



United States  
Department of  
Agriculture



Federal Crop  
Insurance  
Corporation

FCIC-25015 (11-2023)

# **SESAME PILOT 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: SESAME PILOT LOSS ADJUSTMENT STANDARDS HANDBOOK</b>	<b>NUMBER: FCIC-25015</b> <b>OPI: Product Administration and Standards Division</b>
<b>EFFECTIVE DATE: 2024 and Succeeding Crop Years</b>	<b>ISSUE DATE: November 13, 2023</b>
<b>SUBJECT:</b>  Provides procedures and instructions for administering the Sesame Pilot crop insurance program.	<b>APPROVED:</b>  <i>/s/ John W. Underwood for</i>  <b>Deputy Administrator for Product Management</b>

**REASON FOR ISSUANCE**

This handbook provides procedures and instructions for administering the Sesame Pilot crop insurance program. This handbook replaces FCIC-25015, Sesame Pilot Loss Adjustment Standards Handbook, issued November 25, 2019. 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 FCIC-25015, Sesame Pilot Loss Adjustment Standards Handbook. All major changes and additions are highlighted. Three asterisks (\*\*\*) indicate where major deletions occurred. Minor changes and corrections are not included in this listing.

<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="#">Subparagraph 1B</a>	Added to comply with External Handbook Standards.
<a href="#">Subparagraph 1C</a>	Added to comply with External Handbook Standards.
<a href="#">Subparagraph 1D</a>	Updated handbook descriptions to comply with External Handbook Standards.
<a href="#">Subparagraph 2D(2)</a>	Updated for standard language concerning Privacy Act and Non-Discrimination statements.
<a href="#">Paragraph 11</a>	Added items (3) and (4), previously listed in Paragraph 41.
<a href="#">Paragraph 23</a>	Moved growth stage characteristics table to Exhibit 10.
<a href="#">Paragraph 30</a>	Moved completion instructions previously contained in item (3) to Exhibit 3.
<a href="#">Exhibit 1</a>	Added several acronyms, including AD (actuarial documents), and DAP (days after planting); updated throughout.
<a href="#">Exhibit 3</a>	Added introductory instructions previously contained in Paragraph 30, item (3).  Item (8), added reference to Exhibit 9.
<a href="#">Exhibit 4</a>	Item (68), removed unnecessary rounding instructions.
<a href="#">Exhibit 10</a>	Added exhibit, tables previously contained in Paragraph 23.

# SESAME PILOT LOSS ADJUSTMENT STANDARDS HANDBOOK

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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. Program Duration

The Sesame Pilot Program is available beginning with the 2011 crop year and is authorized until terminated or converted to a permanent program by the FCIC Board of Directors.

#### C. Source of Authority

The Food, Conservation and Energy Act of 2008 requires the Risk Management Agency to develop a pilot program for sesame. 7 U.S.C. 1523(g) requires that FCIC "... shall establish and carry out a pilot program under which a producer of non-dehiscent sesame under contract may elect to obtain multi-peril crop insurance, as determined by the Corporation."

#### D. Title VI of the Civil Rights 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 contracts, 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 or [www.usda.gov/oascr](http://www.usda.gov/oascr). For more information on the RMA Non-Discrimination Statement see the DSSH.

**E. Related Handbooks**

The following table identifies handbooks that shall be used in conjunction with 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.
Sesame Crop Insurance Standards Handbook	This handbook provides underwriting procedures and instructions for administering the Sesame Pilot crop insurance program.

- (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 sesame loss adjustment and this handbook are in [Exhibit 1](#) and [Exhibit 2](#), herein.

**F. CAT Coverage**

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

**G. 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 [Exhibit 3](#) and [Exhibit 4](#) are the minimum requirements for the Sesame Appraisal Worksheet and PW. All entry items are "Substantive" (they are required).
- (2) The Privacy Act and Non-Discrimination statements are required statements. These statements are not shown on the example form(s) in [Exhibit 3](#) and [Exhibit 4](#). See the DSSH for statement requirements.
- (3) The certification statement required by the current DSSH must be included on the PW directly above the insured's signature block immediately followed by the statement below:

"I understand the certified information on this Production Worksheet will be used to determine my loss, if any, to the above unit. The insurance provider may audit and approve this information and supporting documentation. The Federal Crop Insurance Corporation, an agency of the United States, subsidizes and reinsures this crop insurance."

## 2 AIP Responsibilities (Continued)

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### D. Form Standards (Continued)

- (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).

### 3-10 (Reserved)

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## 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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- (1) The insured crop and insurable acreage are defined in the Sesame Pilot CP. Refer to the BP, the Sesame Pilot CP, and the SP for a complete list of insurability requirements.
- (2) Any acreage of the insured crop damaged before the final planting date, to the extent that producers in the area would normally not further care for the crop, must be replanted unless the AIP agrees that it is not practical to replant. Refer to the SP and the LAM for additional replanting information.
- (3) The late planting provisions contained in the BP are not applicable to sesame.
- (4) The prevented planting provisions contained in the BP are not applicable to sesame.

### 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 CIH and the LAM.**

### 13 Replanting Payment Procedures

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There is no replant payment available for sesame. Refer to Paragraph 11(2) for replanting requirements prior to the final planting date.

### 14-20 (Reserved)

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## PART 3: APPRAISALS

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

### 21 Selecting Representative Samples

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- (1) Determine the minimum number of required samples for a field or subfield by the field size, the average stage of growth, age (size), and general capabilities of the plants to recover, and variability of potential production and plant damage within the field or subfield.
- (2) Split the field into subfields when:
  - (a) variable damage causes the crop potential to appear to be significantly different within the same field; or
  - (b) the insured wishes to destroy a portion of a field.
- (3) Appraise each field or subfield separately.
- (4) Take not less than the minimum number (count) of representative samples required in [Exhibit 5](#) for each field or subfield.
- (5) Sample size by appraisal method:
  - (a) Stand Reduction, Plant Damage, and Capsule Count Methods: One representative sample is equal to 1/1,000 of an acre based on the row width as listed in [Exhibit 6](#).
  - (b) Harvested Production Method: One sample is the calculated area harvested by machine in each representative sample area.

### 22 Measuring Row Width for Sample Selection

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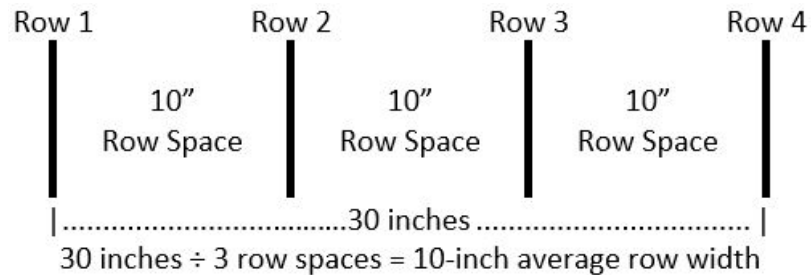
Use these instructions for all appraisal methods that require row width determinations.

- (1) Use a measuring tape marked in inches or convert a tape marked in tenths, to inches, to measure row width (refer to the LAM for conversion table).
- (2) Measure across three or more row spaces, from the center of the first row to the center of the fourth row (or as many rows as needed), and divide the result by the number of row spaces measured across, to determine an average row width in whole inches.

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

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### Example:



- (3) Where rows are skipped for tractor and planter tires, refer to the LAM.
- (4) Apply the average row width contained in [Exhibit 6](#) to determine the sample row length required for the Stand Reduction, Plant Damage, and Capsule Count appraisal methods.

## 23 Stages of Growth

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There are four major growth stages: Vegetative, Reproductive, Ripening, and Drying. Growth stage characteristics are described in [Exhibit 10](#). The stages are defined so that the loss adjuster can determine the appropriate appraisal method to use.

- (1) For the purposes of appraisals, the key points in the growth of the sesame plant are the appearance of buds in the pre-reproductive stage and the end of the reproductive stage when flowering ends.
- (2) Sesame produces flowers in the leaf axil (where the upper base of the petiole of the leaf joins the stem). The flowers have five petals that join to form a tubular shape corolla that is about 1 to 1.5 inches long. The flowers start as yellowish green in color and are considered buds until the day of pollination when they turn whitish to purple. One of the petals is longer, and the extra growth is known as a lip. The lip folds over the opening of the flower until the day the flower releases its pollen. The corolla drops at the end of the day, but the ovary (which will form the capsule and seed) stays on the plant. There may be flower abortion when the entire flower falls off the plant, but the dropping of the corolla will still allow the formation of a capsule.
- (3) Each leaf emerges from the stem at a node. In many species there is a distinct distance along the stem between leaves. In most sesame lines, the leaves are opposite with a pair of leaves forming on opposite sides of the stem with a minimal distance between the leaves. The next set of leaves rotates 90 degrees and are again on opposite sides of the stem. Some of the sesame appraisal methods count node pairs. This is synonymous with counting pairs of leaves and later pairs of capsules in leaf axils.
- (4) The first key definition is the start of the pre-reproductive stage when buds are visible without manually opening the growing tip. Technically, the bud can be seen with a hand lens after the 4th to 6th (variety dependent) pair of leaves forms.

- (5) The second key definition is flower termination time which is when 90% of the plants do not have open whitish flowers on the main stem. At this point, many of the plants may still have very small yellowish green buds, but these buds rarely make flowers that will result in capsules and seeds.
- (6) In drought years, a late rain can induce regrowth. Because of the lack of moisture during the drought, the bottom leaves will have dropped letting light into the lower leaf axils. Branches will develop at those points and they will flower and produce capsules. If there are no flowers at the top of the main stem, the field should be considered at flower termination. The capsules on the regrowth make little seed and it is offset by the seed lost during the delay of the field drying down.
- (7) Sesame is an indeterminate species which means that it will continue to flower as long as there is adequate moisture, fertility, and heat. Sesame is a summer crop with the latter stages coming in the fall where there is a drop in temperatures. As a result, sesame appears to be determinate. \*\*\*
- (8) The stage in the field may vary, e.g., low parts of the field will flower longer. If there are significant differences, the fields may have to be divided into sub-fields. \*\*\*

Refer to [Paragraph 23](#) and [Exhibit 10](#) for information on growth stages.

Appraisal Method...	Use...
Stand Reduction Method	for planted acreage with no stand, poor stand, or damaged stand on fields up to flower termination (no GP putting on new leaves). Regardless of the time of the insurable event, if the data for the appraisal is not determined in the field before flower termination in the late bloom stage, the Capsule Count method must be used.
Plant Damage Method	between the pre-reproductive stage and flower termination in the late bloom stage (beyond the first true leaf pair and GPs are putting on new leaves). Regardless of the time of the insurable event, if the data for the appraisal is not determined in the field before flower termination, the Capsule Count method must be used.
Capsule Count Method	after flower termination. It is preferable to wait until the whole field has flower termination to avoid creation of excessive sub-fields.
Harvested Production Method	after flower termination. Use the amount actually harvested from representative areas within a field.

**Note:** Whenever possible, require the producer to maintain RSAs so the Harvested Production method can be used.

**25 Stand Reduction Method**

**A. Scheduling Appraisals**

If the reduction in stand is solely due to non-emerged seed due to insufficient soil moisture, do not complete appraisals prior to the time specified in the LAM. Refer to the paragraph in the LAM regarding deferred appraisals and non-emerged seed. For damaged stands, do not complete appraisals until a minimum of 10 days after the date of damage in order to determine which plants will survive.

**B. Damaged Plant Characteristics for Stand Reduction Appraisals**

The most common stand reducer is hail, but there can also be stand reduction due to heavy rains, diseases, or insects. Sesame may recover from heavy rains and from some insect damage to the cotyledons and leaves. Although there can be good recovery from hail, the amount of damage is dependent on the severity of the hail and the stage of growth. Sesame plants may be very susceptible to hail damage if damage occurs up to and including the first pair of true leaves.

Sesame plants injured in the seedling stage may have either one to all cotyledons and leaves missing, the seedling beaten down, or the stem broken at the soil line. Plants with both cotyledons and the first true leaf pair broken or torn off, broken or badly bruised stems, and those broken off below the cotyledons rarely survive.

After the first true leaf pair stage and prior to flowering, when the crop is leafing, sesame can be very hardy and generally will recover with varying yield loss. If the GP is broken off, the plant will typically produce branches from axillary buds at the nodes. The amount of branching is dependent on sunlight striking the tips of the GP. Broken branches above the first set of leaves on the branch can also form another branch from axillary buds at the base of the leaves. To qualify for stand reduction appraisals, damaged plants must:

- (1) not have any GPs putting on new leaves;
- (2) be injured and bruised to such an extent they are in a non-recoverable condition; or
- (3) be dead.

**C. Stand Reduction Appraisal Method Standards**

- (1) Select the required number of representative samples using the instructions in [Paragraph 21](#).
- (2) Apply the average row width determined in [Paragraph 22](#) to [Exhibit 6](#) to determine the sample row length. For each representative sample, count the number of surviving plants in 1/1,000 of an acre.
- (3) Refer to [Exhibit 7A](#) to identify the percent surviving from sesame stand reduction for the relevant phenotype.

**A. Plant Damage Characteristics**

There are three main types of plant damage: defoliation, GP damage, and capsule damage. Only the first two of these are considered in the Plant Damage Appraisal Method. They are evaluated after first accounting for any stand reduction associated with the plant damage.

The methodology requires a determination of the stage of development of the crop in order to get the amount of surviving yield in [Exhibit 7B](#) and [7C](#). Refer to the Stages of Growth in [Paragraph 23](#) and [Exhibit 10](#). During the reproductive stage the tables are broken into columns based on the number of node pairs on dominant plants in a representative population. Dominant plants are all about the same height as the top of the canopy. These do not include the tallest plants which are off-types that rise above the canopy. Minor plants within the canopy normally have fewer nodes.

In order to count, the node pair must have a capsule formed that is at least one-half inch long. Node pairs that have a capsule missing because of flower or capsule abortion are counted.

In a drought, a crop may be in the late bloom stage and not have 15 node pairs. In this case, use the late bloom stage column.

(1) Defoliation

- (a) Recovery from hail depends on the amount of injury to leaves which supply the nutrients for seed development and the amount of growing season remaining. If injury occurs late in the season, the plant will not have sufficient time to compensate by forming new leaves. Although the sesame stems and capsules are green, they provide few nutrients for seed fill. A completely defoliated plant during flowering will make little seed although it has many capsules that have reached their maximum length.
- (b) Defoliation is that proportion of the leaves that has been removed or severely injured.
- (c) Although sesame leaves vary in size, leaf damage should be assessed based on the number of leaves and the percent damage to each leaf. Sesame leaves develop at each node on the main stem and branches. Most sesame varieties have opposite leaves and thus it is easier to count the number of node pairs and multiply by two to determine the number of leaves prior to injury. Do not count cotyledons as leaves. Cotyledons have a rounded tip whereas true leaves have a point. The cotyledons are at the base of the plant, but at some point (variety and sunlight related) they shed.

**A. Plant Damage Characteristics (Continued)**

- (d) There is a misconception that the effects of damage caused to leaves formed during the vegetative stage are minimal. The plants are still short at this point, and there will be a substantial leaf mass that will form during the reproductive stage that will hide the amount of damage. In addition, many of these damaged leaves will later self-defoliate. However, there is substantial damage because these lower leaves provide nutrients to the roots and the first buds, and loss of this photosynthesis at this critical stage is not recoverable.
- (e) Loss of leaves includes:
  - (i) A partial loss – leaves that have a hole or are torn.
  - (ii) Total losses – leaves that are torn off the plant or broken at the petiole and wilting.
- (2) Growing Point (GP) Damage
  - (a) A sesame crop is indeterminate and blooms for an extended period as successive nodes and the associated flower buds form capsules up the stems and branches. The main stem of the plant produces the majority of the seed. If hail or some other peril does not damage the GP on the main stem, the loss of leaf surface is less damaging than if the GP is broken. Loss of the GP on a branch has less effect on final yield because one branch does not contribute a significant percentage of seed and rarely are all GPs on one plant broken.
  - (b) Hail injury if severe may break the GP of the main stem or branch, and capsule formation on that stem will cease. Within a few days the plant will react by having a secondary GP begin to form a branch on the main stem or a secondary branch on the branch as long as there is light to the growing tip. Usually there is light at the leaf axils because severe enough hail to break a stem will damage enough leaf surface to allow the light to penetrate to the secondary GPs. When the GP on the main stem is broken, the plants will direct more nutrients to these secondary GPs. Within a few days, there is rapid growth, but there will be a delay in the start of flowering. Although the plants will produce more capsules, there are fewer capsules produced than if the main stem GP had not broken off.



**A. Plant Damage Characteristics (Continued)**

- (c) There are cases where the GP on the main stem breaks over but stays attached to the stem. Within a few days the tip will react and start growing towards light and will usually start to flower and form capsules. Although there will be seeds in these new capsules, the effect on yield is similar to a completely broken GP because the plant does not direct more nutrients to the secondary GPs.
- (d) In sesame in high populations, some plants will grow faster than adjacent plants and become dominant plants that will have higher seed production. The minor plants are shaded by the dominant plants and will have less or even no seed production. In some hailstorms, the hail will break off the GP on the dominant plants and leave the minor plants intact. While the dominant plants are recovering, the minor plants will grow through the canopy and become the dominant plants. Thus, in counting the number of plants that have lost the GP on the main stem, these minor plants should be counted as intact since they can become almost as productive as non-damaged dominant plants.

(3) Capsule Damage

Capsule damage prior to the end of flowering is not considered in this method of appraisal in sesame. Since sesame flowers for such an extended time (an average of 40 days), early loss of 100% of the capsules does not equate to 100% loss of production. On the other hand, when a capsule is not lost, but the leaves are lost, it is the equivalent of a loss of a capsule. This loss is accounted for in the loss of leaves. The amount of later capsule loss is important in the ripening stage and is accounted for in the Capsule Count method of appraisal, [Paragraph 27](#).

**B. Plant Damage Appraisal Method Standards**

- (1) First account for any stand reduction in the manner described in [Paragraph 25](#).
- (2) Defoliation
  - (a) In a representative sample area, determine the percentage of defoliation from a sample of 10 successive plants in the same row of representative plants. This same area will be used for the GP damage assessment.
  - (b) Count the number of leaves on 10 plants by counting the number of node pairs and multiplying by two. The leaves on branches that are broken down should be counted. However, the leaves on plants that are broken down are not included because these were accounted for in the stand reduction counts.

**B. Plant Damage Appraisal Method Standards (Continued)**

- (c) Count the number of damaged leaves as follows (it may be easier to count the leaves that are not damaged and subtract that number from the total number of leaves):
    - (i) For leaves that are torn off or kinked at the petiole, count 1 damaged leaf.
    - (ii) For leaves that are still on the plant estimate the amount of damage to the nearest half and count as  $\frac{1}{2}$  or 1 damaged leaf as follows, greater than 75% damage = 1 damaged leaf, 20 to 75% = .5 damaged leaf, and less than 20% = 0 damaged leaf. Include only the area removed or affected by a hole or tear.
  - (d) To determine the percent of leaf loss add the total number of damaged leaves from the 10 plants and divide the result by the number of leaves prior to the leaf damage.
- (3) GP damage
- (a) Apply the average row width determined in [Paragraph 22](#) to [Exhibit 6](#) to determine the sample row length. In the representative sample that includes the 10 plants used for determining the amount of defoliation, count the number of plants.
  - (b) While counting the total number of surviving plants, see whether it will be easier to count the surviving plants with an intact GP on the main stem or to count the surviving plants with a damaged GP on the main stem. Count the appropriate number.
  - (c) To determine the percent of surviving plants with the GP intact, divide the number of plants with a GP intact by the total number of plants in the sample.
  - (d) To determine the percent of surviving plants with the GP damaged, subtract the proportion of plants with the GP intact from 1.00.

**A. Capsule Characteristics**

- (1) The amount of seed in a capsule varies due to many factors including variety, environment, plant position, branching style, and capsules per leaf axil.
- (2) Varieties have differing seed sizes and number of seeds per capsule. The lower yield factors are compensated by having more capsules per plant.
- (3) The capsule weight will vary based on population and available moisture and fertility. Higher populations, less moisture, and/or less fertility will have capsules with less seed weight.
- (4) The capsules on the tops of the plant have less seed weight. The highest weights are in the middle of the capsule zone on the main stem.
- (5) The capsules on branches have less weight. However, having more capsules per plant compensates for the lower weight.
- (6) The axillary capsules in a triple capsule line have less seed weight. However, the less weight is compensated by having more capsules per plant. The seed weight in the central capsules is comparable to the seed weight in single capsule lines.
- (7) The nature of commercially viable sesame is to have non-dehiscence. This allows the capsules to hold the majority of the seed until the combine harvests the field and yet release the seed in the combine. One of the keys is to have the capsules open as they dry down. Although it is easy to thresh the seed in a combine or plot thresher, it is very time consuming to shell the seeds out of the capsules manually.

**B. Capsule Count Appraisal Method Standards**

- (1) Apply the average row width determined in [Paragraph 22](#) to [Exhibit 6](#) to determine the sample row length. Identify the first and last plants in the sample. Capsules from plants within the sample length are counted even if they extend outside the length of the row. Capsules from plants outside the sample length are not counted even if they bend inside the length of the row.
- (2) Count the number of capsules on the main stem and on the branches.
- (3) Plants that died from disease or plants that were defoliated in the reproductive stage may not make marketable seed. In fields with hail or disease damage, start with the capsules at the top of the plant and open them to find the first capsule that does not have immature seed. Then count that capsule and the capsules below on the main stem. Repeat the procedure when counting the capsules on the branches. Only count the capsules with seed that is filled out. Immature seed is brownish and flat.

## 28 Harvested Production Method

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- (1) The number of RSAs shall be determined in accordance with the LAM.
- (2) The area of each must be measured with a tape, GPS, or wheel.
- (3) The sample areas cannot be harvested until dry enough to produce seed with 6.0% moisture or less.
- (4) The combine must be cleaned prior to the harvest. The production must be weighed by an official USDA weighing station with the results on an official weight ticket with the name of the insured, field ID, and unit number. The moisture should be taken of a representative sample. Samples must be drawn using a USDA-approved method.
- (5) A representative sample of this harvest must be submitted to a laboratory to determine the amount (percentage) of each: dockage, foreign matter, broken, and damaged.
- (6) The net weight shall be computed as follows, with the proportions that are dockage, foreign matter, broken, damaged, or moisture expressed as hundredths:
  - (a) Calculation of weight 1 (WT1) after removal of dockage:  
$$WT1 = \text{gross weight} - (\text{gross weight} \times \text{dockage})$$
  - (b) Calculation of weight 2 (WT2) after adjustment for foreign matter, broken, and damaged seed:  
$$WT2 = WT1 - (WT1 \times (\text{foreign matter} + \text{broken} + \text{damaged}))$$
  - (c) Calculation of net weight at the equivalent of 5.0% moisture content:  
$$\text{Net Weight} = WT2 \times (1.00 - \text{moisture \%}) \div 0.95$$

## 29 Deviations and Modifications

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- (1) Deviations in appraisal methods require RMA written authorization (as described in the LAM) prior to implementation.
- (2) There are no pre-established modifications contained in this handbook. Refer to the LAM for additional information.

## 30 General Information for Worksheet Entries and Completion Procedures

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- (1) Include the AIP's name in the appraisal worksheet title if not preprinted on the AIP's worksheet or when a worksheet entry is not provided.
- (2) Include the claim number on the appraisal worksheet (when required by the AIP), when a worksheet entry is not provided.
- (3) Separate appraisal worksheets are required for each unit appraised, and for each field or subfield including fields or subfields which have a differing base (APH) yield or farming practice (applicable to preliminary and final claims). Refer to [Paragraph 21](#) for sampling requirements.  
\*\*\*
- (4) Standard appraisal worksheet items are numbered consecutively in [Exhibit 3](#). An example appraisal worksheet is also provided to illustrate how to complete item entries.
- (5) For zero appraisals, refer to the LAM.

## 31-40 (Reserved)

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## PART 4: PRODUCTION WORKSHEET

### 41 General Information for Worksheet Entries and Completion Procedures

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- (1) The PW is a progressive form containing all notices of damage for all preliminary and final inspections, including no indemnity due claims, 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 (refer to 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).

\*\*\*

- (4) 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.
- (5) Instructions labeled "Preliminary" apply to preliminary inspections only. Instructions labeled "Final" apply to final inspections only. Instructions not labeled apply to all inspections.
- (6) If the AIP determines the claim is to be denied, refer to the LAM for PW completion instructions.
- (7) Standard PW items are numbered consecutively in [Exhibit 4](#). An example PW is also provided to illustrate how to complete item entries.

## 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, FCIC-18010
CLU	Common Land Unit
CP	Crop Provisions
DAP	Days After Planting
DSSH	Document and Supplemental Standards Handbook, FCIC-24040
FAD	Final Agency Determination
FCIC	Federal Crop Insurance Corporation
FDA	Food and Drug Administration
FM	Foreign Material
FSA	Farm Service Agency
GP	Growing Point
GPS	Global Positioning System
GSH	General Standards Handbook, FCIC-18190
LAM	Loss Adjustment Manual, FCIC-25010
OPI	Office of Primary Interest
PW	Production Worksheet
QA	Quality Adjustment
RMA	Risk Management Agency
RSA	Representative Sample Area
SP	Special Provisions
SRA	Standard Reinsurance Agreement
USDA	United States Department of Agriculture
UUF	Unavoidable Uninsured Fire

## **Exhibit 2      Definitions**

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Definitions specific to sesame are provided in the Sesame Pilot CP.



### Exhibit 3 Form Standards – Appraisal Worksheet

Verify and/or make the following entries for each appraisal worksheet element/item number. A completed appraisal worksheet example is at the end of this exhibit. For general form standards and other general information, refer to [Subparagraph 2D](#) and [Paragraph 30](#).

For every inspection, complete items 1 through 11 and items 34 through 39.

Element/Item Number	Description
1. Company	Name of AIP if not preprinted on the worksheet (Company Name).
2. Insured's Name	Name of insured that identifies exactly the person (legal entity) to whom the policy is issued.
3. Policy Number	Insured's assigned policy number.
4. Unit Number	Unit number from the Summary of Coverage after it is verified to be correct.
5. Date of Damage	First three letters of the month during which most of the insured damage (including progressive damage) occurred for each inspection. Include the specific date where applicable as in the case of hail damage (e.g., AUG 11).
6. Claim Number	Claim number as assigned by the AIP.
7. Crop Year	Four-digit crop year, as defined in the policy, for which the claim is filed.
8. Phenotype	Enter the phenotype of the sesame grown in terms of branching habit and number of capsules per leaf axil. <a href="#">Refer to Exhibit 9.</a>
9. Phase/Stage (days after planting)	Determined phase/stage of growth and the number of DAP at the time of the appraisal.
10. Acres	Number of determined acres, to tenths, in the field or subfield being appraised.
11. Practice	For non-irrigated, 003. For irrigated, 002.
12. Sample Number	Make no entry. Sample identification numbers are printed on the appraisal form. If more than 6 samples are needed, use additional pages and number the samples 7, 8, 9, etc.
13. Field ID	Field or subfield identification symbol.

#### Stand Reduction Appraisal Method

For additional information refer to [Paragraph 25](#).

Element/Item Number	Description
14. Surviving Stand	Number of live plants remaining in the representative sample (see <a href="#">Exhibit 6</a> for row width and row length). Any plant with a GP putting on new leaves is considered a live plant.
15. % Surviving Yield	Factor for percent of surviving yield from <a href="#">Exhibit 7A</a> .
16. - 25.	Make no entry. Applicable only to Plant Damage Appraisal Method.
26. APH Yield	Approved APH yield entered in whole pounds from APH form.
27. Total Pounds per Acre	Result of multiplying item 15 by item 26, rounded to pounds.
28. - 33.	Make no entry. Applicable only to Capsule Count Method.
34. Subtotal	Sum of entries in column 27.

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

**Plant Damage Appraisal Method**

For additional information refer to [Paragraph 26](#).

<b>Element/Item Number</b>	<b>Description</b>
14. Surviving Stand	Number of live plants remaining in the representative sample (see <a href="#">Exhibit 6</a> for row width and row length). Any plant with a GP putting on new leaves is considered a live plant.
15. % Surviving Yield	Factor for percent of surviving yield from <a href="#">Exhibit 7A</a> .
16. Percent Leaf Loss	Percent of leaf area destroyed in 10 successive plants.
17. Percent Plants with GP Intact	Percent of plants in the representative sample that have the main stem GP intact (not broken off or dangling), rounded to hundredths.
18. Factor for Computing Percent Surviving Yield for GP Intact	Use the percent leaf loss (item 16) and the growth stage (item 9) to determine the percent in <a href="#">Exhibit 7B</a> expressed in hundredths.
19. Percent Surviving Stand with GP Intact	Multiply item 15 (Percent of Surviving Stand Yield) by item 17 (Percent of Plants with GP Intact), rounded to hundredths.
20. Total Percent Surviving Yield with GP Intact	Multiply item 18 (Factor for Computing Percent Surviving Yield for GP Intact) by item 19 (Percent Surviving Stand with GP Intact), rounded to hundredths.
21. Percent Plants with GP Damaged	Subtract item 17 (Percent of Plants with GP Intact) from 1.00.
22. Factor for Computing Percent Surviving Yield for GP Damaged	Use the Percent Leaf Loss (item 16) and the Growth Stage (item 9) to determine the factor in <a href="#">Exhibit 7C</a> .
23. Percent Surviving Stand with GP Damaged	Multiply item 15 (Percent of Surviving Stand Yield) by item 21 (Percent of Plants with GP Damaged), rounded to hundredths.
24. Total Percent Surviving Yield with GP Damaged	Multiply item 22 (Factor for Computing Percent Surviving Yield for GP Damaged) by item 23 (Percent Surviving Stand with GP Damaged), rounded to hundredths.
25. Total Percent Surviving Yield for Leaf and GP Damage	Result of adding item 20 (Total Percent Surviving Yield with GP Intact) and item 24 (Total Percent Surviving Yield with GP Damaged).
26. APH Yield	Approved APH yield entered in whole pounds from APH form.
27. Total Pounds per Acre	Result of multiplying item 25 by item 26, rounded to pounds.
28. - 33.	Make no entry. Applicable only to Capsule Count Method.
34. Subtotal	Sum of entries in column 27.

**Exhibit 3 Form Standards – Appraisal Worksheet (Continued)****Capsule Count Appraisal Method**

For additional information refer to [Paragraph 27](#).

<b>Element/Item Number</b>	<b>Description</b>
14. - 25.	Make no entry.
26. APH Yield	Approved APH yield entered in whole pounds from APH form.
27. Total Pounds per Acre	Make no entry.
28. Sample Number	Sample identification numbers are on the appraisal form. If more than 6 samples are needed, use additional pages and number the samples 7, 8, 9, etc.
29. Number of Capsules	The number of capsules in the representative sample. Refer to <a href="#">Paragraph 27</a> .
30. Average Seed Weight per Capsule	The number, in grams, is found in <a href="#">Exhibit 8</a> based on the phenotype of the sesame in the field (branching style, and capsules per leaf axil), and whether or not the field is irrigated.
31. Sample Weight in Grams	Multiply item 29 (Number of Capsules) by item 30 (Average Seed Weight per Capsule), rounded to whole number.
32. Convert Grams to Pounds	Divide sample weight in grams by 454, the number of grams in a pound, rounded to three decimal places.
33. Total Pounds per Acre	Multiply item 32 by 1,000.
34. Subtotal	Sum of entries in column 33.

**Harvested Production Appraisal Method**

For additional information refer to [Paragraph 28](#).

<b>Element/Item Number</b>	<b>Description</b>
14. Square Feet Harvested	Number of square feet harvested. Refer to the LAM for information on RSAs.
15a. Total Pounds Harvested	Net weight of sample, entered in pounds rounded to hundredths. Refer to <a href="#">Paragraph 28</a> for calculation.
15b. Total Pounds per Acre	Divide item 15a (Total Pounds Harvested) by item 14 (Square Feet Harvested), then multiply the result by 43,560 (the number of square feet in an acre), rounded to whole pounds.
16. - 25.	Make no entry.
26. APH Yield	Approved APH yield entered in whole pounds from APH form.
27. Total Pounds per Acre	Transfer entry from 15b.
28. - 33.	Make no entry. Applicable only to Capsule Count Method.
34. Subtotal	Sum of entries in column 27.

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

**All Appraisal Methods**

<b>Element/Item Number</b>	<b>Description</b>
35. Number of Samples	The number of samples used in the appraisal.
36. Pounds per Acre Appraisal	Result of dividing item 34 by item 35, rounded to whole pounds.
37. Remarks	<p>Enter pertinent information about the appraisal, including but not limited to:</p> <p>(1) the number of DAP that the damage occurred, and</p> <p>(2) for production in the mid-bloom stage, indicate the number of node pairs.</p> <p>Include any appropriate calculations.</p>

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

<b>Element/Item Number</b>	<b>Description</b>
38. Adjuster's Signature, Code No. and Date	Signature of adjuster, code number, and date signed after the insured (or insured's authorized representative) has signed. If the appraisal is performed prior to signature date, document the date of appraisal in the Remarks section of the Appraisal Worksheet (if available); otherwise, document the appraisal date in the Narrative of the PW.
39. Insured's Signature and Date	Insured's (or insured's authorized representative's) signature and date. Before obtaining insured's signature, review all entries on the Appraisal Worksheet with the insured, particularly explaining codes, etc., which may not be readily understood.
Page Numbers	Page numbers - (Example: Page 1 of 1, Page 1 of 2, Page 2 of 2, etc.).

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

**STAND REDUCTION APPRAISAL METHOD**

<b>SESAME APPRAISAL WORKSHEET (Stand Reduction Method)</b>				1. COMPANY NAME:				2. INSURED'S NAME				3. POLICY NUMBER			4. UNIT NUMBER		
				ANY COMPANY				I.M. INSURED				XXXXXXX			0002-0002 BU		
<b>For Illustration Purposes Only</b>		5. DATE OF DAMAGE		6. CLAIM NUMBER			7. CROP YEAR		8. PHENOTYPE			9. PHASE/STAGE (DAYS AFTER PLANTING)		10. ACRES		11. PRACTICE	
		June		XXXXXXXX			YYYY		SINGLE/SINGLE			Vegetative / Seedling (25)		13.0		002	
Sample No.	Field ID	Surviving Stand	% Surviving Yield	Percent Leaf Loss	% Plants With GP Intact	Factor for Computing % Surviving Yield For GP Intact	% Surviving Stand With GP Intact (15 X 17)	Total % Surviving Yield With GP Intact (18X 19)	% Plants With GP Damaged (1.00-17)	Factor for Computing % Surviving Yield For GP Damaged	% Surviving Stand With GP Damaged (15 X 21)	Total % Surviving Yield With GP Damaged (22 X 23)	Total % Surviving Yield For Leaf And GP Damage (20 + 24)	APH Yield	Total Pounds Per Acre (15X26)		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
1	B	6	0.05	NO ENTRY REQUIRED										1000	50		
2	B	12	0.16											1000	160		
3	B	16	0.30											1000	300		
4	B	18	0.37											1000	370		
5																	
6																	
SAMPLE NUMBER	NUMBER OF CAPSULES	AVG SEED WEIGHT PER CAPSULE (grams)	SAMPLE WEIGHT (grams) (29X30)	CONVERT GRAMS TO POUNDS (31/454)	TOTAL POUNDS PER ACRE (32X1,000)	STAND REDUCTION METHOD											
28	29	30	31	32	33												
NO ENTRY REQUIRED										34. SUB-TOTAL				880			
										35. NUMBER OF SAMPLES				4			
										36. POUNDS PER ACRE APPRAISAL				220			
37. REMARKS																	
Field B was damaged by drought during the 20 days from planting. Field was appraised 35 days after planting.																	

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

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

**PLANT DAMAGE APPRAISAL METHOD**

SESAME APPRAISAL WORKSHEET (Plant Damage Method)					1. COMPANY NAME:			2. INSURED'S NAME			3. POLICY NUMBER		4. UNIT NUMBER				
For Illustration Purposes Only					5. DATE OF DAMAGE			6. CLAIM NUMBER		7. CROP YEAR		8. PHENOTYPE		9. PHASE/STAGE (DAYS AFTER PLANTING)		10. ACRES	11. PRACTICE
					MM/DD			XXXXXXXX		YYYY		SINGLE/SINGLE		REPRODUCTIVE / MID-BLOOM (54)		20.0	002
Sample No.	Field ID	Surviving Stand	% Surviving Yield	Percent Leaf Loss	% Plants With GP Intact	Factor for Computing % Surviving Yield For GP Intact	% Surviving Stand With GP Intact (15 X 17)	Total % Surviving Yield With GP Intact (18 X 19)	% Plants With GP Damaged (1.00-17)	Factor for Computing % Surviving Yield For GP Damaged	% Surviving Stand With GP Damaged (15 X 21)	Total % Surviving Yield With GP Damaged (22 X 23)	Total % Surviving Yield For Leaf And GP Damage (20 + 24)	APH Yield	Total Pounds Per Acre (25X26)		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
1	A	28	0.71	0.42	0.73	0.93	0.52	0.48	0.27	0.85	0.19	0.16	0.64	1000	640		
2	A	10	0.09	0.51	0.31	0.90	0.03	0.03	0.69	0.78	0.06	0.05	0.08	1000	80		
3	A	26	0.65	0.21	0.94	1.00	0.61	0.61	0.06	1.00	0.04	0.04	0.65	1000	650		
4	A	22	0.51	0.35	0.80	0.95	0.41	0.39	0.20	0.89	0.10	0.09	0.48	1000	480		
5																	
6																	
SAMPLE NUMBER	NUMBER OF CAPSULES	AVG SEED WEIGHT PER CAPSULE (grams)		SAMPLE WEIGHT (grams)	CONVERT GRAMS TO POUNDS	TOTAL POUNDS PER ACRE	PLANT DAMAGE METHOD										
28	29	30		31	32	33											
NO ENTRY REQUIRED							34. SUB-TOTAL					1,850					
							35. NUMBER OF SAMPLES					4					
							36. POUNDS PER ACRE APPRAISED					463					
37. REMARKS																	
Field A was damaged by hail 43 days after planting. Field was appraised 54 days after planting. Mid-Bloom: 8 node pairs.																	

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

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

**CAPSULE COUNT APPRAISAL METHOD**

SESAME APPRAISAL WORKSHEET (Capsule Count Method)			1. COMPANY NAME:				2. INSURED'S NAME				3. POLICY NUMBER		4. UNIT NUMBER		
			ANY COMPANY				I.M. INSURED				XXXXXX		0001-0001 BU		
For Illustration Purposes Only			5. DATE OF DAMAGE		6. CLAIM NUMBER		7. CROP YEAR		8. PHENOTYPE		9. PHASE/STAGE (DAYS AFTER PLANTING)		10. ACRES	11. PRACTICE	
			MM/DD		XXXXXXXX		YYYY		BRANCHED/SINGLE		DRYING / LATE DRYDOWN (135)		25.0	002	
Sample No.	Field ID	Original Stand Surviving Stand	% Surviving Yield	Percent Leaf Loss	% Plants With GP Intact	Factor for Computing % Surviving Yield For GP Intact	% Surviving Stand With GP Intact (15 X 17)	Total % Surviving Yield With GP Intact (18 X 19)	% Plants With GP Damaged (1.00-17)	Factor for Computing % Surviving Yield For GP Damaged	% Surviving Stand With GP Damaged (15 X 21)	Total % Surviving Yield With GP Damaged (22 X 23)	Total % Surviving Yield For Leaf And GP Damage (20 + 24)	APH Yield	Total Pounds Per Acre
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	C													1200	
2	C													1200	
3	C													1200	
4	C													1200	
5															
6															
SAMPLE NUMBER	NUMBER OF CAPSULES		AVG SEED WEIGHT PER CAPSULE (grams)		SAMPLE WEIGHT (grams) (29X30)		CONVERT GRAMS TO POUNDS (31/454)		TOTAL POUNDS PER ACRE (32X1,000)		CAPSULE COUNT METHOD				
28	29		30		31		32		33						
1	1,701		.185		315		0.694		694		34. SUB-TOTAL		1,883		
2	795		.185		147		0.324		324						
3	1,124		.185		208		0.458		458		35. NUMBER OF SAMPLES		4		
4	1,000		.185		185		0.407		407						
5											36. POUNDS PER ACRE APPRAISAL		471		
6															
37. REMARKS															
Field C was damaged by hail 80 days after planting. Field was appraised 135 days after planting as adjuster was waiting on sesame to dry down to 6% moisture. Field was irrigated.															

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

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

**HARVESTED PRODUCTION APPRAISAL METHOD**

<b>SESAME APPRAISAL WORKSHEET (Harvested Production Method)</b>					1. COMPANY NAME:			2. INSURED'S NAME			3. POLICY NUMBER			4. UNIT NUMBER	
					ANY COMPANY			I.M. INSURED			XXXXXXX			0003-0003 BU	
<b>For Illustration Purposes Only</b>			5. DATE OF DAMAGE		6. CLAIM NUMBER		7. CROP YEAR		8. PHENOTYPE			9. PHASE/STAGE (DAYS AFTER PLANTING)		10. ACRES	11. PRACTICE
			MMM/DD		XXXXXXXX		YYYY		SINGLE/SINGLE			DRYDOWN / FULL DRYDOWN (140)		10.0	002
Sample No.	Field ID	Square feet harvested	Total lbs	Total pounds per acre (43,560X15a/14)										APH Yield	Total Pounds Per Acre (15b)
12	13	14	15a	15b										25	27
1	D	7200	19.86	120										1000	120
2	D	6000	20.67	150										1000	150
3	D	12000	30.84	112										1000	112
4															
5															
6															
													HARVESTED PRODUCTION METHOD		
										34. SUB-TOTAL			382		
										35. NUMBER OF SAMPLES			3		
										36. POUNDS PER ACRE APPRAISAL			127		
37. REMARKS															
Field D was damaged by hail 43 days after planting. AIP deferred appraisal until use of harvested production method of appraisal could be used.															

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



**Exhibit 4 Form Standards – Production Worksheet**

Verify and/or make the following entries for each PW element/item number. A completed PW example is at the end of this exhibit. For general form standards and other general information, refer to [Subparagraph 2D](#) and [Paragraph 41](#).

Element/Item Number	Description
1. Crop/Code #	"Sesame" (0396).
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 CLUs and tract numbers; GPS identifications; or Grid identifications) as applicable for the crop.
4. Date(s) of Damage	<p>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.</p> <p>If there is no insurable cause of loss and a no indemnity due claim will be completed, make no entry.</p>
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 example in item 6.</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>
6. Insured Cause %	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Final:</b> Whole percent of damage for the insured cause of damage listed in item 5. 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>

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

Element/Item Number	Description																
6. Insured Cause % (Continued)	<p>If there is no insurable cause of loss, and a no indemnity due claim will be completed, make no entry.</p> <p><b>Example:</b> Entries for items 4-6 and the Narrative, reflecting entries for multiple dates of damage, the corresponding insured causes of damage and insured cause percentages:</p> <table border="1" data-bbox="727 527 1523 751"> <tr> <td>4. Date(s) of Damage</td> <td>MAY</td> <td>JUN 30</td> <td>JUN 30</td> </tr> <tr> <td>5. Cause(s) of Damage</td> <td>Exc. Moist.</td> <td>Tornado</td> <td>Hail</td> </tr> <tr> <td>6. Insured Cause %</td> <td>55</td> <td>10</td> <td>15</td> </tr> <tr> <td colspan="4">Narrative: Additional Date of Damage – AUG; Cause of Damage – Drought; Insured cause percent – 20%.</td> </tr> </table>	4. Date(s) of Damage	MAY	JUN 30	JUN 30	5. Cause(s) of Damage	Exc. Moist.	Tornado	Hail	6. Insured Cause %	55	10	15	Narrative: Additional Date of Damage – AUG; Cause of Damage – Drought; Insured cause percent – 20%.			
4. Date(s) of Damage	MAY	JUN 30	JUN 30														
5. Cause(s) of Damage	Exc. Moist.	Tornado	Hail														
6. Insured Cause %	55	10	15														
Narrative: Additional Date of Damage – AUG; Cause of Damage – Drought; Insured cause percent – 20%.																	
7. Company/Agency	Name of the company and agency servicing the <b>policy</b> .																
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:</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:</b> Make no entry.</p> <p><b>Final:</b> Estimated yield per acre, in whole pounds, of all non-loss units for the crop at the time of final inspection.</p>																
14. Date(s) of Notice of Loss	<p><b>Preliminary:</b></p> <p>(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.</p> <p>(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.</p>																

Exhibit 4 Form Standards – Production Worksheet (Continued)

Element/Item Number	Description
<p>14. Date(s) of Notice of Loss (Continued)</p>	<p>(3) Reserve the “Final” space on the first page of the first set of PWs for the date of notice for the final inspection.</p> <p>(4) If the inspection is initiated by the AIP, enter “Company Insp.” instead of the date.</p> <p>(5) If the notice does not require an inspection, document as directed in the Narrative instructions.</p> <p><b>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>	<p>(1) If no other person has a share in the unit (insured has 100 percent share), make no entry.</p> <p>(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 <b>policy</b> (i.e., not crop-hail, fire, etc.). If the other person does not, enter “None.”</p> <p>(a) If the other person has a multiple-peril crop insurance <b>policy</b> and it can be determined that the same AIP services it, enter the <b>policy</b> number. Handle these companion policies according to AIP instructions.</p> <p>(b) If the other person has a multiple-peril crop insurance <b>policy</b> and a different AIP or agent services it, enter the name of the AIP and/or agent (and <b>policy</b> number) if known.</p> <p>(c) If unable to verify the existence of a companion <b>policy</b>, enter “Unknown” and contact the AIP for further instructions.</p> <p>(3) Refer to the LAM for further information regarding companion <b>policies</b>.</p>

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

Make separate line entries for varying:

- (1) rate classes, types, classes, sub-classes, intended uses, irrigated practices, cropping practices, or organic practices, as applicable;
- (2) APH yields;
- (3) appraisals;
- (4) stages or intended use(s) of acreage;
- (5) shares (e.g., 50 percent and 75 percent shares on the same unit); or
- (6) appraisals for damage due to hail or fire if Hail and Fire Exclusion is in effect.

Element/Item Number	Description
16. Field ID	The field or subfield identification symbol from a sketch map or an aerial photo. Refer to the Narrative instructions.
17. Multi-Crop Code	The applicable two-digit code for first crop and second crop. Refer to the LAM for instructions regarding entry of first crop and second crop codes.
18. Reported Acres	In the event of over-reported acres, handle in accordance with the individual AIP’s instructions. In the event of under-reported acres, enter the reported acres to tenths for the field or sub field. If there are no under-reported acres, make no entry.
19. Determined Acres	<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. 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>

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

Element/Item Number	Description
20. Interest or Share	Insured’s interest in the crop to three decimal places as determined at the time of inspection. If shares vary on the same unit, use separate line entries.
21. Risk	Three-digit code for the correct “Rate” specified on the AD. If a “Rate” or “High Risk Area” is not specified on the AD, make no entry. Verify with the Summary of Coverage and if the “Rate” is found to be incorrect, revise according to the AIP’s instructions. Refer to the LAM.  Unrated land is uninsurable without a written agreement.
22. Type	Three-digit code, 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 (or variety) 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 (or practice) is not specified on the AD, make no entry.

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

Element/Item Number	Description														
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.														
29. Stage	<p><b>Final:</b> Stage abbreviation as shown below.</p> <table border="0"> <thead> <tr> <th data-bbox="548 499 808 531"><b>Stage</b></th> <th data-bbox="833 499 992 531"><b>Explanation</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="548 531 808 720">“P” .....</td> <td data-bbox="833 531 1515 720">Acreage abandoned without consent, put to other use without consent, damaged solely by uninsured causes, or for which the insured failed to provide records of production which are acceptable to the AIP.</td> </tr> <tr> <td data-bbox="548 762 808 793">“H” .....</td> <td data-bbox="833 762 976 793">Harvested.</td> </tr> <tr> <td data-bbox="548 846 808 877">“UH” .....</td> <td data-bbox="833 846 1433 877">Unharvested or put to other use with consent.</td> </tr> <tr> <td data-bbox="548 930 808 993">“TZ” .....</td> <td data-bbox="833 930 1433 993">UUF/Third Party Damage – Zero production on same acreage.</td> </tr> <tr> <td data-bbox="548 1045 808 1108">“TA” .....</td> <td data-bbox="833 1045 1515 1108">UUF/Third Party Damage – Appraised production on same acreage.</td> </tr> <tr> <td data-bbox="548 1161 808 1224">“TH” .....</td> <td data-bbox="833 1161 1515 1224">UUF/Third Party Damage – Harvested production on same acreage.</td> </tr> </tbody> </table> <p><b>Gleaned Acreage:</b> Refer to the LAM for information on gleaning.</p>	<b>Stage</b>	<b>Explanation</b>	“P” .....	Acreage abandoned without consent, put to other use without consent, damaged solely by uninsured causes, or for which the insured failed to provide records of production which are acceptable 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.
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“TA” .....	UUF/Third Party Damage – Appraised production on same acreage.														
“TH” .....	UUF/Third Party Damage – Harvested production on same acreage.														
30. Use of Acreage	<p>Use the following “Intended Use” abbreviations.</p> <table border="0"> <thead> <tr> <th data-bbox="548 1392 808 1423"><b>Use</b></th> <th data-bbox="833 1392 992 1423"><b>Explanation</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="548 1423 808 1455">“To Millet” .....</td> <td data-bbox="833 1423 1166 1455">Use made of the acreage.</td> </tr> <tr> <td data-bbox="548 1507 808 1539">“WOC” .....</td> <td data-bbox="833 1507 1190 1539">Other use without consent.</td> </tr> <tr> <td data-bbox="548 1581 808 1612">“SU” .....</td> <td data-bbox="833 1581 1057 1612">Solely uninsured.</td> </tr> <tr> <td data-bbox="548 1654 808 1686">“ABA” .....</td> <td data-bbox="833 1654 1214 1686">Abandoned without consent.</td> </tr> <tr> <td data-bbox="548 1728 808 1759">“H” .....</td> <td data-bbox="833 1728 976 1759">Harvested.</td> </tr> <tr> <td data-bbox="548 1791 808 1822">“UH” .....</td> <td data-bbox="833 1791 1008 1822">Unharvested.</td> </tr> </tbody> </table>	<b>Use</b>	<b>Explanation</b>	“To Millet” .....	Use made of the acreage.	“WOC” .....	Other use without consent.	“SU” .....	Solely uninsured.	“ABA” .....	Abandoned without consent.	“H” .....	Harvested.	“UH” .....	Unharvested.
<b>Use</b>	<b>Explanation</b>														
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“WOC” .....	Other use without consent.														
“SU” .....	Solely uninsured.														
“ABA” .....	Abandoned without consent.														
“H” .....	Harvested.														
“UH” .....	Unharvested.														

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

Element/Item Number	Description
30. Use of Acreage (Continued)	<p>Verify any “Intended Use” entry. If the final use of the acreage was not as indicated, strike out the original line and initial it. Enter all data on a new line showing the correct “Final Use.”</p> <p><b>Gleaned Acreage:</b> Refer to the LAM for information on gleaning.</p>
31. Appraised Potential	<p>Per-acre appraisal in whole pounds of potential production for the acreage appraised as shown on the appraisal worksheet. Refer to <a href="#">Part 4</a>, “Appraisals” for additional instructions. If there is no potential on UH acreage enter “0”. Refer to the LAM for procedures for documenting zero yield appraisals.</p>
32a. - 32b.	<p>Make no entry.</p>
33. Shell %, Factor, or Value	<p>Make no entry.</p>
34. Production Pre QA	<p>Result of multiplying column 31 times column 19 rounded to <b>the nearest</b> whole pound. If no entry in column 31, make no entry.</p>
35. Quality Factor	<p>Make no entry, unless:</p> <p>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.” 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 instructions). Refer to the LAM for additional information.</p>
36. Production Post QA	<p>If there is no entry in column 35, transfer entry from column 34. Otherwise, enter the result of multiplying column 34 times column 35 rounded to whole pounds.</p>
37. Uninsured Causes	<p>Result of per acre appraisal for uninsured causes (taken from appraisal worksheet or other documentation) multiplied by column 19, rounded to whole pounds. Refer to the LAM for information on how to determine uninsured cause appraisals. If no uninsured causes, make no entry.</p> <p>(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 in whole pounds, for the line, (calculated by multiplying the elected coverage level percentage times the approved APH yield per acre shown on the APH form) for any “P” stage acreage.</p> <p>(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>

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

Element/Item Number	Description
37. Uninsured Causes (Continued)	<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 whole pounds, by column 19 entry for any such acreage.</p> <p>(2) The late planting provisions of the BP are not applicable for sesame.</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>
38. Total to Count	Result of adding item 36 and item 37.
39. Total	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Final:</b> Total determined acres (column 19), to <b>the nearest</b> tenth.</p>
40. Quality	<p>Check “None,” unless:</p> <p>Under section 15(j) of the BP, if due to insured causes, a Federal or State agency has ordered the appraised crop or production to be destroyed, check “Other” and document in the Narrative (or on a Special Report):</p> <p>(a) A description of the qualifying QA condition; and</p> <p>(b) The name of the controlling authority that considers this qualifying QA condition to be injurious to human or animal health and why.</p>
41. Mycotoxins exceed FDA, State, or other health organization maximum limits?	Make no entry.
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, “Damage Similar to Other Farms in the Area?”
- (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 uninsured causes are present; or
  - (c) 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 the control measures used and explain why they did not work.
- (19) Document the name and address of the charitable organization when gleaned acreage is applicable. Refer to the LAM for more information on gleaning.
- (20) Document any other pertinent information, including any data to support any factors used to calculate the production. If on an attachment, enter "See attachment."
- (21) 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. Refer to the LAM for additional documentation requirements.

**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., released for other uses, etc.).
- (2) Columns 49 through 52 are for structure measurement entries (Rectangular, Round, 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) If acceptable sales or weight tickets are not available, refer to the LAM.
- (6) 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) Different types (e.g., white sesame versus black sesame).
  - (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.
- (7) There will generally be no harvested production entries in columns 47 through 66 for preliminary inspections.
- (8) 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.

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

Element/Item Number	Description
43. Date Harvest Completed	<p>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>Final:</b></p> <p>(1) The earlier of the date the entire acreage on the unit was (1) harvested, (2) totally destroyed, (3) put to other use, (4) a combination of harvested, destroyed, or put to other use, or (5) the calendar date for the end of the insurance period.</p> <p>(2) If at the time of final inspection (if prior to the end of the insurance period), there is any unharvested insured acreage 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, etc. Refer to the LAM.</p>
44. Damage Similar to Other Farms in the Area?	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Final:</b> Check “Yes” or “No.” Check “Yes” if the amount and cause of damage due to insurable causes is similar to the experience of other farms in the area. If “No” is checked, explain in the Narrative.</p>
45. Assignment of Indemnity?	<p>Check “Yes” only if an assignment of indemnity is in effect for the crop year; otherwise, check “No.” Refer to the LAM.</p>
46. Transfer of Right to Indemnity?	<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>
47a. Share	<p>Record only varying shares on same unit to three decimal places.</p>
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	<p>The applicable two-digit code for first crop and second crop. Refer to the LAM for instructions regarding entry of first crop and second crop codes.</p>

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

Element/Item Number	Description
49. Length or Diameter	<p>Internal measurement in feet to tenths of structural space occupied by crop.</p> <p>(1) Length if rectangular.</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	<p>Internal width measurement in feet to tenths of space occupied by crop in structure if rectangular. If round enter "RND." If conical pile, enter "Cone."</p>
51. Depth	<p>Depth measurement in feet to tenths of space occupied by crop in rectangular or round 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.</p>
52. Deductions	<p>Cubic feet, to tenths, of crop space displaced by chutes, vents, studs, crossties, etc. Refer to LAM for computation instructions.</p>
53. Net Cubic Feet	<p>Net cubic feet of crop in the storage structure. Refer to the LAM for computation instructions.</p>
54. Conversion Factor	<p>Enter Conversion Factor as 36.2. (One bushel is 2,150.42 cubic inches. One cubic foot is 1,728 cubic inches. Factor – <math>1,728 / 2,150.42 \times 45 = 36.2</math>.)</p>
55. Gross Prod.	<p>Multiply column 53 times column 54, and enter rounded to whole pounds of field run sesame.</p>
56. Bu., Ton, Lbs., Cwt.	<p>Circle "Lbs." in column heading. Enter production of net whole pounds of clean dry sesame seed based on laboratory test of a sample from the delivery or the storage structure. Calculate by multiplying gross production in column 55 by the ratio of net weight of the sample (as defined in the harvested production appraisal standards).</p> <p>If the insured has multiple processor contracts with varying base contract prices within the same unit, the AIP will value the production to count by using the highest base contract price first and will continue in decreasing order to the lowest base contract price based on the amount of production insured at each base contract price.</p>
57. - 60b.	<p>Make no entry.</p>
61. Adjusted Production	<p>Transfer entry from column 56.</p>

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

62.	Prod. Not to Count	<p>Enter the net production not to count, in whole pounds, when acceptable records identifying such production are available, from harvested acreage which has been assessed an appraisal of not less than the guarantee per acre, or from other sources (e.g., other units or uninsured acreage) in the same storage structure (if the storage entries include such production).</p> <p>This entry must never exceed production shown on the same line. Explain the total bin contents (storage structure sesame depth, etc.) and any “Production Not to Count” in the Narrative.</p>
63.	Production Pre-QA	Result of subtracting column 62 from column 61.
64a.	Value	Make no entry.
64b.	Mkt. Price	Enter the base contract price per pound, in dollars and cents.
65.	Quality Factor	<p>Make no entry, unless:</p> <p>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.” 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 instructions). Refer to the LAM for additional information.</p>
66.	Production to Count	<p>If there is no entry in column 65, transfer entry from column 63. Otherwise, enter the result of multiplying column 63 times column 65 rounded to whole pounds.</p>
67.	Total	Total of column 63. If no entry in column 63, make no entry.

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

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

Element/Item Number	Description
68. Section II Total	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Final:</b> Total of column 66. ***</p>
69. Section I Total	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Final:</b> Enter figure from Section I, column 38 total.</p>
70. Unit Total	<p><b>Preliminary:</b> Make no entry.</p> <p><b>Final:</b> Total of 68 and 69.</p>
71. Allocated Prod.	<p>Refer to the LAM for instructions for determining allocated production. Enter the total production, rounded to whole pounds, allocated to this unit that is included in Section 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 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 following PW example.

Element/Item Number	Description
73. Insured’s Signature and Date	<p>Insured’s (or insured’s authorized representative’s) signature and date. Before obtaining insured’s 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 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 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>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 # <b>Sesame 0396</b>	2. Unit # <b>0001-0001 BU</b>	3. Location Description <b>SE6-140N-50W</b>	7. Company Agency <b>ANY COMPANY ANY AGENCY</b>	8. Name of Insured <b>I.M. INSURED</b>
4. Date(s) of Damage <b>AUG 10</b>	<b>OCT 1</b>			9. Claim # <b>XXXXXXXX</b>
5. Cause(s) of Damage <b>HAIL</b>	<b>Freeze</b>			11. Crop Year <b>YYYY</b>
6. Insured Cause % <b>60</b>	<b>40</b>			10. Policy # <b>XXXXXX</b>
12. Additional Units <b>0002-0002 BU</b>	<b>0003-0003 BU</b>			14. Date(s) Notice of Loss 1 <sup>st</sup> <b>MM/DD/YYYY</b> 2 <sup>nd</sup> <b>MM/DD/YYYY</b> Final <b>MM/DD/YYYY</b>
13. Est. Prod. Per Acre <b>1,100</b>	<b>1,500</b>			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		20.0	1.000		341					002		UH	UH	463			9,260		9,260		9,260	
B	NS	13.0	12.5	1.000		341					002		H	H		-----							
C	NS		25.0	1.000		341					002		UH	UH	471	-----		11,775		11,775		11,775	
39. TOTAL			57.5	40. Quality: TW <input type="checkbox"/> KD <input type="checkbox"/> Aflatoxin <input type="checkbox"/> Vomitoxin <input type="checkbox"/> Fumonisin <input type="checkbox"/> Garlicky <input type="checkbox"/> Dark Roast <input type="checkbox"/> Sclerotinia <input type="checkbox"/> Ergoty <input type="checkbox"/> CoFo <input type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/>												42. TOTALS		21,035		21,035		21,035	

**NARRATIVE (If more space is needed, attach a Special Report): Acreage determined based on permanent FSA field measurements. Field B 12,000 lbs harvested.**

**SECTION II – DETERMINED HARVESTED PRODUCTION**

43. Date Harvest Completed <b>MM/DD/YYYY</b>						44. Damage similar to other farms in the area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						45. Assignment of Indemnity Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						46. Transfer of Right to Indemnity? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						
A. MEASUREMENTS						B. GROSS PRODUCTION						C. ADJUSTMENTS TO HARVESTED PRODUCTION												
47a.	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.	Gns 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 Any Town, Any State								12,000						12,000		12,000		0.28			12,000
67. TOTAL																		12,000	68. Section II Total				12,000	
																		69. Section I Total				21,035		
																		70. Unit Total				33,035		
																		71. Allocated Prod.						
																		72. Total APH Prod.				33,035		

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



**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      Sample Row Length**

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In all samples, the length is measured at the base of the plants at soil level. Any plant within the length is considered part of the sample even if branches from those plants extend out beyond the sample length. Branches of plants outside the sample area that extend into the sample area will not be counted.

<b>ROW WIDTH</b>	<b>ROW LENGTH FOR 1/1,000 ACRE</b>
42 inches	12.4 feet
40 inches	13.1 feet
38 inches	13.8 feet
36 inches	14.5 feet
34 inches	15.4 feet
32 inches	16.3 feet
30 inches	17.4 feet
28 inches	18.7 feet
26 inches	20.1 feet
24 inches	21.8 feet
22 inches	23.8 feet
20 inches	26.1 feet
18 inches	29.0 feet
15 inches	34.8 feet
7.5 inches	2 rows wide by 34.8 feet

For row widths not listed in the table, use the following formula:

$$(43,560 \text{ sq. ft. per acre} \div (\text{row width in inches} \div 12 \text{ inches})) \div 1,000 \text{ ft.}$$

**Example:**

$$(43,560 \text{ sq. ft. per acre} \div (25 \text{ inches} \div 12 \text{ inches})) \div 1,000 \text{ ft.} =$$

$$(43,560 \text{ sq. ft per acre} \div 2.083) \div 1,000 \text{ ft.} = 20.9 \text{ ft. row length}$$

**Exhibit 7      Percent Surviving Yield**

**A.      Stand Reduction**

Use the table below to determine the surviving yield from stand reduction based on phenotype. Use the first row for single stem types (single or triple capsules) and the second row for branched stem types (single or triple capsules). See [Exhibit 9](#) for instructions on determining phenotypes. A stand of 40 plants per 1/1,000 of an acre is considered a full stand and there is 100% surviving yield. For odd numbers of stands round up, e.g., a count of 29 becomes 30.

Surviving stands per 1/1,000 of an acre:	≥ 40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Single stem	1.00	.95	.91	.87	.82	.77	.71	.65	.58	.51	.44	.37	.30	.23	.16	.09	.07	.05	.03	.02
Branched	1.00	.99	.95	.91	.86	.81	.75	.69	.62	.55	.48	.41	.34	.27	.20	.13	.11	.09	.07	.06

**B.      Defoliation with GP Intact**

Use the table below to determine the surviving yield from defoliation with the main stem GP intact. Round % leaf loss. For the lower two of the four numbers between two row headings, round down. For the higher two, round up.

% leaf loss	Pre-reproductive	Early bloom (0-5 node pairs)	Mid bloom (6-10 node pairs)	Mid bloom (11-15 node pairs)	Mid bloom (>15 node pairs)	Late bloom
5	1.00	1.00	1.00	1.00	1.00	1.00
10	1.00	1.00	1.00	1.00	1.00	.97
15	1.00	1.00	1.00	1.00	.97	.94
20	1.00	1.00	1.00	.98	.95	.91
25	1.00	1.00	.98	.96	.92	.88
30	1.00	.99	.97	.94	.90	.85
35	.99	.97	.95	.92	.87	.82
40	.98	.96	.93	.89	.85	.79
45	.97	.95	.92	.87	.82	.76
50	.95	.94	.90	.85	.80	.73
55	.94	.92	.88	.83	.77	.71
60	.93	.91	.87	.81	.74	.68
65	.92	.90	.85	.79	.72	.65
70	.91	.89	.83	.77	.69	.62
75	.90	.87	.81	.75	.67	.59
80	.88	.86	.80	.72	.64	.56
85	.87	.85	.78	.70	.62	.53
90	.86	.84	.76	.68	.59	.50
95	.85	.82	.75	.66	.57	.47
100	.84	.81	.73	.64	.54	.44

**Exhibit 7      Percent Surviving Yield (Continued)**

**C.      Defoliation with GP Damaged**

Use the table below to determine the surviving yield from defoliation with the main stem GP damaged.

For % leaf loss, round to the nearest % listed (for the lower two of the four numbers between two row headings, round down; for the higher two, round up).

<b>% leaf loss</b>	<b>Pre-reproductive</b>	<b>Early bloom (0-5 node pairs)</b>	<b>Mid bloom (6-10 node pairs)</b>	<b>Mid bloom (11-15 node pairs)</b>	<b>Mid bloom (&gt;15 node pairs)</b>	<b>Late bloom</b>
<b>5</b>	1.00	1.00	1.00	1.00	1.00	1.00
<b>10</b>	1.00	1.00	1.00	1.00	1.00	.95
<b>15</b>	1.00	1.00	1.00	1.00	.95	.90
<b>20</b>	1.00	1.00	1.00	.96	.91	.85
<b>25</b>	1.00	1.00	.96	.92	.86	.80
<b>30</b>	1.00	.97	.93	.87	.82	.75
<b>35</b>	.98	.94	.89	.83	.77	.70
<b>40</b>	.97	.91	.85	.79	.72	.65
<b>45</b>	.95	.88	.82	.75	.68	.60
<b>50</b>	.94	.85	.78	.70	.63	.55
<b>55</b>	.92	.82	.74	.66	.59	.51
<b>60</b>	.91	.79	.71	.62	.54	.46
<b>65</b>	.89	.75	.67	.58	.49	.41
<b>70</b>	.88	.72	.63	.53	.45	.36
<b>75</b>	.86	.69	.59	.49	.40	.31
<b>80</b>	.85	.66	.56	.45	.35	.26
<b>85</b>	.83	.63	.52	.41	.31	.21
<b>90</b>	.82	.60	.48	.36	.26	.16
<b>95</b>	.80	.57	.45	.32	.22	.11
<b>100</b>	.78	.54	.41	.28	.17	.06

**Exhibit 8      Seed Weight Per Capsule**

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These values in this table are 93% of the total potential seed weight per capsule, taking into account a 7% loss in potential yield due to weather during the drying stage and combine header loss.

<b>Plant Phenotype</b>	<b>Irrigated Weight per Capsule (grams)</b>	<b>Non-Irrigated Weight per Capsule (grams)</b>
Single stem, single capsule	0.192	0.169
Single stem, triple capsule	0.145	0.128
Branched, single capsule	0.185	0.163
Branched, triple capsule	0.122	0.107

**A.      Phenotype**


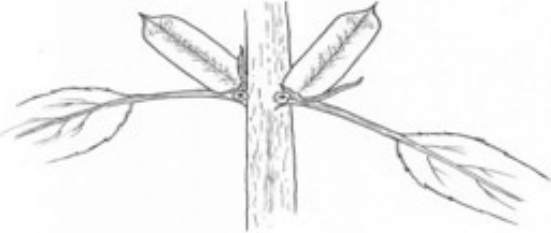


A phenotype is any observable characteristic or trait of an organism, such as its morphology, development, biochemical or physiological properties, or behavior. The genotype of an organism is the inherited instructions it carries within its genetic code. Not all organisms with the same genotype look or act the same way because appearance and behavior are modified by environmental and developmental conditions. Similarly, not all organisms that look alike necessarily have the same genotype.

The variations of sesame genotypes/phenotypes are as follows:

- (1)      Single stem with single capsule;
- (2)      Single stem with triple capsules;
- (3)      Branched with single capsule; or
- (4)      Branched with triple capsules.

Walking into a field and looking at a limited number of plants at the edge can lead to a misidentification of the phenotype. In low populations, single stem genotypes can put on branches and single capsule genotypes can have a few node pairs with triple capsules. In high populations, branched genotypes can have no branches and triple capsule genotypes can have all single capsules. In low moisture/fertility, branched genotypes may not have branches and triple capsule genotypes may have few node pairs with triple capsules.

A. Phenotype (Continued)

Phenotype	Illustration
<p><b>Single stem form</b> will have a dominant mainstem, although occasional branches may develop in thin stands, in skips or if the mainstem node is damaged. Capsules (single or triple) usually begin forming at node 6.</p>	
<p><b>Single capsule form</b> showing a capsule at each of a node pair.</p>	
<p><b>Branched form</b> will develop 4-6 producing stems from basal nodes 2-6. There may be a single capsule or triple capsules per node.</p>	
<p><b>Triple capsule form</b> showing only one of the two opposite nodes on a stem. There will be 6 capsules at each node pair.</p>	

**B.      Branching Characteristics**

- (1)      The key to identifying whether a line is branched or single stem is the length of the branches versus the point of origin on the plant. In a branched line, the longest branch will grow out of the leaf axil pair below the nodes that formed the first flowers, with shorter branches above each lower node pair. Essentially, the longest branches are above the shorter branches. In single stem lines, the branches will generally form only after the plants shed their lower leaves. Since the lowest leaves are shed first, the branches will form at the base of the plant, and they will be the longest branches with shorter branches on higher node pairs.
- (2)      Branching is a dominant genetic character, making it difficult to purify. In every branched line there will be single stem plants, and vice versa. The identification of the branching must be based on looking at many plants in normal populations.
- (3)      Branched lines can be subdivided into lines with few branches and many branches. However, this delineation does not affect the appraisal methods, and is not discussed in this document.
- (4)      Direct sunlight has a tremendous effect on the amount of branching. In order for a branch to form, light needs to strike the leaf axil. In some single stem lines, there is no branching under all circumstances. However, most single stem and branched lines have the potential of making a branch in every leaf axil in the open. The amount of light that reaches the branches is dependent on population and/or leaf area. Higher populations and lines with larger leaves shade the leaf axils preventing branches from growing and developing flowers and then capsules. In order for a branch to keep growing, it needs light at the growing tip.
- (5)      Latitude and row spacing can affect branching. With wider row spacing, more light gets to the lower part of the plant. In northern latitudes, there are longer days in the summer providing more light. Areas like the Caprock of Texas with wide row spacing and higher latitude have the most branching.
- (6)      Some lines have the potential to form secondary branches on the branches, and a few have the potential for tertiary branches.
- (7)      In a low moisture/fertility field, there may be no branches.



**C. Capsules per Leaf Axil Characteristics**

- (1) The key to identifying whether a line has single or triple capsules is to look at the middle part of the main stem in a normal population. The single capsule line will have single capsules per leaf axil, and the triple capsule line will have 2 to 3 (rarely 4 to 5) capsules per leaf axil. The average for a triple capsule line across all nodes of a plant is 1.7 capsules per leaf axil.
- (2) As with branching, the formation of capsules depends on light to the leaf axil. The pattern of flowering in a triple capsule line is that the central flower will open first while the axillary flowers open 2-5 days later. As the plant grows, the leaves get larger, and the leaves may shade out the axillary flowers. In a low light situation, the axillary flowers may not develop at all.
- (3) In triple capsule lines, the lowest and highest node pairs normally will have a single capsule per leaf axil in low, normal, and high populations. In single capsule lines, in wide row spacing, high moisture/fertility, and higher latitudes, there may be plants with triple capsules in the middle of the main stem, but these will be the exception rather than the rule.
- (4) In single capsule lines, there are nectaries on each side of the capsule. These are yellow and round. They are rudimentary flowers, but will rarely make a flower. They do produce nectar that is harvested by some insects.
- (5) In a low moisture/fertility field, there may be no axillary capsules. In a few lines, with adequate future moisture, the axillary capsules may form later.

**Exhibit 10 Sesame Growth Stage Characteristics**

There are four major growth stages: Vegetative, Reproductive, Ripening, and Drying.

The nominal number of days for each stage is provided as a general guideline. The days are expressed in days after planting (DAP). The nominal number of days for each stage is expressed in weeks. The actual number of days will depend on variety, amount of rainfall, amount of fertility, and temperature variation from normal temperatures.

Phase / Stage	Duration	Narrative
<b>Vegetative</b>	0-40 DAP	The plants primarily develop stems and leaves in order to establish a photosynthetic base to produce seed.
Germination	Weeks: 1	Emerges 3 to 7 DAP depending on soil temperatures and planting depth. Since sesame is a small seeded plant, the initial plants are much smaller than many other crops that are appraised. Sesame self-thins, and thus the number of plants per foot at the emergence stage is higher than the final number of plants at harvest.  End point: When the seedlings emerge.
Seedling	Weeks: 3	The plants grow slowly as the plants are putting down deep roots to follow the moisture.  End point: When the third pair of true leaves are the same length as the second pair of true leaves.
Juvenile	Weeks: 1	Dramatic surge in growth period. During this stage, the stem and branches are developing nodes which will contain the flower buds. The leaves increase in size from bottom to top until the 5 <sup>th</sup> or 6 <sup>th</sup> node pair when they will start to decrease in size primarily in leaf blade width and petiole length. The stems are succulent and can be damaged by large hail.  End point: When the first yellowish green buds appear.
Pre-reproductive	Weeks: 1	From this point until the late bloom stage, the rate of growth is about the same. Immature buds can be seen without pushing open the new leaves on the GP. These buds are yellowish green and the lip covers the opening at the tip of the flower. This stage indicates that the reproductive stage is imminent.  End point: When 50% of the plants have at least one whitish open flower.

**Exhibit 10 Sesame Growth Stage Characteristics (Continued)**

Phase / Stage	Duration	Narrative
<b>Reproductive</b>	41-80 DAP	The plant continues developing stems and leaves, but the distance between the leaves and the size of the leaves are reduced. The plants make flowers and capsules and start filling the seed.
Early bloom	Weeks: 1	<p>The first flowers usually abort, and the first capsules normally form on the 4<sup>th</sup> to 6<sup>th</sup> node pair from the ground.</p> <p>End point: 5 node pairs of capsules.</p>
Mid-bloom	Weeks: 3-4	<p>The plants bloom profusely as the flowers appear on the next higher stem node. In single capsule lines, 1-4 flowers will open on each GP each day, with fewer flowers on the branches. In triple capsule lines, 1-9 flowers will open. About 70-75% of the flowers appear between the 2<sup>nd</sup> and 3<sup>rd</sup> week of bloom. Seed capsules grow rapidly, but it takes 25-40 days for the seed to fill and mature with the last capsules maturing faster.</p> <p>End point: Branches and minor plants stop flowering.</p>
Late bloom	Weeks: 1	<p>The number of flowers in the field is reduced, and there are fewer open flowers on the main stem. In a drought, the field can appear to be at this stage, and with no rain will proceed to ripening. However, with adequate rain can revert to the mid bloom stage.</p> <p>End point: Flower termination – 90% of plants do not have open whitish flowers.</p>

**Exhibit 10 Sesame Growth Stage Characteristics (Continued)**

Phase / Stage	Duration	Narrative
<b>Ripening</b>	81-105 DAP	The reproductive and ripening stages actually overlap in that older capsules at the base are filling while there are still flowers at the top of the plant. The ripening stage ends at physiological maturity when the seeds in the capsules three/fourths of the way up the capsule zone turn from a white color to a darker color (ranging from light buff to black). Early cold weather or an early frost will not damage seed yield after physiological maturity. A hard freeze may damage the seed and cause oil damage. Plants begin to self-defoliate from the base as lower capsules mature.
<b>Drying</b>	106-135 DAP	Seeds mature to the top of the plant and capsules begin to turn brown and open at the tip. Drying patterns differ with most starting in the middle of the capsule zone and going in both directions. As the capsules dry, the stems will dry. Once the seed begins losing moisture, it is less vulnerable to a hard freeze. This is the most difficult stage to determine in a field because there are so many differences. The edges of the field and lower (generally higher moisture) parts of the field dry down slower. Hills where the rainfall does not accumulate dry down faster with increased slope. On the other hand, in a frost or freeze, cold air will settle in lower areas and cause those areas to dry down faster. Higher plant populations will dry down faster than lower plant populations due to thinner stems in the former.
Full maturity	Weeks: 1	All seed finishes filling. Although technically this stage ends when all the seed is mature, pragmatically, it ends when the seeds in the capsules two node pairs from the top are mature. The top capsules contribute little to yield.  End point: All seed mature.
Initial dry down	Weeks: 2	Capsules begin to turn brown and open at the tip.  End point: First dry capsules.
Late dry down	Weeks: 2	Once the seed begins losing moisture, it is less vulnerable to a hard freeze.  End point: Full dry down of plants to the point where a combine can recover the seed at less than 6% moisture.