

United States
Department of
Agriculture



Federal Crop
Insurance
Corporation



Product
Administration
And Standards
Division

FCIC-25240 (01-2011)

HYBRID SEEDS LOSS ADJUSTMENT STANDARDS HANDBOOK

2011 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 (01-2011)
SUBJECT: HYBRID SEEDS LOSS ADJUSTMENT STANDARDS HANDBOOK 2011 AND SUCCEEDING CROP YEARS	OPI: Product Administration and Standards Division	
	APPROVED	DATE:
	<i>/S:/ TIM B. WITT</i> Deputy Administrator, Product Management	<i>1/13/2011</i>

THIS HANDBOOK CONTAINS THE OFFICIAL FCIC-ISSUED LOSS ADJUSTMENT STANDARDS FOR THIS CROP FOR THE 2011 AND SUCCEEDING CROP YEARS. ALL REINSURED COMPANIES WILL UTILIZE THESE STANDARDS FOR BOTH LOSS ADJUSTMENT AND LOSS TRAINING.

SUMMARY OF CHANGES/CONTROL CHART

The following list contains significant changes to this handbook, as determined by us. It may not represent all changes made. All changes made to this handbook are applicable regardless of whether or not listed.

Major Changes: See changes and/or additions in the text which have been highlighted. Three stars (***) identifies where information that has been removed.

Changes for Crop Year 2011 (FCIC-25240):

- A. Throughout handbook: Made editorial and syntax changes so handbook text tracks with current RMA-approved handbook formatting, and updated examples and forms as needed.
- B. Throughout the handbook: Appropriate comments that pertained to grammar, punctuation, deleting unneeded words, rewording to make a sentence flow better, corrections of reference numbers, formatting, etc. were incorporated, but are not listed.
- C. Subsection 3 K (2): Added instruction from the policy if due to insured causes, a Federal or State agency has ordered the appraised insured crop or production to be destroyed.
- D. Section 10: Inserted current standards for Claim Form entries and completion procedure for the new Production Worksheet. Also included revised examples of completed worksheets for Hybrid Seed corn and Hybrid Sorghum seed.
- E. Subsection 10 B (7): Added language to clarify that if the AIP determines the claim is to be DENIED, to refer to Paragraph 67 K of the LAM for PW completion instructions.

HYBRID SEEDS LOSS ADJUSTMENT STANDARDS HANDBOOK

SUMMARY OF CHANGES/CONTROL CHART (Continued)

- F. Subsection 10 C, Section II (10): Corrected statement to show the weight of ear corn required to equal one bushel of shelled corn must be increased 1.5 pounds for each percentage point of moisture in excess of 14 percent. This matches (B) on Exhibit 2, Hybrid Seed Corn Approved Yield Form Sample.

Control Chart For: Hybrid Seeds Loss Adjustment Standards Handbook						
	SC Page(s)	TC Page(s)	Text Page(s)	Reference Material	Date	FCIC Number
Remove	Entire handbook					
Current Index	1-2	1-4	1-68	69-93	01-2011	FCIC-25240

HYBRID SEEDS LOSS ADJUSTMENT HANDBOOK

TABLE OF CONTENTS

PAGE

1. INTRODUCTION	1
2. SPECIAL INSTRUCTIONS	1
A. DISTRIBUTION	1
B. TERMS, ABBREVIATIONS, AND DEFINITIONS	1
3. INSURANCE CONTRACT INFORMATION	5
A. INSURABILITY	5
B. DUTIES IN THE EVENT OF DAMAGE OR LOSS	7
C. PROVISIONS AND PROCEDURES NOT APPLICABLE TO CAT COVERAGE	7
D. UNIT DIVISION	7
E. MOISTURE ADJUSTMENT	8
F. MYCOTOXINS	8
4. REPLANTING PAYMENT PROCEDURES	8
5. HYBRID SEEDS APPRAISALS	9
A. GENERAL INFORMATION	9
B. SELECTING REPRESENTATIVE SAMPLES FOR APPRAISALS	9
C. MEASURING ROW WIDTH FOR SAMPLE SELECTION	9
D. SAMPLING PROCEDURE	10
E. STAGES OF GROWTH	10
6. HYBRID SEED CORN APPRAISAL METHODS	12
A. GENERAL INFORMATION	12
B. STAND REDUCTION METHOD	12
C. HAIL DAMAGE METHOD	14
D. MATURITY LINE WEIGHT METHOD	15
E. WEIGHT METHOD	16
7. HYBRID SORGHUM SEED APPRAISAL METHODS	17
A. GENERAL INFORMATION	17
B. DELAYED APPRAISALS	17
C. STAND REDUCTION METHOD	17
D. HAIL DAMAGE METHOD	18
E. HEADED WEIGHT METHOD	20

HYBRID SEEDS LOSS ADJUSTMENT HANDBOOK
TABLE OF CONTENTS (Continued)

PAGE

8. APPRAISAL DEVIATIONS AND MODIFICATIONS	21
A. DEVIATIONS	21
B. MODIFICATIONS.....	21
HYBRID SEED CORN – APPRAISAL MODIFICATIONS.....	21
HYBRID SORGHUM SEED – APPRAISAL MODIFICATIONS.....	24
 9. APPRAISAL WORKSHEET ENTRIES AND COMPLETION	
 PROCEDURES	25
A. APPRAISAL WORKSHEET FORM STANDARDS.....	25
B. GENERAL INFORMATION FOR WORKSHEET ENTRIES AND COMPLETION	
PROCEDURES	25
C. WORKSHEET ENTRIES AND COMPLETION INFORMATION.....	26
(1) HYBRID SEED CORN AND HYBRID SORGHUM SEED	
STAND REDUCTION APPRAISAL WORKSHEET INSTRUCTIONS.....	26
APPRAISAL WORKSHEET EXAMPLE (Hybrid Seed Corn)	29
APPRAISAL WORKSHEET EXAMPLE (Hybrid Sorghum Seed).....	30
(2) HYBRID SEED CORN AND HYBRID SORGHUM SEED	
HAIL DAMAGE APPRAISAL WORKSHEET INSTRUCTIONS.....	31
APPRAISAL WORKSHEET EXAMPLE (Hybrid Seed Corn)	35
APPRAISAL WORKSHEET EXAMPLE (Hybrid Sorghum Seed).....	36
(3) HYBRID SEED CORN MATURITY LINE WEIGHT METHOD	
APPRAISAL WORKSHEET INSTRUCTIONS	37
APPRAISAL WORKSHEET EXAMPLE (Maturity Line Weight Method).....	40
(4) HYBRID SEED CORN AND HYBRID SORGHUM SEED	
WEIGHT METHOD APPRAISAL WORKSHEET INSTRUCTIONS	41
APPRAISAL WORKSHEET EXAMPLE (Hybrid Seed Corn)	44
APPRAISAL WORKSHEET EXAMPLE (Hybrid Sorghum Seed).....	45

HYBRID SEEDS LOSS ADJUSTMENT HANDBOOK

TABLE OF CONTENTS (Continued)

	<u>PAGE</u>
10. CLAIM FORM ENTRIES AND COMPLETION PROCEDURES	46
A. CLAIM FORM STANDARDS	46
B. GENERAL INFORMATION FOR ENTRIES AND COMPLETION PROCEDURES.....	46
C. FORM ENTRIES AND COMPLETION INFORMATION	47
SECTION I – ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS.....	50
SECTION II – HARVESTED PRODUCTION	59
CLAIM FORM EXAMPLE (HYBRID SEED CORN)	67
CLAIM FORM EXAMPLE (HYBRID SORGHUM SEED)	68
 11. REFERENCE MATERIAL	 69
TABLE A – MINIMUM REPRESENTATIVE SAMPLE REQUIREMENTS.....	69
TABLE B – ROW WIDTHS AND LENGTHS	69
TABLE C – HYBRID SEED CORN STAND REDUCTION – PERCENT OF POTENTIAL REMAINING.....	70
TABLE D – HAIL STAND REDUCTION LOSS CHART – HYBRID SEED CORN	71
TABLE E – LEAF LOSS CHART – HYBRID SEED CORN	72
TABLE F – STAGE MODIFICATION CHART – HYBRID SEED CORN	73
TABLE G – SHELLING PERCENTAGE FACTORS – HYBRID SEED EAR CORN.....	74
TABLE H – CONVERSION FACTOR TABLE FOR HYBRID SEED EAR CORN TO BUSHEL OF SHELLED HYBRID SEED CORN	74
TABLE I – COMBINATION TEST WEIGHT/PACK FACTOR TABLE FOR COMPUTING NET BUSHEL OF FARM STORED PRODUCTION – HYBRID SORGHUM SEED	75
TABLE J – COMBINATION TEST WEIGHT/PACK FACTOR TABLE FOR COMPUTING NET BUSHEL OF FARM STORED PRODUCTION – HYBRID SEED CORN.....	77
TABLE K – HYBRID SEED CORN MOISTURE ADJUSTMENT FACTORS.....	79
TABLE L – STAND REDUCTION CHART – HYBRID SORGHUM SEED.....	80
TABLE M – HAIL STAND REDUCTION CHART – HYBRID SORGHUM SEED	80
TABLE N – THRESHING FACTOR TABLE – HYBRID SORGHUM SEED	81
TABLE O – NET PERCENT OF HEAD DAMAGE CHART – HYBRID SORGHUM SEED	82
TABLE P – LEAF LOSS CHART – HYBRID SORGHUM SEED.....	83
TABLE Q – HYBRID SORGHUM SEED MOISTURE ADJUSTMENT FACTORS.....	84
 EXHIBIT 1 – HYBRID SEED CORN TERMINOLOGY	 85
EXHIBIT 2 – HYBRID SEED CORN APPROVED YIELD FORM SAMPLE.....	87
EXHIBIT 3 – HYBRID SORGHUM SEED APPROVED YIELD FORM SAMPLE.....	88
EXHIBIT 4 – HYBRID SEED CORN CHARACTERISTICS	89
EXHIBIT 5 – HYBRID SORGHUM SEED CHARACTERISTICS	92

**HYBRID SEEDS LOSS ADJUSTMENT HANDBOOK
TABLE OF CONTENTS (Continued)**

THIS PAGE INTENTIONALLY LEFT BLANK

1. INTRODUCTION

THIS HANDBOOK MUST BE USED IN CONJUNCTION WITH THE LOSS ADJUSTMENT MANUAL (LAM) STANDARDS HANDBOOK, FCIC-25010.

The FCIC-issued loss adjustment standards for this crop are the official standard requirements for adjusting Multiple Peril Crop Insurance (MPCI) losses in a uniform and timely manner. The FCIC-issued standards for this crop and crop year are in effect as of the signature date for this crop handbook at www.rma.usda.gov/handbooks/25000/index.html. All reinsured companies will utilize these standards for both loss adjustment and loss training for the applicable crop year. These standards which include crop appraisal methods, claims completion instructions, and form standards supplement the general (not crop-specific) standards identified in the 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

- (1) The following is the minimum distribution of forms completed by the adjuster and signed by the insured (or the insured's authorized representative) for the loss adjustment inspection:
 - (a) One legible copy to the insured.
 - (b) The original and all remaining copies as instructed by the Approved Insurance Provider (AIP).
- (2) It is the AIPs' 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)

CAT	Catastrophic Risk Protection
CIH	Crop Insurance Handbook
DSSH	Document and Supplemental Standards Handbook
FGIS	Federal Grain Inspection Service
HSC	Hybrid Seed Corn
HSS	Hybrid Sorghum Seed
RO	RMA Regional Office
SP	Special Provisions

(4) Definition(s)

Adjusted Yield	An amount determined by multiplying the county yield by the coverage level factor.
Amount of Insurance Per Acre	A dollar amount determined by multiplying the adjusted yield by the price election selected by the insured and subtracting any minimum guaranteed payment, not to exceed the total compensation specified in the hybrid seed processor contract. If the insured's hybrid seed processor contract contains a minimum guaranteed payment that is stated in bushels, the AIP will convert that value to dollars by multiplying it by the price election selected by the insured.
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 **SP** 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.

**Grow Out
(HSC) (HSS)**

Production from hybrid seed grown for increasing the amount of seed to be used in test plots, not for sale to producers as commercial seed.

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 AIP 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

The following may not be a complete list of insurability requirements. Refer to the Basic Provisions, Hybrid Seed Corn and Hybrid Sorghum Seed Crop Provisions, and **SP** for a complete list.

- (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 (Refer to the LAM for information on determining the insurable acreage and production guarantee when a processor contract is in force.);
 - (b) That are planted for harvest as commercial hybrid seed corn or hybrid sorghum seed (not experimental or grow out) 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 **SP** 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 (as defined in the policy) 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 AIPs provided all acreage of the insured crop in the county is insured. If the insured elects to insure the insured crop with different AIPs, 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 **SP** 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 AIP 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 **SP**, 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 **SP**;
 - (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 AIP 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.
- (4) No indemnity will be paid on a unit if the seed company fails to provide the AIP with records requested to determine the dollar value per bushel of production for each variety within 30 days of the end of the insurance period.
 - (5) In certain situations, producers may be granted approval from AIP's to leave representative samples when an accurate appraisal cannot be made at the time of release. Refer to the LAM for appraisals of representative samples.

B. DUTIES IN THE EVENT OF DAMAGE OR LOSS

In addition to the requirements in the Basic Provisions:

- (1) The insured must give notice of probable loss at least 15 days before the beginning of harvest if he anticipates inadequate germination on any unit;
- (2) The insured must leave representative samples of at least one complete planting pattern of the female and male parent plant rows of the unharvested crop that extend the entire length of each field in the unit.
- (3) The insured must provide a completed copy of the current hybrid seed processor contract unless a copy already has been provided to the AIP by the seed company, and the seed company certifies that such contract is used for all its growers without any waiver or amendment.

C. PROVISIONS AND PROCEDURES NOT APPLICABLE TO CAT COVERAGE

Refer to the CIH and LAM for provisions and procedures not applicable to CAT.

D. UNIT DIVISION

Refer to the insurance contract for unit provisions.

- (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.

E. 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 K** and **TABLE Q**, respectively.

F. 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) Under section 15 (j) of the Basic Provisions, if due to insured causes, a Federal or State agency has ordered the appraised insured crop or production to be destroyed, enter the factor ".000" in column 35 for appraised production or column 65 for harvested production, as applicable. Instruct the insured to complete and submit a Certification Form stating the date the crop or production WAS DESTROYED and the method of destruction (refer to item 40 and the Narrative below). Also refer to LAM paragraphs 96 J (2) and 102A for additional information. Otherwise, MAKE NO ENTRY.
- (3) Refer to the LAM for additional information.

4. REPLANTING PAYMENT PROCEDURES

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 for all types of inspections will be appraised in accordance with procedures specified in this handbook and the LAM.

B. SELECTING REPRESENTATIVE SAMPLES FOR APPRAISALS

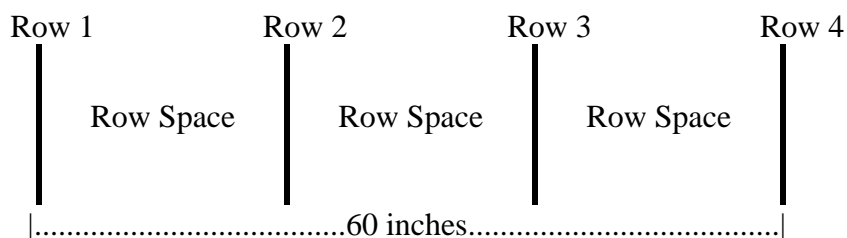
- (1) Determine the minimum number of required samples for a field or subfield by the field size, the average stage of growth, age (size) and general capabilities of the plants, and variability of potential production and plant damage within the field or subfield.
- (2) Split the field into subfields 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 field or subfield must be appraised separately.
- (4) Take not less than the minimum number (count) of representative samples required in **TABLE A** for each field or subfield.

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 three OR MORE row spaces, from the center of the first row to the center of the fourth row (or as many rows as needed), and divide the result by the number of row spaces measured across, to determine an average row width.

EXAMPLE:



$$60 \text{ inches} \div 3 \text{ row spaces} = 20 \text{ inches average row width}$$

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

- (4) Apply average row width to **TABLE B** to determine the factor required for the sample row.

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, except in the case of hail damage. For hail damage, use the stage of growth on the date the hail damage occurred when determining yield loss.
- (4) The correct timing of crop-damage appraisals is important to establish growth stage and cause of damage before regrowth occurs.
- (5) 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. **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 corn grain appraisals, from the milk stage until kernel are fully mature and moisture drops below 40 percent.
Weight Method	For all corn appraisals after the corn kernels are fully mature and kernel moisture drops below 40 percent.

B. STAND REDUCTION METHOD

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.
- (3) Prior to the 11th leaf stage, the "Hybrid Seed Corn Stand Reduction Chart" (**TABLE C**) is used to determine the percent of potential remaining.
- (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) Sample consists of 1/100 acre.
- (6) **Poor 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.

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) Use for hail-damaged corn appraisals beginning with the 7th leaf stage and until the corn reaches the milk stage. 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 a minimum of 7 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 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**).
- (c) 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) Use for all grain appraisals from the milk stage until kernels are fully mature and moisture drops below 40 percent. If at all possible, defer appraisal to the weight method.
- (2) Select representative samples of 1/100 acre.
- (3) 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**).

- (4) 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**.
- (5) Pick and husk all harvestable ears in the sample area. Discard portions of ears without kernels.
- (6) Break the ears in half and with the exposed kernels on the tip end of the cob, use a pen/pencil to determine which quarter of the kernel the maturity (solids) line is located. To locate the maturity line, apply moderate pressure at the top of the kernel and draw the pencil toward the bottom of the kernel. 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**.)
- (7) 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) Use for all hybrid seed corn appraisals after the corn kernels are physiologically mature (e.g., some kernels have developed the black or brown abscission layer in the kernel tip, signifying the end of dry matter accumulation) and kernel moisture drops **below 40 percent**.)
- (2) This method is based on weighing the ears in a fraction of an acre, then converting this production to bushels-per-acre.
- (3) Select representative samples of 1/100 acre.
- (4) Pick and husk all ears in the sample area. Weigh production.
- (5) Multiply average sample weight by 1.43 for a sample size of 1/100 acre. The results will be the bushels-per-acre of potential production (not corrected for moisture, test weight, etc.).
- (6) 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 round to two decimal places; or
 - (c) Determine in accordance with **TABLE G**.

Shelling percent (and shelling factor) is **ONLY** applicable to corn in the EAR such as weight-method appraisals (or stored as ear corn). The standard shelling percent assumes 70 lbs. per bushel of ear corn equals 56 lbs. per bushel of shelled corn (80 percent shell, 100 percent shelling factor). If the corn is already shelled, no shelling percent or shelling factor is used.

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

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 20th leaf stage, the "Stand Reduction Chart" is used to determine the percent of potential remaining (**TABLE L**).
- (4) After the 19th 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 through the 19th leaf stage, the "Hail Stand Reduction Chart" (**TABLE M**) is used to determine percent of damage due to stand reduction.
- 3 After the 19th leaf stage to the milk stage, the yield and stand reduction are on a one-to-one ratio. (**EXAMPLE:** 80% stand reduction = 80% loss of potential.)

(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 (missing, cracked, bruised) 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 Percent of Head Damage**
 2,096.2 destroyed kernels ÷ 4,709.8 kernels/head = .445 (44.5% - round to nearest 5%) =
45% Gross Percent of Head Damage

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

Apply percent Gross Percent of Head Damage and Percent Damage from Stand Reduction to **TABLE O**.

Percent Head Damage (item 17 entry from **TABLE O**) = **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 (rounded to the nearest 5%) 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 (refer to **EXHIBIT 5**), 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 M**.

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. Weigh each sample. Calculate the average sample weight by adding the sample weights together and dividing by the number of samples taken.

- (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 N**.
- (6) Determine the average moisture percentage of all samples.
- (7) 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 RMA written authorization (as described in the LAM) prior to implementation.

B. MODIFICATIONS

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

HYBRID SEED CORN – APPRAISAL MODIFICATIONS

When applicable, with the AIP'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 "Notes and Calculation" section of the stand reduction appraisal worksheet or on an attached Special Report.

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

- (a) 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.
- (b) Representative sample areas for hybrid seed corn require seed company approval as well as AIP 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.
- (c) 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:**

- (a) Note on appraisal worksheet "no production potential due to permanent wilt" and enter a 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.
- (b) Permanent wilt is caused by extremely dry soil conditions and can occur at any stage of growth. Permanent wilt 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. From the tasseled stage forward, appraisals should be deferred until the maturity line or weight method appraisals can be used because of the difficulty with the determination of whether the corn will produce grain.

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

- (a) WHEN AUTHORIZED by the AIP, 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 modification is only applied on corn that is less than fully mature. Quality adjustment procedures do not apply when using the freeze modification.

The stage of corn on the date of final adjustment must be used when applying the modification factors. Do not backstage to the stage at the date of freeze.

- (b) 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:

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

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

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

- (c) 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.
- (d) 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).
- (e) 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.

HYBRID SORGHUM SEED – APPRAISAL MODIFICATIONS

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

Permanently Wilted Hybrid Sorghum (Not applicable to irrigated practice).

- (1) When permanent wilt is present:
 - (a) Plants are damaged to the point that the leaves remain tightly rolled throughout the night; and
 - (b) The four lower leaves of the plant are brown and brittle, and during the day, will crumble when rolled between the hands.
- (2) 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.
- (3) 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.

- (4) Acreage affected by permanent wilt should be inspected in early-morning hours to confirm turgor pressure 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.

9. APPRAISAL WORKSHEET ENTRIES AND COMPLETION PROCEDURES

A. APPRAISAL WORKSHEET FORM STANDARDS

- (1) The entry items in subsection C are the minimum requirements for the Hybrid Seed Corn and Hybrid Sorghum Seed Appraisal Worksheet for the Stand Reduction Method, the Hybrid Seed Corn and Hybrid Sorghum Seed Appraisal Worksheet for the Hail Damage Method, the Hybrid Seed Corn Appraisal Worksheet for the and Maturity Line Weight Method, and the Hybrid Seed Corn and Hybrid Sorghum Seed Appraisal Worksheet for the Weight Method. All of these entry items are “Substantive,” (i.e., they are required.)
- (2) Appraisal Worksheet Completion Instructions. The completion instructions for the required entry items on the Appraisal Worksheet in the following subsections are “Substantive,” (i.e., they are required.)
- (3) The Privacy Act and Non-Discrimination Statements are required statements that must be printed on the form or provided to the insured as a separate document. These statements are not shown in the example forms in this section. The current Non-Discrimination Statement and Privacy Act Statement can be found on the RMA website at <http://www.rma.usda.gov/regs/required.html> or successor website.
- (4) Refer to the DSSH for other crop insurance form requirements (e.g., font point size, etc.)

B. GENERAL INFORMATION FOR WORKSHEET ENTRIES AND COMPLETION PROCEDURES

- (1) Include the AIP’s name in the appraisal worksheet title if not preprinted on the AIP’s worksheet or when a worksheet entry is not provided.
- (2) Include the claim number on the appraisal worksheet (when required by the AIP), 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 (applicable to preliminary and final claims). Refer to section 5 for sampling requirements.

Standard appraisal worksheet items are numbered consecutively in Subsections C. Example worksheets are also provided to illustrate how to complete all entries, except the last three items on the respective appraisal worksheets.

C. WORKSHEET ENTRIES AND COMPLETION INFORMATION

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

Verify or make the following entries:

Item

No.

Information Required

Company: Name of AIP, 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 No.:** Unit number from the Summary of Coverage after it is verified to be correct.

3a. **Claim Number:** Claim number as assigned by the AIP.

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

5. **Crop Year:** Four-digit 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 AIP.
- b. The RO will approve a yield and send yield confirmation to the AIP, who will notify the adjuster. In CRITICAL SITUATIONS, the RMA RO will phone an approved yield to the AIP 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:** Determine by counting the potential (living, dead, missing, and non-emerged) plants in a length of row equivalent to 1/100 acre, rounded to the nearest multiple of ten.
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 20th leaf stage, apply item 14 to the Stand Reduction Chart, (**TABLE L**), 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 19th 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.

The following required entries are not illustrated on the appraisal worksheet example below.

24. **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 (or insured's authorized representative), 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.
26. **Page:** Page numbers – (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).

(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		XXXXXXXXXX		
			3. UNIT NO.		3a. CLAIM NUMBER		4. CROP		5. CROP YEAR
		0001-0001 BU		XXXXXXXXXX		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	NORMAL PLANT POPULATION 1/100 ACRE	NUMBER OF SURVIVING PLANTS 1/100 ACRE	GRAIN SORGHUM ONLY		PERCENT OF POTENTIAL	BASE YIELD	APPRaisal FOR SAMPLE (COL. 15 X 16)
			PERCENT OF STAND	ROUND COL. 13 TO NEAREST 5 PERCENT			
10	11	12	13	14	15	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							

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

(FOR ILLUSTRATION PURPOSES ONLY) STAND REDUCTION APPRAISAL WORKSHEET (Corn and Grain Sorghum, HYBRID SEED CORN, HYBRID SORGHUM SEED, POPCORN)			COMPANY ANY COMPANY		1. INSURED'S NAME I. M. INSURED		2. POLICY NUMBER XXXXXXXXXX			
			3. UNIT NO. 0001-0001 BU		3a. CLAIM NUMBER XXXXXXXXXX		4. CROP Hybrid Sorghum Seed		5. CROP YEAR YYYY	
			6. FSA FARM NO. 106 Hybrid 88G		7. FIELD NO. A		NO. OF ACRES 32.1		8. ROW WIDTH 38"	
COMPUTATIONS										
SAMPLE NUMBER 10	NORMAL PLANT POPULATION 1/100 ACRE 11	NUMBER OF SURVIVING PLANTS 1/100 ACRE 12	GRAIN SORGHUM ONLY		PERCENT OF POTENTIAL 15	BASE YIELD 16	APPRaisal FOR SAMPLE (COL. 15 X 16) 17			
			PERCENT OF STAND 13	ROUND COL. 13 TO NEAREST 5 PERCENT 14						
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 10th leaf			20. TOTAL APPRAISALS FOR ALL SAMPLES 34.4		21. NUMBER OF SAMPLES 5		22. APPRAISAL PER ACRE/FIELD = 6.9 BU			
23. NOTES AND CALCULATIONS										

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

(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 AIP, if not preprinted on the worksheet (Company Name).

Claim No.: Claim number as assigned by the AIP.

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:** Unit number from the Summary of Coverage after it is verified to be correct.

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

5. **Crop Year:** Four-digit 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 AIP.

- b. The RMA RO will approve a yield and send yield confirmation to the AIP, who will notify the adjuster. In CRITICAL SITUATIONS, the RMA RO will phone an approved yield to the AIP 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, rounded to the nearest multiple of ten..

12. **No. Plants Totally Destroyed 1/100 Acre:** Number of plants totally destroyed in the sample row length. (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 From 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 M**. Enter percent of damage from table.

15. **Percent Cripple (HSC Only):**

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.
- d. 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 - % 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 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).
- b. Divide the average number of kernels destroyed (missing, cracked, bruised) 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.
- c. Apply the gross percent of head damage ("b" above) and stand reduction percent of damage (item 14, rounded to the nearest 5 percent) to **TABLE O**, to obtain NET percent of head damage. Refer to subsection **7 D (3)(b)3** for an example of this calculation.
- d. If there is no head damage, enter zero ("0.0").
- e. 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. Refer to subsection 7 D.

20. **% Damage For Leaf Destruction:**
- Hybrid Seed Corn** - Percent of damage for leaf destruction based on **TABLE E**, percent leaf area destroyed (items 19) and stage of plant (item 27), to nearest tenth percent.
- Hybrid Sorghum Seed** - Percent of damage for leaf destruction based on items 19 and 27. Refer to **TABLE P** 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 nearest tenth).
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.

The following required entries are not illustrated on the appraisal worksheet example below.

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 (or insured's authorized representative), 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.
34. **Page:** Page numbers – (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).

COMPANY: ANY COMPANY

CLAIM NO.: XXXXXX

(FOR ILLUSTRATION PURPOSES ONLY) HAIL DAMAGE APPRAISAL WORKSHEET (Corn and Grain Sorghum)	1. INSURED'S NAME I. M. INSURED		2. POLICY NUMBER XXXXXXXX		3. UNIT NUMBER 0002-0002 BU		4. CROP HYBRID SEED CORN	
	5. CROP YEAR YYYY	6. FSA FARM NO. 106 HYBRID 10W	7. FIELD NO. C 15.0 Acres	8. ULTIMATE NO. OF LEAVES		9. BASE 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)	% POTENTIAL 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	0.9	70.1	29.9	40	12.0
2	230	189	41	61	7.8		68.8	31.2	40	2.0	0.6	69.4	30.6	40	12.2
3	240	198	42	61	7.3		68.3	31.7	40	2.0	0.6	68.9	31.1	40	12.4
4	240	216	24	73	1.5		74.5	25.5	45	3.0	0.8	75.3	24.7	40	9.9
5	240	205	35	65	5.9		70.9	29.1	45	3.0	0.9	71.8	28.2	40	11.3
6															
7															
8															
26. TOTAL														57.8	
27. STAGE OF PLANT GROWTH AT TIME OF DAMAGE 9th LEAF						28. TOTAL ALL SAMPLES 57.8		29. NO. SAMPLES 5		30. PER ACRE APPRAISAL = 11.6					
31. REMARKS															
NET PERCENT CRIPPLE DAMAGE															
SAMPLE NUMBER	PERCENT CRIPPLES		PERCENT DAMAGE FACTOR		PERCENT DAMAGE FROM CRIPPLES		PERCENT REMAINING 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						

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

COMPANY: ANY COMPANY

CLAIM NO.: XXXXXXXX

FOR ILLUSTRATION PURPOSES ONLY HAIL DAMAGE APPRAISAL WORKSHEET (Corn and Grain Sorghum)	1. INSURED'S NAME I. M. INSURED		2. POLICY NUMBER XXXXXXXXX		3. UNIT NUMBER 0001-0001 BU	4. CROP Hybrid Sorghum Seed	
	5. CROP YEAR YYYY	6. FSA FARM NO. 106 Hybrid 88 G	7. FIELD NO. C 9.5 Acres	8. ULTIMATE NO. OF LEAVES 20		9. BASE 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)	% POTENTIAL 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	55	-	20	75	25	90	66	16.5	91.5	8.5	49	4.2
2	320	206	114	65	-	26	91	9	95	72	6.5	97.5	2.5	49	1.2
3	320	191	129	60	-	22	82	18	90	66	11.9	93.9	6.1	49	3.0
4	320	194	126	60		20	80	20	95	72	14.4	94.4	5.6	49	2.7
5															
6															
7															
8															
9															
26 TOTAL														11.1	
27. STAGE OF PLANT GROWTH AT TIME OF DAMAGE Early Milk				28. TOTAL ALL SAMPLES 11.1		29. NO. SAMPLES 4		30. PER ACRE APPRAISAL 2.8							

31. REMARKS

Sample 1 - Gross % of head damage = 45%
 Sample 2 - Gross % of head damage = 75%
 Sample 3 - Gross % of head damage = 55%
 Sample 4 - Gross % of head damage = 50%

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

(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 AIP, 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:** Unit number from the Summary of Coverage after it is verified to be correct.
- 3a. **Claim Number:** Claim number as assigned by the AIP.
4. **Crop:** Hybrid Seed Corn.
5. **Crop Yr.:** Four-digit 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 II - MATURITY LINE WEIGHT METHOD (from milk stage until kernels are fully mature and moisture drops below 40).

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. Determining maturity line of 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.

For appraisal modifications for early freeze damage, multiply the result of appraisal per stage by the appropriate freeze damage appraisal adjustment, rounded to tenths and make a notation of adjustment in the remarks section of the appraisal worksheet. Refer to subsection 7 B (6).

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.

The following required entries are not illustrated on the appraisal worksheet example below.

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 (or insured's authorized representative), 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.
33. **Page:** Page numbers – (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).

HYBRID SEED CORN MATURITY LINE WEIGHT METHOD APPRAISAL

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

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

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

Verify or make the following entries:

Item

No.

Information Required

Company: Name of AIP, 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:** Unit number from the Summary of Coverage after it is verified to be correct.

3a. **Claim Number:** Claim number as assigned by the AIP.

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

5. **Crop Yr.:** Four-digit 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 when kernels are fully mature and 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; $1.5 \times 6 = 9$; $+70 = 79$; $100 \div 79 = 1.27$). 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 N**), 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.

The following required entries are not illustrated on the appraisal worksheet example below.

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 (or insured's authorized representative), 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.

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

FOR ILLUSTRATION PURPOSES ONLY)

HYBRID SEED CORN WEIGHT METHOD APPRAISAL

COMPANY ANY COMPANY		1. INSURED'S NAME I. M. INSURED		2. POLICY NUMBER XXXXXXXX		3. UNIT NUMBER 0003-0003 BU		3a. CLAIM NUMBER XXXXXXXX		7. KIND OF APPRAISAL CIRCLE APPRAISAL CODE GRAIN SORGHUM – GS EAR CORN – EC POPCORN – PEC CORN SILAGE – CS GRAIN SORGHUM, SILAGE – GSS						
4. CROP. Hybrid Seed Corn		5. CROP YR. YYYY		6. FSA FARM NO. 106 Hybrid 100 W		YIELD FACTOR										
				POPCORN 100 if sample size selected was 1/100 acre 1000 if sample size selected was 1/1000 acre		CORN 1.43 if sample size selected was 1/100 acre 14.3 if sample size selected was 1/1000 acre.3		GRAIN SORGHUM 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		
D	10.1	EC	1/100	4.3	6.2	5.1	3.9	7.0	26.5	5	5.3	1.27	6.7	20.5	80	
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	REPRESENTATIVE SAMPLES (Popcorn)	
	1/4	1/100										.7092	40.0		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.	
		1/1000										.70920	400.0		REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)	
Acres In Field to Tenths 21	1/2	1/100										.7463	42.0		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.	
		1/1000										.74630	420.0			
	3/4	1/100										.8000	45.0			
		1/1000										.80000	450.0			
	Doughy	1/100										.8475	47.0			
		1/1000										.84750	470.0			
	Extended	1/100										1.0638	59.0		TOTAL NO. REP. SAMPLE PLOTS 29	
		1/1000										10.6380	590.0		ACRE APPRAISAL 30	
REMARKS:												28. TOTAL APPR. ALL STAGES				

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

(FOR ILLUSTRATION PURPOSES ONLY)

HYBRID SORGHUM SEED WEIGHT METHOD APPRAISAL

COMPANY ANY COMPANY		1. INSURED'S NAME I. M. INSURED		2. POLICY NUMBER XXXXXXXX		3. UNIT NUMBER 0002-0002 BU		3a. CLAIM NUMBER XXXXXXXX		7. KIND OF APPRAISAL CIRCLE APPRAISAL CODE GRAIN SORGHUM - <u>GS</u> EAR CORN - EC POPCORN - PEC CORN SILAGE - CS GRAIN SORGHUM, SILAGE - GSS										
4. CROP. Hybrid Sorghum Seed		5. CROP YR. YYYY		6. FSA FARM NO. 106 Hybrid 88 G		YIELD FACTOR														
				POPCORN 100 if sample size selected was 1/100 acre 1000 if sample size selected was 1/1000 acre		CORN 1.43 if sample size selected was 1/100 acre 14.3 if sample size selected was 1/1000 acre.3		GRAIN SORGHUM 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						
F	10.1	GS	1/100	4.3	5.2	8.4	7.1	8.1	=	33.1	÷	5	=	6.6	X	1.34	=	BUSHEL <u>8.8</u> TONS POUNDS	18. MOISTURE 15.1	19. SHELLING
				Example of appraisal adjusted for low threshing percentage					8.8 bu. X .75 factor = 6.6 bu.					=	BUSHEL <u>6.6</u> 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	REPRESENTATIVE SAMPLES (Popcorn)				
	1/4	1/100	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9							3. 1/100 acre if potential appears to be less than 500 lbs/acre.		
		1/1000																4. 1/1000 acre if potential appears to be in excess of 500 lbs/acre.		
Acres In Field to Tenths 21	1/2	1/100																REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)		
		1/1000																1. 1/100 acre if potential appears to be less than 20 bushels/acre.		
	3/4	1/100																2. 1/1000 acre if potential appears to be in excess of 20 bushels/acre.		
		1/1000																		
	Doughy	1/100																		
		1/1000																		
	Extended	1/100																		
		1/1000																		
REMARKS:												28. TOTAL APPR. ALL STAGES		÷	=					

Refer to the Above Appraisal Worksheet instructions for required statements and signature entries.

10. CLAIM FORM ENTRIES AND COMPLETION PROCEDURES

A. CLAIM FORM STANDARDS

- (1) The entry items in subsection C are the minimum Claim Form (hereafter referred to as “Production Worksheet”) requirements. All of these entry items are considered “Substantive,” (i.e., they are required.)
- (2) The completion instructions for the required entry items on the Production Worksheet in the following subsections are “Substantive,” (i.e., they are required.)
- (3) The Privacy Act and Non-Discrimination Statements are required statements that must be printed on the form or provided to the insured as a separate document. These statements are not shown in the example form in this exhibit. The current Non-Discrimination Statement and Privacy Act Statement can be found on the RMA website at <http://www.rma.usda.gov/regs/required.html> or successor website.
- (4) The certification statement required by the current DSSH must be included on the form directly above the insured’s signature block and immediately followed by the statement below.

“I understand the certified information on this Production Worksheet will be used to determine my loss, if any, to the above unit. The AIP may audit and approve this information and supporting documentation. The Federal Crop Insurance Corporation, an agency of the United States, subsidizes and reinsures this crop insurance.”
- (5) Refer to the DSSH for other crop insurance form requirements (e.g., point size of font, etc.)

B. GENERAL INFORMATION FOR ENTRIES AND COMPLETION PROCEDURES

- (1) The 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 AIP.
 - (6) Instructions labeled “**PRELIMINARY**” apply to preliminary inspections only. Instructions labeled “**FINAL**” apply to final inspections only. Instructions not labeled apply to ALL inspections.
 - (7) If the AIP determines the claim is to be DENIED, refer to Paragraph 67 K of the LAM for PW completion instructions.

C. FORM ENTRIES AND COMPLETION INFORMATION

Verify or make the following entries:

<u>Item No.</u>	<u>Information Required</u>
1.	Crop/Code #: “Hybrid Seed Corn” (0062) or “Hybrid Sorghum Seed” (0050).
2.	Unit #: Unit number from the Summary of Coverage after it is verified to be correct.
3.	Location Description: Land location that identifies the legal description, if available, and the location of the unit (e.g., section, township, and range; FSA Farm Serial Numbers; FSA Common Land Units (CLU) and tract numbers; GPS identifications; or Grid identifications) as applicable for the crop.
4.	Date of Damage: First three letters of the month(s) during which the determined insured damage occurred for the inspection and cause(s) of damage listed in item 5 below. If no entry in item 5 below, MAKE NO ENTRY. For progressive damage, enter the month that identifies when the majority of the insured damage occurred. Include the SPECIFIC DATE where applicable as in the case of hail damage (e.g., Aug 11). Enter additional dates of damage in the extra spaces, as needed. If more space is needed, document the additional dates of damage in the Narrative (or on a Special Report). Refer to the illustration in item 6 below.

5. **Cause(s) of Damage:** Name of the determined insured cause(s) of damage for this crop as listed in the LAM for the date of damage listed in item 4 above for this inspection. If an insured cause(s) of damage is coded as “Other,” explain in the Narrative. Enter additional causes of damage in the extra spaces, as needed. If more space is needed, document the additional determined insured causes of damage in the Narrative (or on a Special Report). Refer to the illustration in item 6 below.

If it is evident that no indemnity is due, enter “NO INDEMNITY DUE” across the columns in Item 5 (refer to the LAM for more information on no indemnity due claims).

6. **Insured Cause %:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Whole percent of damage for the insured cause of damage listed in item 5 above for this inspection. Enter additional “Insured Cause %” in the extra spaces, as needed. If additional space is needed, enter the additional determined “Insured Cause %” in the Narrative (or on a Special Report). The total of all “Insured Cause %” including those entered in the Narrative must equal 100%.

If there is no insurable cause of loss, and a no indemnity due claim will be completed, MAKE NO ENTRY.

Example entries for items 4-6 and the Narrative, reflecting entries for multiple dates of damage, the corresponding insured causes of damage and insured cause percents:

4. Date(s) of Damage	MAY	JUN 30	JUN 30	AUG	AUG
5. Cause(s) of Damage	Excess Moisture	Tornado	Hail	Drought	Heat
6. Insured Cause %	10	20	15	25	20
Narrative: Additional date of damage – SEP 5; Cause of damage – Freeze; Insured cause percent - 10%.					

7. **Company/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 AIP.
10. **Policy #:** Insured’s assigned policy number.
11. **Crop Year:** Four-digit 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.

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 first or second notice of damage or loss was given for the unit in item 2, in the 1st or 2nd space, as applicable. Enter the complete date (MM/DD/YYYY) for each notice.
- b. A notice of damage or loss for 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 of Production Worksheets.
- 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 AIP, enter “Company Insp.” instead of the date.
- e. If the notice does not require an inspection, document as directed in the “Narrative” instructions.

FINAL: Transfer the last date (in the 1st or 2nd space from the first or second set of Production Worksheets) to the FINAL space on the first page of the first set of Production Worksheets) if a final inspection should be made as a result of the notice. Always enter the complete date of notice (MM/DD/YYYY) for the “FINAL” inspection in the final space on the first set of production worksheets. For a delayed notice of loss or delayed 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 AIP services it, enter the contract number. Handle these companion policies according to AIP instructions.
 - (2) If the OTHER person has a multiple-peril crop insurance contract and a DIFFERENT AIP or agent services it, enter the name of the AIP and/or agent (and contract number) if known.
 - (3) If unable to verify the existence of a companion contract, enter "Unknown" and contact the AIP for further instructions.
- c. Refer to the LAM for further information regarding companion contracts.

SECTION I - DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

Make separate line entries for varying:

- (1) Rate classes, types, or farming practices;
- (2) Per acre guarantees;
- (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

16. **Field ID:** The field or subfield identification symbol from a sketch map or an aerial photo. Refer to the narrative.
17. **Multi-Crop Code:** The applicable two-digit code for first crop and second crop. REFER TO THE LAM FOR INSTRUCTIONS REGARDING ENTRY OF FIRST CROP AND SECOND CROP CODES.
18. **Reported Acres:** In the event of over-reported acres, handle in accordance with the individual AIP's instructions. In the event of under-reported acres, enter the reported acres to tenths for the field or sub field. If there are no under-reported acres MAKE NO ENTRY.

19. Determined Acres: Refer to the LAM for definition of acceptable determined acres used herein. Enter the determined acres to tenths for the field or subfield 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.

Refer to the LAM for procedures regarding when estimated acres are allowed and documentation requirements.

FINAL: Determined acres to tenths.

Acreage breakdowns WITHIN a unit or field may be estimated (refer to the LAM) if a determination is impractical.

ACCOUNT FOR ALL ACREAGE OCCUPIED BY FEMALE PLANTS FOR HYBRID SEEDS IN THE UNIT.

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

21. Risk: Three-digit code for the correct "Rate" specified on the actuarial document maps. If a "Rate" or "High Risk Area" is not specified on the actuarial document maps, MAKE NO ENTRY. Verify with the Summary of Coverage and if the Rate is found to be incorrect, revise according to the AIP's instructions. Refer to the LAM.

Unrated land is uninsurable without a written agreement.

22. Type: Three-digit code number, entered exactly as specified on the actuarial documents for the type grown by the insured. If "No Type Specified" is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If a type is not specified on the actuarial documents, MAKE NO ENTRY.

23. Class: Three-digit code number, entered exactly as specified on the actuarial documents for the class grown by the insured. If "No Class Specified" is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If a class is not specified on the actuarial documents, MAKE NO ENTRY.

24. Sub-Class: Three-digit code number, entered exactly as specified on the actuarial documents for the sub-class grown by the insured. If "No Sub-Class Specified," is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If a sub-class is not specified on the actuarial documents, MAKE NO ENTRY.

25. Intended Use: Three-digit code number, entered exactly as specified on the actuarial documents for the intended use of the crop grown by the insured. If "No Intended Use Specified" is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If an intended use is not specified on the actuarial documents, MAKE NO ENTRY.

26. **Irr. Practice:** Three-digit code number, entered exactly as specified on the actuarial documents for the irrigated practice carried out by the insured. If “No Irrigated Practice Specified” is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If an irrigated practice is not specified on the actuarial documents, MAKE NO ENTRY.
27. **Cropping Practice:** Three-digit code number, entered exactly as specified on the actuarial documents for the cropping practice carried out by the insured. If “No Cropping Practice Specified” or “No Practice Specified” is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If a cropping practice is not specified on the actuarial documents, MAKE NO ENTRY.
28. **Organic Practice:** Three-digit code number, entered exactly as specified on the actuarial documents for the organic practice carried out by the insured. If “No Organic Practice Specified” is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If an organic practice is not specified on the actuarial documents, MAKE NO ENTRY.

29. **Stage:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Stage abbreviation as shown below.

<u>STAGE</u>	<u>EXPLANATION</u>
“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 AIP.
“H”	Harvested.
“UH”	Unharvested or put to other use with consent.

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.

30. Use of Acreage: Use the following “Intended Use” abbreviations.

<u>USE</u>	<u>EXPLANATION</u>
““To Soybeans,” etc.....	Use made of the 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.

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

If there is no potential on UH acreage, enter “0.” Refer to paragraph 85 in the **LAM** for procedures for documenting zero yield appraisals.

32a Moisture %: Moisture percent to nearest tenth (for weight method only. For all other appraisals **MAKE NO ENTRY**. (Sorghum appraised as mature grain).

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

32b Factor:

Hybrid Seed Corn: **MAKE NO ENTRY**.

Hybrid Sorghum Seed: Four-place moisture factor from **TABLE G** (Hybrid Sorghum Seed Moisture Factor Table).

33. Shell %, Factor, or Value:

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**.

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

34. Production Pre QA:

PRELIMINARY AND FINAL: Result of multiplying column 31 times column 19, and if applicable, multiplying this result times columns 32b times column 33, round result to tenths of a bushel. If no entry in column 31, MAKE NO ENTRY.

35. Quality Factor:

Enter the Dollar Value per bushel determined as follows:

- a. For line entries showing appraised production considered as seed production, 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 or EXHIBIT 3** for examples) and dividing the result into the applicable dollar amount of insurance per acre. If “no entry” in column 34 or column 37, MAKE NO ENTRY.

EXAMPLE:

The coverage level is 65%.

The approved yield is 40 bushels per acre.

The dollar amount of insurance is \$352.00 per acre.

65% X 40 bu. per acre = 26.0 bu. per acre

$\$352.00 \div 26.0 \text{ bu.} = \$13.54 \text{ per bushel (Dollar Value)}$

- b. For appraised production considered as non-seed production, enter the local market price of the sorghum or corn on the date of final inspection, taking into account reduction in value due to insurable causes.

For appraised non-seed production which cannot be valued, enter the local market 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.
- d. **Only mature hybrid sorghum seed can qualify as NON-SEED; all appraised production prior to maturity must be counted as seed.**
- e. Refer to subsection 3 D (3) if, due to insured causes, a Federal or State agency has ordered the appraised crop or production to be destroyed.

36. Production Post QA:

PRELIMINARY AND FINAL: Result of multiplying column 34 times column 35, rounded to the nearest whole dollar. If “no entry” in column 34, MAKE NO ENTRY

37. Uninsured Cause:

Result of per acre appraisal for uninsured causes (taken from appraisal worksheet or other documentation) multiplied by column 19, times column 35, rounded to whole dollars. Refer to the LAM for information on how to determine uninsured cause appraisals. If no uninsured causes, MAKE NO ENTRY.”

a. Hail and Fire exclusion NOT in effect.

- (1) Enter NOT LESS than the insured’s dollar amount of insurance per acre, multiplied by column 19 entry for any “P” stage acreage.
- (2) On preliminary inspections, advise the insured to keep the harvested production from any acreage damaged SOLELY by uninsured causes separate from other production. Refer to the LAM for information on how to determine uninsured cause appraisals.
- (3) For acreage that is damaged PARTLY by uninsured causes, enter the result of multiplying the APPRAISED UNINSURED loss of production per acre, in bushels to tenths, times column 19, times the column 35 entry (rounded to whole dollars) for any such acreage

b. When there is late-planted acreage, the applicable production guarantee for such acreage is the production guarantee per-acre that has been reduced for late-planted acreage, multiplied by column 19 entry, times the column 35 entry (rounded to whole dollars).

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.

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

38. Total to Count: Result of adding column 36 and column 37.

39. Total:

PRELIMINARY: MAKE NO ENTRY

FINAL: Total determined acres (column 19), to tenths.

40. Quality:

Check all qualifying conditions that apply to the unit's appraised and harvested production (refer to the crop provisions and SP), otherwise check "None."

Qualifying Condition:
Test Weight (TW)
Kernel Damage (KD) and Total Defects
Garlicky (Grade)
Aflatoxin
Vomitoxin
Fumonisin
Dark Roast (for Sunflowers only)
Sclerotinia (for Sunflowers only)
Ergoty
COFO (commercially objectionable foreign odor) (includes Musty and Sour Odor)
Other
None

a. For all qualifying conditions checked, in the Narrative (or on a Special Report):

- (1) Document the level for each qualifying condition as indicated by approved test results, and the name and location of each testing facility that verifies the presence of the qualifying condition and the date of the test(s); or
- (2) Enter "See documentation included in the claim file" (e.g., include copy of the test facility certificate, grade certificate, summary or settlement sheet, etc., that documents the condition).

b. If "Other" is checked, in addition to the above documentation requirements, document in the Narrative (or on a Special Report):

- (1) A description of the qualifying condition;
- (2) The name of the controlling authority that considers this qualifying condition to be injurious to human and animal health and why.

41. Mycotoxins exceed FDA, State, or other health organization maximum limits. Check "Yes:"

PRELIMINARY AND FINAL: Check "Yes" if any mycotoxins listed in item 40 (including any identified as "Other") exceed the FDA, state, or other health organization maximum limits, otherwise leave blank. Document in the Narrative (or on a Special Report), the disposition of the production that was:

a. Sold (Document the name and address of the buyer); or

b. Not sold (Document the date(s) of the disposition, how the production was used, or how it was destroyed.).

Refer to the LAM and the SP for additional information on claims involving mycotoxins

42. **Totals:** Total of entries in columns 34, 36, 37 and 38. If a column has no entries, MAKE NO ENTRY.

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, column 37 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 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, Column 62 and/or any production not included in Section II, Column 56 or Column 49 - 52 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 44, “Damage Similar to Other Farms in the Area.”
- 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.

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 AIP’s instructions.
- o. Explain any delayed notices or delayed claims as instructed in the LAM.
- p. Document any authorized estimated acres, as instructed in the LAM, shown in Section I, column 19.
- 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. For condition effecting the unit production (supporting documentation should be included in the insured’s claim file):
 - 1. Explain any “.000” quality adjustment (QA) factor entered in Section I, column 35 and Section II, column 65.
 - 2. If mycotoxins are present, document the level based on laboratory test results.
 - 3. If a Federal or State destruction order has been issued, attach to the claim form a copy of the Federal or State destruction order and the insured’s completed Certification Form.
 - 4. Refer to the LAM for additional documentation requirements.
- w. Document field ID's and date and method of destruction of mycotoxin-infested grain sorghum if they have no market value. For further documentation instructions, refer to the LAM.
- x. 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. Record the Hybrid Seed Company Code.
- y. Document any other pertinent information, including any data to support any factors used to calculate the production. If on an attachment, enter “See attachment.”

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 49 through 52 are for structure measurement 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. Document measurements on a Special Report or other 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 49 through 52. Refer to the LAM for acceptable weight tickets.
- (4) For production commercially stored, sold, etc., make entries in columns 49 through 52 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, foreign material (FM), test weight, value, etc.). Average percent of (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 47 through 66 for preliminary inspections.
- (9) If there is harvested production from more than one insured practice (or type) and a separate approved APH 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.
- (10) Production to count (bushels per total planted female acre yield) must be based on the amount of harvested production delivered to the seed company's plant prior to any production entering the seed conditioning process (i.e. drying, shelling, screening, etc.), and adjusted for moisture, shelling factor, and foreign material (i.e. husks, stalks, etc.) as necessary.

For the purpose of determining the quantity of mature field production:

- (a) Shelled corn must adjusted .12 percent for each .1 percentage point of moisture to 15.0.
 - (b) Hybrid Sorghum Seed must adjusted .12 percent for each .1 percentage point of moisture to 13.0.
 - (c) Ear corn must be measured at 70 pounds of ear corn equaling 56 pounds (one bushel) of shelled corn. The weight of ear corn required to equal one bushel of shelled corn must be increased 1.5 pounds for each percentage point of moisture in excess of 14 percent.
 - (d) Hybrid Sorghum seed must be measured at 56 pounds of production equaling one bushel.
 - (e) All records of harvested field seed corn production, provided by the seed company, must be adjusted to a shelled corn basis of 15.0 percent moisture, and 56-pound test weight.
 - (f) All records of harvested field hybrid sorghum seed corn production, provided by the seed company, must be adjusted to a shelled basis of 13.0 percent moisture, and 56-pound test weight.
- (11) For mycotoxin damage, refer to the LAM for special instructions.

Verify or make the following entries:

**Item
No.**

Information Required

43. 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.

44. Damage similar to other farms in the area? :

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.

45. 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.

46. 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.

47a. Share: RECORD ONLY VARYING SHARES on SAME unit to three decimal places.

47b. 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 APH yield exists, indicate for each practice/type the corresponding Field ID (from Section I, column 16)

48. **Multi-Crop Code:** The applicable two-digit code for first crop and second crop. REFER TO THE LAM FOR INSTRUCTIONS REGARDING ENTRY OF FIRST CROP AND SECOND CROP CODES.
49. **Length or Diameter:** Internal measurement in feet to tenths of structural space occupied by crop.
- Length if rectangular or square.
 - Diameter if round or conical pile. Refer to the LAM to convert circumference to diameter if internal diameter measurement is not possible.
50. **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."
51. **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.
52. **Deduction:** Cubic feet, to tenths, of crop space displaced by chutes, vents, studs, crossties, etc. Refer to the LAM for computation instructions.
53. **Net Cubic Feet:** Net cubic feet of crop in the storage structure. Refer to the LAM for computation instructions.
54. **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 |
55. **Gross Production:** Multiply Column 53 times Column 54, rounded to tenths of a BUSHEL. The results of this calculation represent the amount of gross bushels in the bin.
56. **Bu., Ton, Lbs., Cwt.:** Circle "Bu." in column heading. Production in bushels, to tenths, before deductions for grain moisture and foreign material for production:
- Weighed and stored on the farm.
 - 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.)
 - 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).
- f. 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.

57.

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

58a

FM %: Make entry to nearest tenth. Refer to the LAM for instructions.

Refer to the LAM for FGIS definitions of "FM" and "Dockage."

58b

Factor: Enter the three-place factor determined by subtracting the percent of FM from 1.000, or subtract the entry in 57a from 100 and divide by 100. **EXAMPLE:** For 4 percent, enter ".960."

59a. Moisture %: Enter moisture percent to tenths. Moisture adjustment is applied prior to applying any qualifying adjustments for quality.

59b. 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 K** or **TABLE Q**).

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**.

60a. Test Wt.: Enter test weight (ONLY when storage structure measurements are entered) in whole pounds (or pounds to tenths IF so instructed by the AIP). Refer to the LAM for instructions on determining test weight.

60b. Factor: Combination Test Weight Factor - Enter the factor from the appropriate table (**TABLE I** or **TABLE J**) for the square footage of floor space in the storage structure. Refer to the LAM for instructions on calculating floor space of a structure.

Hybrid Seed Corn - Combination test weight pack factors are applicable only to shelled corn and not ear corn, cracked corn, or ground corn. For ear corn, cracked corn, or ground corn, enter the result of dividing the actual test weight by the standard test weight (ear corn must be shelled for the sample), to three decimal places. Refer to the LAM for standard test weights.

If the AIP instructs to enter test weights to the nearest tenth, use the nearest ½ pound test weight value on the combination test weight pack factor chart.

For test weights not shown on the chart, multiply the actual test weight by the last available combination test weight pack factor for the appropriate bin size and divide the result by the last available test weight shown on the chart.

EXAMPLE FOR TEST WEIGHT NOT SHOWN ON THE CHART:

Hybrid Corn Seed with a test weight of 65 pounds stored in a less than 255 Sq. Ft. bin
 $65 \text{ (actual test weight)} \times 1.135 \text{ (last available factor)} \div 64 \text{ (last available test weight)} = 1.153$

61. Adjusted Production: Result of multiplying columns 55 or 56 times 58b times 59b times 60b (Round to bushels to tenths).

62. Prod. 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 STORAGE STRUCTURE BIN CONTENTS (bin grain depth, etc.) AND ANY “PRODUCTION NOT TO COUNT” IN THE NARRATIVE.

Make no entry if only the depth for production to count has been entered in column 51, and the depth for production not to count has been entered in the “Narrative” section. Refer to the example in the LAM.

63. Production Pre-QA: Result of subtracting column 62 from column 61.

64a. 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.

EXAMPLE:

The coverage level is 65%.

The approved yield is 40 bushels per acre.

The dollar amount of insurance is \$352.00 per acre.

65% X 40 bu. per acre = 26.0 bu. per acre

\$352.00 ÷ 26.0 bu. = \$13.54 per bushel (Dollar Value)

If entry is made in “64a,” MAKE NO ENTRY in “64b.”

MAKE NO ENTRY for Non- Seed Production.

64b. Mkt. Price:

a. For seed production: MAKE NO ENTRY.

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

(1) Sold, unsold, or otherwise disposed of - Enter the 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).

65. Quality Factor:

Refer to subsection 3 D (3) if, due to insured causes, a Federal or State agency has ordered the appraised crop or production to be destroyed, otherwise MAKE NO ENTRY.

66. Production to Count: Enter result from multiplying:

a. Column 63 times column 64a for **seed production only**, (times column 65 if applicable), rounded to whole dollars.

b. Column 63 times column 64b for **non-seed production only**, (times column 65 if applicable), rounded to whole dollars.

67. Total of column 63. If no entry in column 63, MAKE NO ENTRY.

FOR ITEMS –68 - 72. WHEN SEPARATE LINE ENTRIES ARE MADE FOR VARYING SHARES, STAGES, APH YIELDS, PRICE ELECTIONS, TYPES, ETC., WITHIN THE UNIT, AND TOTALS NEED TO BE KEPT SEPARATE FOR CALCULATING INDEMNITIES, MAKE NO ENTRY AND FOLLOW THE AIP'S INSTRUCTIONS; OTHERWISE, MAKE THE FOLLOWING ENTRIES.

68. Section II Total:

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total of Column 66.

69. Section I Total:

PRELIMINARY: MAKE NO ENTRY.

FINAL: Enter figure from Section I, Column 38 total.

70. Unit Total:

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total of 68 and 69, to tenths.

71. Allocated Prod.: MAKE NO ENTRY.

72. Total APH Prod.: MAKE NO ENTRY.

The following required entries are not illustrated on the Production Worksheet example below.

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

Final indemnity inspections should be signed on bottom line.

74. **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.

Final indemnity inspections should be signed on bottom line.

75. Page:

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

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

PRODUCTION WORKSHEET

1. Crop/Code # Hybrid Seed Corn 0062		2. Unit # 0003-0003 BU		3. Location Description SW9-4N-41W		7. Company Agency ANY COMPANY ANY AGENCY		8. Name of Insured I.M. INSURED														
4. Date(s) of Damage JULY		5. Cause(s) of Damage DROUGHT		6. Insured Cause % 100		12. Additional Units 0002-0002 BU		13. Est. Prod. Per Acre 40		9. Claim # XXXXXXXX				11. Crop Year YYYY								
10. Policy # XXXXXXXXXX		14. Date(s) Notice of Loss MM/DD/YYYY				1st MM/DD/YYYY		2nd MM/DD/YYYY		Final MM/DD/YYYY												
15. Companion Policy(s)																						
SECTION I – DETERMINED ACREAGE, APPRAISED, PRODUCTION AND ADJUSTMENTS																						
A. ACTUARIAL														B. POTENTIAL YIELD								
16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32a. 32b.	33.	34.	35.	36.	37.	38.
Field ID	Multi-Crop Code	Reported Acres	Determined Acres	Interest or Share	Risk	Type	Class	Sub-Class	Intended Use	Irr Practice	Cropping Practice	Organic Practice	Stage	Use of Acreage	Appraised Potential	Moisture % Factor	Shell %, Factor, or Value	Production Pre QA	Quality Factor	Production Post QA	Uninsured Causes	Total to Count
A	NS		5.0	1.000	001	210					003		P	WOC							1,760	1,760
C	NS		20.0	1.000	001	210					003		UH	SILAGE	10.0			200.0	13.54	2,708		2,708
B	NS		75.0	1.000	001	210					003		H	H								
39. TOTAL			100.0	40. Quality: TW <input type="checkbox"/> KD <input type="checkbox"/> Aflatoxin <input type="checkbox"/> Vomitoxin <input type="checkbox"/> Fumonisin <input type="checkbox"/> Garlicky <input type="checkbox"/> Dark Roast <input type="checkbox"/> Sclerotinia <input type="checkbox"/> Ergoty <input type="checkbox"/> CoFo <input type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/>												42. TOTALS		200.0		2,708	1,760	4,468
41. Mycotoxins exceed FDA, State or other health organization maximum limits? Yes <input type="checkbox"/>																						

NARRATIVE (If more space is needed, attach a Special Report) **HYBRID SEED CORN COMPANY - #209** See attached aerial photo for field IDs. Acreage determined from permanent FSA field measurements. 2000 gross bu. qualified as seed. 746 gross bushels is non-seed production due to low germination (70%) caused by drought. Field A was destroyed without consent.

SECTION II – DETERMINED HARVESTED PRODUCTION

43. Date Harvest Completed MM/DD/YYYY						44. Damage similar to other farms in the area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						45. Assignment of Indemnity Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						46. Transfer of Right to Indemnity? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
A. MEASUREMENTS						B. GROSS PRODUCTION						C. ADJUSTMENTS TO HARVESTED PRODUCTION											
47a. 47b.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58a. 58b.	59a. 59b.	60a. 60b.	61.	62.	63.	64a. 64b.	65.	66.				
Share Field ID	Multi-Crop Code	Length or Diameter	Width	Depth	Deduction	Net Cubic Feet	Conversion Factor	Gross Prod.	Bu., Ton Lbs. CWT	Shell/ Sugar Factor	FM% Factor	Moisture % Factor	Test WT Factor	Adjusted Production	Prod. Not to Count	Production Pre-QA	Value Mkt. Price	Quality Factor	Production to Count				
		ABC SEED COMPANY ANYTOWN, ANY STATE							2,000.0					2,000.0		2,000.0	13.54		27,080				
		ABC SEED COMPANY ANYTOWN, ANY STATE							340.0					340.0		340.0	2.65		901				
		16.0	8.0	8.0	9.0	1015	.4	406.0		1.00		27.2 .8536	56 1.018	352.8		352.8	2.60		917				
67. TOTAL																	2,692.8	68. Section II Total		28,898			
																		69. Section I Total		4,468			
																		70. Unit Total		33,366			
																		71. Allocated Prod.					
																		72. Total APH Prod.					

PRODUCTION WORKSHEET

1. Crop/Code # HYBRID SORGHUM SEED 0050	2. Unit # 0002-0002 OU	3. Location Description SW1-96N-30W	7. Company Agency ANY COMPANY ANY AGENCY	8. Name of Insured I.M. INSURED
4. Date(s) of Damage AUG 11	5. Cause(s) of Damage HAIL	6. Insured Cause % 100	12. Additional Units 0002-0002 OU	13. Est. Prod. Per Acre 45
9. Claim # XXXXXXXXXX				11. Crop Year YYYY
10. Policy # XXXXXXXXXXXX				
14. Date(s) Notice of Loss MM/DD/YYYY		1st MM/DD/YYYY		2nd MM/DD/YYYY
15. Companion Policy(s)				

SECTION I – DETERMINED ACREAGE, APPRAISED, PRODUCTION AND ADJUSTMENTS

A. ACTUARIAL															B. POTENTIAL YIELD							
16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32a. 32b.	33.	34.	35.	36.	37.	38.
Field ID	Multi-Crop Code	Reported Acres	Determined Acres	Interest or Share	Risk	Type	Class	Sub-Class	Intended Use	Irr Practice	Cropping Practice	Organic Practice	Stage	Use of Acreage	Appraised Potential	Moisture % Factor	Shell %, Factor, or Value	Production Pre QA	Quality Factor	Production Post QA	Uninsured Causes	Total to Count
A	NS		32.1	1.000	001	210					003		UH	TO PASTURE	6.9	-----		221.5	9.62	2,131		2,131
C	NS		9.5	1.000	001	210					003		UH	SILAGE	2.8	-----		26.6	9.62	256		256
D	NS		10.5	1.000	001	210					003		H	H		-----						
39. TOTAL			52.1	40. Quality: TW <input checked="" type="checkbox"/> KD <input checked="" type="checkbox"/> Aflatoxin <input type="checkbox"/> Vomitoxin <input type="checkbox"/> Fumonisin <input type="checkbox"/> Garlicky <input type="checkbox"/> Dark Roast <input type="checkbox"/> Sclerotinia <input type="checkbox"/> Ergoty <input type="checkbox"/> CoFo <input type="checkbox"/> Other <input type="checkbox"/> None <input type="checkbox"/> 41. Mycotoxins exceed FDA, State or other health organization maximum limits? Yes <input type="checkbox"/>												42. TOTALS		257.6		2,478		2387

NARRATIVE (If more space is needed, attach a Special Report) HYBRID SORGHUM SEED COMPANY - #209 See attached aerial photo for field IDs. Acreage determined from permanent FSA field measurements. 868.4 gross bu. qualified as seed. 312.3 gross bushels is non-seed production due to low germination (70%) caused by hail.

SECTION II – DETERMINED HARVESTED PRODUCTION

43. Date Harvest Completed MM/DD/YYYY						44. Damage similar to other farms in the area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						45. Assignment of Indemnity Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						46. Transfer of Right to Indemnity? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
A. MEASUREMENTS						B. GROSS PRODUCTION						C. ADJUSTMENTS TO HARVESTED PRODUCTION											
47a. 47b.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58a. 58b.	59a. 59b.	60a. 60b.	61.	62.	63.	64a. 64b.	65.	66.				
Share Field ID	Multi-Crop Code	Length or Diameter	Width	Depth	Deduction	Net Cubic Feet	Conversion Factor	Gross Prod.	Bu., Ton Lbs. CWT	Shell/ Sugar Factor	FM% Factor	Moisture % Factor	Test WT Factor	Adjusted Production	Prod. Not to Count	Production Pre-QA	Value Mkt. Price	Quality Factor	Production to Count				
-----	NS	ABC SEED COMPANY ANYTOWN, ANY STATE							868.4		-----	14.7 .9796	-----	850.7		850.7	9.62		8,184				
-----	NS	ABC SEED COMPANY ANYTOWN, ANY STATE							312.3		-----	14.3 .9844	-----	307.4		307.4	1.75		538				
-----											-----	-----	-----				-----						
67. TOTAL																1,158.1	68. Section II Total				8,722		
																69. Section I Total				2387			
																70. Unit Total				11,109			
																71. Allocated Prod.							
																72. Total APH Prod.							

11. REFERENCE MATERIAL

TABLE A – MINIMUM REPRESENTATIVE SAMPLE REQUIREMENTS

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

TABLE B – ROW WIDTHS AND LENGTHS

ROW WIDTH	1/100 ACRE	1/1000 ACRE	1/2000 ACRE
42"	124.5	12.4	6.2
40"	130.7	13.1	6.5
38"	137.6	13.8	6.9
36"	145.2	14.5	7.3
34"	153.7	15.4	7.7
32"	163.4	16.3	8.2
30"	174.2	17.4	8.7
28"	186.7	18.7	9.3
26"	201.0	20.1	10.1
24"	217.8	21.8	10.9
22"	237.6	23.8	11.9
20"	261.4	26.1	13.1
18"	290.4	29.0	14.5
26"	326.7	32.7	16.3
14"	373.4	37.3	18.7

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:

$$\frac{43,560 \text{ sq. ft./acre} \div \frac{25"}{12"}}{100 \text{ ft.}} = \frac{43,560 \text{ sq. ft.} \div 2.083}{100 \text{ ft.}} = \frac{20,912.146}{100 \text{ ft.}} = 209.121 \text{ ft. or } 209.1 \text{ ft. row length}$$

TABLE C – HYBRID SEED CORN STAND REDUCTION - PERCENT OF POTENTIAL REMAINING

Use from emergence through 10th leaf stage. Interpolate as necessary and round to the nearest whole percent. (DO NOT USE AFTER 10TH LEAF STAGE.)

REMAINING PLANTS IN SAMPLE (1/100) ACRE

	390	380	370	360	350	340	330	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	70	60	50	40	30	20	10							
O R I G I N A L S T A N D	400	100	100	99	98	98	97	97	97	96	95	94	92	91	89	87	86	84	82	80	78	76	74	72	69	67	64	61	58	55	52	48	43	37	31	24	19	14	10	5	400					
	390	100	100	100	99	98	97	97	97	96	95	94	93	91	89	87	86	84	82	80	78	76	74	72	69	67	65	62	59	56	53	49	44	38	32	25	20	15	10	5	390					
	380		100	100	99	99	98	98	97	96	95	94	93	91	89	87	86	84	82	80	78	76	74	72	69	67	65	62	59	56	53	49	44	39	33	26	21	16	10	5	380					
	370			100	100	99	99	98	97	96	95	94	93	92	90	88	86	84	82	80	78	76	74	72	69	67	65	62	59	56	53	49	44	39	34	27	22	16	11	5	370					
	360				100	100	99	99	98	97	96	94	93	93	91	89	87	85	83	81	78	76	74	72	69	67	65	62	59	56	53	50	46	41	35	28	22	17	11	6	360					
	350					100	100	99	99	98	97	96	95	94	92	90	88	86	84	81	79	77	75	73	71	69	66	64	61	58	55	51	47	42	36	29	23	17	12	6	350					
	340						100	100	99	99	98	97	96	95	94	92	90	88	85	83	81	79	76	74	72	69	67	64	61	58	55	51	47	42	36	30	24	18	12	6	340					
	330							100	100	99	98	97	96	95	94	92	91	89	86	84	82	80	78	75	73	70	68	65	62	59	55	51	47	42	37	31	25	19	12	6	330					
	320								100	99	98	97	96	95	94	93	92	91	89	87	84	82	79	77	74	71	68	65	62	59	55	51	47	43	38	32	26	20	14	8	320					
	310									100	99	98	97	96	95	94	93	92	90	88	86	84	81	79	76	73	70	67	64	61	57	53	48	44	39	33	27	21	15	9	310					
	300										100	99	98	97	96	95	94	93	91	89	88	86	83	80	77	75	72	69	66	63	59	55	50	45	40	34	29	23	17	11	300					
	290											100	99	98	97	96	95	94	92	90	89	87	85	82	79	77	74	71	68	65	61	57	52	47	42	36	31	25	19	11	290	O				
	280												100	99	98	97	95	94	93	91	90	88	86	84	81	79	76	73	70	66	63	59	54	49	43	37	33	27	21	12	280	R				
	270													100	99	97	96	95	94	93	91	90	88	86	84	82	79	76	72	69	65	60	55	50	45	39	34	28	22	13	270	I				
	260														100	99	97	96	95	94	93	91	90	88	86	84	81	78	75	71	67	62	57	52	47	41	36	30	23	14	260	G				
	250															100	99	98	97	96	94	93	92	90	88	86	83	80	77	73	69	64	59	54	49	43	37	30	23	15	250	I				
	240																100	99	98	97	96	95	94	91	90	88	85	82	78	74	71	66	60	55	50	44	38	31	24	15	240	N				
	230																	100	99	98	97	96	95	92	91	89	86	83	79	75	71	67	61	56	51	45	38	31	24	15	230	A				
	220																		100	99	98	97	96	93	92	90	87	84	80	76	72	67	62	57	52	46	40	33	25	16	220	L				
	210																			100	99	98	96	94	93	91	88	84	80	76	73	68	63	58	53	47	41	34	25	16	210					
200																				100	99	97	95	94	92	89	85	81	77	73	69	64	59	54	48	42	35	26	17	200	S					
190																					100	98	96	95	93	90	86	83	79	75	70	65	60	55	49	43	36	27	17	190	T					
180				EXAMPLE:																	100	98	96	94	91	88	85	81	77	72	67	62	57	51	45	36	27	17	180	A						
170				To interpolate for 39 remaining plants and 240 original plants (236 original plants, rounded to 240):																		100	98	96	93	90	87	83	79	74	69	64	59	53	46	37	27	18	170	N						
160				39 is .9 of difference between 30 and 40; .9 x 7 (38 - 31) = 6.3																			100	98	95	92	89	85	81	76	71	66	61	55	46	38	28	18	160	D						
150				31 plus 6.3 = 37.3 (rounded to 37)																				100	97	95	92	88	84	79	74	69	64	58	47	38	28	18	150							
140																									100	97	94	90	86	82	77	72	67	61	48	39	29	19	140							
130																										100	97	94	90	85	80	75	70	64	49	39	29	19	130							
120				EXAMPLE: (For Remaining Plants of 0 – 10)																							100	97	93	88	83	78	73	67	50	40	30	21	120							
110				To interpolate for 6 remaining plants and 240 original plants:																									100	97	92	88	83	78	72	51	40	30	23	110						
100				(236 original plants, rounded to 240)																											100	96	92	88	83	77	52	41	31	23	100					
90				6 is .6 of difference between 0 and 10;																													100	96	92	87	81	53	41	31	24	90				
80				.6 x 15 (15-0) = 9																															100	96	91	85	54	42	32	25	80			
70				0 + 9 = 9																																		100	96	91	55	42	32	26	70	
60																																				100	95	56	43	33	27	60				
50																																					100	57	43	33	28	50				
	390	380	370	360	350	340	330	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	70	60	50	40	30	20	10							

REMAINING PLANTS IN SAMPLE (1/100 ACRE)

ORIGINAL STANDARD

ORIGINAL STANDARD

JANUARY 2011

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	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

For percentage of production loss not on the chart, interpolate as follows:

Locate the percent leaf area destroyed directly below and above the actual percent of leaf area destroyed (taken from item 19 on the appraisal worksheet). Subtract the lower number from the actual percent and divide by 5. Multiply this result by the difference between the lower and higher production lost percentages. Add this amount to the percent production lost lower number, in percent to tenths.

EXAMPLE: Stage is 18th leaf. Actual percent of leaf area destroyed is 42. 40 and 45 (percents directly below and above). $42 - 40 = 2$
 $2 \div 5 = .4$ $19 - 15 = 4$ $4 \times .4 = 1.6$ $1.6 + 15 = 16.6$ 16.6 % will be the percent damage for leaf destruction entered in item 20 on the appraisal worksheet.

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 $(71.5 \times .9790 = 70)$].

TABLE I – Combination Test Weight/Pack Factor Table For Computing Net Bushels Of Farm Stored Production –Hybrid Sorghum Seed

Test Weight	Less Than 255 Sq. Ft. -	255 Sq. Ft. to 461 Sq. Ft. -	462 Sq. Ft. to 767 Sq. Ft. -	768 Sq. Ft. to 1384 Sq. Ft. -	1385 Sq. Ft. to 2289 Sq. Ft. -	2290 or Over Sq. Ft. -
30.0	0.588	0.596	0.607	0.615	0.615	0.615
30.5	0.597	0.605	0.616	0.624	0.624	0.624
31.0	0.606	0.614	0.626	0.634	0.634	0.634
31.5	0.615	0.624	0.635	0.643	0.643	0.643
32.0	0.624	0.633	0.644	0.653	0.653	0.653
32.5	0.633	0.642	0.653	0.662	0.662	0.662
33.0	0.642	0.651	0.662	0.671	0.671	0.671
33.5	0.651	0.660	0.671	0.680	0.680	0.680
34.0	0.659	0.668	0.681	0.690	0.690	0.690
34.5	0.668	0.677	0.690	0.699	0.699	0.699
35.0	0.677	0.686	0.699	0.708	0.708	0.708
35.5	0.686	0.695	0.708	0.717	0.717	0.717
36.0	0.694	0.704	0.717	0.726	0.726	0.726
36.5	0.703	0.713	0.726	0.736	0.736	0.736
37.0	0.712	0.722	0.735	0.745	0.745	0.745
37.5	0.720	0.730	0.744	0.754	0.754	0.754
38.0	0.729	0.739	0.753	0.763	0.763	0.763
38.5	0.737	0.748	0.761	0.772	0.772	0.772
39.0	0.746	0.756	0.770	0.781	0.781	0.781
39.5	0.754	0.765	0.779	0.790	0.790	0.790
40.0	0.763	0.774	0.788	0.826	0.844	0.869
40.5	0.771	0.782	0.797	0.834	0.852	0.877
41.0	0.780	0.791	0.805	0.842	0.860	0.885
41.5	0.788	0.799	0.814	0.850	0.868	0.893
42.0	0.797	0.808	0.823	0.858	0.876	0.901
42.5	0.805	0.816	0.831	0.866	0.884	0.909
43.0	0.813	0.825	0.840	0.874	0.892	0.917
43.5	0.821	0.833	0.849	0.882	0.900	0.925
44.0	0.830	0.842	0.857	0.890	0.908	0.933
44.5	0.838	0.850	0.866	0.898	0.916	0.941
45.0	0.846	0.858	0.874	0.906	0.924	0.949
45.5	0.854	0.867	0.883	0.914	0.932	0.957
46.0	0.863	0.875	0.891	0.922	0.940	0.965
46.5	0.871	0.883	0.900	0.930	0.948	0.973
47.0	0.879	0.891	0.908	0.938	0.956	0.981
47.5	0.887	0.900	0.916	0.946	0.964	0.989
48.0	0.895	0.908	0.925	0.954	0.972	0.997
48.5	0.903	0.916	0.933	0.962	0.980	1.005
49.0	0.911	0.924	0.942	0.970	0.988	1.013
49.5	0.919	0.932	0.950	0.978	0.996	1.021
50.0	0.927	0.940	0.958	0.986	1.004	1.029
50.5	0.935	0.948	0.966	0.995	1.013	1.039
51.0	0.943	0.956	0.974	1.003	1.021	1.047
51.5	0.950	0.964	0.983	1.013	1.030	1.057

TABLE I – Combination Test Weight/Pack Factor Table For Computing Net Bushels Of Farm Stored Production –Hybrid Sorghum Seed (Continued)

Test Weight	Less Than 255 Sq. Ft. -	255 Sq. Ft. to 461 Sq. Ft. -	462 Sq. Ft. to 767 Sq. Ft. -	768 Sq. Ft. to 1384 Sq. Ft. -	1385 Sq. Ft. to 2289 Sq. Ft. -	2290 or Over Sq. Ft. -
52.0	0.958	0.972	0.991	1.021	1.038	1.065
52.5	0.966	0.980	0.999	1.029	1.047	1.074
53.0	0.974	0.988	1.007	1.038	1.055	1.082
53.5	0.982	0.996	1.015	1.046	1.065	1.092
54.0	0.989	1.004	1.023	1.054	1.073	1.100
54.5	0.997	1.012	1.031	1.063	1.081	1.108
55.0	1.005	1.019	1.039	1.071	1.089	1.117
55.5	1.012	1.027	1.047	1.079	1.098	1.127
56.0	1.020	1.035	1.055	1.087	1.105	1.133
56.5	1.028	1.043	1.063	1.095	1.114	1.143
57.0	1.035	1.050	1.071	1.103	1.122	1.151
57.5	1.043	1.058	1.079	1.111	1.132	1.161
58.0	1.050	1.066	1.086	1.119	1.140	1.169
58.5	1.058	1.073	1.094	1.127	1.148	1.178
59.0	1.065	1.081	1.102	1.135	1.156	1.186
59.5	1.073	1.089	1.110	1.143	1.164	1.194
60.0	1.080	1.096	1.118	1.152	1.172	1.203
60.5	1.087	1.104	1.125	1.160	1.180	1.211
61.0	1.095	1.111	1.133	1.168	1.188	1.219
61.5	1.102	1.119	1.140	1.176	1.196	1.227
62.0	1.109	1.126	1.148	1.184	1.204	1.235

If the actual test weight is not shown on the chart, refer to subsection 9 B Section II, item M₂ for instructions.

TABLE J – Combination Test Weight/Pack Factor Table For Computing Net Bushels Of Farm Stored Production –Hybrid Seed Corn

Test Weight	Less Than 255 Sq. Ft. -	255 Sq. Ft. to 461 Sq. Ft. -	462 Sq. Ft. to 767 Sq. Ft. -	768 Sq. Ft. to 1384 Sq. Ft. -	1385 Sq. Ft. to 2289 Sq. Ft. -	2290 or Over Sq. Ft. -
30.0	0.587	0.594	0.603	0.610	0.610	0.610
30.5	0.596	0.603	0.612	0.619	0.619	0.619
31.0	0.605	0.612	0.622	0.628	0.628	0.628
31.5	0.614	0.621	0.631	0.638	0.638	0.638
32.0	0.623	0.630	0.640	0.647	0.647	0.647
32.5	0.632	0.639	0.649	0.656	0.656	0.656
33.0	0.641	0.648	0.658	0.665	0.665	0.665
33.5	0.649	0.657	0.667	0.674	0.674	0.674
34.0	0.658	0.665	0.676	0.684	0.684	0.684
34.5	0.667	0.674	0.685	0.693	0.693	0.693
35.0	0.676	0.683	0.694	0.702	0.702	0.702
35.5	0.684	0.692	0.703	0.711	0.711	0.711
36.0	0.693	0.701	0.712	0.720	0.720	0.720
36.5	0.702	0.709	0.721	0.729	0.729	0.729
37.0	0.710	0.718	0.730	0.738	0.738	0.738
37.5	0.719	0.727	0.739	0.747	0.747	0.747
38.0	0.727	0.736	0.748	0.756	0.756	0.756
38.5	0.736	0.744	0.757	0.765	0.765	0.765
39.0	0.744	0.753	0.765	0.774	0.774	0.774
39.5	0.753	0.761	0.774	0.783	0.783	0.783
40.0	0.761	0.770	0.783	0.791	0.791	0.791
40.5	0.770	0.779	0.792	0.800	0.800	0.800
41.0	0.778	0.787	0.800	0.809	0.809	0.809
41.5	0.787	0.796	0.809	0.818	0.818	0.818
42.0	0.795	0.804	0.818	0.841	0.853	0.871
42.5	0.803	0.812	0.826	0.849	0.861	0.879
43.0	0.812	0.821	0.835	0.857	0.869	0.887
43.5	0.820	0.829	0.843	0.865	0.877	0.895
44.0	0.828	0.838	0.852	0.873	0.885	0.903
44.5	0.836	0.846	0.860	0.881	0.893	0.911
45.0	0.845	0.854	0.869	0.889	0.901	0.919
45.5	0.853	0.862	0.877	0.897	0.909	0.927
46.0	0.861	0.871	0.886	0.905	0.917	0.935
46.5	0.869	0.879	0.894	0.913	0.925	0.943
47.0	0.877	0.887	0.902	0.921	0.933	0.951
47.5	0.885	0.895	0.911	0.929	0.941	0.959
48.0	0.893	0.903	0.919	0.937	0.949	0.967
48.5	0.901	0.912	0.927	0.945	0.957	0.975
49.0	0.909	0.920	0.935	0.953	0.965	0.983
49.5	0.917	0.928	0.944	0.961	0.973	0.991

TABLE J – Combination Test Weight/Pack Factor Table For Computing Net Bushels Of Farm Stored Production –Hybrid Seed Corn (Continued)

Test Weight	Less Than 255 Sq. Ft. -	255 Sq. Ft. to 461 Sq. Ft. -	462 Sq. Ft. to 767 Sq. Ft. -	768 Sq. Ft. to 1384 Sq. Ft. -	1385 Sq. Ft. to 2289 Sq. Ft. -	2290 or Over Sq. Ft. -
50.0	0.925	0.936	0.952	0.969	0.981	0.999
50.5	0.933	0.944	0.960	0.978	0.990	1.009
51.0	0.941	0.952	0.968	0.986	0.998	1.017
51.5	0.949	0.960	0.976	0.994	1.006	1.025
52.0	0.956	0.968	0.984	1.003	1.015	1.034
52.5	0.964	0.975	0.992	1.011	1.024	1.043
53.0	0.972	0.983	1.000	1.019	1.032	1.051
53.5	0.980	0.991	1.008	1.027	1.040	1.059
54.0	0.987	0.999	1.016	1.036	1.049	1.069
54.5	0.995	1.007	1.024	1.044	1.057	1.077
55.0	1.003	1.015	1.032	1.052	1.065	1.085
55.5	1.010	1.022	1.040	1.060	1.073	1.094
56.0	1.018	1.030	1.048	1.068	1.081	1.102
56.5	1.026	1.038	1.056	1.076	1.089	1.110
57.0	1.033	1.045	1.064	1.084	1.097	1.118
57.5	1.041	1.053	1.071	1.092	1.105	1.126
58.0	1.048	1.061	1.079	1.100	1.113	1.134
58.5	1.056	1.068	1.087	1.108	1.122	1.143
59.0	1.063	1.076	1.095	1.116	1.130	1.151
59.5	1.070	1.083	1.102	1.123	1.138	1.160
60.0	1.078	1.091	1.110	1.131	1.146	1.168
60.5	1.085	1.098	1.118	1.139	1.153	1.175
61.0	1.093	1.106	1.125	1.147	1.161	1.183
61.5	1.100	1.113	1.133	1.155	1.169	1.191
62.0	1.107	1.120	1.140	1.163	1.177	1.199
62.5	1.114	1.127	1.147	1.171	1.185	1.207
63.0	1.121	1.134	1.154	1.179	1.193	1.215
63.5	1.128	1.141	1.161	1.187	1.201	1.223
64.0	1.135	1.148	1.168	1.195	1.209	1.231

Applicable only to shelled corn. If the actual test weight is not shown on the chart, refer to subsection 10 B Section II, item M₂ for instructions.

TABLE K – HYBRID SEED CORN MOISTURE ADJUSTMENT FACTORS

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 L - STAND REDUCTION CHART – HYBRID SORGHUM SEED

% OF STAND REMAINING	(ROUNDED PERCENT OF STAND TO THE NEAREST 5 PERCENT)																			
	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
% of Potential Production Remaining Through the 19th Leaf Stage	100	98	96	93	91	88	85	82	79	76	72	68	63	57	50	44	35	26	17	9
% of Potential Production Remaining After the 19th Leaf Stage	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5

TABLE M – HAIL STAND REDUCTION CHART – HYBRID SORGHUM SEED

% OF STAND REMAINING	(ROUNDED PERCENT OF STAND TO THE NEAREST 5 PERCENT)																			
	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
% of Damage Beginning With 10th Leaf Stage Through the 19th Leaf Stage	0	2	4	7	9	12	15	18	21	24	28	32	37	43	50	56	65	74	83	91
% of Damage After the 19th Leaf Stage	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95

TABLE N – 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 O - 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 P – 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																			
									PERCENT OF DEFOLIATION (ROUND % OF LEAF AREA DESTROYED TO NEAREST 5%)																			
STAGES OF GROWTH									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 Q – HYBRID SORGHUM SEED MOISTURE ADJUSTMENT
FACTORS**

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	.7072	.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 TERMINOLOGY

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).

EXHIBIT 1

HYBRID SEED CORN TERMINOLOGY

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

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.

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 – (Refer to the Crop Provisions 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: 210	PRACTICE: 003
BY SEED COMPANY'S INDIVIDUAL PLANT/FACILITY LOCATION		
SEED COMPANY'S NAME AND IDENTIFICATION CODE NUMBER: Hybrid Seed Corn Co. (209)	AGENCY OFFICE/INSURANCE COMPANY NAME: Any Agency, Any Company	
INDIVIDUAL PLANT/FACILITY COMPLETE ADDRESS: Any Town Any State, xxxxx	ADDRESS: 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 Any county	HYBRID IDENTIFICATION 10W

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: RMA RO REPRESENTATIVE	DATE: 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 Hybrid Sorghum Seed Co. (209)		AGENCY OFFICE/INSURANCE COMPANY NAME: Any Agency, Any Company	
INDIVIDUAL PLANT/FACILITY COMPLETE ADDRESS: Any Town Any State, xxxxx		ADDRESS: 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:
RMA RO REPRESENTATIVE	MM/DD/YYYY

EXHIBIT 4

HYBRID SEED CORN STAGE CHARACTERISTICS

All stages are based on 50 percent of the plants in the sample at or beyond a given phase of development.

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 th Leaf	3 days	5 th	9 th	6
8 th Leaf	3 days	6 th	10 th	10
9 th Leaf	3 days	7 th	11 th	16
10 th Leaf	3 days	7 th	12 th	23
11 th Leaf	3 days	8 th	13 th	31
12 th Leaf	3 days	9 th	14 th	41
13 th Leaf	3 days	10 th	15 th	50
14 th Leaf	3 days	11 th	16 th	60
15 th Leaf	3 days	12 th	17 th	69
16 th Leaf	3 days	13 th	18 th	77
17 th Leaf	3 days	14 th	---	84
18 th Leaf	2 days	15 th	----	94
19-21 Leaf	2 days	Tassel and ear shoot emerging but not fully extended. Removal of husks will show the silk to be shorter than cob. The last leaves of the plant are in the process of becoming fully extended. Elongation of upper nodes is not complete.		96

EXHIBIT 4

HYBRID SEED CORN STAGE CHARACTERISTICS (CONTINUED)

NAME OF STAGE	AVERAGE TIME INTERVAL (THIS STAGE TO NEXT)	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 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 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.	
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.	
Fully 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.	

Refer to Figure A, B, and C Descriptive Pictures of the Corn Plant.

Figure A

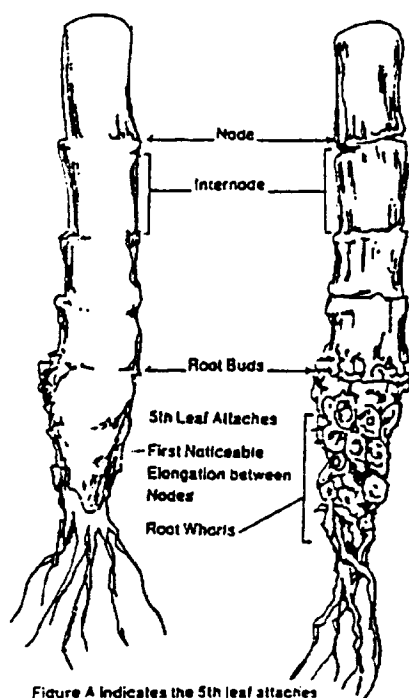


Figure A indicates the 5th leaf attaches at the first noticeable elongation between nodes starting at the root end.

Figure B

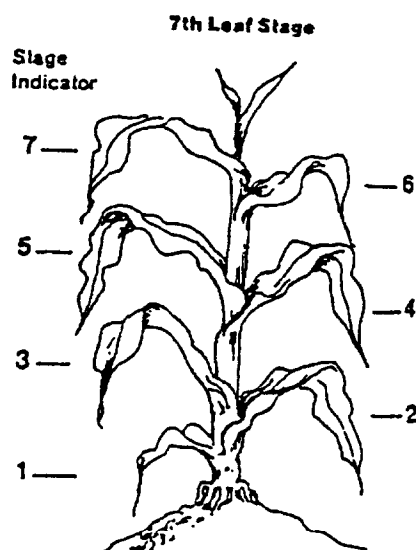


Figure B indicates that the stage indicator leaf is that leaf which is 40 to 50 percent exposed and is usually the uppermost leaf that is pointing below a horizontal line.

FIGURE C
Side Opposite Germ Area

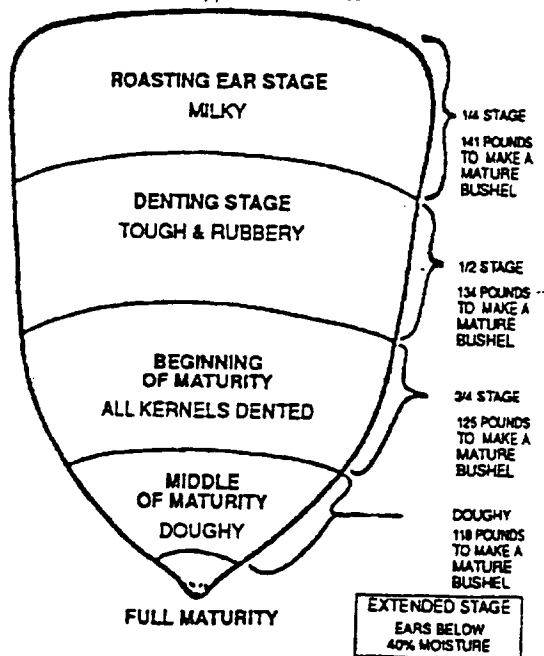


EXHIBIT 5

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 11 th Leaf	32 days	-----	-----	-----
11 th Leaf	4 days	9 th	13 th	12
12 th Leaf	4 days	10 th	14 th	20
13 th Leaf	3 days	11 th	15 th	28
14 th Leaf	3 days	12 th	16 th	39
15 th Leaf	3 days	13 th	17 th	50
16 th Leaf	3 days	14 th	18 th	62
17 th Leaf	3 days	15 th	19 th	72
18 th Leaf	2 days	16 th	20 th (flag leaf)	79
19 th Leaf	2 days	17 th	Part of 20 th (flag leaf) is visible	85
20 th 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

Figure A

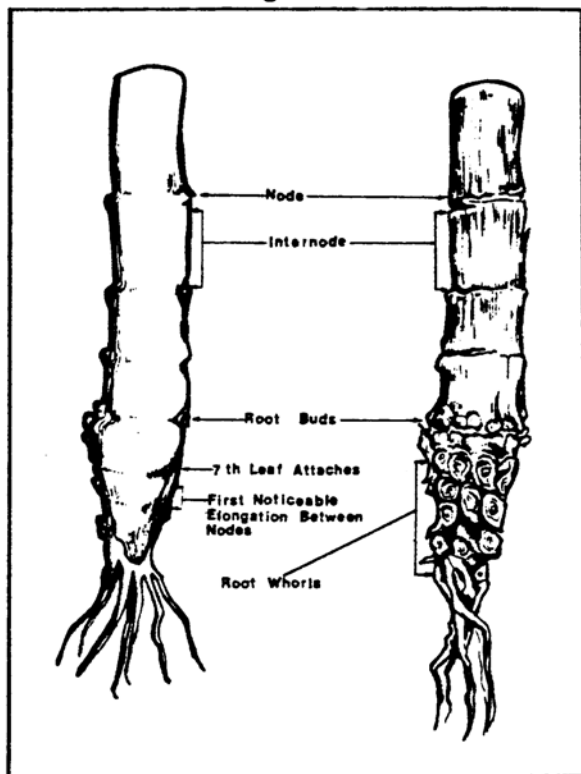


Figure B

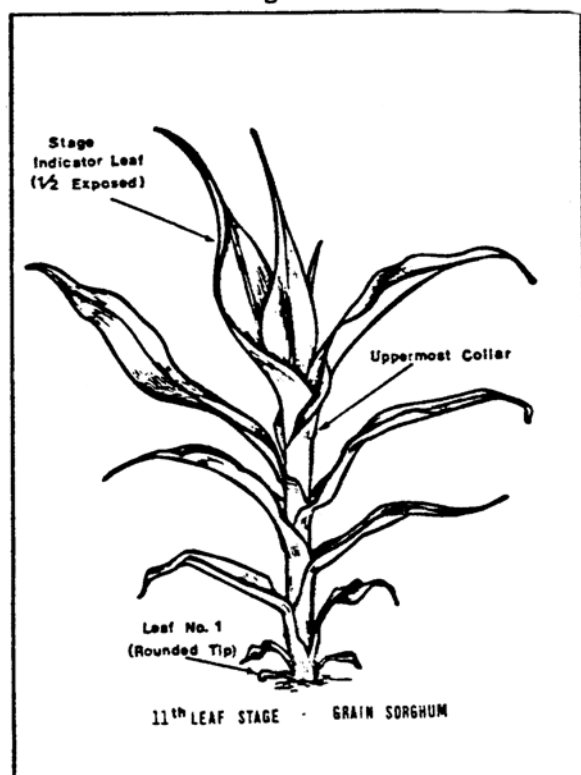


Figure C

