



United States  
Department of  
Agriculture



Federal Crop  
Insurance  
Corporation

FCIC-25440 (10-2023)

# SOYBEAN LOSS ADJUSTMENT STANDARDS HANDBOOK

## 2024 and Succeeding Crop Years

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**UNITED STATES DEPARTMENT OF AGRICULTURE  
FARM PRODUCTION AND CONSERVATION  
RISK MANAGEMENT AGENCY**

<b>TITLE: SOYBEAN LOSS ADJUSTMENT STANDARDS HANDBOOK</b>	<b>NUMBER: FCIC-25440</b> <b>OPI: Product Administration and Standards Division</b>
<b>EFFECTIVE DATE: 2024 and Succeeding Crop Years</b>	<b>ISSUE DATE: October 25, 2023</b>
<b>SUBJECT:</b>  Provides the procedures and instructions for administering the Soybean crop insurance program.	<b>APPROVED:</b>  <i>/s/ John W. Underwood for</i>  Deputy Administrator for Product Management

**REASON FOR ISSUANCE**

This handbook provides procedures and instructions for administering the Soybean crop insurance program. This handbook replaces FCIC-25440, Soybean Loss Adjustment Standards Handbook, issued December 16, 2022. This handbook is effective for the 2024 and succeeding crop years and is not retroactive to any 2023 or prior crop year determinations.

**SUMMARY OF CHANGES**

Listed below are the significant content changes to the 2023 FCIC-25440 Soybean Loss Adjustment Standards Handbook. All changes, and additions are highlighted. Minor changes and corrections are not included in this listing. \*\*\* used throughout the handbook indicate where major deletions occurred.

<b>Reference</b>	<b>Description of Change</b>
Throughout	Updated to External Handbook Standards, including changing reference from insurance contract to insurance policy.
TP	Removed Control Chart and incorporated Filing Instructions into Reason for Issuance, per latest EHS.
<a href="#">Exhibit 3; Appraisal Worksheet Example (14 inch rows)</a>	Corrected entries for 14 inch rows.

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## PART 1: GENERAL INFORMATION AND RESPONSIBILITIES

### 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](http://www.rma.usda.gov).

This handbook remains in effect until superseded by reissuance. A bulletin or FAD can supersede selected portions of the handbook.

#### B. Source of Authority

Refer to the LAM for sources of authority.

#### C. Title VI of the Civil Right Act of 1964

The USDA prohibits discrimination against its customers. Title VI of the Civil Rights Act of 1964 provides that “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Therefore, programs and activities that receive Federal financial assistance must operate in a non-discriminatory manner. Also, a recipient of RMA funding may not retaliate against any person because they opposed an unlawful practice or policy, or made charges, testified, or participated in a complaint under Title VI.

It is the AIPs’ responsibility to ensure that standards, procedures, methods, and instructions, as authorized by FCIC in the sale and service of crop insurance policies, are implemented in a manner compliant with Title VI. Information regarding Title VI of the Civil Rights Act of 1964 and the program discrimination complaint process is available on the USDA public website at [www.ascr.usda.gov](http://www.ascr.usda.gov). For more information on the RMA Non-Discrimination Statement see the DSSH.

**D. Related Handbooks**

The following table provides handbooks related to this handbook.

Handbook	Relation/Purpose
CIH	This handbook provides the official FCIC-approved underwriting standards for policies administered by AIPs for the General Administrative Regulations, Common Crop Insurance Policy Basic Provisions, and Area Risk Protection Regulations.
DSSH	This handbook provides the official FCIC-approved form standards for use in the sale and service of any eligible Federal crop insurance policy; required statements and disclosures; and the standards for submission and review of non-reinsured supplemental policies in accordance with the SRA.
GSH	This handbook provides the official FCIC-approved standards for policies administered by AIPs under the General Administrative Regulations, Common Crop Insurance Policy Regulations Basic Provisions, including the Catastrophic Risk Protection Endorsement, the Area Risk Protection Insurance Regulations Basic Provisions; the Stacked Income Protection Plan of Insurance; the Rainfall Index Plan; and the Whole-Farm Revenue Protection Pilot Policy.
LAM	This handbook provides the official FCIC-approved general loss adjustment standards for all levels of insurance provided under FCIC unless a publication specifies that none or only specified parts of this handbook apply.

- (1) Terms, abbreviations, and definitions general (not crop specific) to loss adjustment are identified in the GSH and the LAM.
- (2) Terms, abbreviations, and definitions specific to Soybean loss adjustment and this handbook are in [Exhibit 1](#) and [Exhibit 2](#), herein.

**E. CAT Coverage**

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

**F. 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 and completion instructions in [Exhibits 3](#) and [Exhibit 4](#) are the minimum requirements for the Soybean Appraisal Worksheet and PW. All entry items are "Substantive" (they are required).
- (2) The Privacy Act and Non-Discrimination statements are required statements. These required statements are not shown on the example form(s) in [Exhibit 3](#) and [Exhibit 4](#). See the DSSH for the required statements.
- (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."
- (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](http://www.rma.usda.gov).



## PART 2: POLICY INFORMATION

The AIP determines if the insured has complied with all provisions of the insurance policy. The 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 CP, and the SP for a complete list.

- (1) The crop insured will be all soybeans in the county in which the insured has a share, for which premium rates are provided by the AD; and
  - (a) That are planted for harvest as beans;
  - (b) That are adapted to the area based on days to maturity and is compatible with agronomic and weather conditions in the area;
  - (c) Unless allowed in the SP or a written agreement, soybeans are not insurable if they are:
    - (i) interplanted with another crop; or
    - (ii) planted into an established grass or legume.
- (2) Unless otherwise allowed by the SP, soybeans must be mechanically incorporated into the soil in the planting process to be considered insurable. Refer to the LAM. Refer to the SP for any applicable allowed practices such as “Non-Conventional (NC).” The “Non-Conventional” practice applies to soybeans planted in a two-step operation in which the seed is first broadcast onto the surface of the soil by any method and is subsequently incorporated into the soil at the proper depth in a timely manner. Written agreements may be issued to insure soybean acreage seeded by methods not rated on the AD if specified standards provided for in the written agreement are met.
- (3) 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 BP for the definition of “Practical to Replant.” Refer to the LAM for replanting provision issues. Refer to [Part 3](#) of this handbook for replanting payment procedures.
- (4) In addition to the requirements in the BP, the insured must elect to insure soybeans with either revenue protection or yield protection by the sales closing date.

## 12 Unit Division

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Refer to the insurance policy 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 of the conditions stated in the applicable provisions are met.

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

## 13 Soybean Quality Adjustment

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- (1) The adjuster must refer to the SP if production is eligible for QA as identified in the CP.
- (2) 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).
- (3) Soybean production, in accordance with the CP, will be eligible for QA if:
  - (a) Deficiencies in quality (due to insurable causes of loss), in accordance with the Official United States Standards for Grain, result in soybeans not meeting the grade requirements for U.S. No. 4 or better (grades U.S. Sample Grade) because of kernel damage (excluding heat damage) or having a musty, sour, or commercially objectionable foreign odor (except garlic odor) or which meet the special grade for garlicky soybeans;
  - (b) The test weight is less than 49 pounds and DFs are provided in the SP;
  - (c) Substances or conditions are present that are identified by the FDA or other public health organizations of the United States as being injurious to human or animal health. "Green Damage" (soybeans which are discolored green in cross section), as described by FGIS, will be considered as a type of kernel damage; or
  - (d) Under section 15(j) of the BP, if due to insured causes, a Federal or State agency has ordered the appraised insured crop or production to be destroyed, enter the factor ".000" on the PW 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 [Exhibit 4](#)). Also refer to the LAM for additional information.

**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.

## 13 Soybean Quality Adjustment (Continued)

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- Refer to the LAM for instructions on who can obtain samples for grading and who can make determinations of deficiencies, conditions and substances that would cause the crop to qualify for QA.
- (4) When due to insurable cause(s), use of QA for soybeans is handled by determining the appropriate DFs from the SP, summing them together, if applicable, and subtracting from 1.000 to obtain the applicable QAF (percent of PTC). Refer to the SP for chart DFs, instructions for calculating non-chart DFs, and other discounts allowed. Also, refer to the LAM for examples and guidance in determining RIVs to determine non-chart DFs.
  - (5) Moisture adjustment is applied prior to applying any qualifying adjustment for quality such as test weight, kernel damage, etc. A soybean moisture adjustment chart is located in [Exhibit 16](#). Moisture adjustment results in a reduction in PTC of 0.12 percent for each 0.1 percent moisture in excess of 13 percent.
  - (6) For soybeans for which RIVs apply, and which can be conditioned/reconditioned, refer to the Quality Statement(s) in the SP and the LAM for instructions.
  - (7) If a local market cannot be found for the soybeans, refer to the LAM.
  - (8) Refer to the LAM for special instructions regarding mycotoxin-infected grain.
  - (9) Document QA information as described in the instructions for the Narrative section of the PW ([Exhibit 4](#)), or on a Special Report.
  - (10) For additional QA definitions, instructions, sampling requirements, graders, qualifications, and testing requirements; refer to the LAM and the Official United States Standards for Grain.
  - (11) For specialty use type soybeans, QA will be provided as specified in the CP and SP. No additional QA will be made for any specialty type. Specialty trait soybeans will be quality adjusted as commodity soybeans. The DF charts in the SP, or the RIV and LMP for commodity soybeans, as applicable, will be used for QA purposes, without regard to any contract price for the specialty type insured.

## 14-20 (Reserved)

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## PART 3: REPLANTING PAYMENT PROCEDURES

### 21 Replanting Payment Procedures

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- (1) Replanting payments made on acreage replanted by 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 one replanting payment has already been allowed for the crop year.
- (3) Specialty Type Soybeans (Large Seeded Food Grade, Small Seeded Food Grade; All Other Food Grade, Low Linolenic Acid, Low Saturated Fat, or High Protein):
  - (a) For specialty type soybeans insured at the contract price, it will not be considered practical to replant the specialty type soybean unless production from the replanted acreage can be delivered under the terms of the contract or the business enterprise has agreed to accept the production.
  - (b) When it is practical to replant the specialty type soybean originally planted, the acreage must be replanted to the specialty type originally planted on the acreage.
  - (c) When it is not practical to replant to the same specialty type soybean originally planted on the acreage, the policyholder may (1) choose to not replant and may receive an indemnity based on a crop appraisal; (2) replant the same specialty type soybean originally planted on the acreage; or plant to another crop, in which case the first/second crop rules apply; or (3) replant to another specialty type soybean or soybean commodity type, provided it is practical to replant such type. The replanted type will be considered a replanted crop. If it is not practical to replant to another specialty type soybean or soybean commodity type and any other type of soybean is planted, the crop planted will be considered a second crop.

If it is practical to replant to a different soybean type and the insured elected to replant to a different specialty type (provided all insurability requirements are met), or a commodity type, a revised acreage report (if previously filed) must be processed prior to processing a replant claim.

- (i) Standard rules for acreage report revision apply (refer to the LAM).
- (ii) The applicable projected price of the replanted soybean type will be used to determine any replanting payment and to establish the premium and liability for the replanted acreage.
- (iii) Acreage that is replanted to a different type may have an increase or decrease in liability from that originally reported.

## 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) bushel per acre appraisal (or the appraisal plus any appraisals for uninsured causes of loss) must be less than 90 percent of the bushel per acre production guarantee for the acreage the insured intends to replant (refer to [Paragraph 35](#));
- (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.

In the Narrative of the PW or on a Special Report, show the bushel per acre 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 product of multiplying the maximum bushels allowed in the policy (3 bushels) by the projected price of the replanted type, times the insured’s share in the crop; or
- (2) 20 percent of the production guarantee times the applicable projected price of the replanted type times the insured’s share.

Calculate the number of bushels per acre allowed for a replanting payment as follows. Show all calculations in the Narrative section of the PW or on a Special Report.

**Example 1:** Owner/operator (100 percent share)  
30 acres replanted  
20% of prod. guar. (37.5 bu. × 20%) × 1.000 (share) = 7.5 bu.  
3.0 bu. (maximum bu. allowed in policy) × 1.000 (share) = 3.0 bu.  
The lesser of 7.5 bu. or 3.0 bu. is 3.0 bu.  
Actual bushels per acre allowed = 3.0 bu.

## 23 Maximum Replanting Payment (Continued)

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Enter the number of bushels per acre allowed (3.0) in Section I - column 31, "Appraised Potential" of the PW.

**Example 2:** Landlord/tenant (50/50 share)  
30 acres replanted  
 $20\% \text{ of prod. guar. } (37.5 \text{ bu.} \times 20\%) = 7.5 \text{ bu.} \times .500 \text{ (share)} = 3.8 \text{ bu.}$   
 $3.0 \text{ bu. (maximum bu. allowed in policy)} \times .500 \text{ (share)} = 1.5 \text{ bu.}$   
The lesser of 3.8 bu. and 1.5 bu. is 1.5 bu.  
Actual bushels per acre allowed = 1.5 bu.

Enter the number of bushels allowed (1.5 bu.) if share has been applied, or the number of bushels allowed (3.0 bu.) 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 bushels allowed for replanting have/have not been reduced for share on the PW according to 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 replanting payment. Non-qualifying replanting 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)

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## 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) and general capabilities of the plants, and 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 5](#) (Minimum Representative Sample Requirements) for each field or subfield.

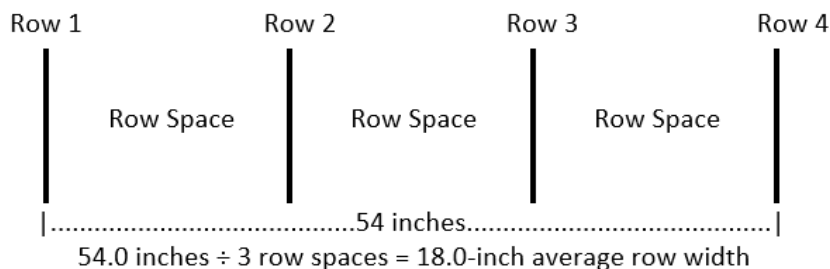
### 33 Measuring Row Width for Sample Selection

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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 to the nearest one-half inch.

#### Example:



### 33 Measuring Row Width for Sample Selection

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- (3) Apply the average row width to [Exhibit 6](#) (Row Width Factor) to determine the length of row required for the sample row. (The row-width factor is applied only to the Seed Count appraisal method.)
- (4) Where rows are skipped for tractor and planter tires, refer to the LAM.
- (5) For broadcast acreage, use a 3-foot square grid (9 square feet).

### 34 Plant Types and Stages of Growth

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- (1) These instructions provide plant-type and growth-stage information for use when appraising potential production during various stages of growth.
- (2) Soybean Types and Regions of Production. Soybeans fall into two general types, determinate and indeterminate, with several varieties in each type. Determinate soybeans discontinue vegetative growth prior to beginning reproductive stages. Indeterminate soybeans continue vegetative growth while in the reproductive stages. Determinate varieties usually are planted in the southern region and indeterminate varieties are planted in the northern region.
- (3) Plant Characteristics:
  - (a) Indeterminate type (Maturity Group IV and earlier-maturing varieties):
    - (i) Pods are generally formed on the main stem of the plant.
    - (ii) The plant is generally less bushy than the determinate varieties.
    - (iii) The blooming period begins earlier and extends over a longer period of time than the determinate type. Flowering begins at the 4th or 5th node and progresses upward.
  - (b) Determinate type (Maturity Group V and later-maturing varieties):
    - (i) Pods are formed on branches as well as on the main stem of the plant.
    - (ii) Plants branch out considerably more than the indeterminate type and reach almost full height before blooming.
    - (iii) The blooming period is shorter than the indeterminate type. Regardless of planting dates, the same (determinate type) variety will generally bloom at the same time and with the same duration. Flowering begins at the 8th or 10th node and progresses both up and down.



(4) Growth Stage Determination and Designation:

- (a) The growth stage determination is based on at least 50 percent of plants having reached the stage described. The main stem is used for stage determination and branches are ignored. Stage of growth is determined by the examination of 10 consecutive plants with a complete main stem. Fields should be split into sub-fields to reflect distinctly different stages from different parts of the field.
- (b) Designation:
  - (i) Vegetative (V) Stages - From emergence of the plant until first bloom.
  - (ii) Reproductive (R) Stages - After bloom through plant maturity.
- (c) For hail damage the stage of growth at the time of damage can be determined by inspecting the plant to determine the portions (leaves, pods, etc.) exposed at the time of the storm. In the absence of hail, and as verification, the stage can be determined by counting back from the date of adjustment by the time-intervals between stages.

**Note:** Do not attempt to go from reproductive to vegetative stages using time intervals.

(5) Vegetative Stage Identification:

- (a) Determination of all vegetative stages requires node identification. Vegetative stages are determined by counting the nodes above the cotyledonary node.
- (b) A node is the part of the stem from which leaves develop. When the leaf drops from the plant, the node is marked by a small knob that remains on the stem. Nodes, not leaves, are counted for stage determination.
- (c) The cotyledonary node has 2 cotyledons (seed leaves) located directly opposite each other at the bottom of the main stem. The cotyledons are pulled above the soil surface as the seedling develops.
- (d) The unifoliolate node has 2 unifoliolate (single leaflet) leaves located directly opposite each other, immediately above the cotyledonary node. This node is the first node counted in staging the growth of a soybean plant.
- (e) All nodes above the unifoliolate node have trifoliolate (three leaflet) leaves. The trifoliolate nodes alternate up the main stem with a node on one side of the stem, then above it another node on the opposite side of the stem.
- (f) To stage the plant, count the unifoliolate node and all nodes above it that have a fully developed trifoliolate leaf present (or missing). A trifoliolate leaf is considered fully developed when it has unrolled to the extent that the leaflet edges are no longer touching other portions of the leaflet.

## 34 Plant Types and Stages of Growth (Continued)

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- (g) Refer to [Exhibit 17](#) for V-Stage descriptions.
- (6) Reproductive Stage Identification:
  - (a) Reproductive stages are based on flowering, pod development, and plant maturation.
  - (b) Reproductive stages are subdivided into half stages for adjusting losses. Development for a half stage is midway between that of stages with a whole number. All stages are based on 50 percent of the plants in the sample at or beyond a given phase of development. References to four uppermost nodes include the top node with a fully developed trifoliolate leaf.
  - (c) The vegetative stage that occurs prior to the R1 (indeterminate) or R1-R2 (determinate) Stage may vary depending on the season, variety, time of planting, etc. Time intervals cannot be used to determine the vegetative stage that occurred immediately prior to R1 (indeterminate) or R1-R2 (determinate). Time intervals for half-stages are one-half the number of days between whole stages.
  - (d) Refer to [Exhibit 17](#) for R-Stage descriptions.

## 35 Appraisals Methods

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### A. General Information

Refer to [Exhibit 17](#) for explanation of growth stages for Soybeans.

These instructions provide information on the following appraisal methods:

Appraisal Method...	Use...
Stand Reduction Method	for planted acreage with no emerged seed, or on plants through the R6.5 Stage.
Plant Damage Method	when there is defoliation (leaf loss) and plants that are cutoff or broken over. Plant damage calculations apply to the percent of the crop remaining (after stand reduction).
Seed Count Method	from the R7 stage through full maturity to determine the appraisal after any insured cause of damage.

- (1) A separate worksheet is required for each unit inspected.
- (2) See below for sampling and row length requirements.

**B. Stand Reduction Method**

- (1) V-Stages for determinate soybeans and VC through R3.5 stage for indeterminate soybean stand reduction. Determine the amount of direct damage. Dead, missing, or non-emerged plants are included as direct damage in the VC through R3.5 stages for indeterminate soybeans and the V-stages for determinate soybeans.

If the reduction in stand is solely due to non-emerged seed due to insufficient soil moisture or frost/freeze damage, 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.

- (a) Determine the original number of plants, and the remaining number of live plants per acre (Part I, columns 15 & 16 of the appraisal worksheet). The original stand is the normal plant population to be expected based on the insured's seeding rate. Be aware that not all seeds planted will germinate. Use these steps:
- (i) Determine row width in inches unless broadcast.
  - (ii) Measure a 10-foot row length for the sample row of soybeans or use 3-foot by 3-foot square grid for broadcast soybeans.
  - (iii) Determine the original number of plants in the sample (living, dead/non-harvestable, missing, or non-emerged). If possible, when damage from an insurable cause results in missing plants or non-emergence, determine the original plants from an undamaged area of the unit.
  - (iv) Count the remaining number of live plants in the sample.
  - (v) Use [Exhibit 9](#) (Plants per Acre) to convert the original and remaining plants in the sample to plants per acre.
- (b) Use the values in [Exhibit 10](#) (Indeterminate Soybean Stand Reduction Loss) or [Exhibit 12](#) (Determinate Soybean Stand Reduction Loss) as applicable to determine stand reduction percent loss (Part I, column 18 of the appraisal worksheet).

**Example:** Indeterminate soybeans planted in 30-inch rows – V5 stage.

86 living and dead plants = 150,000 original plants/acre ([Exhibit 9](#)).

39 live plants = 67,500 remaining plants/acre ([Exhibit 9](#)).

Percent loss from stand reduction ([Exhibit 10](#)) = 12.0 percent.

**B. Stand Reduction Method (Continued)**

**Example:** Determinate soybeans planted in 30-inch rows – V5 stage.

86 living and dead plants = 150,000 original plants/acre ([Exhibit 9](#)).

39 live plants = 67,500 remaining plants/acre ([Exhibit 9](#)).

Percent loss from stand reduction ([Exhibit 12](#)) = 19.5 percent.

(2) R-Stage Plants Destroyed. For direct damage to R1 through R6.5 stage determinate soybeans, and R4 through R6.5 stage indeterminate soybeans (Part I, column 19 of the appraisal worksheet).

- (a) Count 100 consecutive plants (living and missing, non-emerged, dead/non-harvestable).
- (b) Determine the number of dead or non-harvestable plants in the 100-plant sample (refer to the LAM information on Unable to Mechanically Harvest). This is the percentage of dead/non-harvestable plants. Enter this number in Part I, column 19 of the appraisal worksheet.

Include any cutoffs and/or breakovers, from stage R4 through stage R6.5, on a factored basis, based on how many damaged plants are required to equal 1 undamaged plant (e.g., 2-for-1, or 3-for-1, etc.) if stand reduction is the only damage.

**Example:** Entry for 10 dead/non-harvestable plants, plus 10 plants cutoff/broken over factored on a 2-for-1 basis = 15 plants.

**C. Plant Damage Method (Part I - Appraisal Worksheet, items 22 and 23)**

(1) Use the plant damage method for defoliation damage on determinate soybean plants beginning with the V9 stage, through the R6.5 stage.

For indeterminate soybeans, beginning with the R1 stage, use the plant damage method for plants cut off or broken over in stages R1 through R3.5. Any plants cut off and/or broken over in stages R4 through R6.5 are included in column 19, "R-stage plants destroyed" of the Stand Reduction Method (on a factored basis).

Use the following procedure to record individual plant-count entries in the Field Notes section of the appraisal worksheet (plant damage is applied to the percent of the crop remaining):

**C. Plant Damage Method (Part I - Appraisal Worksheet, items 22 and 23) (Continued)**

- (a) Determine the number of original nodes (above the cotyledonary node) on the date of damage for a representative 20-plant sample and enter in item 33. The number of original nodes will be the number of nodes per plant for the stage times 20 (e.g., V9 stage, 9 nodes times 20 = 180 original nodes).
- (b) Determine the number of nodes cutoff and/or broken over on each plant in the 20-plant sample and enter in item 34.

An individual plant may have nodes broken over as well as nodes cut off above the break. In such cases, the total nodes above the cutoff or break are recorded.

- (c) Total the number of nodes cutoff and/or broken over. Divide the total by the total number of nodes on the date of damage to arrive at the percent of nodes destroyed.
  - (d) Refer to [Exhibit 13](#) (Cutoff/Breakover) to determine the percent of damage.
  - (e) For R stages and determinate V stages V9 - VN, determine the percent defoliation on each plant. Obtain the average defoliation percent and apply to the appropriate defoliation table ([Exhibit 14](#) (Indeterminate Soybean Defoliation Percent of Damage) or [Exhibit 15](#) (Determinate Soybean Defoliation Percent of Damage)) to arrive at the percent damage for the sample. Enter this percent damage in item 35 of the appraisal worksheet. On cutoffs or breakovers, count only trifoliolate leaflets below cutoff or breakover point on the stem in determining defoliation.
  - (f) To obtain the appraisal, multiply the percent potential (100 - percent damage) by the APH yield.
- (2) Refer to [Exhibit 18](#) for illustrations of defoliation (Fig. 1), a cutoff with defoliation (Fig. 2), and a breakover with defoliation (Fig. 3).

**D. Seed Count Method - (Part II, items 43 through 55 of appraisal worksheet)**

When this method is used, neither the stand reduction nor the plant damage method is used. In this method, seeds per square foot are determined and converted to bushels per acre by using the proper row width factor and seed size factor.

- (1) Determine the average row width as stated in [Paragraph 33](#) above and apply this number to [Exhibit 6](#) (Row Width Factor).

**D. Seed Count Method (Part II, items 43 through 55 of appraisal worksheet) (Continued)**

- (2) Count the number of live plants in the 10-foot sample row. Divide this number by “10” to determine the average plants per foot. (Do not count any plants which contain no seeds.)
- (3) Select five representative plants from the 10-foot sample row. Count the number of harvestable seeds on the selected plants. If there are less than five plants in the sample row, count and average the number of seeds per plant from all plants in the sample. (Do not count any plants which contain no seeds.)
- (4) Repeat steps (2) and (3) above for each sample taken.
- (5) Total the number of plants per foot from each sample and divide by the number of samples taken to determine the average number of plants per foot.
- (6) Total the number of seeds for each sample and divide by the total number of plants sampled to determine the average number of seeds per plant. (Do not count any plants for samples which contain no seeds.)
- (7) Determine the seed size factor by selecting 100 mature seeds from the sample plants and placing them in a graduated cylinder only (no syringes, etc.). Determine the number of cubic centimeters (cc’s) occupied by the seeds. Apply this number to [Exhibit 8](#) (Seed (Bean) Size Factor). If unable to obtain 100 mature seeds in the sample due to immaturity or swelling from excess moisture, use the factor of “.092” unless otherwise authorized.
- (8) Multiply:
  - (a) the row width factor, times;
  - (b) the seed size factor, times;
  - (c) the average number of plants per foot, times; and
  - (d) the average number of seeds per plant.

The result, rounded to tenths, is the appraisal in bushels per acre.

**E. Interpolation Tables**

A separate booklet of interpolation tables should not be used since the soybean interpolation tables have been incorporated into the following tables found in the exhibits.

- (1) Plants Per Acre Chart ([Exhibit 9](#)). Number of Plants in 10 feet of row (or in a 3-foot × 3-foot grid for broadcast soybeans).

## 35 Appraisals Methods (Continued)

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### E. Interpolation Tables (Continued)

- (2) Soybean Stand Reduction Loss ([Exhibit 10](#) and [Exhibit 11](#) for indeterminate beans; [Exhibit 12](#) for determinate beans).
- (3) Indeterminate Soybean Defoliation Percent of Damage ([Exhibit 14](#)). The percent of damage is considered “0” for live plants with less than 5 percent defoliation.
- (4) Determinate Soybean Defoliation Percent of Damage ([Exhibit 15](#)). The percent of damage is considered “0” for live plants with less than 5 percent defoliation.
- (5) Cutoff/Breakover ([Exhibit 13](#)) (either plant type).

## 36 Deviations and Modifications

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- (1) Deviations in appraisal methods require FCIC written authorization (as described in the LAM) prior to implementation.
- (2) Modifications in appraisal methods require AIP authorization (as described in the LAM).

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

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- (1) Include the AIP name in the appraisal worksheet title if not preprinted on the AIP’s worksheet, when a worksheet entry is not provided.
- (2) Include the claim number on the appraisal worksheet (when required by the AIP), when a worksheet entry is not provided.
- (3) Separate appraisal worksheets are required for each unit appraised, and for each field or subfield which has a differing base (APH) yield or farming practice (applicable to replant, preliminary, and final claims). Refer to [Paragraph 35](#) “Appraisal Methods” for sampling requirements.
- (4) For every inspection, complete items 1 through 12 and items 56 through 59. Complete Part I and II as instructed below. The following appraisal worksheet shows the required entries for the V and R stages, with and without plant damage.
- (5) V-Stages for Determinate Soybeans and VC through R3.5 Stage for Indeterminate Soybean Appraisals:
  - (a) If stand reduction is the only damage, complete Part I (except for columns 19, 21, 22, and 23 and the field notes) and items 30, 31, and 32.

- (b) If plant damage (cutoffs and/or breakovers) has occurred, complete items 13 through 18, items 20 through 29, and the field notes. If stand reduction has occurred, appraise plant damage on the remaining stand (refer to columns 21, 22, and 23). Defoliation is applied for determinate soybeans only in the stages V9 – VN.
- (6) R1 through R6 Stage Determinate Soybeans, and R4 through R6.5 Stage Indeterminate Soybean Appraisals:
- (a) If stand reduction is the only damage, complete Part I (except columns 16, 17, 18, 21, 22, 23, and the field notes). Cutoffs or breakovers from the R1 through R6 stage for determinate soybeans, and R4 through R6.5 stage for indeterminate soybeans are factored and are to be included in column 19.
  - (b) If plant damage (cutoffs or breakovers through R3.5, and/or defoliation (refer to [Exhibit 14](#) (Indeterminate Soybean Defoliation Percent of Damage) or [Exhibit 15](#) (Determinate Soybean Defoliation Percent of Damage) through R6.5 for indeterminate soybeans or R6 for determinate soybeans)) has occurred, complete Part I (except columns 16, 17, and 18). Appraise plant damage on the remaining stand if stand reduction has occurred (refer to columns 21, 22, and 23). Do not include cutoffs or breakovers in Part I, column 19 on a factored basis.
- (7) R7 through Full Maturity Appraisals use Part II, the Seed Count Method.
- (8) Standard appraisal worksheet items are numbered consecutively in [Exhibit 3](#). An example appraisal worksheet is also provided to illustrate how to complete entries.
- (9) For all zero appraisals, refer to the LAM.

**38-50 (Reserved)**

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

## EXHIBITS

### Exhibit 1 Acronyms and Abbreviations

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

Approved Acronym/Abbreviation	Term
AD	Actuarial Documents
AIP	Approved Insurance Provider
APH	Actual Production History
BP	Basic Provisions
CAT	Catastrophic Risk Protection
CIH	Crop Insurance Handbook
CP	Crop Provisions
DF	Discount Factor
DSSH	Document and Supplemental Standards Handbook
FAD	Final Agency Determination
FCIC	Federal Crop Insurance Corporation
FDA	Food and Drug Administration
FGIS	Federal Grain Inspection Service
FM	Foreign Material
FSA	Farm Service Agency
GSH	General Standards Handbook
GPS	Global Positioning System
LAM	Loss Adjustment Manual
LMP	Local Market Price
OPI	Office of Primary Interest
PPSH	Prevented Planting Standards Handbook
PTC	Production to Count
PW	Production Worksheet
QA	Quality Adjustment
QAF	Quality Adjustment Factor
RIV	Reduction in Value
RMA	Risk Management Agency
SP	Special Provisions
SRA	Standard Reinsurance Agreement
USDA	United States Department of Agriculture

**Harvest**: Combining, threshing, or picking the insured crop for grain, or cutting for hay, silage, or fodder.

**Exhibit 3 Form Standards - Appraisal Worksheet**

Verify and/or make the following entries for each appraisal worksheet item number/element. 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](#).

**Part I - Stand Reduction and Plant Damage**

Item Number/ Element	Description
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. Crop Year	Four-digit crop year, as defined in the policy, for which the claim is filed.
4. Unit Number	Unit number from the Summary of Coverage after it is verified to be correct.
5. Field ID	Field or subfield identification symbol.
6. Practice	Three-digit code entered exactly as specified on the <a href="#">AD</a> , for the practice carried out by the insured. If “No Practice Specified,” enter appropriate three-digit code from the <a href="#">AD</a> .
7. Company	Name of AIP, if not preprinted on the worksheet (Company Name).
8. Date of Damage	First three letters of the month during which most of the insured damage (including progressive damage) occurred. Include the specific date where applicable, as in the case of hail damage (e.g., Aug. 11).
9. Acres	Number of determined acres, to tenths, in field or subfield being appraised.
10. Variety	Variety name of soybeans being appraised, if known, followed by “D” if determinate type, or “I” if indeterminate.
11. Row Width	Row width to the nearest inch. If broadcast, enter “B.” Refer to <a href="#">Paragraph 33</a> for row width determination information.
12. Claim Number	Claim number as assigned by the AIP.

**DIRECT DAMAGE** (See [Paragraph 35B](#) for additional information.)

13. Sample No.	If more than five samples are needed, (refer to <a href="#">Exhibit 5</a> (Minimum Sample Requirements)) use additional pages and number the samples 6, 7, 8, etc.
14. DOD	Stage of growth on date of damage. (Refer to <a href="#">Paragraph 34</a> .)
15. DOA	Stage of growth on date of appraisal.
16. Original (1000): (V-Stage Appraisals Only)	Original stand (living and dead, missing, or non-emerged). Enter to the nearest 500 as a decimal rounded to tenths (e.g., enter 110,000 as 110.0). Refer to <a href="#">Exhibit 9</a> (Plants Per Acre) and entry in item 31.
17. Remaining: (V-Stage Appraisals Only)	Remaining stand (live plants). Refer to <a href="#">Exhibit 9</a> (Plants Per Acre) and entry in item 32. Enter to the nearest 500 as a decimal to tenths (e.g., enter 12,500 as 12.5).
18. Stand Reduction	(Percent of Loss – V-Stages for Determinate Soybeans and VC through R3.5 Stage for Indeterminate Soybean appraisals only): Stand reduction percent of loss to tenths from the appropriate table in <a href="#">Exhibits 10</a> , <a href="#">Exhibit 11</a> , or <a href="#">Exhibit 12</a> (Soybean Stand Reduction Loss).

**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

Item Number/ Element	Description
19. R-Stage Plants Destroyed	For stand reduction in the R stages (R1 through R6.5 Stage Determinate Soybeans, and R4 through R6.5 Stage Indeterminate Soybean), enter the number (percent) of dead or non-harvestable plants in a 100 plant (living and missing/dead/non-harvestable) sample. Include cutoffs and/or breakovers from the R4 through R6.5 stages on a factored basis only if stand reduction is the only damage. Refer to <a href="#">Subparagraph 35B (2)</a> . For indeterminate soybeans in the R1 through R3.5 stage, make no entry.
20. Total Direct Damage	Total direct damage to tenths from columns 18 or 19, as appropriate.
21. Crop (Remaining)	Enter the result of subtracting column 20 from 100 percent to tenths. If there is no direct damage, enter 100.0. If there is no plant damage (item 42), leave blank.

**PLANT DAMAGE** (See [Paragraph 35C](#) for additional information.)

22. Gross	If there is plant damage to the sample, complete the field notes and enter the item 42 entry for the same sample. If there is no plant damage, leave blank.
23. Net	Column 21 times column 22 (rounded to the nearest tenth percent) if there is an entry in column 22. If there is no entry in column 22, leave blank.
24. Total % Damage	Enter the total direct and plant damage (column 20 plus column 23, to the nearest tenth percent).
25. Total	Total of column 24 entries to nearest tenth percent. If more than five samples, enter only the accumulated total on the last page.

**COMPUTATIONS**

26. Sample Average Damage	Sample average damage to nearest tenth percent (item 25, total number of samples from all pages divided by the total number of samples from all pages).
27. % Potential	Enter the result of subtracting item 26 from 100 percent.
28. APH Yield	Enter the approved APH yield to nearest whole bushel from the APH form.
29. Appraisal Bu/A	Enter the result of multiplying item 27 by item 28, to the nearest tenth.

**SOYBEAN FIELD NOTES**

Complete the field notes on a representative sample of 20 consecutive plants from the sample area used for stand reduction if stand reduction has occurred. If not, select a representative 20-plant sample. See [Paragraph 35C](#) for additional information.

Item Number/ Element	Description
30. Sample Number	Match the sample with the same numbered sample used in item 13. If more than five samples are needed, use additional pages and number the samples "6," "7," "8," etc.
31. Total	(V-Stages for Determinate Soybeans and VC through R3.5 Stage for Indeterminate Soybean only) Total plants (living, dead, missing, and non-emerged) counted in 10 feet of row. For broadcast soybeans, count the number of plants in a 3 foot x 3 foot sample area.
32. Remaining	(V-Stages for Determinate Soybeans and VC through R3.5 Stage for Indeterminate Soybean only) Remaining live plants in 10 feet of row. For broadcast soybeans, count the number of plants in a 3 foot x 3 foot sample area.
33. Total Nodes	Total number of nodes on the 20-plant sample, determined by multiplying the nodes per plant for the stage at date of damage times 20.
34. Nodes Cutoff/Broken Over	For V stages through R3.5, total number of nodes cutoff and/or broken over on each plant in the sample, entered under appropriate plant number.
35. % Defoliation	Percent defoliation on each plant in the sample. (Refer to Fig. 1 on the chart in <a href="#">Exhibit 18</a> .)  Defoliation is counted only in the V9 through R6.5 stages for determinate beans, and the R1 through R6.5 stages for indeterminate beans.
36. Total (Cutoff and/or Broken Over)	Total number of nodes cut off and/or broken over (add item 34 entries together for all 20 plants).
37. Total (Defoliation)	Total defoliation on the 20-plant sample (add item 35 entries together for all 20 plants).
38. % of Nodes (Cutoff/Broken Over)	Percent of nodes cut off (item 36 divided by item 33 rounded to nearest whole percent).
39. Average Defoliation Percent	Average defoliation (item 37 divided by 20 (number of plants sampled), rounded to the nearest whole percent).
40. % Damage (Cutoff/Broken Over)	Percent cutoff/broken over damage (nearest tenth percent) from <a href="#">Exhibit 13</a> (Cutoff/Breakover).
41. % Damage (Defoliation)	Percent defoliation damage (to the nearest tenth percent) from <a href="#">Exhibit 14</a> (Indeterminate Soybean Defoliation Percent of Damage) or <a href="#">Exhibit 15</a> (Determinate Soybean Defoliation Percent of Damage), as appropriate.
42. Total (Percent Plant Damage)	Total percent plant damage (item 40 + item 41), to tenths. Transfer this entry to column 22 ("Gross").

Part II - Seed Count Method (Use at R7 through full maturity)

Item Number/ Element	Description
43. Sample Number	Sample number. If more than ten samples are needed use additional pages and number the samples "11," "12," "13," etc.
44. Plants Per 10 Feet	Number of plants per ten-foot row length sample. If broadcast soybeans, count the number of plants in a 3 foot x 3 foot sample area. If there were no remaining or harvestable plants in the representative sample area or plants with pods containing no seeds, enter "0."
45. Plants Per Foot	Item 44 divided by 10 feet for each sample, to the nearest tenth. (The row-width factor of "2.22" for broadcast soybeans allows us to divide item 44 by 10 feet for broadcast as well as row-cropped soybeans.)
46. Total Seeds (5 Rep. Plants)	Total harvestable seeds counted from five representative soybean plants in each sample (item 44) or from all plants in the sample if there are only five plants, or less. If there were no remaining or harvestable soybean plants in the representative sample area, or the pods on the 5 plants contained no seeds, enter "0."
47. Total (item 45)	Total of all item 45 sample entries (if more than ten samples, enter on last page only).
48. Total (item 46)	Total of item 46 sample entries (if more than ten samples, enter on last page only).
49. Number of Samples	Total number of samples from all pages. Include any "0" samples in this count.
50. Total (Representative) Plants	Total of the representative plants from all samples (maximum of five plants per sample). If there are five plants or less in a sample, count all of those plants. Do not count any plants for samples with "0" entered in item 46.
51. Row Width Factor	Row width factor from <a href="#">Exhibit 6</a> (Row Width Factor) for the row width in item 11 ("Row Width").
52. Seed Size Factor	Seed (bean) size factor from <a href="#">Exhibit 8</a> (Seed (Bean) Size Factor). Refer to <a href="#">Subparagraph 35D (7)</a> .
53. Average Plants/Foot	Result of item 47 divided by item 49 (rounded to tenths).
54. Average Seeds/Plant	Result of item 48 divided by item 50 (rounded to tenths).
55. Appraisal (Bu/A)	Result of item 51 times item 52 times item 53 times item 54. Round end result to tenths.
56. Remarks	Remarks pertinent to the appraisal, sampling, conditions in general (e.g., - very hot and dry), etc. Document if there were less than five plants in a sample row and if immaturity or excess moisture interfered with determining the seed size factor.

**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

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

<b>Item Number/ Element</b>	<b>Description</b>
57. Adjuster's Signature, Code No., and Date	Signature of the adjuster, code number, and date signed after the insured (or insured's authorized representative) has signed. If the appraisal is performed prior to the signature date, document the date of appraisal in the Remarks section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative section of the PW.
58. Insured's Signature and Date	Insured's (or insured's authorized representative's) signature and date. Before obtaining 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.
59. Page	Page numbers - (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).



**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

FOR ILLUSTRATION PURPOSES ONLY																													
Soybean Appraisal Worksheet																													
PART I – STAND REDUCTION AND PLANT DAMAGE METHOD																													
1 Insured						2 Policy Number						3 Crop Year						4 Unit No.				5 Field ID				6 Practice			
I. M. INSURED						XXXXXXXX						YYYY						0001-0001 BU				A				003			
7 Company						8 Date of Damage						9 Acres				10 Variety				11 Row Width				12 Claim Number					
ANY COMPANY						AUG						10.0				WELLS - I				30"				XXXXX					
DIRECT DAMAGE													PLANT DAMAGE							24 Total Damage (20 + 23)		COMPUTATIONS							
13 Sample No.	STAGE OF GROWTH		V-STAGE		18 V-Stage Stand Reduction % Loss	19 R-Stage Plants Destroyed	20 Total Direct Damage	21 % Crop Remaining	22 Gross (Item 42)	23 Net (21 x 22)	24 Total Damage (20 + 23)	26 Sample Average Damage																	
	14 DOD	15 DOA	16 Original (1000)	17 Remaining (1000)								50.0																	
1	V4	V5	120.0	25.0	46.0		46.0				46.0	27 % Potential																	
2	V4	V5	125.0	22.5	50.0		50.0				50.0	28 APH Yield X																	
3	V4	V5	120.0	20.0	54.0		54.0				54.0	43																	
											25 Total		29 Appraisal (BU/A)																
SOYBEAN FIELD NOTES											150.0		21.5																
SAMPLE NUMBER	PLANTS PER 10 FEET		PLANT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL	% OF NODES	% DAMAGE	TOTAL		
30	31 Total	32 Remaining	34 Nodes Cut Off/ Broken Over																					36	38	40			
1	69	14																											
33 Total Nodes				35 % Defoliation																				37	39	41	+ =		
30	31 Total	32 Remaining	34 Nodes Cut Off/ Broken Over																					36	38	40			
2	71	13																											
33 Total Nodes				35 % Defoliation																				37	39	41	+ = 2		
30	31 Total	32 Remaining	34 Nodes Cut Off/ Broken Over																					36	38	40			
3	68	11																											
33 Total Nodes				35 % Defoliation																				37	39	41	+ =		
56 Remarks																													

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

**Exhibit 3 Form Standards – Appraisal Worksheet (Continued)**

FOR ILLUSTRATION PURPOSES ONLY

**Soybean Appraisal Worksheet**

**PART I – STAND REDUCTION AND PLANT DAMAGE METHOD**

1 Insured <b>I. M. INSURED</b>	2 Policy Number <b>XXXXXXXX</b>	3 Crop Year <b>YYYY</b>	4 Unit No. <b>0001-0001 BU</b>	5 Field ID <b>A</b>	6 Practice <b>003</b>
7 Company <b>ANY COMPANY</b>	8 Date of Damage <b>AUG</b>	9 Acres <b>10.0</b>	10 Variety <b>WELLS - I</b>	11 Row Width <b>14"</b>	12 Claim Number <b>XXXXX</b>

13 Sample No.	STAGE OF GROWTH		V-STAGE		18 V-Stage Stand Reduction % Loss	19 R-Stage Plants Destroyed	20 Total Direct Damage	21 % Crop Remaining	PLANT DAMAGE		24 Total Damage (20 + 23)	COMPUTATIONS	
	14 DOD	15 DOA	16 Original (1000)	17 Remaining (1000)					22 Gross (Item 42)	23 Net (21 x 22)		25 Sample Average Damage	27 % Potential
<b>1</b>	<b>V4</b>	<b>V5</b>	<b>150.0</b>	<b>52.5</b>	<b>20.0</b>		<b>20.0</b>				<b>20.0</b>	<b>23.3</b>	
<b>2</b>	<b>V4</b>	<b>V5</b>	<b>270.0</b>	<b>50.0</b>	<b>22.0</b>		<b>22.0</b>				<b>22.0</b>	<b>76.7</b>	
<b>3</b>	<b>V4</b>	<b>V5</b>	<b>250.0</b>	<b>42.5</b>	<b>28.0</b>		<b>28.0</b>				<b>28.0</b>	<b>43</b>	
SOYBEAN FIELD NOTES											25 Total <b>70.0</b>	29 Appraisal (BU/A) <b>33.0</b>	

SAMPLE NUMBER	PLANTS PER 10 FEET		PLANT NUMBER	V-STAGE																	TOTAL	% OF NODES	% DAMAGE	TOTAL				
	31 Total	32 Remaining		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					18	19	20	
<b>1</b>	<b>40</b>	<b>14</b>	34 Nodes Cut Off/ Broken Over																						36	38	40	
33 Total Nodes			35 % Defoliation																						37	39	41	+
<b>2</b>	<b>72</b>	<b>13</b>	34 Nodes Cut Off/ Broken Over																						36	38	40	
33 Total Nodes			35 % Defoliation																						37	39	41	+
<b>3</b>	<b>66</b>	<b>11</b>	34 Nodes Cut Off/ Broken Over																						36	38	40	
33 Total Nodes			35 % Defoliation																						37	39	41	+

56 Remarks

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

**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

FOR ILLUSTRATION PURPOSES ONLY

**SOYBEAN APPRAISAL WORKSHEET**

<b>PART I – STAND REDUCTION AND PLANT DAMAGE METHOD</b>														
1 Insured <b>I. M. INSURED</b>				2 Policy Number <b>XXXXXXXX</b>			3 Crop Year <b>YYYY</b>		4 Unit No. <b>0002-0002 BU</b>		5 Field ID <b>A</b>		6 Practice <b>002</b>	
7 Company <b>ANY COMPANY</b>				8 Date of Damage <b>JUN 10</b>			9 Acres <b>9.2</b>		10 Variety <b>WELLS - I</b>		11 Row Width <b>30"</b>		12 Claim Number <b>XXXXX</b>	

13 Sample No.	STAGE OF GROWTH		V-STAGE		18 V-Stage Stand Reduction % Loss	19 R-Stage Plants Destroyed	20 Total Direct Damage	21 % Crop Remaining	PLANT DAMAGE		24 Total Damage (20 + 23)	COMPUTATIONS		
	14 DOD	15 DOA	16 Original (1000)	17 Remaining (1000)					22 Gross (Item 42)	23 Net (21 x 22)		26 Sample Average Damage	27 % Potential	
1	V4	V5	120.0	25.0	46.0		46.0	54.0	14.6	7.9	53.9	57.9		
2	V4	V5	125.0	22.5	50.0		50.0	50.0	17.0	8.5	58.5	42.1	X	
3	V4	V5	120.0	20.0	54.0		54.0	46.0	15.6	7.2	61.2	43		
25 Total											173.6	29 Appraisal (BU/A)		18.1

SOYBEAN FIELD NOTES																							25 Total	29 Appraisal (BU/A)			
SAMPLE NUMBER	PLANTS PER 10 FEET		PLANT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					20
30 1	31 Total 69	32 Remaining 14	34 Nodes Cut Off/ Broken Over	4	1	4	2	0	3	4	1	2	3	3	0	1	4	0	1	3	4	1	3	36 44	38 55	40 14.6	
33 Total Nodes	80		35 % Defoliation																					37	39	41 +	42 = 14.6
30 2	31 Total 71	32 Remaining 13	34 Nodes Cut Off/ Broken Over	3	4	1	4	1	1	2	4	4	3	3	2	2	4	0	3	3	2	2	3	36 51	38 64	40 17.0	
33 Total Nodes	80		35 % Defoliation																					37	39	41 +	42 = 17.0
30 3	31 Total 68	32 Remaining 11	34 Nodes Cut Off/ Broken Over	1	4	2	3	4	1	4	3	2	3	4	0	2	2	0	1	3	1	4	3	36 47	38 59	40 15.6	
33 Total Nodes	80		35 % Defoliation																					37	39	41 +	42 = 15.6

56 Remarks

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

**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

FOR ILLUSTRATION PURPOSES ONLY

**SOYBEAN APPRAISAL WORKSHEET**

PART I – STAND REDUCTION AND PLANT DAMAGE METHOD														
1 Insured <b>I. M. INSURED</b>			2 Policy Number <b>XXXXXXXX</b>			3 Crop Year <b>YYYY</b>			4 Unit No. <b>0002-0002 BU</b>		5 Field ID <b>A</b>		6 Practice <b>002</b>	
7 Company <b>ANY COMPANY</b>			8 Date of Damage <b>JUN 10</b>			9 Acres <b>9.2</b>		10 Variety <b>WELLS - I</b>		11 Row Width <b>30"</b>		12 Claim Number <b>XXXXX</b>		

13 Sample No.	STAGE OF GROWTH		V-STAGE		18 V-Stage Stand Reduction % Loss	19 R-Stage Plants Destroyed	20 Total Direct Damage	21 % Crop Remaining	PLANT DAMAGE		24 Total Damage (20 + 23)	COMPUTATIONS	
	14 DOD	15 DOA	16 Original (1000)	17 Remaining (1000)					22 Gross (Item 42)	23 Net (21 x 22)		26 Sample Average Damage	27 % Potential
1	R3	R5				29.0	29.0	71.0	18.4	13.1	42.1	41.3	
2	R3	R5				34.0	34.0	66.0	9.4	6.2	40.2	58.7	X
3	R3	R5				34.5	34.5	65.5	10.9	7.1	41.6	43	
SOYBEAN FIELD NOTES											25 Total <b>123.9</b>	29 Appraisal (BU/A) <b>25.2</b>	

SAMPLE NUMBER	PLANTS PER 10 FEET		PLANT NUMBER	1																	TOTAL	% OF NODES	% DAMAGE	TOTAL			
	31 Total	32 Remaining		34 Nodes Cut Off/ Broken Over	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16					17	18	19
1	31 Total	32 Remaining	34 Nodes Cut Off/ Broken Over	4	1	4	2	0	3	4	1	2	3	3	0	1	4	0	1	3	4	1	3	36	38	40	
33 Total Nodes <b>280</b>			35 % Defoliation	40	40	50	50	35	45	40	30	35	50	60	40	35	40	35	45	50	35	30	35	37	39	41	42 =
2	31 Total	32 Remaining	34 Nodes Cut Off/ Broken Over	3	4	1	4	1	1	2	4	4	3	3	2	2	4	0	3	3	2	2	3	36	38	40	
33 Total Nodes <b>280</b>			35 % Defoliation	10	15	15	10	10	20	15	15	10	0	0	10	10	0	15	15	10	0	10	10	37	39	41	42 =
3	31 Total	32 Remaining	34 Nodes Cut Off/ Broken Over	1	4	2	3	4	1	4	3	2	3	4	0	2	2	0	1	3	1	4	3	36	38	40	
33 Total Nodes <b>280</b>			35 % Defoliation	20	30	30	20	20	20	30	30	20	10	10	20	20	10	25	25	15	15	20	20	37	39	41	42 =

56 Remarks

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

**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

FOR ILLUSTRATION PURPOSES ONLY

**Soybean Appraisal Worksheet**

**PART I – STAND REDUCTION AND PLANT DAMAGE METHOD**

1 Insured <b>I. M. INSURED</b>	2 Policy Number <b>XXXXXXXX</b>	3 Crop Year <b>YYYY</b>	4 Unit No. <b>0003-0003 BU</b>	5 Field ID <b>A</b>	6 Practice <b>003</b>
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7 Company <b>ANY COMPANY</b>	8 Date of Damage <b>AUG 11</b>	9 Acres <b>10.0</b>	10 Variety <b>WELLS - D</b>	11 Row Width <b>30"</b>	12 Claim Number <b>XXXXX</b>
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13 Sample No.	STAGE OF GROWTH		V-STAGE		18 V-Stage Stand Reduction % Loss	19 R-Stage Plants Destroyed	20 Total Direct Damage	21 % Crop Remaining	PLANT DAMAGE		24 Total Damage (20 + 23)	26 Sample Average Damage <b>41.3</b>
	14 DOD	15 DOA	16 Original (1000)	17 Remaining (1000)					22 Gross (Item 42)	23 Net (21 x 22)		
1	<b>R3</b>	<b>R5</b>				<b>29.0</b>	<b>29.0</b>	<b>71.0</b>	<b>18.4</b>	<b>13.1</b>	<b>42.1</b>	27 % Potential <b>58.7</b> 28 APH Yield X <b>43</b> =
2	<b>R3</b>	<b>R5</b>				<b>34.0</b>	<b>34.0</b>	<b>66.0</b>	<b>9.4</b>	<b>6.2</b>	<b>40.2</b>	
3	<b>R3</b>	<b>R5</b>				<b>34.5</b>	<b>34.5</b>	<b>65.5</b>	<b>10.9</b>	<b>7.1</b>	<b>41.6</b>	
25 Total											<b>123.9</b>	29 Appraisal (BU/A) <b>25.2</b>

SOYBEAN FIELD NOTES

SAMPLE NUMBER	PLANTS PER 10 FEET	PLANT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL	% OF NODES	% DAMAGE	TOTAL
30 <b>1</b>	31 Total <b>280</b>	32 Remaining <b>34</b>	34 Nodes Cut Off/Broken Over <b>4</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>44</b>	<b>16</b>	<b>7.4</b>	
33 Total Nodes	<b>280</b>	35 % Defoliation	<b>40</b>	<b>40</b>	<b>50</b>	<b>50</b>	<b>35</b>	<b>45</b>	<b>40</b>	<b>30</b>	<b>35</b>	<b>50</b>	<b>60</b>	<b>40</b>	<b>35</b>	<b>40</b>	<b>35</b>	<b>45</b>	<b>50</b>	<b>35</b>	<b>30</b>	<b>35</b>	<b>820</b>	<b>41</b>	<b>11.0</b>	<b>18.4</b>
30 <b>2</b>	31 Total <b>280</b>	32 Remaining <b>34</b>	34 Nodes Cut Off/Broken Over <b>3</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>51</b>	<b>18</b>	<b>8.4</b>	
33 Total Nodes	<b>280</b>	35 % Defoliation	<b>10</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>200</b>	<b>10</b>	<b>1.0</b>	<b>9.4</b>
30 <b>3</b>	31 Total <b>280</b>	32 Remaining <b>34</b>	34 Nodes Cut Off/Broken Over <b>1</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>47</b>	<b>17</b>	<b>7.9</b>	
33 Total Nodes	<b>280</b>	35 % Defoliation	<b>20</b>	<b>30</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>30</b>	<b>30</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>10</b>	<b>25</b>	<b>25</b>	<b>15</b>	<b>15</b>	<b>20</b>	<b>20</b>	<b>410</b>	<b>21</b>	<b>3.0</b>	<b>10.9</b>	

56 Remarks

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

**Exhibit 3 Form Standards - Appraisal Worksheet (Continued)**

PART II - SEED COUNT METHOD TO BE USED AFTER R-7															
1 Insured <b>I. M. INSURED</b>				2 Policy Number <b>XXXXXXXX</b>				3 Crop Year <b>YYYY</b>		4 Unit No. <b>0004-0004 BU</b>		5 Field ID <b>A</b>		6 Practice <b>003</b>	
7 Company <b>ANY COMPANY</b>				8 Date of Damage <b>AUG</b>				9 Acres <b>10.0</b>		10 Variety <b>WELLS - D</b>		11 Row Width <b>30"</b>		12 Claim Number <b>XXXXXX</b>	
43 SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10			51 Row Width Factor <b>.80</b>		
44 Plants Per 10 Feet	<b>17</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>19</b>	<b>16</b>							52 Seed Size Factor $\times$ <b>.064</b>		
45 Plants Per Foot	<b>1.7</b>	<b>0</b>	<b>1.5</b>	<b>0</b>	<b>1.9</b>	<b>1.6</b>							47 Total $\div$ 49 = <b>6.7</b> $\div$ <b>6</b> = <b>1.1</b>		53 Average Plants/Foot $\times$ <b>1.1</b>
46 Total Seeds (5 Rep. Plants)	<b>320</b>	<b>0</b>	<b>125</b>	<b>0</b>	<b>175</b>	<b>145</b>					48 Total $\div$ 50 = <b>765</b> $\div$ <b>20</b> = <b>38.3</b>		54 Average Seeds/Plants $\times$ <b>38.3</b>		
												55 Appraisal(BU/A) <b>2.2</b>			

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

**Exhibit 4 Form Standards - Production Worksheet**

Verify and/or make the following entries for each PW item number/element. 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](#).

Item Number/ Element	Description
1. Crop/Code #	"Soybeans" (0081).
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 cause of loss, 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 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>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description												
6. Insured Cause %	<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 cause of loss, 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 percents:</p> <table border="0" data-bbox="527 835 1515 1031"> <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 Hail</td> <td>Drought</td> <td>Moisture</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 Hail	Drought	Moisture	6. Insured Cause %	40	20	30
4. Date(s) of Damage	May	JUN 30	AUG										
5. Cause(s) of Damage	Excess Hail	Drought	Moisture										
6. Insured Cause %	40	20	30										
7. Company/Agency	Name of company and agency servicing the insurance policy.												
8. Name of Insured	Name of the insured that identifies exactly the person (legal entity) to whom the policy is issued.												
9. Claim #	Claim number as assigned by the AIP.												
10. Policy #	Insured’s assigned policy number.												
11. Crop Year	Four-digit crop year, as defined in the policy, for which the claim is filed.												
12. Additional Units	<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 PW has not been completed. Additional non-loss units may be entered on a single PW.</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>												
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 bushels, of all non-loss units for the crop at the time of final inspection.</p>												



**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
<p>14. Date(s) Notice of Loss</p>	<p><b>Preliminary:</b></p> <ul style="list-style-type: none"> <li>(1) 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>(2) 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>(3) 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>(4) If the inspection is initiated by the AIP, enter “Company Insp.” instead of the date.</li> <li>(5) 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>
<p>15. Companion Policy(s)</p>	<ul style="list-style-type: none"> <li>(1) If no other person has a share in the unit (insured has 100 percent share), make no entry.</li> <li>(2) 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 policy (i.e., not crop-hail, fire, etc.). If the other person does not, enter “None.” <ul style="list-style-type: none"> <li>(a) If the other person has a multiple-peril crop insurance policy and it can be determined that the same AIP services it, enter the policy number. Handle these companion policies according to AIP instructions.</li> <li>(b) If the other person has a multiple-peril crop insurance policy and a different AIP or agent services it, enter the name of the AIP and/or agent (and policy number) if known.</li> </ul> </li> </ul>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
15. Companion Policy(s) (Continued)	(c) If unable to verify the existence of a companion policy, enter "Unknown" and contact the AIP for further instructions.  (3) Refer to the LAM for further information regarding companion policies.

**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.

Item Number/ Element	Description
16. Field ID	The field identification symbol from a sketch map or an aerial photo. Refer to the Narrative.  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.
17. Multi-Crop Code	<b>Replant:</b> Make no entry.  <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.
18. Reported Acres	In the event of over-reported acres, handle in accordance with the individual AIP’s instructions. In the event of under-reported acres, enter the reported acres to tenths for the field or sub field. If there are no under-reported acres, make no entry.

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
<p>19. Determined Acres</p>	<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>(1) Put to other use without consent;</li> <li>(2) Abandoned;</li> <li>(3) Damaged by uninsured causes; or</li> <li>(4) 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 (do not estimate). Make a separate line entry for any part of a field not replanted.</p> <ul style="list-style-type: none"> <li>(1) Determine the planted acreage of any fields not replanted. Consolidate it into a single line entry unless the usual reasons for separate line entries apply. Record the field identities (from a map or aerial photo) in the Narrative.</li> <li>(2) Account for all planted acreage in the unit.</li> </ul> <p><b>Preliminary and Final:</b> Determined acres to tenths.</p> <p>Acreage breakdowns within a unit or field may be estimated (refer to the LAM) if a determination is impractical.</p> <p>Account for all planted acreage in the unit.</p>
<p>20. Interest or Share</p>	<p>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.</p>
<p>21. Risk</p>	<p>Three-digit code for the correct “Rate” as specified on the <b>AD</b> maps. If a “Rate” or “High-Risk Area” is not specified on the <b>AD</b> 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.</p> <p>Unrated land is uninsurable without a written agreement.</p>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/Element	Description
22. Type	Three-digit code, entered exactly as specified on the AD for the type grown by the insured. If “No Type Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If a type is not specified on the AD, make no entry.
23. Class	Three-digit code, entered exactly as specified on the AD for the class grown by the insured. If “No Class Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If a class is not specified on the AD, make no entry.
24. Sub-Class	Three-digit code, entered exactly as specified on the AD for the sub-class grown by the insured. If “No Sub-Class Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If a sub-class is not specified on the AD, make no entry.
25. Intended Use	Three-digit code, entered exactly as specified on the AD for the intended use of the crop grown by the insured. If “No Intended Use Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If an intended use is not specified on the AD, make no entry.
26. Irr. Practice	Three-digit code, entered exactly as specified on the AD for the irrigated practice carried out by the insured. If “No Irrigated Practice Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If an irrigated practice is not specified on the AD, make no entry.
27. Cropping Practice	Three-digit code, entered exactly as specified on the AD for the cropping practice (or practice) carried out by the insured. If “No Cropping Practice Specified” or “No Practice Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If a cropping practice is not specified on the AD, make no entry.
28. Organic Practice	Three-digit code, entered exactly as specified on the AD for the organic practice carried out by the insured. If “No Organic Practice Specified” is shown in the AD, enter the appropriate three-digit code from the AD (e.g., 997). If an organic practice is not specified on the AD, make no entry.

Item Number/ Element	Description																				
29. Stage	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Replant:</b> Replant stage abbreviation as shown below.</p> <table border="0"> <thead> <tr> <th data-bbox="527 373 787 405"><u>Stage</u></th> <th data-bbox="873 373 1036 405"><u>Explanation</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="527 447 787 520">"R" .....</td> <td data-bbox="873 447 1502 520">Acreage replanted and qualifying for replanting payment.</td> </tr> <tr> <td data-bbox="527 562 787 594">"NR" .....</td> <td data-bbox="873 562 1177 594">Acreage not replanted.</td> </tr> <tr> <td data-bbox="527 636 787 709">"RN" .....</td> <td data-bbox="873 636 1421 709">Acreage replanted and not qualified for a replanting payment.</td> </tr> <tr> <td data-bbox="527 751 787 951">"P" .....</td> <td data-bbox="873 751 1518 951">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.</td> </tr> <tr> <td data-bbox="527 993 787 1024">"H" .....</td> <td data-bbox="873 993 1023 1024">Harvested.</td> </tr> <tr> <td data-bbox="527 1066 787 1098">"UH" .....</td> <td data-bbox="873 1066 1485 1098">Unharvested or put to other use with consent.</td> </tr> <tr> <td data-bbox="527 1140 787 1213">"TZ" .....</td> <td data-bbox="873 1140 1485 1213">UUF/Third Party Damage – Zero production on same acreage.</td> </tr> <tr> <td data-bbox="527 1255 787 1329">"TA" .....</td> <td data-bbox="873 1255 1372 1329">UUF/ Third Party Damage – Appraised production on same acreage.</td> </tr> <tr> <td data-bbox="527 1371 787 1444">"TH" .....</td> <td data-bbox="873 1371 1372 1444">UUF/Third Party Damage – Harvested production on same acreage.</td> </tr> </tbody> </table> <p><b>Prevented Planting:</b> Refer to the PPSH for proper codes for any eligible prevented planting acreage.</p> <p><b>Gleaned Acreage:</b> Refer to the LAM for information on gleaning.</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.	"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.
<u>Stage</u>	<u>Explanation</u>																				
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"TH" .....	UUF/Third Party Damage – Harvested production on same acreage.																				

Exhibit 4 Form Standards - Production Worksheet (Continued)

Item Number/ Element	Description																		
<p>30. Use of Acreage</p>	<p>Use of acreage. Use the following "Intended Use" abbreviations.</p> <table border="0"> <thead> <tr> <th data-bbox="527 296 808 327">Use</th> <th data-bbox="873 296 1036 327">Explanation</th> </tr> </thead> <tbody> <tr> <td data-bbox="527 369 808 401">"Replant" .....</td> <td data-bbox="873 369 1036 401">Acreage replanted.</td> </tr> <tr> <td data-bbox="527 443 808 474">"Not Replanted" .....</td> <td data-bbox="873 443 1036 474">Acreage not replanted.</td> </tr> <tr> <td data-bbox="527 516 808 548">"To Millet" .....</td> <td data-bbox="873 516 1036 548">Use made of the acreage.</td> </tr> <tr> <td data-bbox="527 590 808 621">"WOC" .....</td> <td data-bbox="873 590 1036 621">Other use without consent.</td> </tr> <tr> <td data-bbox="527 663 808 695">"SU" .....</td> <td data-bbox="873 663 1036 695">Solely uninsured.</td> </tr> <tr> <td data-bbox="527 737 808 768">"ABA" .....</td> <td data-bbox="873 737 1036 768">Abandoned without consent.</td> </tr> <tr> <td data-bbox="527 810 808 842">"H" .....</td> <td data-bbox="873 810 1036 842">Harvested.</td> </tr> <tr> <td data-bbox="527 884 808 915">"UH" .....</td> <td data-bbox="873 884 1036 915">Unharvested.</td> </tr> </tbody> </table> <p>Verify any "Intended Use" entry. If final use of the acreage was not as indicated, strike out the original line and initial it. Enter all data on a new line showing the correct "Final Use." Refer to the LAM regarding "WOC."</p> <p><b>Prevented Planting:</b> Refer to the PPSH for proper codes for any eligible prevented planting acreage.</p> <p><b>Gleaned Acreage:</b> Refer to the LAM for information on gleaning.</p>	Use	Explanation	"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.
Use	Explanation																		
"Replant" .....	Acreage replanted.																		
"Not Replanted" .....	Acreage not replanted.																		
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"ABA" .....	Abandoned without consent.																		
"H" .....	Harvested.																		
"UH" .....	Unharvested.																		
<p>31. Appraised Potential</p>	<p><b>Replant:</b> Enter the bushels per acre allowed for replanting to the nearest tenth as determined from the replant calculation documented in the Narrative. (Refer to Part 3, for qualifications and computations.)</p> <p><b>Preliminary and Final:</b> Per-acre appraisal in bushels, to tenths, of potential production for the acreage appraised as shown on the appraisal worksheet. Refer to <a href="#">Paragraph 35</a>, "Appraisal Methods" for additional instructions.</p>																		
<p>32a. Moisture %</p>	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> Moisture percent to nearest tenth only if in excess of the percentage stated in the Coarse Grains CP. Moisture adjustment is applied prior to applying any qualifying adjustment for quality.</p>																		

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
32b. Factor	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> Moisture factor - For appraised mature soybean production with moisture percentage in excess of the amount allowed in the Coarse Grains CP, obtain factor from <a href="#">Exhibit 16</a>.</p>
33. Shell %, Factor, or Value	<p>Make no entry.</p>
34. Production Pre QA	<p><b>Replant:</b> Enter the result of multiplying column 31 times column 19 rounded to the nearest tenth. 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, if applicable, rounded to tenths. If no entry in column 31, make no entry.</p>
35. Quality Factor	<p><b>Replant:</b> Make no entry.</p> <p><b>Preliminary and Final:</b> For mature unharvested production which due to insurable causes qualifies for QA as provided in the Coarse Grains CP, enter the QAF as a three-place decimal calculated in accordance with the Quality Statement(s) in the SP (e.g., 1.000 - .750 DF = .250 QAF). If the QAF is zero, enter “.000.” Document all calculations in the Narrative of the PW (or on a Special Report). Include a copy of all supporting documentation in the insured’s claim file. For additional QA definitions, instructions, documentation, qualifications, and testing requirements, refer to the LAM and the Official United States Standards for Grain. Also refer to the QA instructions in the Narrative, herein.</p> <p>Refer to <a href="#">Paragraph 13(3)</a> if, due to insured causes, a Federal or State agency has ordered the appraised crop or production to be destroyed.</p> <p>If appraised mature production is determined by the AIP to have zero market value, enter “.000.” Refer to the SP and the LAM.</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 tenths. If no entry in column 35, transfer entry from column 34.</p>

Item Number/ Element	Description
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 tenths. Refer to the LAM for information on how to determine uninsured cause appraisals. If no uninsured causes, make no entry.</p> <p>(1) Hail and Fire Exclusion not in effect.</p> <p>(a) Enter the result of multiplying column 19 entry by not less than the insured’s production guarantee per acre for yield protection or for revenue protection not less than the amount of production that when multiplied by the harvest price equals the revenue protection guarantee, in bushels, to tenths, 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>(b) 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> <p>(c) For acreage that is damaged partly by uninsured causes, enter the result of multiplying the appraised uninsured loss of production per acre in bushels to tenths, by column 19 entry for any such acreage.</p> <p>(2) 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>(3) Refer to the LAM when a Hail and Fire Exclusion is in effect and damage is from hail or fire.</p> <p>(4) Enter the result of adding uninsured cause appraisals to Hail and Fire Exclusion appraisals.</p> <p>(5) For fire losses, if the insured also has other fire insurance (double coverage), refer to the LAM.</p>



**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
38. Total to Count	Result of adding item 36 and item 37, to tenths.
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 QA 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> <p>Test Weight (TW)</p> <p>Kernel Damage (KD) and Total Defects</p> <p>Garlicky (Grade)</p> <p>Aflatoxin</p> <p>Vomitoxin</p> <p>Fumonisin</p> <p>Dark Roast (for Sunflowers only)</p> <p>Sclerotinia (for Sunflowers only)</p> <p>Ergoty (Grade)</p> <p>COFO (commercially objectionable foreign odor) (includes Musty and Sour Odor)</p> <p>Other</p> <p>None</p> <p>(1) For all qualifying QA conditions checked, in the Narrative (or on a Special Report):</p> <p>(a) 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</p>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
40. Quality (Continued)	<p>(b) 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).</p> <p>(2) If "Other" is checked, in addition to the above documentation requirements, document in the Narrative (or on a Special Report):</p> <p>(a) A description of the qualifying QA condition; and</p> <p>(b) If applicable, the name of the controlling authority that considers this qualifying QA condition to be injurious to human or animal health and why.</p> <p>Refer to <a href="#">Paragraph 13</a>(3) if, due to insured causes, a Federal or State agency has ordered the appraised crop or production to be destroyed.</p> <p>(3) Check "None" if none of the production qualifies for QA.</p>
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> <p>(1) Sold, document the name and address of the buyer; or</p> <p>(2) Not sold, document the date(s) of the disposition, how the production was used, or how it was destroyed.</p> <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.

- (1) If no acreage is released on the unit, enter "No acreage released," adjuster's initials, and date.
- (2) If notice of damage was given and no inspection is required, 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.
- (3) Explain any uninsured causes, unusual, or controversial cases.
- (4) 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.
- (5) 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.
- (6) 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.
- (7) Explain any errors found on the Summary of Coverage.
- (8) Explain any commingled production. Refer to the LAM.
- (9) 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).
- (10) Explain a "No" checked in item 44.
- (11) Attach a sketch map or aerial photo to identify the total unit:
  - (a) If consent is or has been given to put part of the unit to another use or to replant;
  - (b) If acreage has been replanted to a practice uninsurable as an original practice;
  - (c) If uninsured causes are present; or
  - (d) For unusual or controversial cases.

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

**Narrative Instructions (Continued)**

- (12) 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.
- (13) 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.
- (14) Explain the reason for a “No Indemnity Due” claim. “No Indemnity Due” claims are to be distributed in accordance with the AIP’s instructions.
- (15) Explain any delayed notices or delayed claims as instructed in the LAM.
- (16) Document any authorized estimated acres, as instructed in the LAM, shown in Section I, column 19.
- (17) Document the method and calculation used to determine acres for the unit. Refer to the LAM.
- (18) Specify the type of insects or disease when the insured cause of damage or loss is listed as insects or disease. List control measures used and explain why they did not work.
- (19) Document the bushel per acre appraisal (plus appraisal for uninsured causes of loss, if applicable) for replanted acreage, and the calculations to show that the qualifications for a replanting payment have been met. Refer to Part 3, [Paragraph 22](#).
- (20) 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.
- (21) For replant claims, indicate if the bushels allowed for replanting have/have not been reduced for share on the PW according to individual AIP guidelines.
- (22) For production that qualifies for QA (supporting documentation should be included in the insured’s claim file):
  - (a) Explain any “.000” QAF entered in Section I, column 35 and Section II, column 65.
  - (b) Explain any deficiencies, substances, or conditions that are allowed for QA, as well as any which were not allowed.
  - (c) If mycotoxins are present, document the level based on laboratory test results.
  - (d) 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.
  - (e) Document the DFs or the RIVs and LMP, as applicable, used in establishing the QAF for mature appraised or harvested production.

**Narrative Instructions (Continued)**

- (f) Refer to the LAM for documentation requirements when any excess transportation costs or conditioning costs are included in the QAF.
- (g) Document all calculations used in determining QAFs.
- (h) Refer to the LAM for additional documentation requirements.
- (23) Document field or subfield IDs, date, and method of destruction of mycotoxin-infested soybeans if it has no market value. For further documentation instructions, refer to the LAM.
- (24) Document the name and address of the charitable organization when gleaned acreage is applicable. Refer to the LAM for more information on gleaning.
- (25) Document the type of soybeans being appraised, if not indicated on the appraisal worksheet or on a Special Report.
- (26) Document any other pertinent information, including any data to support any factors used to calculate the production.

**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 measurement entries (Rectangular, Round, Square, Conical Pile, etc.). If structures are a combination of shapes, break into a series of average measurements, if possible. Enter "Odd Shape" if production is stored in an odd-shaped structure. Document measurements on a Special Report or other worksheet used for this purpose.
- (3) If farm-stored production has been weighed prior to storage and acceptable weight tickets are available showing gross weights, enter "Weighed and Stored on Farm" in columns 49 through 52. Refer to the LAM for acceptable weight tickets.
- (4) For production commercially stored, sold, etc., make entries in columns 49 through 52 as follows:
  - (a) Name and address of storage facility or buyer.
  - (b) "Seed," "Fed," etc.
- (5) There will be no "harvested production" entries for replanting payments.
- (6) If acceptable sales or weight tickets are not available, refer to the LAM.

**Section II - Determined Harvested Production (Continued)**

- (7) If additional lines are necessary, the data may be entered on a continuation sheet. Use separate lines for:
- (a) Separate storage structures.
  - (b) Varying names and addresses of buyers of sold production.
  - (c) Varying determinations of production (varying moisture, foreign material (FM), test weight, value, etc.). Average percent of FM or moisture can be entered when the elevator has calculated the average on the summary sheet, and the determined average is acceptable to the adjuster. Separate line entries are not otherwise required. Refer to the LAM for instructions.
  - (d) Varying shares; e.g., 50 percent and 75 percent shares on same unit.
  - (e) Conical piles. Do not add the cone in the top or bottom of a bin to the height of other grain in the structure. For computing the production in cones and conical piles, refer to the LAM.
  - (f) Varying types: e.g., a specialty soybean type and commodity type soybean in the same unit. If there are multiple types planted within the same unit, the AIP may complete a separate PW for each type in the unit.
- (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.
- (10) For mycotoxin damage, refer to the LAM for special instructions.

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
<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> <p>(1) The earlier of the date the entire acreage on the unit was</p> <ul style="list-style-type: none"> <li>(a) harvested;</li> <li>(b) totally destroyed;</li> <li>(c) replanted;</li> <li>(d) put to other use;</li> <li>(e) a combination of harvested, destroyed, or put to other use; or</li> <li>(f) the calendar date for the end of the insurance period.</li> </ul> <p>(2) 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."</p> <p>(3) 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."</p> <p>(4) 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.</p>
<p>44. Damage similar to other farms in the area?</p>	<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>
<p>45. Assignment of Indemnity</p>	<p>Check "Yes" only if an assignment of indemnity is in effect for the crop year; otherwise, check "No." Refer to the LAM.</p>
<p>46. Transfer of Right to Indemnity</p>	<p>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.</p>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
47a. Share	Record only varying shares on same unit to three decimal places.
47b. Field ID	<p>(1) If only one practice and/or type of harvested production is listed in Section I, make no entry.</p> <p>(2) 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>(1) Length if rectangular or square.</p> <p>(2) 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.
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 ".8" (only if structure measurements are entered).
55. Gross Prod.	Multiply column 53 times column 54, rounded to tenths of a bushel. The results of this calculation represent the amount of gross bushels in the bin.



**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
56. Bu., Ton, Lbs., Cwt.	<p>Circle "Bu." in column heading. Production in bushels, to tenths, before deductions for grain moisture and foreign material for production:</p> <p>(1) Weighed and stored on the farm.</p> <p>(2) 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>(3) 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>(4) For mycotoxin-infected grain, enter all production even if it has no market value.</p>
57. Shell/Sugar Factor	Make no entry.
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" and "Dockage."</p>
58b. Factor	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. Example: For 4 percent, enter ".960."
59a. Moisture %	Enter moisture percent to tenths. Moisture adjustment is applied prior to applying any qualifying adjustment for quality.
59b. Factor	If grain moisture is more than the allowable limit, enter the four-place moisture factor from the applicable table in <a href="#">Exhibit 16</a> .
60a. Test Wt.	Enter test weight (only when storage structure measurements are entered) in whole pounds (or pounds to tenths if so instructed by the AIP). Refer to the LAM for instructions on determining test weight.
60b. Factor	<p>Combination Test Weight and Pack Factor - Enter the Factor from the appropriate table in <a href="#">Exhibit 7</a> 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>If the AIP instructs test weights to be entered to the nearest tenth, use the nearest ½ pound test weight value on the combination test weight and pack factor chart.</p>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

Item Number/ Element	Description
60b. Factor (Continued)	<p>For test weights not shown on the chart, multiply the actual test weight by the last available combination test weight and pack factor for the appropriate bin size and divide the result by the last available test weight shown on the chart.</p> <p>Example For Test Weight Not Shown On The Chart:</p> <p>Soybeans with a test weight of 66.0 pounds stored in a less than 255 sq. ft. bin <math>66.0 \text{ (actual test weight)} \times 1.087 \text{ (last available factor)} \div 65.0 \text{ (last available test weight)} = 1.104</math>.</p>
61. Adjusted Production	<p>Result of multiplying columns 55 or 56 times 58b times 59b times 60b. Round to nearest tenth.</p>
62. Prod. Not to Count	<p>Net production not to count, in bushels to tenths, when acceptable records identifying such production are available, from harvested acreage which has been assessed an appraisal of not less than the guarantee per acre, or from other sources (e.g., other units or uninsured acreage) in the same storage structure (if the storage entries include such production).</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	<p>Result of subtracting column 62 from column 61, to tenths.</p>
64a. Value	<p>When applicable, enter the RIV. RIV must be limited to amounts that are usual, customary, and reasonable. (Refer to the SP and the LAM for further instructions.)</p> <p>Make no entry when the DF is obtained from the charts in the SP.</p>
64b. MKT Price	<p>If an entry is in column 64a, enter the Local Market Price for U.S. Grade No. 1 of the crop (refer to the CP). Refer to the LAM for further instructions.</p> <p>Make no entry when the DF is obtained from the charts in the SP.</p>
65. Quality Factor	<p>For production eligible for QA, enter the 3-digit QAF determined by subtracting the result of column 64a divided by column 64b from 1.000, or 1.000 minus the DF(s) obtained from the SP.</p>
66. Production to Count	<p>Enter result from multiplying column 63 times column 65, in bushels rounded to tenths.</p>
67. Total of Column 63	<p>Total of column 63, to tenths. If no entry in column 63, make no entry.</p>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

For items 68 - 72. When separate line entries are made for varying share, stages, APH yields, price elections, types, etc., within the unit, and totals need to be kept separate for calculating indemnities, make no entry and follow the AIP’s instructions; otherwise, make the following entries.

Item Number/ Element	Description
68. Section II Total:	<p><b>Preliminary and Replant:</b> Make no entry.</p> <p><b>Final:</b> Total of column 66, to tenths.</p>
69. Section I Total	<p><b>Preliminary and Replant:</b> Make no entry.</p> <p><b>Final:</b> Enter figure from Section I, column 38 total.</p>
70. Unit Total	<p><b>Preliminary and Replant:</b> Make no entry.</p> <p><b>Final:</b> Total of column 68 and column 69, to tenths.</p>
71. Allocated Prod	<p>Refer to the LAM for instructions for determining allocated production. Enter the total production, rounded to tenths, 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.</p>
72. Total APH Prod.	<p>Result to tenths, 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.</p>

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

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 PW 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 PW.</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>

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

**PRODUCTION WORKSHEET**

1. Crop/Code # SOYBEANS 0081	2. Unit # 0002-0002-BU	3. Location Description SE6-140N-50W	7. Company Agency	ANY COMPANY ANY AGENCY	8. Name of Insured I.M. INSURED
4. Date(s) of Damage JUN 10 AUG	5. Cause(s) of Damage HAIL DROUGHT	6. Insured Cause % 40 60	12. Additional Units 0001-0001 BU	13. Est. Prod. Per Acre 40	9. Claim # XXXXXXXX 11. Crop Year YYYY
10. Policy # XXXXXX			14. Date(s) 1st MM/DD/YYYY 2nd Final MM/DD/YYYY		
15. Companion Policy(s)					

**SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS**

A. ACTUARIAL														B. POTENTIAL YIELD										
16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32a.	32b.	33.	34.	35.	36.	37.	38.	
Field ID	Multi-Crop Code	Reported Acres	Determined Acres	Interest or Share	Risk	Type	Class	Sub-Class	Intended Use	Irr Practice	Cropping Practice	Organic Practice	Stage	Use of Acreage	Appraised Potential	Moisture % Factor	Shell %, Factor, or Value	Production Pre QA	Quality Factor	Production Post QA	Uninsured Causes	Total to Count		
A	NS		9.2	1.000		997					002		UH	PLOWED	18.1			166.5			166.5		166.5	
B	NS		18.0	1.000		997					002		P	WOC								504.0	504.0	
C	NS		56.0	1.000		997					002		H	H										
39. TOTAL			83.2	40. Quality: TW <input checked="" type="checkbox"/> KD <input checked="" type="checkbox"/> Aflatoxin <input type="checkbox"/> Vomitoxin <input type="checkbox"/> Fumonisin <input type="checkbox"/> Garlicky <input type="checkbox"/> Dark Roast <input type="checkbox"/> Sclerotinia <input type="checkbox"/> Ergoty <input type="checkbox"/> CoFo <input type="checkbox"/> Other <input type="checkbox"/> None <input type="checkbox"/>														42. TOTALS		166.5		166.5	504.0	670.5
41. Mycotoxins exceed FDA, State or other health organization maximum limits? <input type="checkbox"/>																								

NARRATIVE (If more space is needed, attach a Special Report) SOYBEANS at Acme Elevator weighed 45# per bushel and had 19.9% kernel damage. Field B - Put to other use without consent. Guarantee per acre is 28.0 bu. per acre. Fields B & C determined from FSA permanent field measurements. Field A wheel measured. Refer to attached Special Report for measurements and calculations. Refer to attached FGIS Grade Certificate. Test Wt. = 45# (DF = .013) + 19.9% damaged kernels (DF = .132 + U.S. Sample Grade (DF = .030) = .175. 1.000 - .175 = .825 QAF.

**SECTION II – DETERMINED HARVESTED PRODUCTION**

43. Date Harvest Completed MM/DD/YYYY					44. Damage similar to other farms in the area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					45. Assignment of Indemnity Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					46. Transfer of Right to Indemnity? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>									
A. MEASUREMENTS					B. GROSS PRODUCTION					C. ADJUSTMENTS TO HARVESTED PRODUCTION														
47a.	47b.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58a.	58b.	59a.	59b.	60a.	60b.	61.	62.	63.	64a.	64b.	65.	66.
Share Field ID	Multi-Crop Code	Length or Diameter	Width	Depth	Deduction	Net Cubic Feet	Conversion Factor	Gross Prod.	Bu (Ton) Lbs. CWT	Shell/Sugar Factor	FM% Factor	Moisture % Factor	Test WT Factor	Adjusted Production	Prod. Not to Count	Production Pre-QA	Value Mkt. Price	Quality Factor	Production to Count					
	NS	ACME ELEVATOR ANYTOWN, ANY STATE							530.1			1.0	.990					524.8		524.8			.825	433.0
	NS	14.0	RND	10.0		1,539.4	.8	1231.5				16.7	.9556	52	.903	1,062.7		1,062.7						1,062.7
67. TOTAL																			1,587.5	68. Section II Total		1,495.7		
																			69. Section I Total		670.5			
																			70. Unit Total		2,166.2			
																			71. Allocated Prod.					
																			72. Total APH Prod.		1,662.2			

This form example does not illustrate all required entry items (e.g., signature, dates, etc.). Refer to the above Appraisal Worksheet instructions for required statements and signature entries.

**Exhibit 4 Form Standards - Production Worksheet (Continued)**

**PRODUCTION WORKSHEET**

1. Crop/Code # SOYBEANS 0081	2. Unit # 0002-0002 BU	3. Location Description SW1-96N-3W	7. Company Agency <b>ANY COMPANY</b> <b>ANY AGENCY</b>	8. Name of Insured <b>I. M. INSURED</b>
4. Date(s) of Damage JUN 10	5. Cause(s) of Damage HAIL	6. Insured Cause % 100	12. Additional Units	13. Est. Prod. Per Acre
				9. Claim # XXXXXXXX
				11. Crop Year YYYY
				10. Policy # XXXXXXXXXXXX
				14. Date(s) Notice of Loss 1st MM/DD/YYYY 2nd Final MM/DD/YYYY
				15. Companion Policy(s)

**SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS**

A. ACTUARIAL														B. POTENTIAL YIELD								
16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32a. 32b.	33.	34.	35.	36.	37.	38.
Field ID	Multi-Crop Code	Reported Acres	Determined Acres	Interest or Share	Risk	Type	Class	Sub-Class	Intended Use	Irr Practice	Cropping Practice	Organic Practice	Stage	Use of Acreage	Appraised Potential	Moisture % Factor	Shell %, Factor, or Value	Production Pre QA	Quality Factor	Production Post QA	Uninsured Causes	Total to Count
A			30.0	1.000		997					002		R	REPLANTED	3.0	-----		90.0		90.0		90.0
			40.0	1.000		997					002		NR	NOT REPLANTED		-----						
39. TOTAL			70.0	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		90.0		90.0		90.0		
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) **37.5bu/acre guarantee X 20% = 7.5 bu./acre (3.0 bu. maximum allowed). Appraised potential less than 90% of the production guarantee (50.0 X 90% = 45.0 bu./acre -- appraised potential = 21.5 bu./acre). Total acreage from FSA permanent field measurement. Field A wheel measured. See attached Special Report for measurement and calculations.**

A. ACTUARIAL														B. POTENTIAL YIELD								
16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32a. 32b.	33.	34.	35.	36.	37.	38.
Field ID	Multi-Crop Code	Reported Acres	Determined Acres	Interest or Share	Risk	Type	Class	Sub-Class	Intended Use	Irr Practice	Cropping Practice	Organic Practice	Stage	Use of Acreage	Appraised Potential	Moisture % Factor	Shell %, Factor, or Value	Production Pre QA	Quality Factor	Production Post QA	Uninsured Causes	Total to Count
A			30.0	.500		997					002		R	REPLANTED	1.5	-----		45.0		45.0		45.0
			40.0	.500		997					002		NR	NOT REPLANTED		-----						
39. TOTAL			70.0	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		45.0		45.0		45.0		
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) **37.5bu/acre guarantee X 20% X .500 = 3.8 bu./acre (3.0 bu. maximum allowed X .500 = 1.5 bu.). Appraised potential less than 90% of the production guarantee (50.0 X 90% = 45.0 bu./acre -- appraised potential = 21.5 bu./acre). Total acreage from FSA permanent field measurement. Field A wheel measured. See attached Special Report for measurement and calculations.**

**Exhibit 5 Minimum Representative Sample Requirements**

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<b>Acres In Field or Subfield</b>	<b>Minimum No. of Samples</b>
0.1 – 10.0	3

Add one additional sample for each additional 40.0 acres (or fraction thereof) in the field or subfield.

**Exhibit 6 Row Width Factor**

Row Width	Factor	Row Width	Factor	Row Width	Factor
6"	4.00	22"	1.09	38"	0.63
8"	3.00	24"	1.00	40"	0.60
10"	2.40	26"	0.92	42"	0.57
12"	2.00	28"	0.86	44"	0.55
14"	1.71	30"	0.80	46"	0.52
16"	1.50	32"	0.75	48"	0.50
18"	1.33	34"	0.71	B*	2.22
20"	1.20	36"	0.67		

“B\*” - Broadcast

For row widths other than those shown in [Exhibit 6](#), determine the appropriate factor by dividing 24 by the row width (nearest one-half inch). Round the factor to two decimal places.

**Example:**                    7 1/2 inches (or 7.5")                     $24 \div 7.5 = 3.20$  Factor  
    15 inches     $24 \div 15 = 1.60$  Factor

**Exhibit 7 Combined Test Weight and Pack Factor**

<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>
40.0	0.719	0.727	0.739	0.745	0.757	0.774
40.5	0.727	0.735	0.747	0.753	0.765	0.782
41.0	0.735	0.743	0.755	0.761	0.773	0.790
41.5	0.743	0.751	0.763	0.769	0.781	0.798
42.0	0.750	0.759	0.771	0.777	0.789	0.806
42.5	0.758	0.767	0.780	0.785	0.797	0.814
43.0	0.766	0.775	0.788	0.793	0.805	0.822
43.5	0.774	0.783	0.796	0.801	0.813	0.830
44.0	0.782	0.791	0.804	0.809	0.821	0.838
44.5	0.790	0.798	0.812	0.817	0.829	0.846
45.0	0.797	0.806	0.820	0.825	0.837	0.854
45.5	0.805	0.814	0.828	0.833	0.845	0.862
46.0	0.813	0.822	0.836	0.841	0.853	0.870
46.5	0.820	0.830	0.844	0.849	0.861	0.878
47.0	0.828	0.837	0.851	0.857	0.869	0.886
47.5	0.836	0.845	0.859	0.865	0.877	0.894
48.0	0.843	0.853	0.867	0.873	0.885	0.902
48.5	0.851	0.860	0.875	0.881	0.893	0.910
49.0	0.858	0.868	0.883	0.889	0.901	0.918
49.5	0.866	0.876	0.891	0.897	0.909	0.926
50.0	0.873	0.883	0.898	0.905	0.917	0.934
50.5	0.881	0.891	0.906	0.913	0.925	0.942
51.0	0.888	0.898	0.914	0.921	0.933	0.951
51.5	0.896	0.906	0.921	0.928	0.940	0.957
52.0	0.903	0.913	0.929	0.936	0.948	0.966
52.5	0.910	0.921	0.937	0.943	0.955	0.973
53.0	0.918	0.928	0.944	0.951	0.963	0.981
53.5	0.925	0.936	0.952	0.959	0.971	0.990
54.0	0.932	0.943	0.959	0.966	0.978	0.997
54.5	0.940	0.951	0.967	0.974	0.986	1.005
55.0	0.947	0.958	0.974	0.982	0.994	1.013
55.5	0.954	0.965	0.982	0.989	1.001	1.020
56.0	0.961	0.973	0.989	0.997	1.010	1.029
56.5	0.969	0.980	0.997	1.004	1.016	1.035
57.0	0.976	0.987	1.004	1.012	1.025	1.044
57.5	0.983	0.994	1.012	1.019	1.032	1.051
58.0	0.990	1.001	1.019	1.027	1.040	1.060
58.5	0.997	1.009	1.026	1.034	1.047	1.067
59.0	1.004	1.016	1.033	1.041	1.054	1.074
59.5	1.011	1.023	1.041	1.049	1.062	1.083
60.0	1.018	1.030	1.048	1.056	1.069	1.090
60.5	1.025	1.037	1.055	1.063	1.076	1.097
61.0	1.032	1.044	1.062	1.071	1.084	1.105
61.5	1.039	1.051	1.070	1.078	1.091	1.112
62.0	1.046	1.058	1.077	1.085	1.098	1.119
62.5	1.053	1.065	1.084	1.092	1.105	1.126



**Exhibit 7 Combined Test Weight and Pack Factor (Continued)**

<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>
63.0	1.059	1.072	1.091	1.099	1.112	1.133
63.5	1.066	1.079	1.098	1.106	1.119	1.140
64.0	1.073	1.086	1.105	1.113	1.126	1.147
64.5	1.080	1.093	1.112	1.120	1.133	1.154
65.0	1.087	1.100	1.119	1.127	1.140	1.161

If the actual test weight is not shown on the chart, refer to [Exhibit 4](#), item 60b for instructions.

**Exhibit 8 Seed (Bean) Size Factor**

<b>CCs Per 100 Seeds</b>	<b>Factor</b>	<b>CCs Per 100 Seeds</b>	<b>Factor</b>	<b>CCs Per 100 Seeds</b>	<b>Factor</b>
5	0.017	21	0.071	36	0.122
6	0.020	22	0.075	37	0.126
7	0.024	23	0.078	38	0.129
8	0.027	24	0.081	39	0.132
9	0.031	25	0.085	40	0.136
10	0.034	26	0.088	41	0.139
11	0.037	27	0.092	42	0.143
12	0.041	28	0.095	43	0.146
13	0.044	29	0.098	44	0.149
14	0.047	30	0.102	45	0.153
15	0.051	31	0.105	46	0.156
16	0.054	32	0.109	47	0.160
17	0.058	33	0.112	48	0.163
18	0.061	34	0.115	49	0.166
19	0.064	35	0.119	50	0.170
20	0.068				

If unable to obtain 100 mature beans in sample due to immaturity or swelling from excess moisture, use factor .092 unless otherwise authorized.

**Exhibit 9      Plants Per Acre**

**Instructions:** Count the number of plants in a representative 10 feet of row (3-foot square grid for broadcast). Find the number in the appropriate row width column. If the number of counted plants is not shown on the table, use the next higher shown number. Then go to the far-left column to find the number of plants per acre.

Plants Per Acre	Row Width (inches)																			Broadcast (3' x 3')
	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	7	6	
180,000	138	131	124	117	110	103	96	90	83	76	69	62	55	48	41	34	28	24	21	37
175,000	134	127	121	114	107	100	94	87	80	74	67	60	54	47	40	33	27	23	20	36
170,000	130	124	117	111	104	98	91	85	78	72	65	59	52	46	39		26			35
165,000	126	120	114	107	101	95	88	82	76	69	63	57	51	44	38	32	25	22	19	34
160,000	122	116	110	104	98	92	86	80	73	67	61	55	49	43	37	31	24	21	18	33
155,000	119	113	107	101	95	89	83	77	71	65	59	53	47	42	36	30				32
150,000	115	109	103	98	92	86	80	75	69	63	57	52	46	40	34	29	23	20	17	31
145,000	111	105	100	94	89	83	78	72	67	61	55	50	44	39	33	28	22	19		30
140,000	107	102	96	91	86	80	75	70	64	59	54	48	43	37	32	27	21		16	29
135,000	103	98	93	88	83	77	72	67	62	57	52	46	41	36	31	26		18	15	28
130,000	99	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	17		27
125,000	96	91	86	81	77	72	67	62	57	53	48	43	38	33	29	24	19		14	26
122,500	94	89	84	80	75	70	66	61	56	52	47	42	37		28	23		16		
120,000	92	87	83	78	73	69	64	60	55	51	46	41		32		23	18			25
117,500	90	85	81	76	72	67	63	58	54	49	45	40	36	31	27	22			13	
115,000	88	84	79	75	70	66	62	57	53	48	44		35		26			15		24
112,500	86	81	77	73	69	64	60	56	51	47	43	39	34	30		21	17			
110,000	84	80	76	72	67	63	59	55		46	42	38		29	25					23
	<b>Number of Plants in Ten Feet of Row</b>																			

Exhibit 9 Plants Per Acre (Continued)

Plants Per Acre	Row Width (inches)																		Broadcast (3' x 3')	
	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	7		6
107,500	82	78	74	70	66	62	58	53	49	45	41	37	33				16	14	12	
105,000	80	76	72	68	64	60	56	52	48	44	40	36	32	28	24	20				22
102,500	78	75	71	67	63	59	55	51	47	43	39	35	31	27						
100,000	77	73	69	65	61	57	54	50	46	42	38	34			23	19	15	13	11	21
97,500	75	71	67	63	60	56	52	48	45	41	37		30	26	22					
95,000	73	69	65	62	58	55	51	47	44	40	36	33	29	25		18				20
92,500	71	67	64	60	57	53	50	46	42	39	35	32	28		21		14	12		
90,000	69	65	62	59	55	52	48	45	41	38	34	31		24		17			10	18
87,500	67	64	60	57	54	50	47	44	40	37	33	30	27	23	20		13			
85,000	65	62	59	55	52	49	46	42	39	36		29	26			16		11		17
82,500	63	60	57	54	51	47	44	41	38	35	32	28	25	22	19				9	
80,000	61	58	55	52	49	46	43	40	37	34	31		24	21	18	15	12			16
77,500	59	56	53	50	47	44	42	39	36	33	30	27						10		
75,000	57	55	52	49	46	43	40	37	34	32	29	26	23	20	17	14	11			15
72,500	55	53	50	47	44	42	39	36	33	31	28	25	22	19					8	
70,000	54	51	48	46	43	40	37	35	32	29	27	24	21		16	13		9		14
67,500	52	49	46	44	41	39	36	34	31	28	26	23		18	15		10			
65,000	50	47	45	42	40	37	35	32	30	27	25	22	20	17		12			7	13
62,500	48	45	43	41	38	36	33	31	29	26	24		19		14			8		
60,000	46	44	41	39	37	34	32	30	28	25	23	21	18	16		11	9			12
	Number of Plants in Ten Feet of Row																			

Exhibit 9 Plants Per Acre (Continued)

Plants Per Acre	Row Width (inches)																		Broadcast (3' x 3')	
	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	7		6
57,500	44	42	40	37	35	33	31	29	26	24	22	20		15	13					
55,000	42	40	38	36	34	32	29	27	25	23	21	19	17				8	7	6	11
52,500	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10				
50,000	38	36	34	33	31	29	27	25	23	21	19	17	15	13	11					10
47,500	36	35	33	31	29	27	25	24	22	20	18	16				9	7	6	5	
45,000	34	33	31	29	28	26	24	22	21	19	17	15	14	12	10					9
42,500	33	31	29	28	26	24	23	21	20	18	16		13	11		8				
40,000	31	29	28	26	24	23	21	20	18	17	15	14	12		9		6	5		8
37,500	29	27	26	24	23	22	20	19	17	16	14	13	11	10		7			4	
35,000	27	25	24	23	21	20	19	17	16	15	13	12		9	8		5			7
32,500	25	24	22	21	20	19	17	16	15	14	12	11	10		7	6		4		
30,000	23	22	21	20	18	17	16	15	14	13	11	10	9	8					3	6
27,500	21	20	19	18	17	16	15	14	13	12		9	8	7	6	5	4			
25,000	19	18	17	16	15	14	13	12	11	11	10							3		5
22,500	17	16	15	15	14	13	12	11	10	9	9	8	7	6	5	4	3			
20,000	15	15	14	13	12	11	11	10	9	8	8	7	6	5					2	4
17,500	13	13	12	11	11	10	9	9	8	7	7	6	5		4	3		2		
15,000	11	11	10	10	9	9	8	7	7	6	6	5		4	3		2			3
12,500	10	9	9	8	8	7	7	6	6	5	5	4	4	3		2			1	
10,000	8	7	7	7	6	6	5	5	5	4	4	3	3		2			1		2
	Number of Plants in Ten Feet of Row																			

## Exhibit 9 Plants Per Acre (Continued)

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If the number of counted plants in ten feet of row is greater than the top number in the appropriate row width column, divide the number of plants by 2, and proceed as above. Multiply the plants per acre found in the left column by 2 to arrive at the actual number of plants per acre. (Refer to **Example 1** below.) If the number of counted plants in ten feet of row is fewer than the lowest number in the appropriate row width column, multiply the number of plants by 2, and proceed as above. Divide the plants per acre found in the left column by 2 to arrive at the actual number of plants per acre. (Refer to **Example 2** below.) If the plant population is above 125,000, round to the nearest 5,000. If the population is below 125,000, round to the nearest 2,500. (Refer to examples below.)

**Example 1:** Row Width = 30 inches  
110 Original Plants in 10 feet of Row  
 $110 \div 2 = 55$   
55 Original Plants = 95,000 plants per acre  
 $95,000 \text{ plants per acre} \times 2 = 190,000$

**Example 2:** Row Width = 30 inches  
4 Original Plants in 10 feet of Row  
 $4 \times 2 = 8$   
8 Original Plants = 15,000 plants per acre  
 $15,000 \text{ plants per acre} \div 2 = 7,500$

If the planted row width is not listed on the table, or as an alternative method for determining the plants per acre, use the following formula. Divide the row width, in inches, by 12 (inches) rounded to thousandths. Multiply this result by 10 (feet) rounded to hundredths to arrive at the square feet in the sample. Count the number of plants in the sample and divide by the square feet to arrive at plants per square foot rounded to hundredths. Multiply plants per square foot by 43,560 sq. ft. per acre to arrive at plants per acre. If the plant population is above 125,000, round to the nearest 5,000. If the population is below 125,000, round to the nearest 2,500. (Refer to examples below.)

**Example 1:** Row Width = 15 inches  
42 Original Plants in 10 feet of row  
 $(15 \text{ in.} \div 12 \text{ in.}) \times 10 \text{ feet} = 12.50 \text{ sq. ft.}$   
 $42 \div 12.50 = 3.36$   
 $3.36 \times 43,560 = 146,362$  (round to 145,000)

**Example 2:** Row Width = 7 ½ inches  
15 Original Plants in 10 feet of row  
 $(7.5 \text{ in.} \div 12 \text{ in.}) \times 10 \text{ feet} = 6.25 \text{ sq. ft.}$   
 $15 \div 6.25 = 2.40$   
 $2.40 \times 43,560 = 104,544$  (round to 105,000)



**Exhibit 10 Indeterminate Soybean Stand Reduction Loss - VC – R1 Stages (Continued)**

Original Stand Plants/Acre	Remaining Plants Per Acre (000's omitted)																							
	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0
<b>180,000 &amp; above</b>	18	19	20	22	24	26	28	30	32	35	38	40	44	47	51	55	59	64	69	74	80	86	93	100
<b>175,000</b>	17	19	20	22	24	26	28	30	32	35	37	40	44	47	51	55	59	64	69	74	80	86	93	100
<b>170,000</b>	17	19	20	22	24	26	28	30	32	35	37	40	44	47	51	55	59	64	69	74	80	86	93	100
<b>165,000</b>	17	19	20	22	24	25	28	30	32	35	37	40	43	47	51	55	59	64	69	74	80	86	93	100
<b>160,000</b>	17	19	20	22	23	25	27	30	32	35	37	40	43	47	51	55	59	64	69	74	80	86	93	100
<b>155,000</b>	17	18	20	22	23	25	27	30	32	34	37	40	43	47	51	55	59	63	68	74	80	86	93	100
<b>150,000</b>	17	18	20	22	23	25	27	29	32	34	37	40	43	47	50	54	59	63	68	74	80	86	93	100
<b>145,000</b>	17	18	20	21	23	25	27	29	32	34	37	40	43	47	50	54	59	63	68	74	80	86	93	100
<b>140,000</b>	17	18	20	21	23	25	27	29	32	34	37	40	43	47	50	54	59	63	68	74	80	86	93	100
<b>135,000</b>	16	18	19	21	23	25	27	29	31	34	37	40	43	46	50	54	58	63	68	74	80	86	93	100
<b>130,000</b>	16	18	19	21	23	24	27	29	31	34	37	40	43	46	50	54	58	63	68	74	79	86	93	100
<b>125,000</b>	16	17	19	21	22	24	26	29	31	33	36	39	43	46	50	54	58	63	68	74	79	86	93	100
<b>122,500</b>	16	17	19	20	22	24	26	28	31	33	36	39	42	46	50	54	58	63	68	73	79	86	93	100
<b>120,000</b>	16	17	19	20	22	24	26	28	31	33	36	39	42	46	50	54	58	63	68	73	79	86	93	100
<b>117,500</b>	15	17	18	20	22	24	26	28	30	33	36	39	42	46	49	54	58	63	68	73	79	86	93	100
<b>115,000</b>	15	17	18	20	22	24	26	28	30	33	36	39	42	46	49	53	58	63	68	73	79	86	93	100
<b>112,500</b>	15	16	18	20	21	23	25	28	30	33	36	39	42	45	49	53	58	63	68	73	79	86	93	100
<b>110,000</b>	15	16	18	19	21	23	25	28	30	33	35	38	42	45	49	53	58	62	68	73	79	86	93	100
<b>107,500</b>	14	16	17	19	21	23	25	27	30	32	35	38	42	45	49	53	58	62	67	73	79	86	92	100
<b>105,000</b>	14	16	17	19	21	23	25	27	30	32	35	38	41	45	49	53	57	62	67	73	79	85	92	100
<b>102,500</b>	14	15	17	19	20	22	25	27	29	32	35	38	41	45	49	53	57	62	67	73	79	85	92	100
<b>100,000</b>	14	15	17	18	20	22	24	27	29	32	35	38	41	45	48	53	57	62	67	73	79	85	92	100
<b>97,500</b>	13	15	16	18	20	22	24	26	29	31	34	37	41	44	48	52	57	62	67	73	79	85	92	100
<b>95,000</b>	13	14	16	18	19	21	24	26	28	31	34	37	40	44	48	52	57	62	67	73	79	85	92	100
<b>92,500</b>	12	14	15	17	19	21	23	26	28	31	34	37	40	44	48	52	56	61	67	72	79	85	92	100
<b>90,000</b>	12	13	15	17	19	21	23	25	28	30	33	36	40	43	47	52	56	61	67	72	78	85	92	100
<b>87,500</b>	11	13	15	16	18	20	22	25	27	30	33	36	39	43	47	51	56	61	66	72	78	85	92	100
<b>85,000</b>	11	12	14	16	18	20	22	24	27	30	33	36	39	43	47	51	56	61	66	72	78	85	92	100
<b>82,500</b>	10	12	13	15	17	19	21	24	26	29	32	35	39	42	46	51	55	60	66	72	78	85	92	100
<b>80,000</b>	10	11	13	15	17	19	21	23	26	29	32	35	38	42	46	50	55	60	66	72	78	85	92	100
	<b>Percent Loss from Stand Reduction</b>																							



**Exhibit 10 Indeterminate Soybean Stand Reduction Loss - VC – R1 Stages (Continued)**

Original Stand Plants/Acre	Remaining Plants Per Acre (000's omitted)																																
	77.5	75	72.5	70	67.5	65	62.5	60	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0	
77,500	0	1	2	3	4	5	6	8	9	10	12	14	16	18	20	23	25	28	31	34	38	42	46	50	55	60	65	71	78	85	92	100	
75,000		0	1	2	3	4	5	7	8	10	11	13	15	17	19	22	25	27	30	34	37	41	45	50	54	60	65	71	78	84	92	100	
72,500			0	1	2	3	4	6	7	9	11	12	14	16	19	21	24	27	30	33	37	41	45	49	54	59	65	71	77	84	92	100	
70,000				0	1	2	4	5	6	8	10	11	13	16	18	20	23	26	29	32	36	40	44	49	54	59	64	71	77	84	92	100	
67,500					0	1	2	4	5	7	9	11	13	15	17	20	22	25	28	32	35	39	44	48	53	58	64	70	77	84	92	100	
65,000						0	1	3	4	6	8	9	11	14	16	19	21	24	27	31	35	39	43	47	52	58	64	70	77	84	92	100	
62,500							0	1	3	5	6	8	10	13	15	17	20	23	26	30	34	38	42	47	52	57	63	69	76	84	91	100	
60,000								0	2	3	5	7	9	11	14	16	19	22	25	29	33	37	41	46	51	57	63	69	76	83	91	100	
57,500									0	2	4	5	8	10	12	15	18	21	24	28	32	36	40	45	50	56	62	68	76	83	91	100	
55,000										0	2	4	6	8	11	14	16	20	23	27	31	35	39	44	49	55	61	68	75	83	91	100	
52,500											0	2	4	7	9	12	15	18	21	25	29	34	38	43	49	54	61	67	75	82	91	100	
50,000												0	2	5	7	10	13	16	20	24	28	32	37	42	47	53	60	67	74	82	91	100	
47,500													0	2	5	8	11	14	18	22	26	31	35	41	46	52	59	66	73	82	90	100	
45,000														0	3	6	9	12	16	20	24	29	34	39	45	51	58	65	73	81	90	100	
42,500															0	3	6	10	14	18	22	27	32	37	43	50	57	64	72	81	90	100	
40,000																0	3	7	11	15	20	25	30	35	42	48	55	63	71	80	90	100	
37,500																	0	4	8	12	17	22	27	33	40	46	54	62	70	79	89	100	
35,000																		0	4	9	14	19	25	31	37	44	52	60	69	79	89	100	
32,500																			0	5	10	15	21	28	34	42	50	58	68	78	88	100	
30,000																				0	5	11	17	24	31	39	47	56	66	77	88	100	
27,500																					0	6	13	20	27	36	44	54	64	75	87	100	
25,000																						0	7	14	23	31	41	51	62	74	86	100	
22,500																							0	8	17	26	36	47	59	72	85	100	
20,000																								0	9	20	31	43	55	69	84	100	
17,500																									0	11	23	37	51	66	82	100	
15,000																										0	14	28	44	62	80	100	
	<b>Percent Loss from Stand Reduction</b>																																

**Exhibit 11 Indeterminate Soybean Stand Reduction Loss - R2 – R3.5 Stages**

Original Stand Plants/Acre	Remaining Plants Per Acre (000s omitted)																			
	180	175	170	165	160	155	150	145	140	135	130	125	122.5	120	117.5	115	112.5	110	107.5	
180,000 & above	0	1	2	3	4	5	7	8	9	11	12	14	15	16	17	18	19	20	21	
175,000		0	1	2	3	4	6	7	9	10	12	13	14	15	16	17	18	19	20	
170,000			0	1	2	3	5	6	8	9	11	12	13	14	15	16	17	18	19	
165,000				0	1	2	4	5	7	8	10	11	12	13	14	15	16	17	18	
160,000					0	1	3	4	5	7	9	10	11	12	13	14	15	16	17	
155,000						0	1	3	4	6	7	9	10	11	12	13	14	15	16	
150,000							0	1	3	5	6	8	9	10	11	12	13	14	15	
145,000								0	2	3	5	7	8	8	9	10	11	13	14	
140,000									0	2	3	5	6	7	8	9	10	11	12	
135,000										0	2	4	5	6	7	8	9	10	11	
130,000											0	2	3	4	5	6	7	8	9	
125,000												0	1	2	3	4	5	6	7	
122,500													0	1	2	3	4	5	7	
120,000														0	1	2	3	4	6	
117,500															0	1	2	3	5	
115,000																0	1	2	4	
112,500																	0	1	2	
110,000																		0	1	
107,500																			0	
	<b>Percent Loss from Stand Reduction</b>																			

**Exhibit 11 Indeterminate Soybean Stand Reduction Loss - R2 – R3.5 Stages**

Original Stand Plants/Acre	Remaining Plants Per Acre (000s omitted)																		
	105	102.5	100	97.5	95	92.5	90	87.5	85	82.5	80	77.5	75	72.5	70	67.5	65	62.5	60
180,000 & above	22	23	24	25	26	27	28	29	31	32	33	35	36	37	39	40	42	44	45
175,000	21	22	23	24	25	26	28	29	30	31	33	34	35	37	38	40	41	43	45
170,000	20	21	22	23	24	26	27	28	29	31	32	33	35	36	38	39	41	42	44
165,000	19	20	21	22	24	25	26	27	29	30	31	33	34	36	37	39	40	42	43
160,000	18	19	20	21	23	24	25	26	28	29	30	32	33	35	36	38	39	41	43
155,000	17	18	19	20	22	23	24	25	27	28	30	31	32	34	35	37	39	40	42
150,000	16	17	18	19	21	22	23	24	26	27	29	30	31	33	35	36	38	40	41
145,000	15	16	17	18	19	21	22	23	25	26	28	29	31	32	34	35	37	39	40
140,000	13	15	16	17	18	19	21	22	24	25	26	28	29	31	33	34	36	38	40
135,000	12	13	14	16	17	18	19	21	22	24	25	27	28	30	32	33	35	37	39
130,000	10	12	13	14	15	17	18	19	21	22	24	25	27	29	30	32	34	36	37
125,000	9	10	11	12	14	15	16	18	19	21	22	24	26	27	29	31	33	34	36
122,500	8	9	10	12	13	14	16	17	19	20	22	23	25	27	28	30	32	34	36
120,000	7	8	9	11	12	13	15	16	18	19	21	22	24	26	28	29	31	33	35
117,500	6	7	8	10	11	12	14	15	17	18	20	22	23	25	27	29	30	32	34
115,000	5	6	7	9	10	11	13	14	16	17	19	21	22	24	26	28	30	32	34
112,500	4	5	6	8	9	10	12	13	15	17	18	20	22	23	25	27	29	31	33
110,000	3	4	5	7	8	9	11	12	14	16	17	19	21	22	24	26	28	30	32
107,500	1	3	4	5	7	8	10	11	13	14	16	18	20	21	23	25	27	29	31
105,000	0	1	3	4	6	7	9	10	12	13	15	17	19	20	22	24	26	28	30
102,500		0	1	3	4	6	7	9	11	12	14	16	17	19	21	23	25	27	29
100,000			0	1	3	4	6	8	9	11	13	14	16	18	20	22	24	26	28
97,500				0	2	3	5	6	8	10	11	13	15	17	19	21	23	25	27
95,000					0	2	3	5	7	8	10	12	14	16	18	20	22	24	26
92,500						0	2	3	5	7	9	10	12	14	16	18	21	23	25
90,000							0	2	3	5	7	9	11	13	15	17	19	21	24
87,500								0	2	4	5	7	9	11	13	16	18	20	22
85,000									0	2	4	6	8	10	12	14	16	19	21
82,500										0	2	4	6	8	10	12	15	17	19
80,000											0	2	4	6	8	11	13	15	18
<b>Percent Loss from Stand Reduction</b>																			

**Exhibit 11 Indeterminate Soybean Stand Reduction Loss - R2 – R3.5 Stages (Continued)**

Original Stand Plants/Acre	Remaining Plants Per Acre (000s omitted)																							
	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0
<b>180,000 &amp; above</b>	47	49	50	52	54	56	58	60	62	64	66	68	71	73	75	78	80	83	86	88	91	94	97	100
<b>175,000</b>	46	48	50	52	54	55	57	59	62	64	66	68	70	73	75	78	80	83	85	88	91	94	97	100
<b>170,000</b>	46	48	49	51	53	55	57	59	61	63	65	68	70	72	75	77	80	83	85	88	91	94	97	100
<b>165,000</b>	45	47	49	51	53	55	57	59	61	63	65	67	70	72	75	77	80	82	85	88	91	94	97	100
<b>160,000</b>	45	46	48	50	52	54	56	58	60	62	65	67	69	72	74	77	80	82	85	88	91	94	97	100
<b>155,000</b>	44	46	48	49	51	53	55	58	60	62	64	67	69	71	74	77	79	82	85	88	91	94	97	100
<b>150,000</b>	43	45	47	49	51	53	55	57	59	61	64	66	69	71	74	76	79	82	85	88	91	94	97	100
<b>145,000</b>	42	44	46	48	50	52	54	56	59	61	63	66	68	71	73	76	79	81	84	87	90	94	97	100
<b>140,000</b>	41	43	45	47	49	51	53	56	58	60	63	65	68	70	73	76	78	81	84	87	90	93	97	100
<b>135,000</b>	40	42	44	46	48	51	53	55	57	60	62	65	67	70	72	75	78	81	84	87	90	93	97	100
<b>130,000</b>	39	41	43	45	47	50	52	54	56	59	61	64	66	69	72	75	78	81	84	87	90	93	97	100
<b>125,000</b>	38	40	42	44	46	49	51	53	56	58	61	63	66	69	71	74	77	80	83	86	90	93	96	100
<b>122,500</b>	38	40	42	44	46	48	50	53	55	58	60	63	66	68	71	74	77	80	83	86	90	93	96	100
<b>120,000</b>	37	39	41	43	45	48	50	52	55	57	60	62	65	68	71	74	77	80	83	86	89	93	96	100
<b>117,500</b>	36	38	40	43	45	47	49	52	54	57	59	62	65	68	70	73	76	80	83	86	89	93	96	100
<b>115,000</b>	36	38	40	42	44	46	49	51	54	56	59	62	64	67	70	73	76	79	83	86	89	93	96	100
<b>112,500</b>	35	37	39	41	44	46	48	51	53	56	58	61	64	67	70	73	76	79	82	86	89	93	96	100
<b>110,000</b>	34	36	38	41	43	45	48	50	53	55	58	61	64	66	69	72	76	79	82	86	89	93	96	100
<b>107,500</b>	33	35	38	40	42	45	47	49	52	55	57	60	63	66	69	72	75	79	82	85	89	92	96	100
<b>105,000</b>	32	34	37	39	41	44	46	49	51	54	57	60	63	66	69	72	75	78	82	85	89	92	96	100
<b>102,500</b>	31	34	36	38	41	43	46	48	51	54	56	59	62	65	68	71	75	78	81	85	89	92	96	100
<b>100,000</b>	30	33	35	37	40	42	45	47	50	53	56	59	62	65	68	71	74	78	81	85	88	92	96	100
<b>97,500</b>	29	32	34	36	39	41	44	47	49	52	55	58	61	64	67	71	74	77	81	85	88	92	96	100
<b>95,000</b>	28	31	33	35	38	40	43	46	49	51	54	57	60	64	67	70	74	77	81	84	88	92	96	100
<b>92,500</b>	27	30	32	34	37	40	42	45	48	51	54	57	60	63	66	70	73	77	80	84	88	92	96	100
<b>90,000</b>	26	28	31	33	36	39	41	44	47	50	53	56	59	62	66	69	73	76	80	84	88	92	96	100
<b>87,500</b>	25	27	30	32	35	37	40	43	46	49	52	55	58	62	65	69	72	76	80	83	87	92	96	100
<b>85,000</b>	23	26	28	31	34	36	39	42	45	48	51	54	58	61	64	68	72	75	79	83	87	91	96	100
<b>82,500</b>	22	24	27	30	32	35	38	41	44	47	50	54	57	60	64	67	71	75	79	83	87	91	96	100
<b>80,000</b>	20	23	26	28	31	34	37	40	43	46	49	53	56	60	63	67	71	74	78	83	87	91	95	100
	<b>Percent Loss from Stand Reduction</b>																							

**Exhibit 11 Indeterminate Soybean Stand Reduction Loss - R2 – R3.5 Stages (Continued)**

Original Stand Plants/Acre	Remaining Plants Per Acre (000s omitted)																															
	77.5	75	72.5	70	67.5	65	62.5	60	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0
77,500	0	2	4	7	9	11	14	16	19	21	24	27	30	32	35	39	42	45	48	52	55	59	62	66	70	74	78	82	86	91	95	100
75,000		0	2	5	7	9	12	14	17	20	22	25	28	31	34	37	40	44	47	51	54	58	62	65	69	73	78	82	86	91	95	100
72,500			0	2	5	7	10	12	15	18	21	23	26	29	33	36	39	42	46	49	53	57	61	65	69	73	77	81	86	90	95	100
70,000				0	2	5	8	10	13	16	19	22	25	28	31	34	38	41	45	48	52	56	60	64	68	72	76	81	86	90	95	100
67,500					0	3	5	8	11	14	17	20	23	26	29	33	36	40	43	47	51	55	59	63	67	71	76	80	85	90	95	100
65,000						0	3	6	8	11	14	17	21	24	27	31	34	38	42	45	49	53	58	62	66	71	75	80	85	90	95	100
62,500							0	3	6	9	12	15	18	22	25	29	32	36	40	44	48	52	56	61	65	70	75	79	84	89	95	100
60,000								0	3	6	9	13	16	20	23	27	30	34	38	42	46	51	55	60	64	69	74	79	84	89	94	100
57,500									0	3	7	10	13	17	21	24	28	32	36	40	45	49	54	58	63	68	73	78	83	89	94	100
55,000										0	3	7	11	14	18	22	26	30	34	38	43	47	52	57	62	67	72	77	83	88	94	100
52,500											0	4	7	11	15	19	23	28	32	36	41	46	50	55	60	66	71	77	82	88	94	100
50,000												0	4	8	12	16	20	25	29	34	39	44	49	54	59	64	70	76	82	88	94	100
47,500													0	4	8	13	17	22	26	31	36	41	47	52	57	63	69	75	81	87	93	100
45,000														0	4	9	14	18	23	28	33	39	44	50	55	61	67	74	80	86	93	100
42,500															0	5	10	15	20	25	30	36	42	47	53	60	66	72	79	86	93	100
40,000																0	5	10	16	21	27	33	39	45	51	58	64	71	78	85	92	100
37,500																	0	6	11	17	23	29	35	42	48	55	62	69	77	84	92	100
35,000																		0	6	12	18	25	32	38	45	53	60	68	75	83	92	100
32500																			0	7	13	20	27	35	42	50	58	66	74	82	91	100
30,000																				0	7	15	22	30	38	46	55	63	72	81	90	100
27,500																					0	8	16	25	33	42	51	60	70	80	90	100
25,000																						0	9	18	27	37	47	57	67	78	89	100
22,500																							0	10	20	31	42	53	64	76	88	100
20,000																								0	11	23	35	47	60	73	86	100
17,500																									0	13	27	41	55	70	85	100
15,000																										0	16	32	48	65	82	100
	<b>Percent Loss from Stand Reduction</b>																															





**Exhibit 12      Determinate Soybean Stand Reduction Loss (Continued)**

Original Stand Plants/Acre	Remaining Plants Per Acre (000s omitted)																																
	77.5	75	72.5	70	67.5	65	62.5	60	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0	
77,500	0.0	1.0	2.0	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	23.0	25.0	27.0	29.0	31.5	34.0	36.5	39.0	41.5	44.0	47.5	51.0	63.3	75.5	87.8	100.	
75,000		0.0	1.0	2.0	3.5	5.0	6.5	8.0	9.5	11.0	12.5	14.0	15.5	17.0	18.5	20.0	22.0	24.0	26.0	28.0	30.5	33.0	35.5	38.0	40.5	43.0	46.5	50.0	62.5	75.0	87.5	100.	
72,500			0.0	1.0	2.5	4.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	19.0	20.8	22.5	24.5	26.5	29.0	31.5	34.0	36.5	39.3	42.0	45.5	49.0	61.8	74.5	87.3	100.	
70,000				0.0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	23.0	25.0	27.5	30.0	32.5	35.0	38.0	41.0	44.5	48.0	61.0	74.0	87.0	100.	
67,500					0.0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.3	17.0	18.5	20.0	22.0	24.0	26.3	28.5	31.0	33.5	36.8	40.0	43.5	47.0	60.3	73.5	86.8	100.	
65,000						0.0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	14.0	16.0	17.5	19.0	21.0	23.0	25.0	27.0	29.5	32.0	35.5	39.0	42.5	46.0	59.5	73.0	86.5	100.	
62,500							0.0	1.5	3.0	4.5	6.3	8.0	9.5	11.0	12.8	14.5	16.0	17.5	19.5	21.5	23.8	26.0	28.5	31.0	34.5	38.0	41.8	45.5	59.1	72.8	86.4	100.	
60,000								0.0	1.5	3.0	5.0	7.0	8.5	10.0	11.5	13.0	14.5	16.0	18.0	20.0	22.5	25.0	27.5	30.0	33.5	37.0	41.0	45.0	58.8	72.5	86.3	100.	
57,500									0.0	1.5	3.3	5.0	6.5	8.0	9.8	11.5	13.0	14.5	16.5	18.5	21.0	23.5	26.0	28.5	32.0	35.5	39.8	44.0	58.0	72.0	86.0	100.	
55,000										0.0	1.5	3.0	4.5	6.0	8.0	10.0	11.5	13.0	15.0	17.0	19.5	22.0	24.5	27.0	30.5	34.0	38.5	43.0	57.3	71.5	85.8	100.	
52,500											0.0	1.5	3.3	5.0	7.0	9.0	10.8	12.5	14.5	16.5	18.8	21.0	23.5	26.0	29.5	33.0	37.5	42.0	56.5	71.0	85.5	100.	
50,000												0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.5	25.0	28.5	32.0	36.5	41.0	55.8	70.5	85.3	100.	
47,500													0.0	2.0	4.0	6.0	8.0	10.0	12.3	14.5	16.8	19.0	21.8	24.5	28.0	31.5	36.0	40.5	55.4	70.3	85.1	100.	
45,000														0.0	2.0	4.0	6.0	8.0	10.5	13.0	15.5	18.0	21.0	24.0	27.5	31.0	35.5	40.0	55.0	70.0	85.0	100.	
42,500															0.0	2.0	4.3	6.5	9.3	12.0	14.8	17.5	20.5	23.5	27.0	30.5	35.0	39.5	54.6	69.8	84.9	100.	
40,000																0.0	2.5	5.0	8.0	11.0	14.0	17.0	20.0	23.0	26.5	30.0	34.5	39.0	54.3	69.5	84.8	100.	
37,500																	0.0	3.5	6.8	10.0	13.3	16.5	19.5	22.5	26.0	29.5	34.0	38.5	53.9	69.3	84.6	100.	
35,000																		0.0	5.5	9.0	12.5	16.0	19.0	22.0	25.5	29.0	33.5	38.0	53.5	69.0	84.5	100.	
32,500																			0.0	8.0	11.7	15.5	18.5	21.5	25.0	28.5	33.0	37.5	53.1	68.8	84.4	100.	
30,000																					0.0	11.0	15.0	18.0	21.0	24.5	28.0	32.5	37.0	52.8	68.5	84.3	100.
27,500																						0.0	14.5	17.5	20.5	24.0	27.5	32.0	36.5	52.4	68.3	84.1	100.
25,000																							0.0	17.0	20.0	23.5	27.0	31.5	36.0	52.0	68.0	84.0	100.
22,500																								0.0	19.5	23.0	26.5	31.0	35.5	51.6	67.8	83.9	100.
20,000																									0.0	22.5	26.0	30.5	35.0	51.3	67.5	83.8	100.
17,500																										0.0	25.5	30.0	34.5	50.9	67.3	83.6	100.
15,000																											0.0	29.5	34.0	50.5	67.0	83.5	100.
	<b>Percent Loss from Stand Reduction</b>																																



**Exhibit 13 Cutoff/Breakover**

Stage of Growth	Percentage of Nodes Cut Off																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
V1-V2	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.3	4.4
V3	0.4	0.8	1.3	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.4	4.8	5.2	5.5	5.9	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.3	8.5	8.8
V4	0.4	0.8	1.3	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.4	4.8	5.2	5.5	5.9	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.3	8.5	8.8
V5	0.4	0.9	1.3	1.7	2.2	2.6	3.0	3.4	3.9	4.3	4.7	5.1	5.5	5.9	6.3	6.6	7.0	7.4	7.7	8.1	8.4	8.8	9.1	9.4	9.7
V6-R1	0.4	0.9	1.3	1.8	2.2	2.7	3.1	3.6	4.0	4.5	4.9	5.4	5.8	6.2	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	10.7
R2-R2.5	0.5	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.5	5.0	5.4	5.9	6.3	6.8	7.3	7.7	8.2	8.6	9.1	9.6	10.0	10.5	10.9	11.4
R3-R3.5	0.5	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.6	5.0	5.5	6.0	6.5	7.0	7.4	7.9	8.4	9.0	9.5	10.0	10.5	11.0	11.6	12.1

Stage of Growth	Percentage of Nodes Cut Off																								
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
V1-V2	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8
V3	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.1	11.3	11.5	11.7	11.9	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.3	13.5
V4	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.1	11.3	11.5	11.7	11.9	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.3	13.5
V5	10.0	10.3	10.6	10.9	11.1	11.4	11.6	11.9	12.1	12.4	12.6	12.9	13.1	13.3	13.5	13.7	13.9	14.1	14.4	14.6	14.8	15.0	15.2	15.4	15.6
V6-R1	11.1	11.4	11.8	12.1	12.4	12.8	13.1	13.4	13.7	14.0	14.3	14.6	14.8	15.1	15.4	15.6	15.8	16.1	16.3	16.5	16.8	17.0	17.2	17.4	17.6
R2-R2.5	11.9	12.3	12.8	13.3	13.7	14.2	14.7	15.1	15.6	16.1	16.5	17.0	17.5	18.0	18.4	18.9	19.4	19.9	20.4	20.9	21.4	21.9	22.4	23.0	23.5
R3-R3.5	12.7	13.3	13.8	14.4	15.0	15.6	16.2	16.9	17.5	18.1	18.8	19.5	20.1	20.8	21.5	22.3	23.0	23.7	24.5	25.3	26.1	26.9	27.7	28.5	29.4

Except for losses occurring near harvest, claims shall not be finalized until at least 7 to 10 days following the hailstorm.

**Exhibit 13 Cutoff/Breakover (Continued)**

Stage of Growth	Percentage of Nodes Cut Off																								
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
V1-V2	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.4	8.5	8.7	8.8	9.0	9.2	9.3	9.5	9.7	9.9	10.1	10.3	10.6
V3	13.8	14.0	14.2	14.4	14.6	14.9	15.1	15.3	15.6	15.9	16.1	16.4	16.7	17.0	17.3	17.6	18.0	18.3	18.7	19.0	19.4	19.8	20.2	20.7	21.1
V4	13.8	14.0	14.2	14.4	14.6	14.9	15.1	15.3	15.6	15.9	16.1	16.4	16.7	17.0	17.3	17.6	18.0	18.3	18.7	19.3	19.9	20.6	21.3	22.0	22.9
V5	15.8	16.0	16.3	16.5	16.7	17.0	17.2	17.5	17.8	18.1	18.4	18.7	19.0	19.4	19.8	20.2	20.6	21.1	21.6	22.2	22.9	23.6	24.4	25.2	26.1
V6-R1	17.9	18.1	18.3	18.6	18.8	19.1	19.3	19.6	19.9	20.3	20.6	21.0	21.4	21.8	22.2	22.7	23.3	23.8	24.5	25.1	25.8	26.6	27.5	28.4	29.4
R2-R2.5	24.1	24.6	25.2	25.8	26.3	27.0	27.6	28.2	28.9	29.5	30.2	31.0	31.7	32.5	33.3	34.1	34.9	35.8	36.7	37.7	38.7	39.7	40.8	41.9	43.1
R3-R3.5	30.2	31.1	32.0	32.9	33.9	34.8	35.8	36.8	37.8	38.8	39.9	41.0	42.0	43.1	44.3	45.4	46.6	47.8	49.0	50.3	51.5	52.8	54.1	55.4	56.8

Stage of Growth	Percentage of Nodes Cut Off																								
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
V1-V2	10.8	11.0	11.3	11.5	11.8	12.0	12.3	12.6	12.9	13.2	13.5	13.9	14.2	14.5	14.9	15.3	15.6	16.0	16.4	16.8	17.3	17.7	18.2	18.6	19.1
V3	21.6	22.0	22.5	23.0	23.5	24.1	24.6	25.2	25.8	26.4	27.1	27.7	28.4	29.1	29.8	30.5	31.3	32.1	32.9	33.7	34.5	35.4	36.3	37.2	38.2
V4	23.7	24.7	25.6	26.7	27.8	28.9	30.2	31.5	32.8	34.3	35.8	37.4	39.1	40.9	42.8	44.7	46.8	48.9	51.2	53.6	56.0	58.6	61.3	64.1	67.0
V5	27.1	28.1	29.2	30.4	31.7	33.0	34.4	36.0	37.6	39.3	41.1	43.1	45.1	47.3	49.6	52.0	54.6	57.3	60.2	63.2	66.4	69.7	73.3	77.0	80.9
V6-R1	30.4	31.6	32.8	34.1	35.5	37.1	38.7	40.4	42.3	44.3	46.4	48.7	51.1	53.7	56.4	59.4	62.4	65.7	69.2	72.9	76.8	80.9	85.2	89.8	94.7
R2-R2.5	44.3	45.6	46.9	48.3	49.7	51.3	52.8	54.5	56.2	58.0	59.9	61.9	63.9	66.1	68.4	70.7	73.2	75.7	78.4	81.2	84.1	87.2	90.3	93.6	97.1
R3-R3.5	58.2	59.6	61.0	62.5	64.0	65.5	67.0	68.6	70.1	71.8	73.4	75.1	76.8	78.5	80.3	82.1	83.9	85.7	87.6	89.5	91.4	93.4	95.4	97.4	100

Except for losses occurring near harvest, claims shall not be finalized until at least 7 to 10 days following the hailstorm.

**Exhibit 14 Indeterminate Soybean Defoliation Percent of Damage**

Stages	Percent of Defoliation																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Vc-Vn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
R2.5	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	3	3	3
R3	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	3	3	3	4	4	4
R3.5	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	3	3	3	4	4	4
R4	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5
R4.5	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5
R5	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5
R5.5	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5
R6	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	4	4
R6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1

**Indeterminate Soybean Defoliation Percent of Damage (cont'd)**

Stages	Percent of Defoliation																								
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Vc-Vn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3
R2	1	1	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
R2.5	3	4	4	4	4	5	5	5	6	6	6	7	7	7	8	8	9	9	9	10	10	11	11	12	12
R3	5	5	5	6	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	14	14	15	16	16	17
R3.5	5	5	5	6	6	7	7	8	8	8	9	9	10	11	11	12	12	13	13	14	15	15	16	17	17
R4	5	5	6	6	7	7	8	8	8	9	10	10	11	11	12	12	13	14	14	15	16	16	17	18	18
R4.5	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	13	13	14	14	15	16	17	17	18	19
R5	5	6	6	6	7	7	8	8	9	9	10	11	11	12	12	13	14	14	15	16	16	17	18	19	19
R5.5	5	6	6	6	7	7	8	8	9	9	10	11	11	12	12	13	14	14	15	16	16	17	18	19	19
R6	4	5	5	5	5	6	6	6	7	7	8	8	8	9	9	10	10	10	11	11	12	12	13	13	14
R6.5	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4

**Exhibit 14 Indeterminate Soybean Defoliation Percent of Damage (Continued)**

Stages	Percent of Defoliation																								
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Vc-Vn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R1	3	3	3	4	4	4	4	5	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10
R2	7	7	7	8	8	8	9	9	10	10	11	11	11	12	12	13	13	14	14	15	16	16	17	17	18
R2.5	13	13	14	14	15	15	16	16	17	17	18	19	19	20	20	21	22	22	23	24	24	25	26	26	27
R3	18	18	19	20	20	21	22	23	23	24	25	26	27	28	29	29	30	31	32	33	34	35	36	37	38
R3.5	18	19	19	20	21	22	22	23	24	25	26	27	27	28	29	30	31	32	33	34	35	36	37	38	39
R4	19	20	21	21	22	23	24	25	26	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
R4.5	19	20	21	22	23	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
R5	20	21	22	23	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
R5.5	20	21	22	23	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
R6	14	15	15	16	16	17	17	18	19	19	20	20	21	22	22	23	23	24	25	25	26	27	27	28	29
R6.5	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	8	8	9	9	9	10	10	10	11

**Indeterminate Soybean Defoliation Percent of Damage (cont'd)**

Stages	Percent of Defoliation																								
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Vc-Vn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R1	11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	19	19	20	21	21	22	23	23	24	25
R2	19	19	20	21	21	22	23	23	24	25	26	26	27	28	29	30	31	32	32	33	34	35	36	37	38
R2.5	28	29	29	30	31	32	32	33	34	35	36	36	37	38	39	40	41	42	43	44	44	45	46	47	48
R3	39	40	41	42	43	44	45	47	48	49	50	51	52	53	55	56	57	58	60	61	62	64	65	66	68
R3.5	40	41	42	43	44	45	46	48	49	50	51	52	54	55	56	57	58	60	61	62	64	65	66	68	69
R4	42	44	45	46	47	48	49	51	52	53	54	56	57	58	59	61	62	63	65	66	68	69	70	72	73
R4.5	43	44	45	47	48	49	50	51	53	54	55	57	58	59	61	62	63	65	66	67	69	70	72	73	75
R5	45	46	47	48	49	51	52	53	54	56	57	58	60	61	63	64	65	67	68	70	71	73	74	76	77
R5.5	45	46	47	48	49	51	52	53	54	56	57	58	60	61	63	64	65	67	68	70	71	73	74	76	77
R6	30	30	31	32	33	33	34	35	36	37	37	38	39	40	41	42	42	43	44	45	46	47	48	49	50
R6.5	11	12	12	12	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	21	22	23

**Exhibit 15     Determinate Soybean Defoliation Percent of Damage**

Stages	Percent of Defoliation																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
V9-V12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
V13-Vn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
R1-2	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	4
R2.5	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	4
R3	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4
R3.5	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4
R4	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	3	3	3	4	4	4
R4.5	0	0	0	0	1	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	6
R5	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	8
R5.5	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	8
R6	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	4

**Determinate Soybean Defoliation Percent of Damage (cont'd)**

Stages	Percent of Defoliation																								
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
V9-V12	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
V13-Vn	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	5
R1-2	4	4	5	5	5	5	6	6	6	7	7	8	8	8	9	9	9	10	10	11	11	11	12	12	13
R2.5	4	4	5	5	5	6	6	6	7	7	8	8	8	9	9	10	10	11	11	12	12	13	13	14	14
R3	4	5	5	5	6	6	7	7	8	8	8	9	9	10	10	11	12	12	13	13	14	14	15	16	16
R3.5	4	5	5	5	6	6	7	7	8	8	8	9	9	10	10	11	12	12	13	13	14	14	15	16	16
R4	5	5	5	6	6	7	7	7	8	8	9	9	10	10	11	11	12	13	13	14	14	15	16	16	17
R4.5	6	7	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	15	15	16	17	17	18	18	19
R5	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	19	19	20	20	21	22
R5.5	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	19	19	20	20	21	22
R6	4	4	4	5	5	5	5	5	6	6	6	7	7	7	7	8	8	8	9	9	9	10	10	11	11

**Exhibit 15     Determinate Soybean Defoliation Percent of Damage (Continued)**

Stages	Percent of Defoliation																								
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
V9-V12	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7
V13-Vn	6	6	6	6	7	7	7	7	8	8	8	9	9	9	9	10	10	10	11	11	11	12	12	13	13
R1-2	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	20	20	21	21	22	22	23	23	24	24
R2.5	15	15	16	16	17	18	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28	29	29	30
R3	17	18	19	19	20	21	21	22	23	24	25	25	26	27	28	29	30	31	32	33	34	35	36	37	38
R3.5	17	18	19	19	20	21	21	22	23	24	25	25	26	27	28	29	30	31	32	33	34	35	36	37	38
R4	18	18	19	20	21	21	22	23	24	25	25	26	27	28	29	30	31	32	33	34	34	35	36	37	38
R4.5	20	21	21	22	23	23	24	25	26	27	27	28	29	30	31	32	33	33	34	35	36	37	38	39	40
R5	23	23	24	25	25	26	27	28	28	29	30	31	32	32	33	34	35	36	37	38	39	39	40	41	42
R5.5	23	23	24	25	25	26	27	28	28	29	30	31	32	32	33	34	35	36	37	38	39	39	40	41	42
R6	11	12	12	13	13	14	14	15	15	16	16	17	18	18	19	19	20	21	21	22	23	23	24	25	26

**Determinate Soybean Defoliation Percent of Damage (cont'd)**

Stages	Percent of Defoliation																								
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
V9-V12	7	7	7	7	8	8	8	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	10
V13-Vn	13	14	14	14	15	15	16	16	17	17	17	18	18	19	19	20	20	21	21	22	22	23	23	24	24
R1-2	25	25	26	26	26	27	27	28	28	29	29	30	30	30	31	31	32	32	33	33	33	34	34	35	35
R2.5	31	32	32	33	34	35	35	36	37	38	39	39	40	41	42	43	44	44	45	46	47	48	49	49	50
R3	39	40	41	42	43	44	45	46	48	49	50	51	52	54	55	56	57	59	60	61	63	64	65	67	68
R3.5	39	40	41	42	43	44	45	46	48	49	50	51	52	54	55	56	57	59	60	61	63	64	65	67	68
R4	40	41	42	43	44	45	46	47	48	49	51	52	53	54	55	57	58	59	61	62	63	64	66	67	69
R4.5	41	42	43	44	45	46	47	48	49	51	52	53	54	55	56	57	59	60	61	62	64	65	66	67	69
R5	43	44	45	46	47	48	49	50	51	52	53	54	55	56	58	59	60	61	62	63	64	65	67	68	69
R5.5	43	44	45	46	47	48	49	50	51	52	53	54	55	56	58	59	60	61	62	63	64	65	67	68	69
R6	27	27	28	29	30	31	32	33	34	34	35	36	37	39	40	41	42	43	44	45	46	48	49	50	51

**Exhibit 16 Soybean Moisture Adjustment Factors**

Whole Percent Moisture	Tenths of Percent Moisture									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
13	1.0000	.9988	.9976	.9964	.9952	.9940	.9928	.9916	.9904	.9892
14	.9880	.9868	.9856	.9844	.9832	.9820	.9808	.9796	.9784	.9772
15	.9760	.9748	.9736	.9724	.9712	.9700	.9688	.9676	.9664	.9652
16	.9640	.9628	.9616	.9604	.9592	.9580	.9568	.9556	.9544	.9532
17	.9520	.9508	.9496	.9484	.9472	.9460	.9448	.9436	.9424	.9412
18	.9400	.9388	.9376	.9364	.9352	.9340	.9328	.9316	.9304	.9292
19	.9280	.9268	.9256	.9244	.9232	.9220	.9208	.9196	.9184	.9172
20	.9160	.9148	.9136	.9124	.9112	.9100	.9088	.9076	.9064	.9052
21	.9040	.9028	.9016	.9004	.8992	.8980	.8968	.8956	.8944	.8932
22	.8920	.8908	.8896	.8884	.8872	.8860	.8848	.8836	.8824	.8812
23	.8800	.8788	.8776	.8764	.8752	.8740	.8728	.8716	.8704	.8692
24	.8680	.8668	.8656	.8644	.8632	.8620	.8608	.8596	.8584	.8572
25	.8560	.8548	.8536	.8524	.8512	.8500	.8488	.8476	.8464	.8452
26	.8440	.8428	.8416	.8404	.8392	.8380	.8368	.8356	.8344	.8332
27	.8320	.8308	.8296	.8284	.8272	.8260	.8248	.8236	.8224	.8212
28	.8200	.8188	.8176	.8164	.8152	.8140	.8128	.8116	.8104	.8092
29	.8080	.8068	.8056	.8044	.8032	.8020	.8008	.7996	.7984	.7972
30	.7960	.7948	.7936	.7924	.7912	.7900	.7888	.7876	.7864	.7852
31	.7840	.7828	.7816	.7804	.7792	.7780	.7768	.7756	.7744	.7732
32	.7720	.7708	.7696	.7684	.7672	.7660	.7648	.7636	.7624	.7612
33	.7600	.7588	.7576	.7564	.7552	.7540	.7528	.7516	.7504	.7492
34	.7480	.7468	.7456	.7444	.7432	.7420	.7408	.7396	.7384	.7372
35	.7360	.7348	.7336	.7324	.7312	.7300	.7288	.7276	.7264	.7252
36	.7240	.7228	.7216	.7204	.7192	.7180	.7168	.7156	.7144	.7132
37	.7120	.7108	.7096	.7084	.7072	.7060	.7048	.7036	.7024	.7012
38	.7000	.6988	.6976	.6964	.6952	.6940	.6928	.6916	.6904	.6892
39	.6880	.6868	.6856	.6844	.6832	.6820	.6808	.6796	.6784	.6772
40	.6760	.6748	.6736	.6724	.6712	.6700	.6688	.6676	.6664	.6652

**Exhibit 17 Soybean Growth Stages**

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**V-Stage Descriptions**

<b>Stage</b>	<b>Description</b>	<b>Time Interval In Days From Last Stage</b>
Emergence (VE and VC) - V1	From Emergence to Stage V1	
V1	Fully developed leaves at unifoliate node.	10
V2	Fully developed trifoliolate leaf at second node above cotyledonary node.	5
V3	Fully developed trifoliolate leaf at third node above cotyledonary node.	5
V4	Fully developed trifoliolate leaf at fourth node above cotyledonary node.	5
V5	Fully developed trifoliolate leaf at fifth node above cotyledonary node.	5
V6	Fully developed trifoliolate leaf at sixth node above cotyledonary node.	3
V7	Fully developed trifoliolate leaf at seventh node above cotyledonary node.	3
V8	Fully developed trifoliolate leaf at eighth node above cotyledonary node.	3
V9	Fully developed trifoliolate leaf at ninth node above cotyledonary node.	3
V10	Fully developed trifoliolate leaf at tenth node above cotyledonary node.	3
VN	Node greater than tenth node above the cotyledon node that has a fully developed trifoliolate leaf (e.g., V11, V12, etc.).	3

Adjust all losses at the stage of growth on the date of damage.



Leaves, Nodes, and Plants In Various V Stages.

Fig. 1

Fully Developed      Not fully developed



Trifoliate Leaves

Trifoliolate eaves

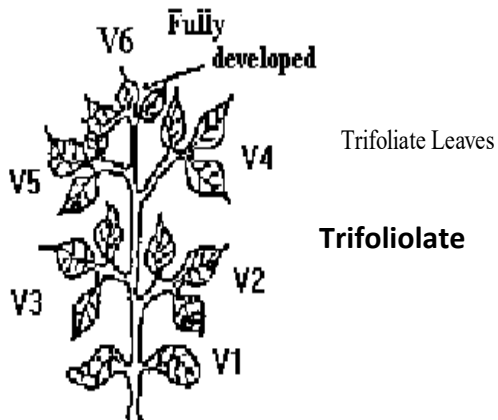
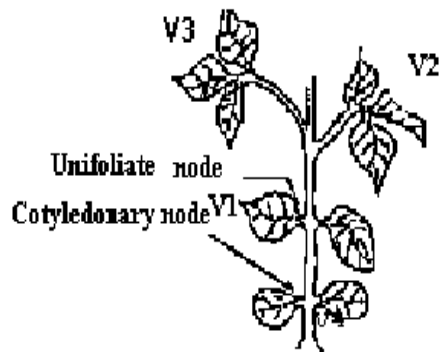


Fig. 3

Fig. 2



Not fully developed

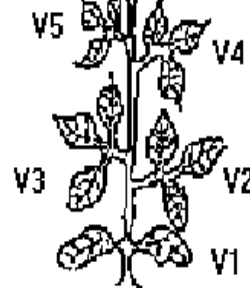


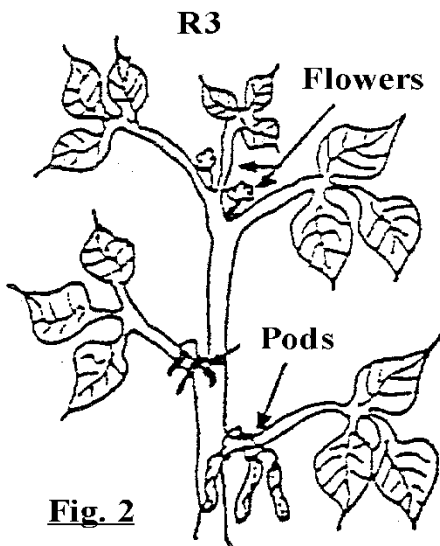
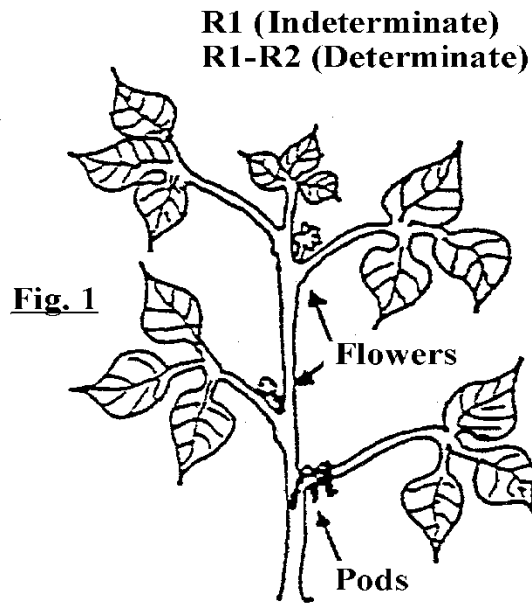
Fig. 4

**Exhibit 17 Soybean Growth Stages (Continued)**

**R-Stage Descriptions**

Stage	Description	Time Interval In Days From Last Stage
<b>Indeterminate</b>		
R1	One open flower at any node on the main stem.	
R2	Open flower at one of the two uppermost nodes on the main stem with a fully developed leaf.	3
<b>Determinate</b>		
R1 - R2	Flower at one of the four uppermost nodes.	3
<b>Both Determinate and Indeterminate</b>		
R3	Pod just visible at one of the four uppermost nodes.	7
R4	Pod 3/4-inch-long at one of the four uppermost nodes.	9
R5	Seeds beginning to develop at one of the four uppermost nodes. A seed is considered "beginning to develop" when it is 1/8 inch in length.	9
R6	Pod containing green seeds that fill the pod cavity at one of the four uppermost nodes.	15
R6.5	When all the normal pods on the four uppermost nodes of the main stem have their pod cavities completely filled, suture-to-suture, with seed.	9
<b>Beginning of Seed Count Method</b>		
R7	One normal pod on the main stem that has reached its mature pod color. 50 percent or more of the leaves are yellow at this stage. Physiological maturity.	9
R8	95 percent of pods are brown.	9
Adjust all losses at the stage of growth on the date of damage, except that the Seed Count Method is used if in R7 or beyond at Date of Adjustment.		

Pods and Plants In Various R Stages.



**Fig. 3**

R4 Pod



3/4"

**Fig. 4**

R5 Pod



(1/8" seeds)

**Fig. 5**

R6 Pod



(Seeds fill cavity)

**Exhibit 18 Defoliation, Cutoff, and Breakover Illustrations**

Shown below are defoliation (Fig. 1), a cutoff with defoliation (Fig. 2), and a breakover with defoliation (Fig. 3).

- (1) Defoliation: R4 represents the stage at the date of damage (DOD).
- (2) Cutoff: V5 represents the stage at the DOD.
- (3) Break Over: V6 represents the stage at the DOD.

