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Federal Crop  
Insurance  
Corporation

FCIC-25350  
(11-2018)

# **POPCORN LOSS ADJUSTMENT STANDARDS HANDBOOK**

## **2019 and Succeeding Crop Years**



**RISK MANAGEMENT AGENCY  
KANSAS CITY, MO 64133**

<b>TITLE: POPCORN LOSS ADJUSTMENT STANDARDS HANDBOOK</b>	<b>NUMBER: 25350</b>
<b>EFFECTIVE DATE: 2019 and Succeeding Crop Years</b>	<b>ISSUE DATE: November 7, 2018</b>
<b>SUBJECT:</b>  <b>Provides the procedures and instructions for administering the Popcorn crop insurance program</b>	<b>OPI: Product Administration and Standards Division</b>
	<b>APPROVED:</b>  <i>/s:/ Richard H. Flournoy</i>  <b>Deputy Administrator for Product Management</b>

**REASON FOR ISSUANCE**

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

1. Revised the handbook to incorporate the most recent RMA loss adjustment handbook standards format and standard language. Many paragraphs and sections within the handbook were rewritten or relocated to increase clarity and understanding. Throughout the handbook, references were revised to reflect the new handbook format, removal and rearrangement of various sections and tables. Throughout the amended pages, changes were made to correct spelling, punctuation, formatting and to correct subparagraph and section numbering.
2. Reformatted the handbook into Parts, paragraphs, subparagraphs, sections, subsections and exhibits in accordance with the new handbook standards format.
3. **Paragraph 13 A (2)(b):** Added language for flooded crops.
4. **Paragraph 36 B (5)(g):** Modified days to milk stage to coincide with the corn LASH.
5. **Exhibit 7, item 29:** Added replant and UUF/Third Party damage codes.
6. Throughout the handbook replaced Prevented Planting Handbook with PPSH.
7. Throughout the handbook replaced Written Agreement with WA.
8. Throughout the handbook replaced Quality Adjustment with QA.
9. Throughout the handbook replaced Production Worksheet with PW.
10. Throughout the handbook revised Farm Serial Number to Farm Number to coincide with BP.

**(Reserved)**

# POPCORN LOSS ADJUSTMENT STANDARDS HANDBOOK

## CONTROL CHART

Popcorn Loss Adjustment Standards Handbook							
	TP Page(s)	TC Page(s)	Text Page(s)	Exhibit Number	Exhibit Page(s)	Date	FCIC Number
Insert	Entire Handbook						
Current Index	1-4	1-2	1-24	1	25	11-2018	FCIC-25350
				2	26	11-2018	FCIC-25350
				3	27-29	11-2018	FCIC-25350
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## FILING INSTRUCTIONS

This handbook replaces the 2018 Popcorn Loss Adjustment Standards Handbook, FCIC-25350-3H (03-2018). This handbook is effective for the 2019 and succeeding crop years and is not retroactive to any 2018 or prior crop year determinations.

**(Reserved)**

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# PART 1 GENERAL INFORMATION

## 1 General Information

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### A. Purpose and Objective

The RMA-issued loss adjustment standards for this crop are the official standard requirements for adjusting losses in a uniform and timely manner. The RMA-issued standards for this crop and crop year are in effect as of the signature date for this crop handbook located at [www.rma.usda.gov/Procedural-Handbooks/Loss-Adjustment-Standards--25000](http://www.rma.usda.gov/Procedural-Handbooks/Loss-Adjustment-Standards--25000).

This handbook remains in effect until superseded by reissuance of either the entire handbook or selected portions (through amendments, bulletins, or FADs). If amendments are issued for a handbook, the original handbook as amended shall constitute the handbook. A bulletin or FAD can supersede either the original handbook or subsequent amendments.

### B. Related Handbooks

The following table identifies handbooks that shall be used in conjunction with this handbook.

Handbook	Relation/Purpose
CIH	Provides overall general underwriting (not crop specific) process.
DSSH	Provides the form standards and procedures for use in the sales and service of crop insurance contracts.
GSH	Provides general crop insurance information.
LAM	Provides overall general loss adjustment (not crop-specific) process.

- (1) Terms, abbreviations, and definitions general (not crop specific) to loss adjustment are identified in the GSH and LAM.
- (2) Terms, abbreviations, and definitions specific to Popcorn loss adjustment and this handbook are in exhibits 1 and 2, herein.

### C. CAT Coverage

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

### D. Irrigated Practice

Refer to the DSSH for irrigated practice guidelines and to the CIH and LAM for other irrigated practice information.

### A. Utilization of Standards

All AIPs shall 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) loss adjustment standards identified in the LAM.

### B. Form Distribution

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.

- (1) One legible copy to the insured; and
- (2) The original and all remaining copies as instructed by the AIP.

### C. Record Retention

It is the AIP's responsibility to maintain records (documents) as stated in the SRA and described in the LAM.

### D. Form Standards

- (1) The entry items in **exhibits 3 - 7** are the minimum requirements for the Appraisal Worksheets and Claim Form (hereafter referred to as "Production Worksheet"). All entry items are "Substantive", (they are required).
- (2) 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 on the example form(s) in **exhibits 3 - 7**. The current Non-Discrimination Statement and Privacy Act Statement can be found on the RMA website at: [www.rma.usda.gov/About-RMA/Laws-and-Regulations/Required-Statements](http://www.rma.usda.gov/About-RMA/Laws-and-Regulations/Required-Statements) or successor website.
- (3) The certification statement required by the current DSSH must be included on the **PW** directly above the insured's signature block 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 insurance provider 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."

## **2 AIP Responsibilities (Continued)**

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- (4) Refer to the DSSH for other crop insurance form requirements (such as point size of font, and so forth). The current DSSH can be found on the RMA website at: [www.rma.usda.gov/Procedural-Handbooks/Underwriting---24000](http://www.rma.usda.gov/Procedural-Handbooks/Underwriting---24000) or successor website.

**3-10 (Reserved)**

## PART 2 POLICY INFORMATION

The AIP determines the insured has complied with all policy provisions of the insurance contract. The Popcorn CP, which are to be considered in this determination include (but are not limited to):

### 11 Insurability

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The following may not be a complete list of insurability requirements. Refer to the BP, the Popcorn CP, and the SP for a complete list.

- (1) The crop insured will be all the popcorn grown in the county by the insured for which a premium rate is provided by the actuarial documents, in which the insured has a share, and that is planted for harvest as popcorn.
- (2) Insurable popcorn acreage must be grown under, and in accordance with the requirements of a processor contract executed on or before the acreage reporting date and is not excluded from the processor contract at any time during the crop year.
- (3) Popcorn acreage is not insurable (unless allowed by the SP or by WA) if it is:
  - (a) interplanted with another crop; or
  - (b) planted into an established grass or legume.
- (4) The insured will be considered to have a share in the insured popcorn crop if, under the processor contract:
  - (a) the insured retains control of the acreage on which the popcorn is grown;
  - (b) the insured has a risk of loss; and
  - (c) the processor contract provides for delivery of popcorn under specified conditions and at a stipulated base contract price.
- (5) A popcorn producer who is also a processor may be able to establish an insurable interest in the popcorn crop. Refer to the Popcorn CPs for requirements.

## 11 Insurability (Continued)

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- (6) The total PTC (in pounds) from all insurable acreage in the unit includes (but is not limited to):
  - (a) All appraised production (as stated in the CPs) and all harvested production from the insurable acreage in the unit. All harvested and appraised production lost or damaged by uninsured causes.
  - (b) For processor contracts that stipulate the amount of production to be delivered, all harvested popcorn production from any other insurable unit that has been used to fulfill the processor contract applicable to the unit.
  - (c) Any production from yellow or white dent corn on a weight basis and any production harvested from plants growing in the insured crop may be counted as popcorn on a weight basis.
- (7) Any acreage of the insured crop damaged before the final planting date, to the extent that the majority of producers in the area would normally not further care for the crop, must be replanted unless the AIP agrees that it is not practical. Refer to the LAM for replanting provision issues. Refer to **Part 3** of this handbook for replanting payment procedures.
- (8) In addition to the COLs excluded by the BP, insurance is not provided against:
  - (a) Damage resulting from frost or freeze after the date designated in the **SP**; or
  - (b) Failure to follow the requirements contained in the processor contract.

## 12 Unit Division

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Refer to the insurance contract for unit provisions. Unless limited by the CP or SP, a basic unit, as defined in the BP, may be divided into optional units if, for each optional unit, all the conditions stated in the applicable provisions are met.

For information on Enterprise, Multi-County Enterprise, and Whole-Farm units, refer to the CIH and the LAM.

## 13 Popcorn Quality Adjustment

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### A. General Information

- (1) Refer to the LAM for information on speculative type contract prices in QA. The QAF cannot be greater than 1.000 or less than zero (.000).
- (2) Popcorn production will be eligible for QA, if due to an insurable COL that occurs within the insurance period, it is not merchantable popcorn and is rejected by the processor. The production will be adjusted by:
  - (a) dividing the value per pound of the damaged popcorn by the base contract price per pound for undamaged popcorn; and
  - (b) multiplying the result by the number of pounds of such popcorn.

**Note:** When the edible portion of the crop has been exposed to flood waters and a Federal or State agency recommends destruction or disposal of production from such acreage, refer to the LAM.

- (3) Document QA information as described in the instructions for the Narrative section of the PW (exhibit 7) or on a Special Report.
- (4) If a local market cannot be found for the damaged popcorn, or when determining a salvage value, refer to the LAM.
- (5) Moisture adjustment is applied prior to applying any qualifying QAF such as test weight, kernel damage, etc. A popcorn moisture adjustment factors chart is in exhibit 15. Moisture adjustment results in a reduction in PTC of 0.12 percent for each 0.1 percent moisture in excess of 15 percent.
- (6) Refer to the LAM for special instructions regarding mycotoxin-infected popcorn.
- (7) For additional QA definitions, instructions, qualifications, sampling requirements, graders, and testing requirements, refer to the LAM.

## 13 Popcorn Quality Adjustment (Continued)

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### **B. Federal or State Ordered Destruction**

Under section 15 (j) of the BPs, if due to insured causes, a Federal or State agency has ordered the appraised insured crop or production to be destroyed, on the PW 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 in the PW instructions). Also, refer to the LAM for additional information. Otherwise, make no entry.

14-20 (Reserved)

## PART 3 REPLANTING PAYMENT PROCEDURES

### 21 Replanting Payment Procedures

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- (1) Replanting payments made on acreage replanted using a practice that was uninsurable as an original planting will require the deduction of the replanting payment for such acreage from the original unit liability. If the unit dollar loss (final claim) is less than the original unit liability minus such replanting payment, the actual indemnity dollar amount will not be affected by the replanting payment. The premium will not be reduced.
- (2) No replanting payment will be made on acreage on which a prior replanting payment has been made during the current crop year.

### 22 Qualifications for Replanting Payment

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To qualify for replanting payment, the:

- (1) insured crop must be damaged by an insurable cause;
- (2) AIP determines that it is practical to replant (refer to the LAM);
- (3) acres being replanted must have been initially planted on or after the “Earliest Planting” date established by the SP;
- (4) per acre appraisal (or appraisal plus any appraisals for uninsured causes of loss) must be less than 90 percent of the per acre production guarantee for the acreage the insured intends to replant (refer to **Part 4**, “Appraisals”);
- (5) acreage replanted must be at least the lesser of 20 acres or 20 percent of the insured planted acreage for the unit as determined on the final planting date or within the late planting period, if a late planting period is applicable (any acreage planted after the end of the late planting period will not be included when determining if the 20 acres or 20 percent qualification is met, refer to the LAM); and
- (6) AIP has given consent to replant after verifying that the processor contract terms can accept delivery, or the processor agrees in writing that it will accept the production from the replanted acreage.

In the Narrative of the **PW** or on Special Report, show the appraisal for each field or subfield and the calculations to document that qualifications for a replanting payment have been met.



## 23 Maximum Replanting Payment

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The maximum amount of the replanting payment per acre will be the lesser of:

- (1) the insured's actual replanting cost;
- (2) the product of multiplying the maximum pounds allowed in the policy (150 pounds) by the insured's price election, times the insured's share in the crop; or
- (3) 20 percent of the production guarantee multiplied by the insured's price election, multiplied by the insured's share.

Compute the number of pounds per acre allowed for a replanting payment by dividing the maximum replanting payment by the price election. Show all calculations in the Narrative of the **PW** or on a Special Report.

### Example 1

Owner/operator (100 percent share)

25.0 acres replanted

Actual cost to replant = \$14.00 per acre

Price election = \$0.10 per lb.

20 percent of prod. guar. (2000 lbs. x 20%) = 400 lbs. x \$0.10 (price election) x 1.000 (share) = \$40.00

150 pounds (maximum lbs. allowed in policy) x \$0.10 (price election) x 1.000 (share) = \$15.00

The lesser of \$15.00, \$14.00 and \$40.00 is \$14.00

Actual lbs. per acre allowed = 140 lbs. (\$14.00 ÷ \$0.10 – rounded to whole lbs.)

Enter the number of pounds per acre allowed (140 lbs.) in Section I, column 31, "Appraised Potential" of the **PW**.

### Example 2

Landlord/tenant both insured (50/50 percent share)

25.0 acres replanted

Actual cost to replant = \$7.00 per acre (insured's share of cost)

Price election = \$0.10 per pound

20 percent of prod. guar. (2000 lbs. x 20%) = 400 lbs. x \$0.10 (price election) x .500 (share) = \$20.00

150 pounds (maximum lbs. allowed in the policy) x \$0.10 (price election) x .500 (share) = \$7.50

The lesser of \$7.00, \$20.00 and \$7.50 is \$7.00

Actual lbs. per acre allowed = 70 lbs. (\$7.00 ÷ \$0.10 rounded to whole lbs.)

Enter the number of pounds allowed (70 lbs.) if share has been applied, or the number of pounds allowed (140 lbs.) if share has yet to be applied in Section I, column 31, "Appraised Potential" of the **PW**. (Follow individual AIP guidelines). Indicate in the Narrative if the pounds allowed for replanting have/have not been reduced for share on the **PW** according to individual AIP guidelines.

## **24 Replanting Payment Inspections**

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Replanting payment inspections are to be prepared as final inspections on the PW only when qualifying for a replant payment. Non-qualifying replant payment inspections are to be handled as preliminary inspections. If qualified for a replanting payment, a Certification Form may be prepared on the initial farm visit. Refer to the LAM.

**25-30 (Reserved)**

## PART 4 APPRAISALS

### 31 General Information

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

### 32 Selecting Representative Samples

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#### A. Determine Minimum Samples

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

#### B. Splitting Fields

- (1) 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.
- (2) Each field or subfield must be appraised separately.
- (3) Take not less than the minimum number (count) of representative samples required in **exhibit 8** (Minimum Representative Sample Requirements) for each field or subfield.

### 33 Measuring Row Width for Sample Selection

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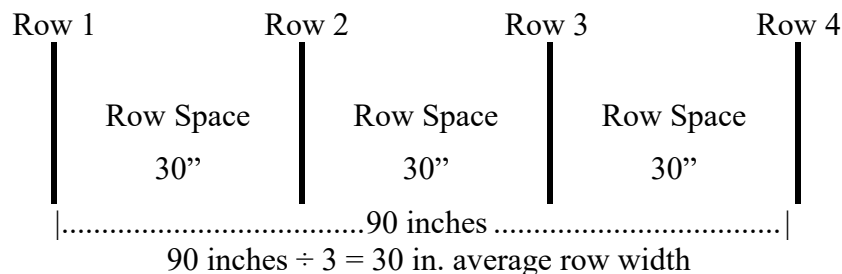
Use these instructions for all appraisal methods that require row width determinations.

- (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 in whole inches.

### 33 Measuring Row Width for Sample Selection (Continued)

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**Example:**



- (3) Where rows are skipped for tractor and planter tires, refer to the LAM.
- (4) Apply average row width in **exhibit 9** to determine the factor required for the sample row.
- (5) When two or more rows are used for a required sample row, divide the required sample row length when conducting crop appraisals by the number of rows being used. The combined length of all rows must equal the single row length.

### 34 Stages of Growth

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- (1) These instructions provide growth stage information for use when appraising potential production during various stages of growth.
- (2) Sampling Procedures:
  - (a) Determine average popcorn growth stage in selected representative samples.
  - (b) 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.
  - (c) Use the stage of growth on the date of adjustment (the date when the adjuster first appraises crop damage) when determining yield loss. The date of damage is used when applying the hail appraisal method.
- (3) Actual leaf count is used to determine stages of growth from emergence to tasseling.
  - (a) 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 40 to 50 percent exposed. It is usually the uppermost leaf that is pointing below a horizontal line.
  - (b) If the rounded tip leaf cannot be determined, the node identification system will be used as follows (refer to **exhibit 18, Figure A**):
    - (i) Pull up the entire plant and carefully split stalk to expose stalk nodes and root whorls.

### 34 Stages of Growth (Continued)

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- (ii) The sixth leaf attaches to the top of the first noticeable elongation between the stalk nodes (an internode).
  - (iii) After the sixth leaf node is identified, count upward to the stage indicator leaf.
  - (iv) In the early stages of the plant's development, the internodes are very compact and, therefore, difficult to distinguish. By the seventh or eighth leaf stage, the internode elongation should be easily found.
- (4) Ear development is used to determine stage of growth from tasseling to maturity (100 percent stage).
- (5) Stage Definitions. The definitions listed in **exhibit 17** are based on normal or average conditions in the Corn Belt Area for 120-day or full season popcorn. There are approximately 7 days from planting to emergence, and 21 days from emergence to the 7th actual leaf stage.

### 35 Appraisals Methods

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#### A. General Information

These instructions provide information on the following appraisal methods:

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 appraisals beginning with the 7 <sup>th</sup> leaf stage and until the popcorn reaches the milk stage.
Maturity Line Weight Method	for all appraisals from the milk stage until kernel are physiologically mature and kernel moisture drops below 40 percent. If at all possible, defer appraisals to weight method.
Weight Method	for all appraisals after the kernels are physiologically mature and kernel moisture drops below 40 percent.

**B. Stand Reduction**

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

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 paragraph in the LAM regarding deferred appraisals and non-emerged seed.

- (2) Surviving plant counts, at the time of appraisal, are converted to pounds 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 APH form.
- (3) Prior to the 11<sup>th</sup> leaf stage, the “Stand Reduction Chart” is used to determine the percent of potential remaining (exhibit 10).
- (4) In the 11<sup>th</sup> leaf to the milk stage, the yield and stand reductions are on a one-to-one ratio. (**Example:** 80 percent stand = 80 percent potential.)
- (5) Samples consist of 1/100 acre.

**C. Hail Damage**

- (1) This method is based on the calculation of direct and indirect damage from hail to determine percent of potential remaining, converted to a pounds-per-acre appraisal.
- (2) For damage due to hail, inspections for immature popcorn 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:
    - (i) Prior to the 11<sup>th</sup> leaf stage, the “Hail Stand Reduction Loss Chart” (exhibit 11) is used to determine percent of damage due to stand reduction.
    - (ii) Beginning with the 11<sup>th</sup> leaf stage, stand reduction and yield are on a one-to-one ratio. (**Example:** 80 percent stand = 80 percent potential).
  - (b) Crippled Plants:
    - (i) Cripples are plants which grow to approximately normal height or less but do not produce a normal, harvestable ear. Barren stalks should not be counted as cripples.

C. Hail Damage (continued)

(ii) 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 harvestable 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 or leaf destruction:

- (a) select representative plants;
- (b) remove the leaves which were exposed at the time of damage;
- (c) determine the percent of leaf area destroyed (missing or brown areas) for each leaf;
- (d) total the percentages; and
- (e) divide by the number of leaves to determine the average percent. Apply the percent to the Leaf Loss table ([exhibit 12](#)).

(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.

**C. Hail Damage (continued)**

- (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 the Stage Modification Chart ([exhibit 13](#)), to obtain the modified stage for use with the Leaf Loss chart ([exhibit 12](#)).
  - (c) No further determination of defoliation should be made at the time of a later inspection unless further damage occurs.
- (6) Samples consist of 1/100 acre.

**D. Maturity Line Weight**

- (1) Select representative samples of:
  - (a) 1/100 acre, if potential appears to be 500 pounds per acre or less.
  - (b) 1/1000 acre, if potential appears to be in excess of 500 pounds per acre.
- (2) This method is based on weighing the samples which are grouped according to maturity and converting this production to pounds per acre.
- (3) The stage of maturity is established by determining where the line separating the solids and the liquid is located in the grain kernel. The solids start to form at the end opposite the kernel tip. The five stages of maturity and the number of pounds of immature-ear popcorn required to make a pound of mature shelled popcorn are as illustrated in [exhibit 18, Figure C](#).
- (4) Pick and husk all harvestable ears in the sample area. Discard portions of ears without kernels.
- (5) Break the ears in half 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 (Refer to [exhibit 18, Figure C](#)).
- (6) Use the appropriate factor for converting the stage weight to pounds per acre of mature potential production. (Refer to items 12 - 16 of Maturity Line Weight Method Appraisal Worksheet instructions). Total the stage weight pounds per acre to obtain the appraisal for the sample.



**E. Weight Method**

- (1) This method is based on weighing the ears in a fraction of an acre, then converting this production to pounds-per-acre.
- (2) Select representative samples of:
  - (a) 1/100 acre, if potential appears to be 500 pounds per acre or less.
  - (b) 1/1000 acre, if potential appears to be in excess of 500 pounds per acre.
- (3) Pick and husk all harvestable ears in the sample area. Weigh production.
- (4) Multiply average sample weight by:
  - (a) 100 if sample size was 1/100 acre.
  - (b) 1000 if sample size selected was 1/1000 acre.

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

- (5) Determine shelling percentage factor as follows:
  - (a) Select a five-pound representative ear popcorn sample, shell, and weigh.
  - (b) Apply weight to **exhibit 14** to arrive at shelling percent factor. If weight of shelled popcorn is not listed in **exhibit 14**, divide the weight from (a) above by 5 and round to two decimals.

**A. Deviations**

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

**B. Modifications**

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

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

When applicable, with AIP approval, use the following instructions in conjunction with the appropriate appraisal methods for damage due to insurable causes.

(1) No Pollination Due To Drought, Heat, Hot Winds, and/or Insects:

Appraise popcorn as “0” (for the stand reduction method of appraisal) if, after a general survey of the crop, the adjuster finds:

(a) Ear shoots, and the pollination period:

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

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

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

(i) is in progress or has ended; or

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

(2) Poor Pollination Due To Drought, Heat, Hot Winds, and/or Insects:

Insect damage must be due to insurable causes. Refer to the CP.

Appraise popcorn 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 ear of popcorn, 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 Calculations” section of the Stand Reduction Appraisal Worksheet or on an attached Special Report.

**B. Modifications (continued)**

(3) Severely Drought-Stunted Popcorn:

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.

(4) Permanently Wilted Popcorn:

Note on appraisal worksheet “no production potential due to permanent wilt” and enter a zero appraisal for the affected acres. For acreage with minimal or no 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.

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 popcorn will produce grain.

(5) Irregular Germination or Crop Development Due to Insured Causes:

Use the stand reduction method of appraisal based upon the number of plants capable of reaching the milk stage prior to a killing frost.

- (a) Count all plants to determine the plant population and enter in normal plant population per 1/100 acre (item 11, Stand Reduction Appraisal Worksheet).
- (b) Determine stage of growth for early-germinating popcorn and record in item 19 (Stage of Growth at Time of Damage).
- (c) Determine the stage of growth for each late-germinating popcorn plant and record in “Notes and Calculations” section (item 23, Stand Reduction Appraisal Worksheet):
  - (i) The stage of each plant; and
  - (ii) 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).

**B. Modifications (continued)**

- (d) Compute the number of days from the appraisal date to the average killing frost date for the area (contact State Extension Service) and show calculation in “Notes and Calculations” section (item 23, Stand Reduction Appraisal Worksheet).
- (e) Count and record the number of surviving plants per 1/100 acre (item 12, Stand Reduction Appraisal Worksheet) which will reach the milk stage before the average killing frost date (include early-germinated plants).
- (f) The percent of potential (item 15, Stand Reduction Appraisal Worksheet) is equal to the percent of “surviving” plants (“surviving” plant number divided by original plant population) on a “one-for-one” basis for plants in the 11<sup>th</sup> leaf stage and beyond. Before the 11<sup>th</sup> leaf stage, the Stand Reduction Chart is used to determine the percent of potential.
- (g) The percent of potential (item 15) multiplied by the applicable APH yield results in the pound-per-acre appraisal.

**Example:**

Some plants are in the 5<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> leaf stages. Date of the appraisal is July 24. 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.

Plants in the 10<sup>th</sup> leaf stage will be counted as surviving, since they will reach the milk stage in 58 days (allowing the additional FIVE days for maturity retardation). Plants in the 8<sup>th</sup> leaf and earlier stage would not be counted as surviving, as they would not reach the milk stage prior to the frost date.

<u>STAGE</u>	<u>DAYS TO MILK STAGE</u>
5 <sup>th</sup> leaf	73
8 <sup>th</sup> leaf	64
10 <sup>th</sup> leaf	58

(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.

**B. Modifications (continued)**

- (b) Document on a Special Report, all pertinent information regarding the loss such as the popcorn hybrid planted, the maturity rating of the popcorn, whether the late planting provisions apply, planting (and any replanting) dates, the practicality of any late replanting, extent of freeze damage to popcorn in the area (whether general or isolated), date of normal freeze, date(s) of damaging freeze(s), and specifically why the popcorn did not escape freeze damage. Do not apply the appraisal modification for early freeze damage if it is determined that the insured could have prevented the damage through proper farming practices. The modification is only applied on popcorn that is less than fully mature. QA procedures do not apply when using the freeze modification. The stage of popcorn 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.
- (c) 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 100 percent 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:
  - (i) 25 percent stage - count 25 percent of the appraisal.
  - (ii) 50 percent stage - count 50 percent of the appraisal.
  - (ii) 75 percent stage - count 75 percent of the appraisal.
  - (iii) 95 percent stage - count 95 percent of the appraisal.
- (d) The adjustments do not apply if:
  - (i) Kernels are in the 100 percent stage -- use normal appraisal.
  - (ii) Any leaves remain alive above the base of the ear (regardless of stage) -- use normal appraisal; or
  - (iii) Kernels are in the pre-25 percent 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.
- (e) For purposes of this appraisal modification, “early freeze damage” refers to a freeze which occurs early enough in the popcorn’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.
- (f) Freeze is not an insurable COL if the freeze or frost occurs after the date designated in the **SP**.

### **37 General Information for Appraisal Worksheet Entries and Completion Procedures**

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- (1) Include the AIP's name in the appraisal worksheet title if not preprinted on the 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 must be completed for each unit appraised, and for each field or subfield including fields or subfields with a different APH yield or farming practice (applicable to replant, preliminary, and final claims). Refer to **Part 4, paragraph 32** for sampling requirements.
- (4) When a remarks section is not included on the form, document pertinent information about the appraisal, including any appropriate calculations, on a Special Report and attach to the worksheet.
- (5) Standard appraisal worksheet items are numbered consecutively in **exhibits 3 - 6**. Example appraisal worksheets are also provided to illustrate how to complete item entries.
- (6) For all zero appraisals, refer to the LAM.

**38-50 (Reserved)**

## PART 5 PRODUCTION WORKSHEET

### 51 General Information for Production Worksheet Entries and Completion Procedures

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- (1) The **PW** is a progressive form containing all notices of damage for all preliminary, replant, and final inspections on a unit.
- (2) If a **PW** 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, when acreage is being appraised for a replanting payment and all acreage on the unit has been initially planted, 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 **PPSH** 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 “**Replant**” apply to replant inspections only. Instructions labeled “**Final**” apply to final inspections only. Instructions not labeled apply to all inspections.
- (7) The AIP may complete a separate **PW** for each type planted in the unit.

## **51 General Information for Worksheet Entries and Completion Procedures (Continued)**

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- (8) If the AIP determines the claim is to be denied, refer to the LAM for PW completion instructions.

**52-60 (Reserved)**



## Acronyms and Abbreviations

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The following table provides the acronyms and abbreviations used in this handbook.

<b>Approved Acronym/Abbreviation</b>	<b>Term</b>
AIP	Approved Insurance Provider
APH	Actual Production History
BP	Basic Provisions
CAT	Catastrophic Risk Protection
CIH	Crop Insurance Handbook
COL	Cause of Loss
CP	Crop Provisions
DF	Discount Factor
DSSH	Document and Supplemental Standards Handbook
FCIC	Federal Crop Insurance Corporation
FGIS	Federal Grain Inspection Service
<b>GSH</b>	<b>General Standards Handbook</b>
LAM	Loss Adjustment Manual
<b>PPSH</b>	<b>Prevented Planting Standards Handbook</b>
<b>PTC</b>	<b>Production to Count</b>
PW	Production Worksheet
<b>QA</b>	<b>Quality Adjustment</b>
<b>QAF</b>	<b>Quality Adjustment Factor</b>
RIV	Reduction in Value
RMA	Risk Management Agency
SP	Special Provisions
SRA	Standard Reinsurance Agreement
<b>UUF</b>	<b>Uninsured Unavoidable Fire</b>
<b>WA</b>	<b>Written Agreement</b>

**Definitions**

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Base Contract Price means the price stipulated on the contract executed between the insured and the processor before any adjustments for quality.

Merchantable Popcorn means popcorn that meets the provisions of the processor contract.

## Form Standards – Appraisal Worksheet for Stand Reduction

Verify and/or make the following entries for each appraisal worksheet element/item number. A completed appraisal worksheet example is at the end of this exhibit. For general form standards and other general information, see subparagraph 2D and paragraph 37.

Element/Item Number	Standard
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.
Claim Number	Claim number as assigned by the AIP.
4. Crop	"Popcorn."
5. Crop Year	Four-digit crop year, as defined in the policy, for which the claim is filed.
6. FSA Farm No.	FSA farm number, if applicable.
7. Field No.	Field or subfield identification symbol.
No. of Acres	Number of determined acres, to tenths, in the field or subfield being appraised.
8. Row Width	Row width to nearest inch. Refer to Part 4, Paragraph 33 for row width determination information.
9. Base Yield	Enter the approved APH yield to nearest whole pound from the APH form, after verifying to be correct.
10. Sample No.	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. No. of Surviving Plants 1/100 Acre	Number of surviving plants in the same sample.
13. Percent of Stand	Make no entry.
14. Round Col. 13 to nearest 5 percent	Make no entry.

**Form Standards – Appraisal Worksheet for Stand Reduction (Continued)**

15. Percent of Potential	Enter percent of potential as follows:  a. Determine stage of growth at time of damage and enter in item 19.  b. Before 11 <sup>th</sup> leaf stage, use Stand Reduction ( <b>exhibit 10</b> ) and enter percent potential to nearest whole percent, after interpolating.  c. In 11 <sup>th</sup> leaf stage and beyond, enter result of dividing number of surviving plants (item 12) by normal plant population (item 11) to whole percent.
16. Base Yield	Repeat entry from item 9.
17. Appraisal for Sample	Result, to whole pounds, 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 whole pounds.
19. Stage of Growth at Time of Damage	Stage of growth at time of damage (refer to <b>Paragraph 34</b> ).
20. Total Appraisals for all Samples	Repeat entry from item 18.
21. No. of Samples	Enter total number of samples.
22. Appraisal per Acre/Field	Result (rounded to whole pounds) by dividing total appraisals for all samples (item 20) by the total number of samples (item 21).
23. Notes and Calculations	Remarks pertinent to the appraisal, sampling, and conditions in general (e.g. – very hot and dry), etc.
<b>The following required entries are not illustrated on the Appraisal Worksheet example below.</b>	
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 No., 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/Narrative section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the <b>PW</b> .
Page Number	Page numbers - (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).

**Form Standards – Appraisal Worksheet for Stand Reduction (Continued)**

FOR ILLUSTRATION PURPOSES ONLY  <b>STAND REDUCTION APPRAISAL WORKSHEET</b> (Corn and Grain Sorghum, HYBRID SEED CORN, HYBRID SORGHUM SEED, POPCORN)			COMPANY ANY COMPANY		1. INSURED'S NAME I.M. INSURED			2. POLICY NUMBER XXXXXXXX	
3. UNIT NO. 0001-0001BU		CLAIM NUMBER XXXXXXXX		4. CROP POPCORN			5. CROP YEAR YYYY		
6. FSA FARM NO. 106		7. FIELD NO. A	NO. OF ACRES 80.0		8. ROW WIDTH 30"	9. BASE YIELD 2000			
<b>COMPUTATIONS</b>									
SAMPLE NO. 10	NORMAL PLANT POPULATION 1/100 ACRE 11	NO. OF SURVIVING PLANTS 1/100 ACRE 12	HYBRID SORGHUM SEED AND 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	220	36			37	X	2000	=	740
2	220	32			34	X	2000	=	680
3	220	23			27	X	2000	=	540
4	220	42			41	X	2000	=	820
5	220	51			47	X	2000	=	940
6						X		=	
7						X		=	
8	After 10 <sup>th</sup> leaf stage, percent potential is in direct proportion to percent stand: Col. 12 ÷ Col. 11						X	=	
9						X		=	
10						X		=	
11						X		=	
12						X		=	
								18. TOTAL	3720
19. STAGE OF GROWTH AT TIME OF DAMAGE			20. TOTAL APPRAISALS FOR ALL SAMPLES		21. NO. OF SAMPLES		22. APPRAISAL PER ACRE/FIELD		
8 <sup>th</sup> Leaf			3720		÷ 5		= 744 LBS.		
23. NOTES AND CALCULATIONS									

This form example does not illustrate all required entry items (e.g., signatures, dates, etc.).

## Form Standards – Appraisal Worksheet for Hail Damage

Verify and/or make the following entries for each appraisal worksheet element/item number. A completed appraisal worksheet example is at the end of this exhibit. For general form standards and other general information, see subparagraph 2D and paragraph 37.

Element/Item Number	Standard
Company	Name of <b>AIP</b> 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 No.	Insured's assigned policy number.
3. Unit Number	Unit number from the Summary of Coverage after it is verified to be correct.
4. Crop	"Popcorn."
5. Crop Year	Four-digit crop year, as defined in the policy, for which the claim is filed.
6. FSA Farm No.	FSA Farm Number, if applicable.
7. Field No.	Field or subfield identification symbol.
8. Ultimate No. of Leaves	Make no entry.
9. Base Yield	The approved yield, to the nearest whole pound, from the APH form after verifying to be correct.
10. Sample No.	Make no entry.
11. Normal No. 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. <b>Refer to exhibit 9.</b>
12. No. Plants Totally Destroyed 1/100 Acre	Number of plants totally destroyed. If totally destroyed plants cannot be accurately counted, complete item 13 and enter result of subtracting remaining stand (item 13) from normal number of plants (item 11).
13. Remaining Stand No. Plants 1/100 Acre	Determine the number of remaining plants or enter the result of subtracting number of plants totally destroyed (item 12) from normal number of plants (item 11).

**Form Standards – Appraisal Worksheet for Hail Damage (Continued)**

14. % Damage from Stand Reduction (Exhibit 11)	Determine and enter percent of damage (to whole percent). <ol style="list-style-type: none"> <li>a. From 7<sup>th</sup> through 10<sup>th</sup> leaf stages, use “Hail Stand Reduction Loss” (exhibit 11) based on entries in item 11 (normal number of plants) and item 13 (remaining stand number of plants). Interpolate to nearest whole percent.</li> <li>b. After 10<sup>th</sup> leaf stage, divide number of plants totally destroyed (item 12) by normal number of plants (item 11), round to nearest whole percent.</li> </ol>
15. % Cripples (Corn Only)	Determine entry as follows (refer to sample on worksheet for calculations and subparagraph 35 C (3) (b) for definition): <ol style="list-style-type: none"> <li>a. Count the number of cripples in 100 remaining live plants.</li> <li>b. Individually evaluate the ears on the crippled plants to determine the gross damage from cripples.</li> <li>c. Multiply this gross percent times the remaining crop (100 – percent damage from stand reduction table (item 14)) to obtain the net percent of damage. Round to nearest tenth.</li> </ol>
16. % Ear Damage (Corn)	<ol style="list-style-type: none"> <li>a. If no ear damage – make no entry.</li> <li>b. If ear damage: <ol style="list-style-type: none"> <li>(1) Select all ears from 10 consecutive representative plants.</li> <li>(2) Determine the total number of kernels on all ears.</li> <li>(3) Determine the total number of damaged kernels on sample ears. The gross percent of ear damage is determined by dividing the total number of kernels damaged by the total number of kernels.</li> <li>(4) Determine net percent of ear damage by multiplying the gross percent times the remaining crop (100 – item 14 – item 15) and enter the results in item 16, to tenths.</li> </ol> </li> </ol>

**Form Standards – Appraisal Worksheet for Hail Damage (Continued)**

17. Total Direct Damage	Sum of items 14, 15 and 16.
18. Potential Remaining	Result of subtracting entry in total direct damage (item 17) from 100.
19. % Leaf Area Destroyed	Determine and enter percent of leaf area destroyed.
20. % Damage for Leaf Destruction	Percent of damage for leaf destruction based on exhibit 12, percent leaf area destroyed (items 19) and stage of plant growth at time of damage (item 27), to nearest tenth percent.
21. Net Indirect Damage	Result (rounded to tenths) of multiplying potential remaining (item 18) by percent damage for leaf destruction (item 20).
22. % Damage from Hail	Sum of total direct damage (item 17) and net indirect damage (item 21), to tenths.
23. % Potential Production Remaining	Result (to tenths) of subtracting percent damage from hail (item 22) from 100 (to nearest tenth).
24. Base Yield	Repeat the approved yield entry from item 9 (Base Yield).
25. Appraisal For Sample	Result (rounded to whole pounds) of multiplying percent potential production remaining (item 23 expressed as a decimal), by base yield (item 24).
26. Total	Sum of appraisal for sample entries (item 25).
27. Stage of Plant Growth at Time of Damage	Stage of growth at time of damage.
28. Total All Samples	Transfer entry from item 26.
29. No. Samples	Total number of samples.
30. Per Acre Appraisal Bu.	Result of dividing total all samples (item 28) by number of samples (item 29), rounded to whole pounds.
31. Remarks	Remarks pertinent to the appraisal, sampling, conditions in general (e.g. – very hot and dry), etc. Show calculations converting cripples to net percent of damage as shown on sample worksheet.

**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 Signature, Code No. 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/Narrative section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the PW.
Page Number	Page numbers - (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).



**Form Standards – Appraisal Worksheet for Hail Damage (Continued)**

**Company:** Any Company

**Claim No.:** XXXXXXXX

<b>HAIL DAMAGE APPRAISAL WORKSHEET (Corn and Grain Sorghum)</b>	1. INSURED'S NAME		2. POLICY NO.		3. UNIT NUMBER		4. CROP			
	I. M. INSURED		XXXXXXXX		0001-0001BU		POPCORN			
	5. CROP YEAR		6. FSA FARM NO.		7. FIELD NO.		8. ULTIMATE NO. OF LEAVES		9. BASE YIELD	
	YYYY		106		A				2000	

**COMPUTATIONS**

SAMPLE NO.	NORMAL NO. OF PLANTS 1/100 ACRE	NO. PLNTS TOTALLY DESTROYED 1/100 ACRE	REMAINING STAND NO. PLANTS	% DAMAGE FROM STAND REDUCTION (CHART)	% CRIPPLE (CORN ONLY)	% EAR DAMAGE (CORN) % 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	240	201	39	63	6.2		69.2	30.8	45	1.0	0.3	69.5	30.5	2000	610
2	230	189	41	61	7.8		68.8	31.2	40	1.0	0.3	69.1	30.9	2000	618
3	240	198	42	61	7.3		68.3	31.7	40	1.0	0.3	68.6	31.4	2000	628
4	240	216	24	73	1.8		74.8	25.2	45	1.0	0.3	75.1	24.9	2000	498
5	240	205	35	65	5.9		70.9	29.1	45	1.0	0.3	71.2	28.8	2000	576
6															
7															
8															
9															
<b>26. TOTAL</b>														2930	

27. STAGE OF PLANT GROWTH AT TIME OF DAMAGE	28. TOTAL ALL SAMPLES	29. NO. SAMPLES	30. PER ACRE APPRAISAL
7 <sup>TH</sup> leaf	2930	÷ 5	= 586

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	27 =	1.8
5	25 x	.67 =	16.8 x	35 =	5.9

**This form example does not illustrate all required entry items (e.g., signatures, dates, etc.).**

## Form Standards – Appraisal Worksheet for Maturity Line Weight

Verify and/or make the following entries for each appraisal worksheet element/item number. A completed appraisal worksheet example is at the end of this exhibit. For general form standards and other general information, see subparagraph 2D and paragraph 37. Complete heading items 1 through 7, and Part II items 20 through 32.

Element/Item Number	Standard
Company	The AIP's name if not preprinted on the worksheet (Company Name).
Claim Number	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 No.	Insured's assigned policy number.
3. Unit No.	Unit number from the Summary of Coverage after it is verified to be correct.
4. Crop	"Popcorn."
5. Crop Year	Four-digit crop year as defined in the policy for which the claim has been filed
6. FSA Farm No.	FSA farm number.
7. Circle Appraisal Code	Circle "PEC" for ear popcorn.
8. – 19.	Make no entry.
<b>PART II – MATURITY LINE WEIGHT METHOD</b> (from milk stage until kernels are fully mature and moisture drops below 40).	
20. Field ID	Field or subfield identification symbol.
22. Stage	Make no entry.
23. Fraction of Acre	Use "1/100," if potential appears to be 500 pounds per acre or less, or "1/1000," if potential appears to be in excess of 500 pounds per acre.
24. Weight by Stage	Pound weight, to tenths, for each sample by stage of maturity. Determine weights by: <ol style="list-style-type: none"> <li>(1) Picking and husking all harvestable ears from the sample.</li> <li>(2) Discarding portions of ears having no kernels.</li> <li>(3) Determining maturity line of each ear in order to determine its stage.</li> <li>(4) Sorting ears by stage and weighing all ears in stage (pounds to tenths).</li> </ol>

**Form Standards – Appraisal Worksheet for Maturity Line Weight (Continued)**

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	<p>Result of multiplying Total Weight All Sample Plots (item 25) by appropriate yield factor (item 26), rounded to whole pounds.</p> <p>For appraisal modifications for early freeze damage, multiply the result of appraisal per stage by the appropriate freeze damage appraisal adjustment, to whole pounds and make a notation of adjustment in the remarks section of the appraisal worksheet. Refer to <b>subparagraph 36 (6)</b>.</p>
28. Total Appr. All Stages	Sum of entries in item 27 (Appraisal Per Stage), in whole pounds.
29. Total No. Rep. Sample Plots	Number of sample plots.
30. Acre Appraisal	Result of dividing the total appraisal for all stages (item 28) by the total number of representative sample plots (item 29), rounded to whole pounds.
Remarks	Remarks pertinent to the appraisal, sampling, conditions in general (e.g. – very hot and dry), etc.
<b>The following required entries are not illustrated on the Appraisal Worksheet example below.</b>	
31. Insured's Signature, and Date	Insured's (or insured's authorized representative's) signature and date. Before obtaining the insured's signature, review all entries on the Appraisal Worksheet with the insured (or insured's authorized representative's), particularly explaining codes, etc., which may not be readily understood.
32. Adjuster's Signature, Code No., 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 <b>PW</b> .
Page Number	Page numbers – (Example: Page 1 of 1, Page 1 of 2, etc.).

Form Standards – Appraisal Worksheet for Maturity Line Weight (Continued)

COMPANY Any Company	CLAIM NUMBER xxxxxx	1. INSURED'S NAME I. M. Insured	2. POLICY NO. XXXXXXXX	3. UNIT NO. 0002-0002BU	7. CIRCLE APPRAISAL CODE and enter in Col. 10 Part 1 GRAIN SORGHUM – GS EAR CORN – EC POPCORN – (PEC) CORN SILAGE – CS GRAIN SORGHUM, SILAGE – GSS
4. CROP POPCORN	5. CROP YR. YYYY	6. FSA FARM NO. 100	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		
										=	÷	=	x	=	BUSHEL TONS POUNDS	18. MOISTURE	19. SHELLING
										=	÷	=	x	=	BUSHEL TONS POUNDS	18. MOISTURE	19. SHELLING
										=	÷	=	x	=	BUSHEL TONS POUNDS	18. MOISTURE	19. SHELLING

PART II – MATURITY LINE WEIGHT METHOD (For ear corn from milk stage until kernels are fully mature and moisture drops below 40%)

FIELD ID 20	STAGE 22	FRAC-TION 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)		
			Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9		Corn	Popcorn		1.	2.	
C	1/4	1/100	6.1	3.3	3.3	0.0	0.0				12.7	x	.7092	40.0	=	508	1. 1/100 acre if potential appears to be 500 lbs/acre or less.	2. 1/1000 acre if potential appears to be in excess of 500 lbs/acre.
		1/1000										=	7.0920	400.0	=			
Acreage in Field to tenths 21	1/2	1/100	7.1	6.5	4.4	5.2	6.3				29.5	x	.7463	42.0	=	1239	REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)	
		1/1000										=	7.4630	420.0	=		1. 1/100 acre if potential appears to be 20 bushels/acre or less.	2. 1/1000 acre if potential appears to be in excess of 20 bushels/acre.
20.0	3/4	1/100	6.9	4.1	3.2	0.0	0.0				14.2	x	.8000	45.0	=	639		
		1/1000										=	8.0000	450.0	=			
	Doughy	1/100	3.5	0.0	0.0	0.0	0.0				3.5	x	.8475	47.0	=	165		
		1/1000										=	8.4750	470.0	=			
	Extended	1/100										x	1.0638	59.0	=			
		1/1000										=	10.6380	590.0	=		TOTAL NO. REP. SAMPLE PLOTS 29	ACRE APPRAISAL 30
REMARKS: The four stages shown above are for illustration purposes only. Normally, popcorn is in only two stages.												28 TOTAL APPR. ALL STAGES 2551	÷	5	=	510		

This form example does not illustrate all required entry items (e.g., signatures, dates, etc.).

## Form Standards – Appraisal Worksheet for Weight

Verify and/or make the following entries for each appraisal worksheet element/item number. A completed appraisal worksheet example is at the end of this exhibit. For general form standards and other general information, see subparagraph 2D and paragraph 37. Complete heading, items 1 through 7, Part I items 8 through 19, and Part II items 31 and 32.

Element/Item Number	Standard
Company	The AIP's name if not preprinted on the worksheet (Company Name).
Claim Number	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 No.	Insured's assigned policy number.
3. Unit No.	Unit number from the Summary of Coverage after it is verified to be correct.
4. Crop	"Popcorn."
5. Crop Year	Four-digit crop year as defined in the policy for which the claim has been filed.
6. FSA Farm No.	FSA farm number.
7. Circle Appraisal Code	Circle "PEC" for ear popcorn.
<b>Part I – Weight Method</b>	
Use this method for when kernels are fully mature and moisture drops below 40 percent.	
8. Field ID	Field or subfield identification symbol.
9. Acres in Field	Number of determined acres, to tenths, in field or subfield being appraised
10. Kind of Appr.	Enter "PEC."
11. Fraction of Acre	Enter "1/100," if potential appears to be 500 pounds per acre or less. Enter "1/1000," if potential appears to be in excess of 500 pounds 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 (pounds, to tenths).
14. No. of Sample Plots	Number of sample plots.
15. Avg. Sample Weight per Field	Result, rounded to tenths, of dividing total weight of all samples (item 13) by the number of sample plots (item 14).
16. Yield Factor	If entry in item 11 is 1/100, enter "100." If entry in item 11 is 1/1000, enter "1000."
17. Per Acre Yield	Result, to whole pounds, of multiplying average sample weight per field (item 15) by the yield factor (item 16). Circle "pounds".
18. Moisture	Record moisture percentage, if in excess of 15.0 (through 40) percent, rounded to tenths.

## Form Standards – Appraisal Worksheet for Weight (Continued)

19. Shelling	<p>Shelling percentage factor (to whole percent).</p> <p>To determine shelling percentage for ear popcorn:</p> <ol style="list-style-type: none"> <li>a. Husk 5 lbs. of ear popcorn.</li> <li>b. Shell all ears and weigh grain.</li> <li>c. Apply weight to <b>exhibit 14</b>, column (3) to get shelling percent.</li> <li>d. Enter shelling percent to whole percent.</li> </ol>
Remarks	Remarks pertinent to the appraisal, sampling, conditions in general (e.g. – very hot and dry), etc.
<b>The following required entries are not illustrated on the Appraisal Worksheet example below.</b>	
31. Insured's Signature, and Date	Insured's (or insured's authorized representative's) signature and date. Before obtaining the 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. Adjuster's Signature, Code No., 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 <b>PW</b> .
Page Number	Page numbers – (Example: Page 1 of 1, Page 1 of 2, etc.).

Form Standards – Appraisal Worksheet for Weight (Continued)

(FOR ILLUSTRATION PURPOSES ONLY)		WEIGHT METHOD APPRAISAL				
COMPANY Any Company	CLAIM NUMBER xxxxxx	1. INSURED'S NAME L. M. Insured	2. POLICY NO. XXXXXXXX	3. UNIT NO. 0001-0001BU	7. CIRCLE APPRAISAL CODE and enter in Col. 10 Part 1 GRAIN SORGHUM – GS EAR CORN – EC POPCORN – (PEC) CORN SILAGE – CS GRAIN SORGHUM, SILAGE – GSS	
4. CROP. POPCORN	5. CROP YR. YYYY	6. FSA FARM NO. 106	YIELD FACTOR			
			POPCORN <small>100 if sample size selected was 1/100 acre 1000 if sample size selected was 1/1000 acre</small>	CORN <small>1.43 if sample size selected was 1/100 acre 14.3 if sample size selected was 1/1000 acre.3</small>	GRAIN SORGHUM <small>1.34 if sample size selected was 1/100 acre 13.4 if sample size selected was 1/1000 acre</small>	

**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	
				4.3	6.2	5.1	3.9	5.0						18. MOISTURE	19. SHELLING
B	10.0	PEC	1/100						= 24.5	÷ 5	= 4.9	x 100	= BUSHEL TONS (POUNDS) 490	20.5	80
									=	÷	=	x	= BUSHEL TONS (POUNDS)	18. MOISTURE	19. SHELLING

**PART II – MATURITY LINE WEIGHT METHOD (For ear corn until kernels are fully mature and moisture drops below 40%)**

FIELD ID 20	STAGE 22	FRAC-TION 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)	
			Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9		Corn	Popcorn			
	1/4	1/100										=	.7092	40.0	=	1. 1/100 acre if potential appears to be 500 lbs/acre or less. 2. 1/1000 acre if potential appears to be in excess of 500 lbs/acre.	
		1/1000										=	7.0920	400.0	=		
Acreage in Field to tenths 21	1/2	1/100										=	.7463	42.0	=	REPRESENTATIVE SAMPLES (Corn, Grain Sorghum)	
		1/1000										=	7.4630	420.0	=		
	3/4	1/100										=	.8000	45.0	=	1. 1/100 acre if potential appears to be 20 bushels/acre or less. 2. 1/1000 acre if potential appears to be in excess of 20 bushels/acre.	
		1/1000										=	8.0000	450.0	=		
	Doughy	1/100										=	.8475	47.0	=		
		1/1000										=	8.4750	470.0	=		
	Extended	1/100										=	1.0638	59.0	=	TOTAL NO. REP. SAMPLE PLOTS 29	
		1/1000										=	10.6380	590.0	=		ACRE APPRAISAL 30

REMARKS:	28 TOTAL APPR. ALL STAGES	÷	=
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This form example does not illustrate all required entry items (e.g., signatures, dates, etc.).

**Form Standards - Production Worksheet**

Verify and/or make the following entries for each PW element/item number. A completed PW example is at the end of this exhibit. For general form standards and other general information, see subparagraph 2D and paragraph 51.

<b>Element/Item Number</b>	<b>Description</b>
1. Crop/Code #	“Popcorn” (0043).
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 Numbers; FSA Common Land Units (CLU) and tract numbers; GPS identifications; or Grid identifications) as applicable for the crop.
4. Date(s) of Damage	First three letters of the month(s) during which the determined insured damage occurred for the inspection and cause(s) of loss 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. If there is no insurable COL, and a no indemnity due claim will be completed, make no entry.
5. Cause(s) of Damage	<p>Name of the determined insured cause(s) of damage for this crop as listed in the LAM for the date(s) of damage listed in item 4 above. 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.</p> <p>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).</p>



**Form Standards - Production Worksheet (Continued)**

Element/Item Number	Description												
<p>6. Insured Cause %</p>	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Replant and Final:</b> Whole percent of damage for the insured cause of damage listed in item 5 above. 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%.</p> <p>If there is no insurable COL, and a no indemnity due claim will be completed, make no entry.</p> <p>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 percent:</p> <table border="1" data-bbox="527 856 1451 1016"> <tr> <td>4. Date(s) of Damage</td> <td>MAY</td> <td>JUN 30</td> <td>AUG</td> </tr> <tr> <td>5. Cause(s) of Damage</td> <td>Excess Moisture</td> <td>Hail</td> <td>Drought</td> </tr> <tr> <td>6. Insured Cause %</td> <td>40</td> <td>20</td> <td>30</td> </tr> </table> <p>Narrative: Additional date of damage – SEP 5; Cause of Damage – Freeze; Insured cause percent - 10%.</p>	4. Date(s) of Damage	MAY	JUN 30	AUG	5. Cause(s) of Damage	Excess Moisture	Hail	Drought	6. Insured Cause %	40	20	30
4. Date(s) of Damage	MAY	JUN 30	AUG										
5. Cause(s) of Damage	Excess Moisture	Hail	Drought										
6. Insured Cause %	40	20	30										
<p>7. Company/Agency</p>	<p>Name of company and agency servicing the contract.</p>												
<p>8. Name of Insured</p>	<p>Name of the insured that identifies exactly the person (legal entity) to whom the policy is issued.</p>												
<p>9. Claim #</p>	<p>Claim number as assigned by the AIP.</p>												
<p>10. Policy #</p>	<p>Insured’s assigned policy number.</p>												
<p>11. Crop Year</p>	<p>Four-digit crop year, as defined in the policy, for which the claim is filed.</p>												
<p>12. Additional Units</p>	<p><b>Preliminary and Replant:</b> Make no entry.</p> <p><b>Final:</b> 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 <b>PW</b> has not been completed. Additional non-loss units may be entered on a single <b>PW</b>.</p> <p>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.</p>												

## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
13. Est. Prod. Per Acre	<p><b>Preliminary and Replant:</b> Make no entry.</p> <p><b>Final:</b> Estimated yield per acre, in whole pounds of all non-loss units for the crop at the time of final inspection.</p>
14. Date(s) Notice of Loss	<p><b>Preliminary:</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>b. A notice of damage or loss for a third preliminary inspection (if needed) requires an additional set of PWs. Enter the date of notice for a third preliminary inspection in the 1st space of item 14 on the second set of PWs.</li> <li>c. Reserve the “Final” space on the first page of the first set of PWs for the date of notice for the final inspection.</li> <li>d. If the inspection is initiated by the AIP, enter “Company Insp.” instead of the date.</li> <li>e. If the notice does not require an inspection, document as directed in the Narrative instructions.</li> </ul> <p><b>Replant and Final:</b> Transfer the last date (in the 1st or 2nd space from the first or second set of PWs) to the final space on the first page of the first set of PWs 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 PWs. For a delayed notice of loss or delayed claim, refer to the LAM.</p>

**Form Standards - Production Worksheet (Continued)**

<b>Element/Item Number</b>	<b>Description</b>
15. Companion Policy(s)	<p>a. If no other person has a share in the unit (insured has 100 percent share), make no entry.</p> <p>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.”</p> <p>(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.</p> <p>(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.</p> <p>(3) If unable to verify the existence of a companion contract, enter “Unknown” and contact the AIP for further instructions.</p> <p>c. Refer to the LAM for further information regarding companion contracts.</p>

**Section I – Determined Acreage Appraised, Production and Adjustments**

Make separate line entries for varying:

- (1) Rate classes, types, classes, sub-classes, intended uses, irrigated practices, cropping practices, or organic practices, as applicable;
- (2) APH yields;
- (3) Appraisals;
- (4) Adjustments to appraised mature production (moisture and/or QAFs);
- (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.

## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
16. Field ID	<p>The field or subfield identification symbol from a sketch map or an aerial photo. Refer to the Narrative.</p> <p>Where acreage is partly replanted, omit the Field ID symbol for the fields that have not been replanted and that have been consolidated into a single line entry.</p>
17. Multi-Crop Code	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> 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.</p>
18. Reported Acres	<p>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.</p>
19. Determined Acres	<p>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:</p> <ul style="list-style-type: none"> <li>a. Put to other use without consent;</li> <li>b. Abandoned;</li> <li>c. Damaged by uninsured causes; or</li> <li>d. For which the insured failed to provide acceptable records of production.</li> </ul> <p>Refer to the LAM for procedures regarding when estimated acres are allowed and documentation requirements.</p> <p><b>Replant:</b> Determine the total acres, to tenths, of replanted acreage for each field or subfield (do not estimate). Make a separate line entry for any part of a field or subfield not replanted.</p> <ul style="list-style-type: none"> <li>a. Determine the planted acreage of any fields or subfield not replanted. Consolidate it into a single line entry unless the usual reasons for separate line entries apply. Record the field or subfield identities (from a map or aerial photo) in the Narrative.</li> <li>b. Account for all planted acreage in the unit.</li> </ul> <p><b>Preliminary and Final:</b> Determined acres to tenths.</p>

**Form Standards - Production Worksheet (Continued)**

<b>Element/Item Number</b>	<b>Description</b>
19. Determined Acres (Continued)	Acreage breakdowns within a unit or field may be estimated (refer to the LAM) if a determination is impractical.  Account for all planted acreage 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" as 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 <b>WA</b> .
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.

**Form Standards - Production Worksheet (Continued)**

<b>Element/Item Number</b>	<b>Description</b>								
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 (or practice) carried out by the insured. If “No Cropping Practice” 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	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Replant:</b> Replant stage abbreviation as shown below.</p> <table data-bbox="553 1079 1365 1297"> <thead> <tr> <th data-bbox="553 1079 906 1115"><u>STAGE</u></th> <th data-bbox="919 1079 1154 1115"><u>EXPLANATION</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="553 1115 906 1188">“R”.....</td> <td data-bbox="919 1115 1365 1188">Acreage replanted and qualifying for replanting payment.</td> </tr> <tr> <td data-bbox="553 1188 906 1224">“NR”.....</td> <td data-bbox="919 1188 1365 1224">Acreage not replanted. ***</td> </tr> <tr> <td data-bbox="553 1224 906 1297">“RN”.....</td> <td data-bbox="919 1224 1365 1297">Acreage replanted and not qualified for a replanting payment.</td> </tr> </tbody> </table> <p><b>Final:</b> Stage abbreviation as shown below.</p>	<u>STAGE</u>	<u>EXPLANATION</u>	“R”.....	Acreage replanted and qualifying for replanting payment.	“NR”.....	Acreage not replanted. ***	“RN”.....	Acreage replanted and not qualified for a replanting payment.
<u>STAGE</u>	<u>EXPLANATION</u>								
“R”.....	Acreage replanted and qualifying for replanting payment.								
“NR”.....	Acreage not replanted. ***								
“RN”.....	Acreage replanted and not qualified for a replanting payment.								

**Form Standards - Production Worksheet (Continued)**

<b>Element/Item Number</b>	<b>Description</b>
<p>29. Stage (Continued)</p>	<p><b><u>STAGE</u></b>  “P” ..... Acreage abandoned without consent, put to other use without consent, damaged solely by uninsured causes, or for which the insured failed to provide acceptable records of production to the AIP.  “H” ..... Harvested.  “UH” ..... Unharvested or put to other use with consent.  “TZ” ..... UUF/Third Party Damage – Zero production on same acreage.  “TA” ..... UUF/Third Party Damage – Appraised production on same acreage.  “TH” ..... UUF/Third Party Damage – Harvested production on same acreage.</p> <p><b>Prevented Planting:</b> Refer to the <b>PPSH</b> for proper codes for any eligible prevented planting acreage.</p> <p><b>Gleaned Acreage:</b> Refer to the LAM for information on gleaning.</p>
<p>30. Use of Acreage</p>	<p>Use of acreage. Use the following “Intended Use” abbreviations.</p> <p><b><u>USE</u></b>  “Replant” ..... Acreage replanted ***  “Not Replanted” ..... Acreage not replanted ***  “To Millet” ..... Use made of the acreage  “WOC” ..... Other use without consent  “SU” ..... Solely uninsured  “ABA” ..... Abandoned without consent  “H” ..... Harvested  “UH” ..... Unharvested</p> <p><b>Prevented Planting:</b> Refer to the <b>PPSH</b> for proper codes for any eligible prevented planting acreage.</p> <p><b>Gleaned Acreage:</b> Refer to the LAM for information on gleaning.</p>

## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
31. Appraised Potential	<p><b>Replant:</b> Enter the pounds per acre allowed for replanting as determined from the replant calculation documented in the Narrative. (Refer to <b>Part 3</b>, for qualifications and computations.)</p> <p><b>Preliminary:</b> Per-acre appraisal in whole pounds of potential production for the acreage appraised as shown on the appraisal worksheet. Refer to <b>Part 4</b>, “Appraisals” for additional instructions. If there is no potential on UH acreage, enter “0.” Refer to LAM for procedures for documenting zero yield appraisals.</p>
32a. Moisture %	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> Moisture percent (if in excess of 15.0 percent) to nearest tenth. Moisture adjustment is applied prior to applying any qualifying adjustment for quality.</p>
32b. Factor	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> Moisture factor – For appraised mature grain production in excess of 15.0 percent, obtain factor from <b>exhibit 15</b>.</p>
33. Shell %, Factor, or Value	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> If a Weight Method appraisal is made, enter the shelling percentage factor rounded to a two-place decimal (Refer to <b>exhibit 14</b>). Popcorn production is measured in pounds, therefore, the 0.4 volume to bushel factor is not used when using the Weight Method appraisal. It will be necessary to multiply the gross pounds (ear popcorn pounds) by the actual shelling percentage as specified in (<b>exhibit 14</b>, column (4)).</p>
34. Production Pre QA	<p><b>Replant:</b> Enter the result of multiplying column 31 times column 19 rounded to whole pounds. If no entry in column 31, make no entry.</p> <p><b>Preliminary and Final:</b> Result of multiplying column 31 times column 19, times column 32b, times column 33, if applicable, rounded to whole pounds. If no entry in column 31, make no entry.</p>



## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
35. Quality Factor	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> For Weight Method appraisals of mature popcorn, which due to insurable causes, is not of merchantable popcorn quality and is rejected by the processor, divide the value per pound of the damaged popcorn by the base contract price per pound for undamaged popcorn. Enter the factor to three decimal places.</p>
36. Production Post QA	<p><b>Replant:</b> Transfer the entry in item 34.</p> <p><b>Preliminary and Final:</b> Result of multiplying column 34 times column 35, rounded to whole pounds. If no entry in column 35, transfer entry from column 34.</p>
37. Uninsured Cause	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> Result of per acre appraisal for uninsured causes (taken from appraisal worksheet or other documentation) multiplied by column 19, rounded to whole pounds. Refer to the LAM for information on how to determine uninsured cause appraisals. If no uninsured causes, make no entry.</p> <p>a. Hail and Fire Exclusion not in effect.</p> <p>(1) Enter the result of multiplying column 19 entry by not less than the insured's production guarantee per acre in whole pounds for the line, (calculated by multiplying the elected coverage level percentage times the approved APH yield per acre shown on the APH form), for any "P" stage acreage.</p> <p>(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.</p>

**Form Standards - Production Worksheet (Continued)**

Element/Item Number	Description													
37. Uninsured Cause (Continued)	<p>(3) For acreage that is damaged partly by uninsured causes, enter the result of multiplying the appraised uninsured loss of production per acre in whole pounds, by column 19 entry for any such acreage.</p> <p>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.</p> <p>c. Refer to the LAM when a Hail and Fire Exclusion is in effect and damage is from hail or fire.</p> <p>d. Enter the result of adding uninsured cause appraisals to hail and fire exclusion appraisals.</p> <p>e. For fire losses, if the insured also has other fire insurance (double coverage), refer to the LAM.</p>													
38. Total to Count	Result of adding item 36 and item 37.													
39. Total	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Replant and Final:</b> Total determined acres (column 19), to tenths.</p>													
40. Quality	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> Check the applicable qualifying <b>QA</b> condition(s) affecting the unit's production (refer to table below). Check all qualifying conditions that apply to the unit's appraised and harvested production (refer to the CP and SP).</p> <table border="1" data-bbox="440 1373 1468 1883"> <thead> <tr> <th data-bbox="440 1373 1468 1415"><b>Qualifying QA Condition:</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="440 1415 1468 1451">Test Weight (TW)</td> </tr> <tr> <td data-bbox="440 1451 1468 1486">Kernel Damage (KD) and Total Defects</td> </tr> <tr> <td data-bbox="440 1486 1468 1522">Garlicky (Grade)</td> </tr> <tr> <td data-bbox="440 1522 1468 1558">Aflatoxin</td> </tr> <tr> <td data-bbox="440 1558 1468 1593">Vomitoxin</td> </tr> <tr> <td data-bbox="440 1593 1468 1629">Fumonisin</td> </tr> <tr> <td data-bbox="440 1629 1468 1665">Dark Roast (for Sunflowers only)</td> </tr> <tr> <td data-bbox="440 1665 1468 1701">Sclerotinia (for Sunflowers only)</td> </tr> <tr> <td data-bbox="440 1701 1468 1736">Ergoty (Grade)</td> </tr> <tr> <td data-bbox="440 1736 1468 1814">COFO (commercially objectionable foreign odor) (includes Musty and Sour Odor)</td> </tr> <tr> <td data-bbox="440 1814 1468 1850">Other</td> </tr> <tr> <td data-bbox="440 1850 1468 1883">None</td> </tr> </tbody> </table>	<b>Qualifying QA Condition:</b>	Test Weight (TW)	Kernel Damage (KD) and Total Defects	Garlicky (Grade)	Aflatoxin	Vomitoxin	Fumonisin	Dark Roast (for Sunflowers only)	Sclerotinia (for Sunflowers only)	Ergoty (Grade)	COFO (commercially objectionable foreign odor) (includes Musty and Sour Odor)	Other	None
<b>Qualifying QA Condition:</b>														
Test Weight (TW)														
Kernel Damage (KD) and Total Defects														
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Aflatoxin														
Vomitoxin														
Fumonisin														
Dark Roast (for Sunflowers only)														
Sclerotinia (for Sunflowers only)														
Ergoty (Grade)														
COFO (commercially objectionable foreign odor) (includes Musty and Sour Odor)														
Other														
None														

**Form Standards - Production Worksheet (Continued)**

Element/Item Number	Description
40. Quality (Continued)	<p>a. For all qualifying QA conditions checked, in the Narrative (or on a Special Report):</p> <ul style="list-style-type: none"> <li>(1) Document the level for each qualifying QA condition as indicated by approved test results, and the name and location of each testing facility that verifies the presence of the qualifying QA condition and the date of the test(s); or</li> <li>(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 QA condition).</li> </ul> <p>b. If “Other” is checked, in addition to the above documentation requirements, document in the Narrative (or on a Special Report):</p> <ul style="list-style-type: none"> <li>(1) A description of the qualifying QA condition;</li> <li>(2) The name of the controlling authority that considers this qualifying QA condition to be injurious to human or animal health and why.</li> </ul> <p>c. Check “None” if none of the production qualifies for QA.</p>

**Form Standards - Production Worksheet (Continued)**

Element/Item Number	Description
41. Mycotoxins exceed FDA, State, or other health organization maximum limits. Check "Yes:"	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> 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:</p> <ul style="list-style-type: none"> <li>a. Sold, document the name and address of the buyer; or</li> <li>b. Not sold, document the date(s) of the disposition, how the production was used, or how it was destroyed.</li> </ul> <p>Refer to the LAM and the SP for additional information on mycotoxins.</p>
42. Totals	Total of entries in columns 34, 36, 37 and 38. If a column has no entries, make no entry.

**Narrative Instructions**

If more space is needed, document on a Special Report, and enter "See Special Report." Attach the Special Report to the **PW**.

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 "No Inspection," the unit number(s), date, and adjuster's initials (do not enter unit numbers for which notice has not been given). 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.

### Form Standards - Production Worksheet (Continued)

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.
k.	<p>Attach a sketch map or aerial photo to identify the total unit:</p> <ol style="list-style-type: none"> <li>(1) If consent is or has been given to put part of the unit to another use or to replant;</li> <li>(2) If acreage has been replanted to a practice uninsurable as an original practice;</li> <li>(3) If uninsured causes are present; or</li> <li>(4) For unusual or controversial cases.</li> </ol> <p>Indicate on the aerial photo or sketch map, the disposition of acreage destroyed or put to other use with or without consent.</p>
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 PW 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 the 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. List the control measures used and explain why they did not work.
s.	Document the appraisal (plus appraisal for uninsured causes of loss, if applicable) for replanted acreage, and the calculations to show that the qualification for a replanting payment have been met. Refer to Part 3, paragraph 22.

**Form Standards - Production Worksheet (Continued)**

t.	If any acreage to be replanted in the unit does not qualify for a replanting payment, enter Field No., "NOT QUAL FOR RP PAYMENT," date of inspection, adjuster's initials, and reason not qualified.
u.	For replant claims, indicate if the pounds allowed for replanting have/have not been reduced for share on the PW according to individual AIP guidelines.
v.	For production that qualifies for QA (supporting documentation should be included in the insured's claim file): <ul style="list-style-type: none"> <li>(1) Explain any ".000" QA factor entered in Section I, column 35 and Section II, column 65.</li> <li>(2) Explain any deficiencies, substances, or conditions that are allowed for QA, as well as any which were not allowed.</li> <li>(3) If mycotoxins are present, document the level based on laboratory test results.</li> <li>(4) If a Federal or State destruction order has been issued, attach to the PW a copy of the Federal or State destruction order and the insured's completed Certification Form.</li> <li>(5) Document the DFs or the RIVs and Local Market Price, as applicable, used in establishing the QA factor for mature appraised or harvested production.</li> <li>(6) Refer to the LAM for documentation requirements when any excess transportation costs or conditioning costs are included in the QA factor.</li> <li>(7) Document all calculations used in determining QA factors.</li> <li>(8) Refer to the LAM for additional documentation requirements.</li> </ul>
w.	Document field IDs, date, and method of destruction of mycotoxin-infested popcorn if it has 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.
y.	Document any other pertinent information, including any data to support any factors used to calculate the production.

**Form Standards - Production Worksheet (Continued)**

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**Section II – Determined Harvested Production**

- (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 measurements entries (Rectangular, Round, Square, Conical Pile, etc.). If structures are a combination of shapes, break into a series of average measurements, if possible. Enter “Odd Shape” if production is stored in an odd-shaped structure. 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) There will be no “harvested production” entries for replanting payments.
- (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.

**Form Standards - Production Worksheet (Continued)**

- (d) Varying shares; e.g., 50 percent and 75 percent shares on same unit.
  - (e) Production from first (original) or second (substitute) crop acreage when a second crop will be or is planted on the first crop acreage within the same crop year.
  - (f) 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 columns 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 columns 47 through 66 by type or practice. If production has been commingled, refer to the LAM.

<b>Element/Item Number</b>	<b>Description</b>
<p>43. Date Harvest Completed: (Used to determine if there is a delayed notice or a delayed claim. Refer to the LAM.)</p>	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Replant and Final:</b></p> <ul style="list-style-type: none"> <li>a. The earlier of the date the entire acreage on the unit was (1) harvested, (2) totally destroyed, (3) replanted, (4) put to other use, (5) a combination of harvested, destroyed, or put to other use, or (6) the calendar date for the end of the insurance period.</li> <li>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.”</li> <li>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.”</li> <li>d. If the case involves a Certification Form, enter the date from the Certification Form when the entire unit is put to another use, replanting is complete for the unit, etc. Refer to the LAM.</li> </ul>



## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
44. Damage similar to other farms in the area?	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Replant and Final:</b> Check “Yes” or “No.” Check “Yes” if the 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.</p>
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	<p>a. If only one practice and/or type of harvested production is listed in Section I, make no entry.</p> <p>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).</p>
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	<p>Internal measurement in feet to tenths of structural space occupied by crop.</p> <p>a. Length if rectangular or square.</p> <p>b. Diameter if round or conical pile. Refer to the LAM to convert circumference to diameter if internal diameter measurement is not possible.</p>
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.

## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
52. Deductions	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 Popcorn 0.8 Ground Shelled Popcorn 0.7 Ground Ear Popcorn 0.6* Ear Popcorn 0.4 *Unless otherwise directed.
55. Gross Prod.	Multiply column 53 times column 54, rounded to tenths of a bushel. The results of the calculation represent the amount of gross bushels in the bin.
56. Bu., Ton, Lbs., Cwt.	<p>Circle "Lbs." in column heading. Enter the gross production in whole pounds, before deductions for grain moisture and foreign material for production:</p> <p>a. Weighed and stored on the farm.</p> <p>For farm stored ear popcorn production, calculate the pounds as follows: column 55 (gross production in bushels) times column 60a (actual test weight), rounded to the nearest whole pound.</p> <p>For farm stored shelled popcorn production, calculate the pounds as follows: column 55 (gross production in bushels) times 56 pounds per bushel (standard test weight), rounded to the nearest whole pound.</p> <p>b. Sold and/or stored in commercial storage - Obtain gross production for the unit from the summary and/or settlement sheets. (Individual load slips only will not suffice unless the storage facility or buyer will not provide summary and/or settlement sheets to the insured, and this is documented in the Narrative.)</p> <p>c. Stored in odd-shaped structures. The adjuster must compute the amount of gross production. (Refer to the LAM for cubic footage and production computations). A copy of all production calculations must be left in the file folder.</p> <p>d. For mycotoxin-infected popcorn, enter all production even if it has no market value.</p>

## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
57. Shell/Sugar Factor	<p>Shelling percentage for Ear popcorn production recorded in:</p> <p>a. Gross weight from settlement sheets, or other weight records acceptable to the AIP, (column 56), enter shelling percentage from <b>exhibit 14</b>, column (3) as two-place decimal. If shelling percentage is not on the settlement sheets or other weight records, or is otherwise unavailable, enter standard shelling percentage of “.80.”</p> <p>b. Standard shelling percent (“.80”) is included in the bushel factor (0.4) used to convert Ear bushel by volume to pounds of popcorn by multiplying grain bushels by the actual test weight of the grain. Use of the actual-determined shelling percent (as in “a” above) would result in double adjustment in this case (“c” below). The shelling percentage factor, <b>exhibit 14</b>, column (3), corrects the calculated production to reflect the shelling-percent deviation from the standard.</p> <p>c. Volume/structure measurements (items B-E), enter the shelling factor from <b>exhibit 14</b>, column (4) as two-place decimal. If not available, enter the standard shelling factor of “1.00.”</p>
58a. FM %	<p>Make entry to nearest tenth. Refer to the LAM for entry instructions.</p> <p>Refer to the LAM for FGIS definitions of “FM”.</p>
58b. Factor	<p>Enter the three-place factor determined by subtracting the percent of FM from 1.000, or subtract the entry in 58a from 100 and divide by 100. <b>Example:</b> For 4 percent, enter “.960.”</p>
59a. Moisture %	<p>Enter moisture percent to tenths. Moisture adjustment is applied prior to applying any qualifying adjustment for quality.</p>
59b. Factor	<p>If grain moisture is more than 15.0 percent, enter the four-place moisture factor from the popcorn moisture adjustment factors (<b>exhibit 15</b>).</p>
60a. Test Wt.	<p>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.</p>

## Form Standards - Production Worksheet (Continued)

Element/Item Number	Description
60b. Factor	<p>For shelled popcorn, use the Combination Test Weight/Pack Factor - enter the factor from the appropriate table (<b>exhibit 16</b>) for the square footage of floor space in the storage structure. Refer to the LAM for instructions on calculating floor space of a structure.</p> <p>Combination test weight pack factors are applicable only to shelled popcorn.</p> <p>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.</p> <p>Popcorn with a test weight of 65 pounds stored in a less than 255 Sq. Ft. bin <math>65 \text{ (actual test weight)} \times 1.135 \text{ (last available factor)} \div 64 \text{ (last available test weight)} = 1.153 \text{ factor}</math>.</p>
61. Adjusted Production	<p>The result of multiplying column 56 x 57 x 58b x 59b. (Round to nearest whole pound).</p> <p>For farm stored shelled popcorn, the result of multiplying column 56 x 57 x 58b x 59b x 60b. (Round to nearest whole pound).</p>
62. Prod. Not to Count	<p>Net production not to count, in whole pounds, 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).</p> <p>This entry must never exceed production shown on the same line. Explain the total bin contents (bin grain depth, etc.) and any “production not to count” in the Narrative.</p> <p>Make no entry if only the depth for PTC has been entered in column “51,” and the depth for production not to count has been entered in the Narrative section. Refer to example in the LAM.</p>
63. Production Pre-QA	Result of subtracting column 62 from column 61.
64a. Value	Sold or otherwise disposed of - Enter the actual dollar-and-cents value per pound received for the damaged production on the earlier of the day of adjustment or the date such production is sold, taking into account RIVs due to insurable causes (including mycotoxins). Refer to the LAM for further instructions.

**Form Standards - Production Worksheet (Continued)**

<b>Element/Item Number</b>	<b>Description</b>
64b. MKT Price	If entry is made in 64a, enter the base contract price per pound, to three decimal places.
65. Quality Factor	For production eligible for QA, enter the 3-digit QAF determined by dividing column 64a divided by 64b. Explain in the Narrative. If moisture adjustment is applicable, it will be made prior to any adjustment for quality. Refer to paragraph 13 and the CP for additional information on QA.
66. Production to Count	Enter result from multiplying column 63 times column 65, rounded to nearest whole pound.
67. Total of Column 63	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 share, stages, APH yields, projected price or harvest price, 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:	<b>Preliminary and Replant:</b> Make no entry. <b>Final:</b> Total of column 66.
69. Section I Total	<b>Preliminary and Replant:</b> Make no entry. <b>Final:</b> Enter figure from Section I, column 38 total.
70. Unit Total	<b>Preliminary and Replant:</b> Make no entry. <b>Final:</b> Total of column 68 and column 69.
71. Allocated Prod	Refer to the LAM for instructions for determining allocated production. Enter the total production rounded to whole pounds, allocated to this unit that is included in Sections I or II of the PW. Document how allocated production was determined and record supporting calculations in the Narrative or on a Special Report.
72. Total APH Prod.	Result of subtracting the total of column 37 (item 42 “Totals”) and item 71 (Allocated Prod.) from item 70 (Unit Total). If no entries in item 37 and item 71, transfer the entry in item 70. Make no entry when separate APH yields are maintained by type, practice, etc., within the unit.

**Form Standards - Production Worksheet (Continued)**


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<b>The following required entries are not illustrated on the PW example below.</b>	
73. Insured's Signature and Date	<p>Insured's (or insured's authorized representative's) signature and date. Before obtaining the signature, review all entries on the <b>PW</b> with the insured (or insured's authorized representative), particularly explaining codes, etc., that may not be readily understood.</p> <p>Final indemnity inspections and final replanting payment inspections should be signed on bottom line.</p>
74. Adjuster's Signature, Code #, and Date	<p>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 <b>PW</b>.</p> <p>Final indemnity inspections and final replanting payment inspections should be signed on bottom line.</p>
75. Page	<p><b>Preliminary:</b> Page numbers – “1,” “2,” etc., at the time of inspection.</p> <p><b>Replant and Final:</b> Page numbers - (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).</p>

Form Standards – Production Worksheet (Continued)

PRODUCTION WORKSHEET

1. Crop/Code # <b>POPCORN 0043</b>	2. Unit # <b>0001-0001BU</b>	3. Location Description <b>SW1-96N-3W</b>	7. Company Agency <b>ANY COMPANY ANY AGENCY</b>	8. Name of Insured <b>I. M. INSURED</b>
4. Date(s) of Damage <b>JUL</b>	5. Cause(s) of Damage <b>DROUGHT</b>	6. Insured Cause % <b>100</b>	9. Claim # <b>XXXXXXXXX</b>	11. Crop Year <b>YYYY</b>
12. Additional Units <b>0002-0002BU</b>	13. Est. Prod. Per Acre <b>2000</b>	10. Policy #	14. Date(s) Notice of Loss <b>MM/DD/YYYY</b>	1st <b>MM/DD/YYYY</b>
			2nd <b>MM/DD/YYYY</b>	Final <b>MM/DD/YYYY</b>
			15. Companion Policy(s)	

SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

A. ACTUARIAL														B. POTENTIAL YIELD										
16. Field ID	17. Multi-Crop Code	18. Reported Acres	19. Determined Acres	20. Interest or Share	21. Risk	22. Type	23. Class	24. Sub-Class	25. Intended Use	26. Irr Practice	27. Cropping Practice	28. Organic Practice	29. Stage	30. Use of Acreage	31. Appraised Potential	32a. Moisture % Factor	32b.	33. Shell %, Factor, or Value	34. Production Pre QA	35. Quality Factor	36. Production Post QA	37. Uninsured Causes	38. Total to Count	
A	NS		80.0	1.000		997					003		UH	PASTURED	744				59520		59520		59520	
B	NS		10.0	1.000		997					003		UH	SILAGE	490	20.5 .9340	.80		3661		3661		3661	
C	NS		60.0	1.000		977					003		H	H										
39. TOTAL			150.0	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		63181		63181		63181
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) **Acres were determined using permanent field measurements.**

SECTION II – DETERMINED HARVESTED PRODUCTION

43. Date Harvest Completed <b>MM/DD/YYYY</b>						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. Share Field ID	47b. Multi-Crop Code	48. Length or Diameter	49. Width	50. Depth	51. Deduction	52. Net Cubic Feet	53. Conversion Factor	54. Gross Prod.	55. Bu., Ton (Lbs) CWT	56. Shell/Sugar Factor	57. FM% Factor	58a. Moisture % Factor	58b.	59a. Test WT Factor	59b.	60a. Adjusted Production	60b.	61. Prod. Not to Count	62. Production Pre-QA	63. Value Mkt. Price	64a. Quality Factor	64b.	65. Production to Count	66.
	NS	ACME ELEVATOR ANYTOWN, ANY STATE						10500		.80		15.5 .9940				8350			8350					8350
	NS	10.0	10.0	9.0		900.0	.4	360.0	23040	1.00		16.0 .9880		64	22764			22764					22764	
67. TOTAL																			31114	68. Section II Total		31114		
																			69. Section I Total		63181			
																			70. Unit Total		94295			
																			71. Allocated Prod.					
																			72. Total APH Prod.		94295			

Form Standards – Production Worksheet (Continued)

PRODUCTION WORKSHEET

1. Crop/Code # <b>POPCORN 0043</b>	2. Unit # <b>0001-0001BU</b>	3. Location Description <b>SW1-96N-3W</b>	7. Company Agency <b>ANY COMPANY ANY AGENCY</b>	8. Name of Insured <b>I.M. INSURED</b>
4. Date(s) of Damage <b>MAY 10</b>	5. Cause(s) of Damage <b>FREEZE</b>	6. Insured Cause % <b>100</b>	12. Additional Units	13. Est. Prod. Per Acre
9. Claim # <b>XXXXXXXX</b>				11. Crop Year <b>YYYY</b>
10. Policy # <b>XXXXXXXXXX</b>				14. Date(s) Notice of Loss <b>MM/DD/YYYY</b>
14. Date(s) 1st <b>MM/DD/YYYY</b>				2nd <b>MM/DD/YYYY</b>
14. Date(s) Final <b>MM/DD/YYYY</b>				15. Companion Policy(s)

SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

A. ACTUARIAL															B. POTENTIAL YIELD							
16. Field ID	17. Multi-Crop Code	18. Reported Acres	19. Determined Acres	20. Interest or Share	21. Risk	22. Type	23. Class	24. Sub-Class	25. Intended Use	26. Irr Practice	27. Cropping Practice	28. Organic Practice	29. Stage	30. Use of Acreage	31. Appraised Potential	32a. Moisture % Factor	32b. Shell %, Factor, or Value	33. Production Pre QA	34. Quality Factor	35. Production Post QA	36. Uninsured Causes	37. Total to Count
A			25.0	1.000		997					003		R	REPLANTED	140			3500		3500		3500
B			25.0	1.000		997					003		NR	NOT REPLANTED								
39. TOTAL			50.0	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 type="checkbox"/>												42. TOTALS		3500		3500		3500
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) The example above shows allowance when the actual cost is less than the maximum allowance. The insured's actual cost to replant was \$14.00 per acre with a price election of \$0.10 \$14.00 ÷ \$0.10 = 140 lbs. 140 lbs. x 25 acres replanted = 3,500 lbs. Acreage was determined using wheel measurements. Maximum allowed = \$15.00 (150 lbs. x \$0.10) See attached Special Report for wheel measurements.

SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

A. ACTUARIAL															B. POTENTIAL YIELD							
16. Field ID	17. Multi-Crop Code	18. Reported Acres	19. Determined Acres	20. Interest or Share	21. Risk	22. Type	23. Class	24. Sub-Class	25. Intended Use	26. Irr Practice	27. Cropping Practice	28. Organic Practice	29. Stage	30. Use of Acreage	31. Appraised Potential	32a. Moisture % Factor	32b. Shell %, Factor, or Value	33. Production Pre QA	34. Quality Factor	35. Production Post QA	36. Uninsured Causes	37. Total to Count
A			25.0	.500		997					003		R	REPLANTED	70			1750		1750		1750
B			25.0	.500		997					003		NR	NOT REPLANTED								
39. TOTAL			50.0	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 type="checkbox"/>												42. TOTALS		1750		1750		1750
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) Example above shows allowance when the actual cost is less than the maximum allowance when share is considered. Insured's actual cost to replant was \$7.00 per acre with a Price election of \$0.10. \$7.00 ÷ \$0.10 = 70 lbs. 70 lbs. x 25 acres replanted = 1750 lbs. Maximum allowed - \$7.50 (150 lbs. x \$0.10 x 50%) See attached Special Report for wheel measurements.



**Minimum Representative Sample Requirements**

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Acres in Field or Subfield	Minimum Number 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.	

**Row Length Factors**

<b>ROW WIDTH (INCHES)</b>	<b>ROW LENGTH (FEET) FOR 1/100 ACRE</b>	<b>ROW LENGTH (FEET) FOR 1/1000 ACRE</b>	<b>ROW LENGTH (FEET) FOR 1/2000 ACRE</b>
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
16	326.7	32.7	16.3
14	373.4	37.3	18.7

For row widths not listed above, use the following formula:

$$\frac{43,560 \text{ sq. ft./acre} \div \left[ \frac{\text{row width in inches}}{12"} \right]}{\begin{matrix} 100 \text{ ft.} & \text{or} & 1000 \text{ ft.} & \text{or} & 2000 \text{ ft.} \\ \text{(for 1/100 acre)} & & \text{(for 1/1000 acre)} & & \text{(for 1/2000 acre)} \end{matrix}}$$

**EXAMPLE:**

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

**Popcorn Stand Reduction – Percent of Potential Remaining**

Use from emergence through 10<sup>th</sup> leaf stage. Interpolate as necessary and round to the nearest whole percent. (DO NOT USE AFTER 10<sup>TH</sup> 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			
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		
O 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	
R 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	
I 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	
G 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	
I 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	
N 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	
A 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	
L 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	
S 210																			100	99	98	96	94	93	91	88	84	80	76	73	68	63	58	53	47	41	34	25	16	210	S	
T 200																				100	99	97	95	94	92	89	85	81	77	73	69	64	59	54	48	42	35	26	17	200	T	
A 190																					100	98	96	95	93	90	86	83	79	75	70	65	60	55	49	43	36	27	17	190	A	
N 180																						100	98	96	94	91	88	85	81	77	72	67	62	57	51	45	36	27	17	180	N	
D 170																							100	98	96	93	90	87	83	79	74	69	64	59	53	46	37	27	18	170	D	
160																								100	98	95	92	89	85	81	76	71	66	61	55	46	38	28	18	160		
150																									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																												100	97	93	88	83	78	73	67	50	40	30	21	120		
110																													100	97	92	88	83	78	72	51	40	30	23	110		
100																														100	96	92	88	83	77	52	41	31	23	100		
90																															100	96	92	88	83	77	52	41	31	24	90	
80																																100	96	91	85	54	42	32	25	80		
70																																	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)**

Hail Stand Reduction Loss

		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	400	0	0	1	2	2	3	3	3	4	5	6	8	9	11	13	14	16	18	20	22	24	26	28	31	33	36	39	42	45	48	52	57	63	69	76	81	86	90	95	400
	390	0	0	0	1	2	3	3	3	4	5	6	7	9	11	13	14	16	18	20	22	24	26	28	31	33	35	38	41	44	47	51	56	62	68	75	80	85	90	95	390
	380		0	0	1	1	2	2	3	4	5	6	7	9	11	13	14	16	18	20	22	24	26	28	31	33	35	38	41	44	47	51	56	61	67	74	79	84	90	95	380
	370			0	0	1	1	2	3	4	5	6	7	8	10	12	14	16	18	20	22	24	26	28	31	33	35	38	41	44	47	51	56	61	66	73	78	84	89	95	370
	360				0	0	1	1	2	3	4	6	7	7	9	11	13	15	17	19	22	24	26	28	31	33	35	38	41	44	47	50	54	59	65	72	78	83	89	94	360
	350					0	0	1	1	2	3	4	5	6	8	10	12	14	16	19	21	23	25	27	29	31	34	36	39	42	45	49	53	58	64	71	77	83	88	94	350
	340						0	0	1	1	2	3	4	5	6	8	10	12	15	17	19	21	24	26	28	31	33	36	39	42	45	49	53	58	64	70	76	82	88	94	340
	330							0	0	1	2	3	4	5	6	8	9	11	14	16	18	20	22	25	27	30	32	35	38	41	45	49	53	58	63	69	75	81	88	94	330
	320								0	1	2	3	4	5	6	7	8	9	11	13	16	18	21	23	26	29	32	35	38	41	45	49	53	57	62	68	74	80	86	92	320
	310									0	1	2	3	4	5	6	7	8	10	12	14	16	19	21	24	27	30	33	36	39	43	47	52	56	61	67	73	79	85	91	310
	300										0	1	2	3	4	5	6	7	9	11	12	14	17	20	23	25	28	31	34	37	41	45	50	55	60	66	71	77	83	89	300
	290											0	1	2	3	4	5	6	8	10	11	13	15	18	21	23	26	29	32	35	39	43	48	53	58	64	69	75	81	89	290
	280												0	1	2	3	5	6	7	9	10	12	14	16	19	21	24	27	30	34	37	41	46	51	57	63	67	73	79	88	280
	270													0	1	3	4	5	6	7	9	10	12	14	16	18	21	24	28	31	35	40	45	50	55	61	66	72	78	87	270
	260														0	1	3	4	5	6	7	9	10	12	14	16	19	22	25	29	33	38	43	48	53	59	64	70	77	86	260
	250															0	1	2	3	4	6	7	8	10	12	14	17	20	23	27	31	36	41	46	51	57	63	70	77	85	250
	240																0	1	2	3	4	5	6	9	10	12	15	18	22	26	29	34	40	45	50	56	62	69	76	85	240
	230																	0	1	2	3	4	5	8	9	11	14	17	21	25	29	33	39	44	49	55	62	69	76	85	230
	220																		0	1	2	3	4	7	8	10	13	16	20	24	28	33	38	43	48	54	60	67	75	84	220
	210																			0	1	2	4	6	7	9	12	16	20	24	27	32	37	42	47	53	59	66	75	84	210
200																				0	1	3	5	6	8	11	15	19	23	27	31	36	41	46	52	58	65	74	83	200	
190																					0	2	4	5	7	10	14	17	21	25	30	35	40	45	51	57	64	73	83	190	
180																						0	2	4	6	9	12	15	19	23	28	33	38	43	49	55	64	73	83	180	
170																							0	2	4	7	10	13	17	21	26	31	36	41	47	54	63	73	82	170	
160																								0	2	5	8	11	15	19	24	29	34	39	45	54	62	72	82	160	
150																									0	3	5	8	12	16	21	26	31	36	42	53	62	72	82	150	
140																										0	3	6	10	14	18	23	28	33	39	52	61	71	81	140	
130																											0	3	6	10	15	20	25	30	36	51	61	71	81	130	
120																												0	3	7	12	17	22	27	33	50	60	70	79	120	
110																													0	3	8	12	17	22	28	49	60	70	77	110	
100																														0	4	8	12	17	23	48	59	69	77	100	
90																															0	4	8	13	19	47	59	69	76	90	
80																																0	4	9	15	46	58	68	75	80	
70																																	0	4	9	15	46	58	68	74	70
60																																		0	5	44	57	67	73	60	
50																																			0	43	57	67	72	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	

**EXAMPLE:** To interpolate for 89 remaining plants and 240 original plants  
 (236 original plants rounded to 240);  
 89 is .9 of difference between 90 and 80;  
 $.9 \times 6(40 - 34) = 5.4$   
 40 minus 5.4 = 34.6 (rounded to 35)

**EXAMPLE: (For Remaining Plants of 0 – 10)**  
 To interpolate for 6 remaining plants and 240 original plants:  
 (236 original plants rounded to 240)  
 6 is .6 of difference between 0 and 10;  
 $.6 \times 15(100 - 85) = 9$   
 100 minus 9 = 91

Leaf Loss Chart

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 18<sup>th</sup> 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.

Stage Modification

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

## Shelling Percentage Factors – Ear Popcorn

(1) Wt. of Ear Popcorn Sample: (lbs.)	(2) Wt. of Shelled Popcorn Sample: (lbs.)	(3) EAR POPCORN Shelling Percentage For Weight Method Appraisals and Gross Weight Entries in Section II, column 57 of the Production Worksheet	(4) EAR POPCORN Shelling Percentage Factor For Structural Measurement Entries
5	4.4	.88	1.10
5	4.3	.86	1.08
5	4.2	.84	1.05
5	4.1	.82	1.03
5	4.0	.80	1.00
5	3.9	.78	.98
5	3.8	.76	.95
5	3.7	.74	.93
5	3.6	.72	.90
5	3.5	.70	.88
5	3.4	.68	.85
5	3.3	.66	.83
5	3.2	.64	.80
5	3.1	.62	.78
5	3.0	.60	.75
5	2.9	.58	.73
5	2.8	.56	.70
5	2.7	.54	.68
5	2.6	.52	.65
5	2.5	.50	.63
5	2.4	.48	.60
5	2.3	.46	.58
5	2.2	.44	.55
5	2.1	.42	.53
5	2.0	.40	.50

Popcorn Moisture Adjustment Factors

Whole Moisture Percent	Tenths of Percent - Moisture									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
15	1.0000	.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	.8180	.8160	.8140	.8120	.8100	.8080	.8060	.8040	.8020
31	.8000	.7980	.7960	.7940	.7920	.7900	.7880	.7860	.7840	.7820
32	.7800	.7780	.7760	.7740	.7720	.7700	.7680	.7660	.7640	.7620
33	.7600	.7580	.7560	.7540	.7520	.7500	.7480	.7460	.7440	.7420
34	.7400	.7380	.7360	.7340	.7320	.7300	.7280	.7260	.7240	.7220
35	.7200	.7180	.7160	.7140	.7120	.7100	.7080	.7060	.7040	.7020
36	.7000	.6980	.6960	.6940	.6920	.6900	.6880	.6860	.6840	.6820
37	.6800	.6780	.6760	.6740	.6720	.6700	.6680	.6660	.6640	.6620
38	.6600	.6580	.6560	.6540	.6520	.6500	.6480	.6460	.6440	.6420
39	.6400	.6380	.6360	.6340	.6320	.6300	.6280	.6260	.6240	.6220
40	.6200	.6180	.6160	.6140	.6120	.6100	.6080	.6060	.6040	.6020



**Popcorn – Combined Test Weight and Pack Factors**

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<b>Test Weight</b>	<b>Less Than 255 Sq. Ft. -</b>	<b>255 Sq. Ft. to 461 Sq. Ft. -</b>	<b>462 Sq. Ft. to 767 Sq. Ft. -</b>	<b>768 Sq. Ft. to 1384 Sq. Ft. -</b>	<b>1385 Sq. Ft. to 2289 Sq. Ft. -</b>	<b>2290 or Over Sq. Ft. -</b>
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

## Popcorn – Combined Test Weight and Pack Factors (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 popcorn. If the actual test weight is not shown on the chart, refer to [exhibit 7](#), Section II, [column 60b](#) for instructions.

**Popcorn Stage Characteristics**

**All Stage 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 <sup>th</sup> Leaf	3 days	5 <sup>th</sup>	9 <sup>th</sup>	6
8 <sup>th</sup> Leaf	3 days	6 <sup>th</sup>	10 <sup>th</sup>	10
9 <sup>th</sup> Leaf	3 days	7 <sup>th</sup>	11 <sup>th</sup>	16
10 <sup>th</sup> Leaf	3 days	7 <sup>th</sup>	12 <sup>th</sup>	23
11 <sup>th</sup> Leaf	3 days	8 <sup>th</sup>	13 <sup>th</sup>	31
12 <sup>th</sup> Leaf	3 days	9 <sup>th</sup>	14 <sup>th</sup>	41
13 <sup>th</sup> Leaf	3 days	10 <sup>th</sup>	15 <sup>th</sup>	50
14 <sup>th</sup> Leaf	3 days	11 <sup>th</sup>	16 <sup>th</sup>	60
15 <sup>th</sup> Leaf	3 days	12 <sup>th</sup>	17 <sup>th</sup>	69
16 <sup>th</sup> Leaf	3 days	13 <sup>th</sup>	18 <sup>th</sup>	77
17 <sup>th</sup> Leaf	3 days	14 <sup>th</sup>	---	84
18 <sup>th</sup> Leaf	2 days	15 <sup>th</sup>	----	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.		94+

**Popcorn 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	Kernels changing in color from translucent to yellow. Kernels of seed coat starting to show slight yellow appearance. Thin chalky or milky substance in kernels.	
Milk	5 days	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 tip of kernel. Crush kernel to determine existence of vitreous (glassy) starch deposits.	
Soft Dough	5 days	Pasty or semi-solid. Deposits of dense or horny endosperm give the impression of a small lens or incomplete cap to the kernel. Kernels still produce a milky substance when squeezed.	
25 percent stage	5 days	Thick gummy substance will be evident when kernel is squeezed but kernels will still squirt some milk when mashed. Glazing or (capping) evident near the butt end of the ear.	
50 percent stage	5 days	Capping evident in most kernels. While most kernels will not squirt milk when squeezed, there will be evidence of milk in the top of some kernels. the endosperm has shown signs of hardening.	
75 percent stage	5 days	All kernels are capped. Kernels showing distinct brown coloration. Drying of the husks.	
95 percent stage	5 days	Kernels have full coloration. Dry matter has accumulated in all but the tips of the kernels.	
100 percent stage	----	Physiological maturity and the point of maximum grain dry matter has been reached. Loss in weight from this point to full maturity (15 percent moisture) reflects reduction in moisture from approximately 40 percent to 15 percent.	

All stages are based on 50 percent of the plants being at or beyond a given phase of development. Modifications to the late reproductive stage characteristics of popcorn provided by E.J. Stevens, S.J. Stevens, A.D. Flowerday. University of Nebraska – Lincoln.

**NOTE:** See exhibit 18, Figures A, B, and C for descriptive pictures of the popcorn plant.

Popcorn Plant and Kernel Characteristics

FIGURE A

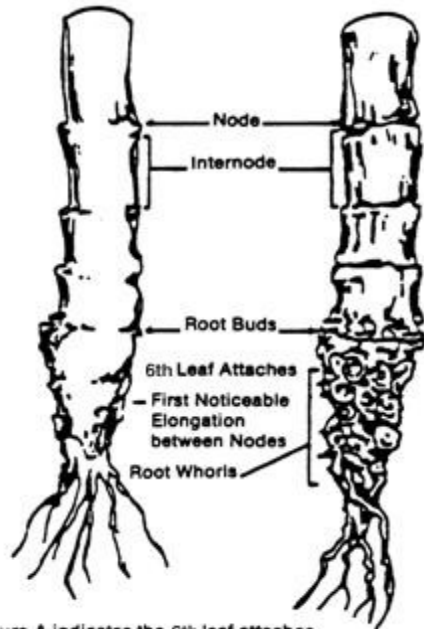


Figure A indicates the 6th leaf attaches at the first noticeable elongation between nodes starting at the root end.

FIGURE B

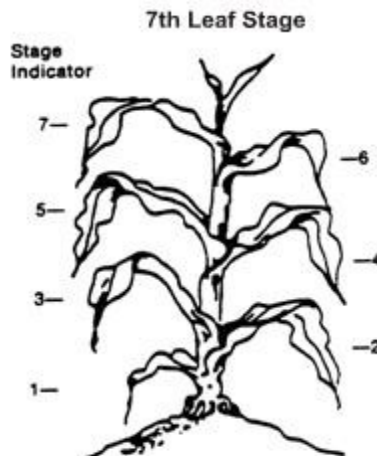
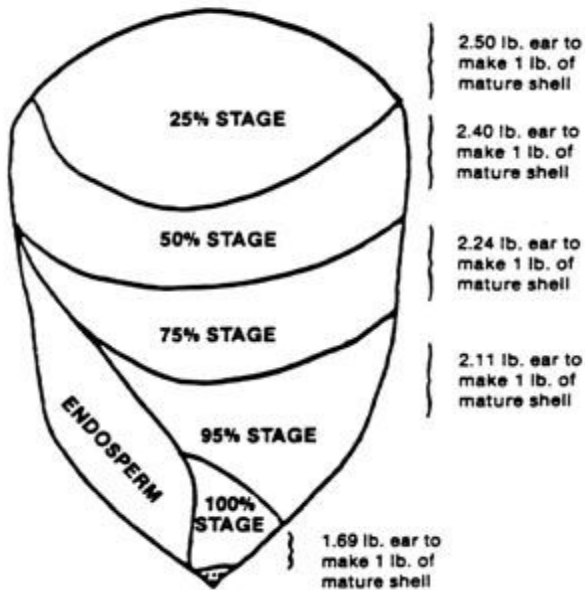


Figure B indicates that the stage indicator leaf is that leaf which is 40 to 50 percent exposed and is usually the uppermost leaf that is pointing below a horizontal line.

FIGURE C



Full Maturity

Figure C indicates the stages of maturity by determining in which quarter of the kernel that the line separating the solids and the milk is located.