policy for details.)

SHELLING – The removal of the grain from the cob. Hybrid seed requires the use of a reduced cylinder speed to minimize kernel damage.

SISTER LINE – Two inbred lines of similar type (family or Strain).

SIZING – Separation of seed corn by kernel sized in 2-3/64 increments and by "rounds" or "flats."

SORTING – Removal by hand of all off-type ears (rogues) before drying.

TETRAZOLIUM TEST – A staining process that allows for a quick estimate of seed viability by identifying cell damage.

TREATING – Application of a fungicide to protect seedlings during germination and emergence.

EXHIBIT 2

HYBRID SEED CORN APPROVED YIELD FORM SAMPLE

HYBRID SEED CORN APPROVED YIELDS

FOR CROP YEAR: **YYYY** TYPE: **041** PRACTICE: **997**

BY SEED COMPANY'S INDIVIDUAL PLANT/FACILITY LOCATION

SEED COMPANY'S NAME AND IDENTIFICATION CODE NUMBER:	AGENCY OFFICE/INSURANCE COMPANY NAME:
Hybrid Seed Corn Co. (209)	**Any Agency, Any Company**
INDIVIDUAL PLANT/FACILITY COMPLETE ADDRESS:	ADDRESS:
Any Town **Any State, xxxxx**	**Any Town** **Any State,xxxxx**
	AGENCY PHONE NUMBER:
	XXX-XXX-XXXX

APPROVED HYBRID SEED CORN YIELD IS APPLICABLE ONLY FOR THE COUNTY(IES) LISTED BELOW	HYBRID IDENTIFICATION	APPROVED YIELD
Any county	**10W**	**40**

The field production data was based on determinations obtained and calculated on harvested production delivered to the plant prior to any production entering the seed conditioning process. Hence, the field production data supplied and the FCIC approved yield for the hybrid are determined from harvested production leaving the field and delivered to the seed company's plant prior to entering any of the seed conditioning process (i.e., drying, shelling, screening, etc.). The reported amount must be adjusted according to policy and/or procedural provisions for moisture and foreign material (i.e., husks, stalks, etc.).

For the purpose of determining the quantity of mature field production, the following method - as checked - was indicated and utilized by the seed company and is the basis used to compute the approved yield.

☐ (A) Shelled corn was adjusted .12 percent for each .1 percentage point of moisture to 15.0.

☐ (B) Ear corn was measured at 70 pounds of ear corn equaling 56 pounds (one bushel) of shelled corn. The weight of ear corn to equal one bushel of shelled corn was increased 1.5 pounds for each percentage point of moisture in excess of 14 percent

☒ (C) The seed company provided all records of harvested field seed production adjusted to a shelled corn basis of 15.0 percent moisture, and 56 pound test weight. The harvested field production records of the seed company will be used to determine the amount of indemnity; provided, that such harvested field production records are based on the same harvested field production criteria stated and described in the opening first paragraph and located immediately below the county name(s) and hybrid identification(s) as the criteria used to determine the approved yield.

In the event of a loss, notwithstanding the terms and conditions of the insurance policy, the insured's possible claim for indemnity will be determined/calculated according to the insurance contract and the loss adjustment procedures using the same basis for determining production as indicated by the above checked box.

As stated in the policy's provisions, the insured must establish the total production for the type and variety of the crop on the unit at the time of harvest.

Claim for indemnity and loss adjustment procedures are established by the insurance policy and related documents.

Prior to the final settlement of a claim, the final disposition of all production, appraised and harvested, must be verified and documented.

The value per bushel is determined by multiplying the approved yield by the insured's coverage level to establish the guarantee per acre and dividing the insured's amount of insurance by the guarantee/acre.

APPROVED:	DATE:
I.M. UNDERWRITER	**MM/DD/YYYY**

EXHIBIT 3

HYBRID SORGHUM SEED APPROVED YIELD FORM SAMPLE

HYBRID SORGHUM SEED APPROVED YIELDS

FOR CROP YEAR: TYPE: **210** PRACTICE: **997**

BY SEED COMPANY'S INDIVIDUAL PLANT/FACILITY LOCATION

SEED COMPANY'S NAME AND IDENTIFICATION CODE	AGENCY OFFICE/INSURANCE COMPANY NAME:
Hybrid Sorghum Seed Co. (209)	**Any Agency, Any Company**
INDIVIDUAL PLANT/FACILITY COMPLETE ADDRESS:	ADDRESS:
Any Town **Any State, xxxxx**	**Any Town** **Any State, xxxxx**
	AGENCY PHONE NUMBER: **XXX-XXX-XXXX**

APPROVED HYBRID SORGHUM SEED YIELD IS APPLICABLE ONLY FOR THE COUNTY(IES) LISTED BELOW	HYBRID IDENTIFICATION	APPROVED YIELD
Any County	**88g**	**44**

The field production data was based on determinations obtained and calculated on harvested production delivered to the plant prior to any production entering the seed conditioning process. Hence, the field production data supplied and the FCIC approved yield for the hybrid are determined from harvested production leaving the field and delivered to the seed company's plant prior to entering any of the seed conditioning process (i.e., drying, shelling, screening, etc.). The reported amount must be adjusted according to policy and/or procedural provisions for moisture and foreign material (i.e., weeds, stalks, etc.).

For the purpose of determining the quantity of mature field production, the following method - as checked - was indicated and utilized by the seed company and is the basis used to compute the approved yield.

☐ (A) Shelled corn was adjusted .12 percent for each .1 percentage point of moisture to 13.0.

☐ (B) Hybrid seed production was measured at 56 pounds of production equaling one bushel.

☒ (C) The seed company provided all records of harvested field seed production adjusted to a shelled corn basis of 13.0 percent moisture and 56 pound test weight. The harvested field production records of the seed company will be used to determine the amount of indemnity; provided, that such harvested field production records are based on the same harvested field production criteria stated and described in the opening first paragraph and located immediately below the county name(s) and hybrid identification(s) as the criteria used to determine the approved yield.

In the event of a loss, notwithstanding the terms and conditions of the insurance policy, the insured's possible claim for indemnity will be determined/calculated according to the insurance contract and the loss adjustment procedures using the same basis for determining production as indicated by the above checked box.

As stated in the policy's provisions, the insured must establish the total production for the type and variety of the crop on the unit at the time of harvest.

Claim for indemnity and loss adjustment procedures are established by the insurance policy and related documents.

Prior to the final settlement of a claim, the final disposition of all production, appraised and harvested, must be verified and documented.

APPROVED:	DATE:
I.M. UNDERWRITER	**MM/DD/YYYY**

EXHIBIT 4

HYBRID SEED CORN CHARACTERISTICS

Stage of Growth (Leaf is 40 to 50 percent exposed and is usually the uppermost leaf tip pointing below a horizontal line.)	Average time Interval (this stage to next)	Collar of this Leaf is Visible	Tip of this Leaf is Visible	Percent of Leaf Area Exposed
7 leaf	3 days	5th	9th	6
8 leaf	3 days	6th	10th	10
9 leaf	3 days	7th	11th	16
10 leaf	3 days	7th	12th	23
11 leaf	3 days	8th	13th	31
12 leaf	3 days	9th	14th	41
13 leaf	3 days	10th	15th	50
14 leaf	3 days	11th	16th	60
15 leaf	3 days	12th	17th	69
16 leaf	3 days	13th	18th	77
17 leaf	3 days	14th	-----	84
18 leaf	2 days	15th	-----	94
19-21 leaf	2 days			96
		Tassel and ear shoot emerging but not fully extended. Removal of husks will show the silk to be shorter than the cob. The last leaves of the plant are in the process of becoming fully extended. Elongation of upper nodes is not complete.		

EXHIBIT 4

HYBRID SEED CORN CHARACTERISTICS (continued)

Stage of Growth	Average Time Interval (this stage to next)	Corn Characteristics	Percent of Leaf Area Exposed
Tasseled	4 days	Tassel fully extended; ear shoot exposed but no silk showing. Husks opened on the ear shoot would show the silk longer than the cob. No pollen evident. Plant has reached maximum size.	99
Silked	4 days	Pollination period. Silks have emerged. Tassel is shedding pollen.	100
Silks Brown	5 days	Pollination period almost complete. Seventy-five percent of silks on ear shoot showing a purple to brown color. Silks are not dry to the touch even though the color has changed to purplish brown.	
Pre-Blister	4 days	Pollination period is complete. Silks are brown but not dry. No fluid in seed coat and kernel has appearance of a pimple.	
Blister	4 days	Kernels on cob appear as watery blisters. Kernel is white and fluid is colorless. Removal of fluid from kernel would leave only hull.	
Early Milk	4 days	Beginning of roasting ear stage. Kernels changing in color from white to yellow. Kernels of seed coat starting to show slight yellow appearance. Thin chalky or milky substance in kernels.	
Milk	5 days	Prime roasting ear stage. Full yellow color. Cob has reached its maximum length. Milky fluid in kernel, no solid substance.	

EXHIBIT 4

HYBRID SEED CORN CHARACTERISTICS (continued)

Stage of Growth	Average Time Interval (this stage to next)	Corn Characteristics	Percent of Leaf Area Exposed
Late Milk	4 days	Milky fluid thickening and solids forming at the end opposite point of kernel.	
Soft dough	5 days	Past prime roasting ear stage. Pasty or semi-solid. First few dents are showing near butt end. Kernels still produce a milky substance when squeezed.	
Early Dent	5 days	Kernels along entire ear beginning to dent. Thick gummy substance will be evident when kernel is squeezed but kernels will squirt milk when mashed.	
Dent	5 days	Most kernels dented or denting. Kernel can be cut easily with fingernail. While most kernels will not squirt milk when squeezed, there will be evidence of milk in the top of some kernels.	
Late Dent	5 days	All kernels are dented. The kernels are drying down from the top where a small hard white layer of starch is forming.	
Nearly Mature	5 days	Hull on opposite side of embryo has a shiny hardened appearance nearly halfway to cob. Kernel is not hard or brittle.	
Mature	-----	Physiological maturity has been reached and the moisture level is below 40 percent on most corn belt hybrids. Shiny hardened appearance of hull on opposite side of embryo has extended to the cob. Dry matter accumulation has ceased.	
ALL STAGES ARE BASED ON 50 PERCENT OF THE PLANTS BEING AT OR BEYOND A GIVEN PHASE OF DEVELOPMENT			

EXHIBIT 4

DESCRIPTIVE PICTURES OF THE HYBRID SEED CORN PLANT

Figure A

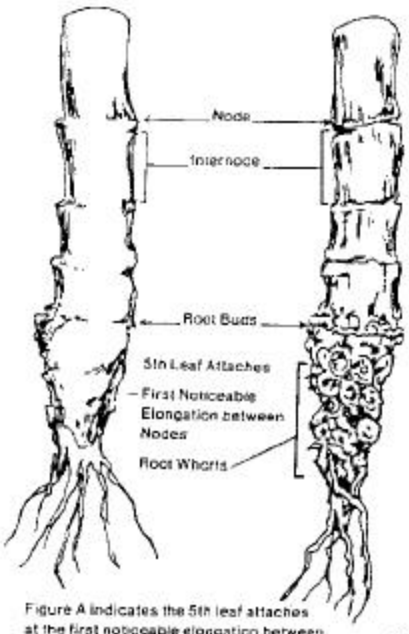

Figure A indicates the 5th leaf attaches at the first noticeable elongation between nodes starting at the root end.

Figure B

7th Leaf Stage

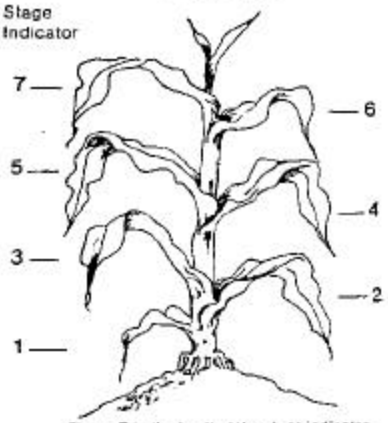

Figure B indicates that the stage indicator leaf is that leaf which is 40 to 50 percent exposed and is usually the uppermost leaf that is pointing below a horizontal line.

FIGURE C

Side Opposite Germ Area

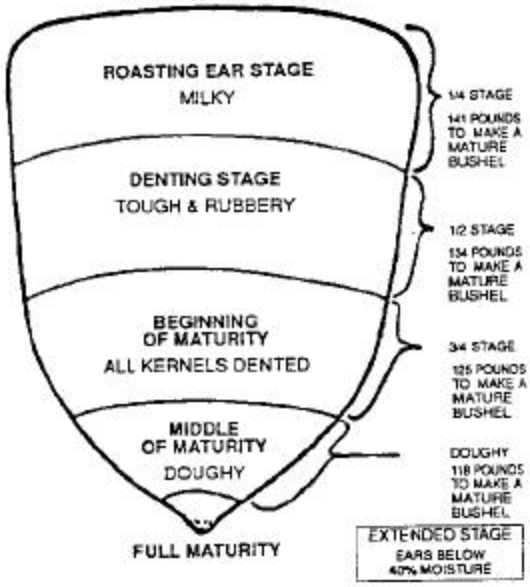

EXHIBIT 5

HYBRID SORGHUM SEED STAGE CHARACTERISTICS

(EMERGENCE THROUGH BOOT)

Name of Stage (one-half of the actual leaf is exposed)	Average Time Interval	Collar of This Leaf is Visible	Tip of This Leaf is Visible	Percent of Total Leaf Area Exposed
Emergence to 11th Leaf	32 days	-----	-----	-----
11th Leaf	4 days	9th	13th	12
12th Leaf	4 days	10th	14th	20
13th Leaf	3 days	11th	15th	28
14th Leaf	3 days	12th	16th	39
15th Leaf	3 days	13th	17th	50
16th Leaf	3 days	14th	18th	62
17th Leaf	3 days	15th	19th	72
18th Leaf	2 days	16th	20th **(flag leaf)**	79
19th Leaf	2 days	17th	Part of 20th **(flag leaf)** is visible	85
20th Leaf	3 days	-----	-----	92
Full Leaf Development (**Early Boot)**	3 days	All leaves fully extended and exposed. Head has started to swell and is extended to just below the flag leaf.		100
Boot	2 days	Head has reached almost full size and has started to emerge from the sheath of the flag leaf.		

(HEADING THROUGH MATURITY)

Just Headed	2 days	50 percent of the heads emerged from the boot. No blooms showing.
Bloom	5 days	All heads emerged from the boot and 50 percent are showing yellow pollen tubes over 50 percent of each head.
Blister	4 days	Grain is in a watery form and only partially formed—no color to liquid.
Early Milk	6 days	Grain is fully formed. Substance is clear to slightly white, milky liquid. Removal of fluid would leave only the grain hull.
Milk	7 days	Substance is thick milky liquid, no solids.
Late Milk	7 days	Grain has reached a semi-solid form.
Soft Dough	6 days	Grain can be crushed and a white substance emerges in a semi-solid form.
Dough	5 days	Grain can be crushed and a white substance emerges in an almost solid form.
Hard Dough	6 days	Grain is firm enough that when crushed there is no emergence.
Mature	-----	Physiological maturity has been reached. Less than 40 percent moisture content.
All stages are based on 50 percent of the plants in the sample at or beyond a given phase of development.		

EXHIBIT 5

DESCRIPTIVE PICTURES OF THE SORGHUM PLANT