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SESAME PILOT LOSS ADJUSTMENT STANDARDS HANDBOOK

2012 and Succeeding Crop Years

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

FEDERAL CROP INSURANCE HANDBOOK	**NUMBER:** 25015 (10-2010) 25015 (25015-1)
SUBJECT: **SESAME PILOT LOSS ADJUSTMENT STANDARDS HANDBOOK 2012 AND SUCCEEDING CROP YEARS**	**OPI: Product Administration and Standards Division** **APPROVED:** **DATE** S/ *Tim B. Witt* *October 4, 2011* **Deputy Administrator for Product Management**

THIS HANDBOOK CONTAINS THE OFFICIAL FCIC-ISSUED LOSS ADJUSTMENT STANDARDS FOR THIS CROP FOR THE 2012 AND SUCCEEDING CROP YEARS. ALL REINSURED COMPANIES WILL UTILIZE THESE STANDARDS FOR BOTH LOSS ADJUSTMENT AND LOSS TRAINING.

SUMMARY OF CHANGES/CONTROL CHART

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

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

Changes for the Crop Year 2012 (FCIC-25015-1):

A. Section 5 C. (2): Add the word “spaces” after the word “rows” in this subsection.

B. Section 8 B. (3): There is no need to use a separate appraisal worksheet for fields or subfields that have the same base (APH) yield.

C. Plant Damage Appraisal Method Worksheet: Changed Item 9 to read Mid-Bloom stage and changed the days after planting in the remarks section of the worksheet to 53 days after planting and the field was appraised 64 days after planting to match the figures used in determining the pounds per acre for each sample.

D. Capsule Count Appraisal Method Worksheet: Changed the code in Item 11from 003non-irrigated to 002 for an irrigated practice which eliminated recalculating pounds per acre for each sample. Corrected entries in columns 32 and 33 as these figures were not to three places for the first sample and due to rounding changed the total in item 34.

SESAME APH PILOT LOSS ADJUSTMENT STANDARDS HANDBOOK

SUMMARY OF CHANGES

Control Chart For: Sesame APH Pilot Loss Adjustment Standards Handbook						
	SC Page(s)	TC Page(s)	Text Pages	Reference Material	Date	Directive Number
Remove	1 - 2		3 – 4 19 – 20 25 – 26		10-2010 10-2010 10-2010	FCIC-25015 FCIC-25015 FCIC-25015
Insert	1 - 2		3 – 4 19 – 20 25 – 26		09-2011 09-2011 09-2011	FCIC-25015-1 FCIC-25015-1 FCIC-25015-1
Current Index	1-2	1-2	1-2 3-4 5-18 19-20 21-24 25-26 27-44	45-50	09-2011 10-2010 09-2011 10-2010 09-2011 10-2010 09-2011 10-2010	FCIC-25015-1 FCIC-25015 FCIC-25015-1 FCIC-25015 FCIC-25015-1 FCIC-25015 FCIC-25015-1 FCIC-25015

SESAME PILOT LOSS ADJUSTMENT STANDARDS HANDBOOK

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1. INTRODUCTION

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

The FCIC issued loss adjustment standards for this crop are the official standard requirements for adjusting losses in a uniform and timely manner. The FCIC-issued standards for this crop and crop year are in effect as of the signature date for this crop handbook at www.rma.usda.gov/handbooks/25000/index.html. All Approved Insurance Providers (AIPs) will utilize these standards for both loss adjustment and loss adjustment 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.

2. SPECIAL INSTRUCTIONS

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

A. DISTRIBUTION

(1) The following is the minimum distribution of forms completed by the adjuster and signed by the insured (or insured's authorized representative) for the loss adjustment inspection:

(2) One legible copy to insured. The original and all remaining copies as instructed by the AIP. It is the AIP's responsibility to maintain original insurance documents relative to policyholder servicing as designated in their approved plan of operations.

B. TERMS, ABBREVIATIONS, AND DEFINITIONS

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

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

(3) Abbreviations:

CAT	Catastrophic Risk Protection
CIH	Crop Insurance Handbook
DSSH	Document and Supplemental Standards Handbook, FCIC-24040
SP	**Special Provisions**

(4) Definitions specific to sesame are provided in the Sesame Pilot Crop Provisions.

3. INSURANCE CONTRACT INFORMATION

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

A. INSURABILITY

The insured crop and insurable acreage are defined in the Sesame Pilot Crop Provisions. Refer to the Basic Provisions, the Sesame Pilot Crop Provisions, and the Special Provisions for a complete list of insurability requirements.

B. PROVISIONS AND PROCEDURES NOT APPLICABLE TO CAT COVERAGE

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

C. UNIT DIVISION

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

4. REPLANTING PAYMENT PROCEDURES

There is currently no replanting payment for Sesame. Refer to the Basic Provisions and the Sesame Pilot Crop Provisions for replanting requirements prior to the final planting date.

5. SESAME APPRAISALS

A. GENERAL INFORMATION

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

B. SELECTING REPRESENTATIVE SAMPLES FOR APPRAISALS

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

(2) Split the field into subfields when:

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

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

(3) Each field or subfield must be appraised separately.

(4) For the stand reduction, plant damage, capsule count, and harvested production methods, take not less than the minimum number (count) of representative samples required in **TABLE A** (Minimum Representative Sample Requirements) 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 1/1000 of an acre based on the row width as listed in **TABLE B** (Sample Row Length).

(b) Harvested production method: One sample is the calculated area harvested by machine in each representative sample area. The areas should be wheel measured and not measured by an acreage monitor.

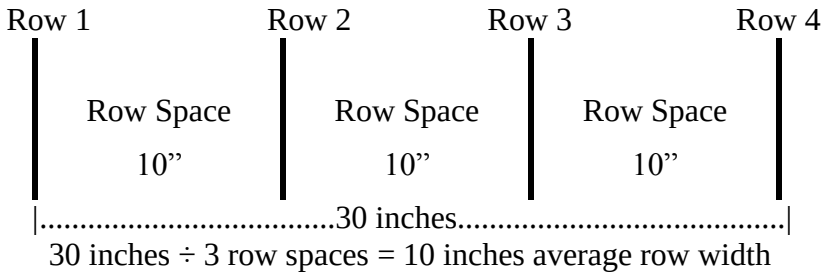
C. MEASURING ROW WIDTH FOR SAMPLE SELECTION

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

(1) Use a measuring tape marked in inches or convert a tape marked in tenths of a foot, 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 space to the center of the fourth row space (or as many rows as needed), and divide the result by the number of row spaces measured across, to determine an average row width.

EXAMPLE:



30 inches ÷ 3 row spaces = 10 inches average row width

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

(4) Apply the average row width in **TABLE B** (Sample Row Length) to determine the sample row length required for the stand reduction, plant damage, and capsule count appraisal methods.

D. STAGES OF GROWTH

(1) These instructions provide growth stage information for use when appraising potential production during various stages of growth. There are four major phases: Vegetative, Reproductive, Ripening, and Drying.

(2) For the purposes of appraisal, 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 phase when flowering ends.

(3) 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 to1.5 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.

(4) 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.

(5) 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.

(6) 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.

(7) 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.

(8) 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 phases coming in the fall where there is a drop in temperatures. As a result, sesame appears to be determinate.

(9) The four major phases are described in the following table. The phases are defined so that the appraiser can determine what appraisal methods can be used.

(10) The phase 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.

(11) The nominal number of days for each phase 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**
VEGETATIVE PHASE	0-40 DAP	The plants primarily develop stems and leaves in order to establish a photosynthetic base to produce seed.
Germination stage	Weeks: 1	Emerges 3 to 7 days after planting 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 stage	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 stage	Weeks: 1	Dramatic surge in growth period. During this phase, the stem and branches are developing nodes which will contain the flower buds. The leaves increase in size from bottom to top until the 5th or 6th 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 stage	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 growing point. These buds are yellowish green and the lip covers the opening at the tip of the flower. This stage indicates that the reproductive phase is imminent.
		End point: When 50% of the plants have at least one whitish open flower.
REPRODUCTIVE PHASE	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 stage	Weeks: 1	The first flowers usually abort, and the first capsules normally form on the 4th to 6th node pair from the ground.
		End point: 5 node pairs of capsules.

Mid bloom stage	Weeks: 3-4	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 growing point 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 2nd and 3rd 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.
		End point: Branches and minor plants stop flowering.
Late bloom stage	Weeks: 1	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.
		End point: Flower termination - 90% of plants do not have open whitish flowers.
RIPENING PHASE	81-105 DAP	The reproductive and ripening phases actually overlap in that older capsules at the base are filling while there are still flowers at the top of the plant. The ripening phase 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.
		End point: Physiological maturity.
DRYING PHASE	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 stage	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 drydown stage	Weeks: 2	Capsules begin to turn brown and open at the tip.
		End point: First dry capsules.
Late drydown stage	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.

E. SESAME PHENOTYPES

(1) A phenotype is any observable characteristic or trait of an organism, such as its morphology, development, biochemical or physiological properties, or behavior. Phenotypes result from the expression of an organism's genes as well as the influence of environmental factors and possible interactions between the two. 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. There are 4 basic genotypes/phenotypes based on two characters illustrated below: branching and number of capsules per leaf axil. There is a third character that is often used in defining phenotypes: maturity class. Maturity class does not affect appraisals and thus is not included in this document. The variations are as follows:

(a) Single stem with single capsule;

(b) Single stem with triple capsules;

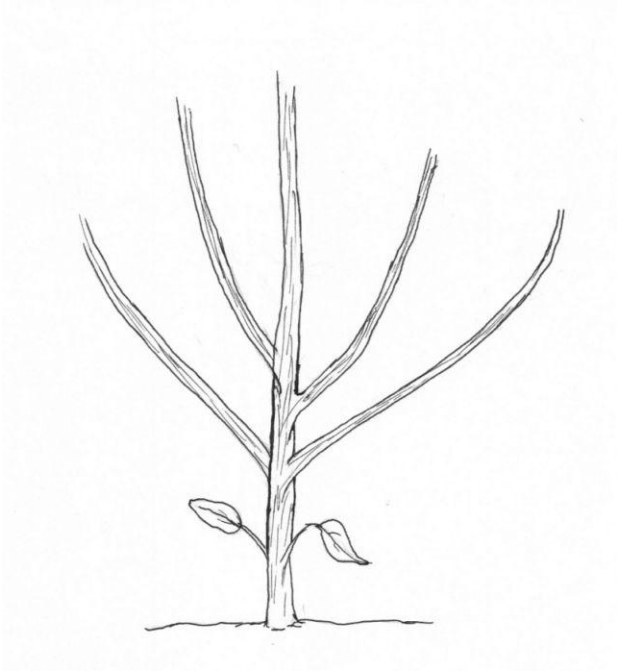
(c) Branched with single capsule; or

(d) Branched with triple capsules.

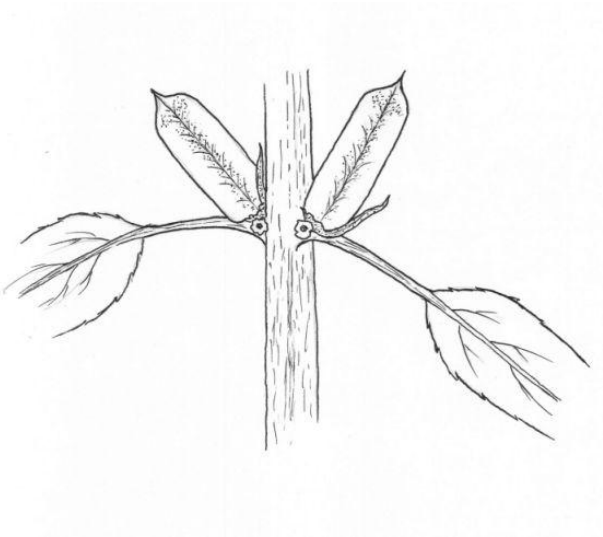
(2) Although the explanations below may seem complicated at first, it takes minimal training to determine the phenotype that will be used in the appraisal tables.

(3) 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.

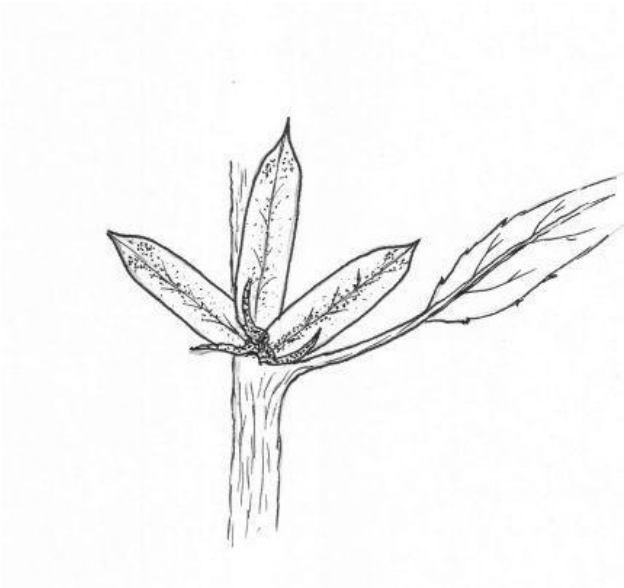
Single stem form will have a dominant mainstem, although occasional branches may develop in thin stands, in skips or if the mainstem node is damaged. Capsules (single or triple) usually begin forming at node 6.



Branched form will develop 4-6 producing stems from basal nodes 2-6. They may be single capsule or triple capsules per node.



Single capsule form showing a capsule at each of a node pair.



Triple capsule form showing only one of the two opposite nodes on a stem. There will be 6 capsules at each node pair.

(4) Branching characteristics:

(a) 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.

(b) 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.

(c) 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.

(d) 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.

(e) 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.

(f) Some lines have the potential to form secondary branches on the branches, and a few have the potential for tertiary branches.

(g) In a low moisture/fertility field, there may be no branches.

(5) Capsules per leaf axil characteristics:

(a) 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.

(b) 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.

(c) 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.

(d) 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.

(e) 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.

6. APPRAISAL METHODS

A. GENERAL INFORMATION

These instructions provide information on the four appraisal methods shown in the following table. Complete instructions for filling out the appraisal form for each method are provided in Section 8.

Appraisal Method...	**Use...**
Stand Reduction Method is used: If no growing point putting on new leaves, if injured/bruised so in non-recoverable condition, or if dead.	For planted acreage with no stand, poor stand, or damaged stand on fields up to flower termination. 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 is used: If beyond first true leaf pair And growing points are putting on new leaves.	On fields between the pre-reproductive stage and flower termination in the late bloom stage. 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 is used: After flower termination	On fields 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 is used: After flower termination	Use the amount actually harvested from representative areas within a field.

B. STAND REDUCTION METHOD

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

(1) 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 growing point 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 growing point. 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:

(a) Not have any growing point putting on new leaves;

(b) Be injured and bruised to such an extent they are in a non-recoverable condition; or

(c) Be dead.

(2) Stand Reduction Appraisal Method Standards.

(a) In a representative sample area, determine the surviving stand by counting the number of plants in 1/1000 of an acre. Enter this number in column 14 on the appraisal worksheet. Refer to **Table B** (Sample Row Length) for the correct number of rows and row lengths for the sample.

(b) Refer to **TABLE C** (Percent Surviving Yield From Sesame Stand Reduction) to identify the percent surviving from sesame stand reduction for the relevant phenotype. Enter the percent surviving yield, expressed as a decimal rounded to hundredths, on the appraisal worksheet in column 15.

(c) Place the APH yield for the field in column 26.

(d) Multiply the percent surviving yield in column 15 times the APH yield in column 26 and enter in column 27.

(e) Sum the numbers in column 27 for the various samples and enter in item 34 in the stand reduction method column. Record the number of samples in item 35. Divide the sub-total in item 34 by the number of samples in item 35 and enter the result as a whole number in item 36 in the stand reduction method column.

C. PLANT DAMAGE METHOD

(1) Plant Damage Characteristics. There are three main types of plant damage: defoliation, growing point 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 **Tables D** and **E**. Refer to the Stages of Growth in section 5D. During the reproductive phase 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.

(a) Defoliation

1 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.

2 Defoliation is that proportion of the leaves that has been removed or severely injured.

3 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.

4 There is a misconception that the effects of damage caused to leaves formed during the vegetative phase are minimal. The plants are still short at this point, and there will be a substantial leaf mass that will form during the reproductive phase 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 phase is not recoverable.

5 Loss of leaves includes:

a A partial loss -- leaves that have a hole or are torn.

b Total losses -- leaves that are torn off the plant or broken at the petiole and wilting.

(b) Growing Point (GP) Damage

1 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 growing point on the main stem, the loss of leaf surface is less damaging than if the growing point is broken. Loss of the growing point on a branch has less effect on final yield because one branch does not contribute a significant percentage of seed and rarely are all growing points on one plant broken.

2 Hail injury if severe may break the growing point 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 growing point 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 growing points. When the growing point on the main stem is broken, the plants will direct more nutrients to these secondary growing points. 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 growing point had not broken off.

3 There are cases where the growing point 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 growing point because the plant does not direct more nutrients to the secondary growing points.

4 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 hail storms, the hail will break off the growing point 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 growing point on the main stem, these minor plants should be counted as intact since they can become almost as productive as non-damaged dominant plants.

(c) Capsule Damage

1 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 phase and is accounted for in the Capsule Count method of appraisal.

(2) Plant Damage Appraisal Method Standards

(a) First account for any stand reduction in the manner described in Section 6 B(2)(a) and (b).

(b) Defoliation

1 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 growing point damage assessment.

2 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.

3 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):

a For leaves that are torn off or kinked at the petiole count 1 damaged leaf.

b For leaves that are still on the plant estimate the amount of damage to the nearest half and count as ½ 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.

4 Add the number of damaged leaves from the 10 plants and divide the result by the number of leaves prior to the leaf damage. Place the percentage expressed in hundredths in column 16.

(b) Growing point (GP) damage

1 In the 1/1000 of an acre sample that includes the 10 plants used for determining the amount of defoliation count the number of plants. See **Table B** (Sample Row Length) for the appropriate number of rows and row lengths.

2 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.

3 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 and enter the result rounded to hundredths in column 17.

4 To determine the percent of surviving plants with the GP damaged, subtract the proportion of plants with the GP intact in column 17 from 1.00 and enter the result in hundredths in column 21.

(c) Use of tables to determine damage.

1 To determine the factor for computing percent of surviving yield for GP intact, use **Table D** (Percent Surviving Yield From Sesame Defoliation And Growing Point Intact) with the percentage of leaf loss (rounded to the nearest figure in the table) and the growth stage. Place this factor in hundredths in column 18.

2 To determine the percent of surviving stand with GP intact, multiply the percent surviving stand in column 15 by the percent of plants with GP intact in column 17. Place the result in column 19 rounded to hundredths.

3 To determine the total percent of surviving yield for GP intact, multiply the factor for computing percent of surviving yield for GP intact in column 18 by the percent surviving stand with GP intact in column 19. Place the result in column 20 rounded to hundredths.

4 To determine the factor for computing percent of surviving yield for GP damaged, use **Table E** (Percent Surviving Yield From Sesame Defoliation And Growing Point Damaged) with the percentage of leaf loss (rounded to the nearest figure in the table) and the growth stage. Place this factor in hundredths in column 22.

5 To determine the percent of surviving stand with GP damaged, multiply the percent surviving stand in column 15 by the percent of plants with GP damaged in column 21. Place the result in column 23 rounded to hundredths.

6 To determine the total percent of surviving yield for GP damaged, multiply the factor for computing percent of surviving yield for GP damaged in column 22 by the percent surviving stand with GP damaged in column 23. Place the result in column 24 rounded to hundredths.

7 To determine the total percent of surviving yield for leaf and GP damage add the total percent of surviving yield for GP intact in column 20 plus the total percent of surviving yield for GP damaged in column 24. Place the result in column 25 rounded to hundredths.

8 Place the APH yield for the field in column 26.

9 To determine the total pounds per sample, multiply the percent of surviving yield for leaf and GP damage in column 25 by the APH yield in column 26. Place the result in column 27.

10 Add all of the sample results in column 27 and place in item 34 under the plant damage method column.

11 Place the number of samples in item 35 under the plant damage method column.

12 To determine the appraised yield divide item 34 total by the number of samples in item 35. Place the result in item 36 under the plant damage method column.

D. CAPSULE COUNT METHOD

(1) Capsule Characteristics.

(a) The amount of seed in a capsule varies due to many factors including variety, environment, plant position, branching style, and capsules per leaf axil.

(b) Varieties have differing seed sizes and number of seeds per capsule. The lower yield factors are compensated by having more capsules per plant.

(c) 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.

(d) 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.

(e) The capsules on branches have less weight. However, having more capsules per plant compensates for the lower weight.

(f) 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.

(g) 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.

(2) Capsule Count Appraisal Method Standards

(a) Measure out 1/1000 of an acre using the number of rows and row lengths in **Table B** (Sample Row Length). Identify the first and last plants in the sample. Capsules from plants within the sample length are counted even if they bend 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.

(b) Count the number of capsules on the main stem and on the branches and enter the number in column 29.

(c) Plants that died from disease or plants that were defoliated in the reproductive phase 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.

(d) Get the average seed weight per capsule from **Table F** (Seed Weight Per Capsule) and enter it in thousandths in column 30. This weight is in grams.

(e) Determine the total grams per sample by multiplying the number of capsules in column 29 by the average seed weight in column 30. Enter the product in column 31.

(f) Convert grams to pounds by dividing the grams in column 31 by 454, the number of grams in a pound. Enter that number in column 32.

(g) To calculate the pounds per acre, multiply the number in column 32 by 1,000 and place the result in column 33 in whole pounds.

(h) Add all of the sample results in column 33 and enter in item 34.

(i) Place the number of samples in item 35.

(j) To determine the appraised yield divide the addition of the samples in item 34 by the number of samples in item 35. Place the result in item 36.

E. HARVESTED PRODUCTION METHOD

(1) Sesame Characteristics.

(a) As with other crops the sesame production can vary considerably within a field. Use standard procedures as listed in the Loss Adjustment Manual for selecting Representative Sample Areas to leave for harvest.

(2) Harvested Production Method Standards.

(a) The number of representative sample areas shall be in accordance with section 11 of the APH Sesame Crop Provisions and with **TABLE A**.

(b) The area of each must be measured with a tape or wheel. Combine acre monitor figures cannot be used. Record the area of each sample in column 14.

(c) The sample areas cannot be combined until dry enough to produce seed with 6% moisture or less.

(d) The combine must be cleaned prior to the harvest. The harvest 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.

(e) A representative sample of this harvest must be submitted to a laboratory to determine net weight of clean dry sesame seed.

(f) The net weight shall be computed as follows, with the proportions that are dockage, foreign matter, broken, damaged, or moisture expressed as hundredths:

Calculation of weight 1 (WT1) after removal of dockage:

1 WT1 = gross weight - (gross weight x dockage)

Calculation of weight 2 (WT2) after adjustment for content of foreign matter and broken or damaged seed:

2 WT2 = WT1 - (WT1 x (foreign matter + broken + damaged))

Calculation of net weight at the equivalent of five percent moisture content:

3 Net Weight = WT2 - (WT2 x (moisture - .05)).

Enter the net weight of each sample in pounds in column 15a to the nearest hundredth.

(g) Divide the net weight in column 15a by the number of square feet in column 14 and

multiply by 43,560, the number of square feet in an acre, to get pounds per acre. Enter in column 15 whole pounds.

(h) Enter the numbers in column 15b in whole pounds in column 27.

(i) Add all of the sample results in column 27 and enter in item 34 under the harvested production method column.

(j) Place the number of samples in item 35 under the harvested production method column.

(k) To determine the appraised yield divide the addition of the samples in item 34 by the number of samples in item 35. Place the result in item 36 under the harvested production method column.

7. APPRAISAL DEVIATIONS AND MODIFICATIONS

A. DEVIATIONS

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

B. MODIFICATIONS

There are no pre-established appraisal modifications or deviations in this handbook. Refer to the LAM for additional information.

8. APPRAISAL WORKSHEET ENTRIES AND COMPLETION PROCEDURES

A. APPRAISAL WORKSHEET FORM STANDARDS

(1) The entry items in subsection C are the minimum requirements for the Sesame Appraisal Worksheet for the Stand Reduction, Plant Damage, Capsule Count, and Harvested Production Methods. All of these entry items are "Substantive" (i.e., those appropriate to each method are required.)

(2) Appraisal Worksheet Completion Instructions. The completion instructions for the required entry items on the Appraisal Worksheet in the following subsections are "Substantive" (i.e., those appropriate to each method are required.)

(3) The Privacy Act and Non-Discrimination Statements are required statements that must be printed on the form or provided to the insured as a separate document. These statements are not shown in the example form in this section. The current Non-Discrimination Statement and current Privacy Act Statement can be found on the RMA website at

http://www.rma.usda.gov/regs/required.html or successor website.

(4) Refer to the DSSH for other crop insurance form requirements (e.g., font point size, etc.).

B. GENERAL INFORMATION FOR WORKSHEET ENTRIES AND COMPLETION PROCEDURES

(1) Include the AIP 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 must be completed for each unit appraised, and for each field or subfield which have a differing base (APH) yield or farming practice (applicable to preliminary and final claims). Refer to section 5 "Sesame Appraisals" for sampling requirements.

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

(5) Standard appraisal worksheet items are numbered consecutively in subsection C. Example appraisal worksheets are also provided to illustrate how to complete entries for each type of appraisal.

(6) For all zero appraisals, refer to the LAM.

C. WORKSHEET ENTRIES AND COMPLETION INFORMATION

Verify or make the following entries for all appraisal methods

Item No.	Information Required
1.	**Company:** Name of 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 as previously defined in Section 5E.

9. **Phase/Stage (days after planting):** Determined stage of growth and the number of days after planting at the time of the appraisal. In the remarks in item 37, state the number of days after planting that the damage occurred.

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 subfields identification symbol.

14-15 MAKE ENTRY ONLY for these numbered items under the Stand Reduction and Plant Damage appraisal methods. See below for alternative definitions for the Harvested Production Appraisal Method.

14. **Surviving Stand:** Number of live plants remaining in 1/1000 of an acre (see **Table B** for row width and row length). Any plant with a growing point putting on new leaves is considered a live plant.

15. **Percent Surviving Yield:** Factor for percent of surviving yield from **Table C** expressed in hundredths.

14-15 ALTERNATIVE ENTRIES for the Harvested Production Appraisal Method

14. **Square feet harvested:** Number of square feet harvested.

15a. **Total pounds harvested:** Number of pounds expressed in hundredths.

15b **Total pounds per acre:** Total pounds harvested (item 15a) divided by square feet harvested (item 14) times 43,560 expressed in whole pounds.

16-25 MAKE ENTRY ONLY for these numbered items under the Plant Damage Appraisal Method

16. **Percent Leaf loss:** The percent of leaf area destroyed in 10 successive plants.

17. **Percent plants with growing point (GP) intact:** The percent of plants in 1/1000 of an acre that have the main stem growing point intact (not broken off or dangling).

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 **Table D** expressed in hundredths.

19. **Percent surviving stand with GP intact:** Multiply the percent of surviving stand yield (item 15) by percent of plants with GP intact (item 17) expressed in hundredths.

20. **Total percent surviving yield with GP intact:** Multiply the factor for computing percent surviving yield for GP intact (item 18) by the percent surviving stand with GP intact (item 19) expressed in hundredths.

21. **Percent plants with GP damaged:** The percent of plants in 1/1000 of an acre that have the main stem growing point damaged (broken off or dangling). Subtract the percent of plants with GP intact (item17) from 1.00 expressed in hundredths.

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 percent in **Table E** expressed in hundredths.

23. **Percent surviving stand with GP damaged:** Multiply the percent of surviving stand yield (item 15) by percent of plants with GP damaged (item 21) expressed in hundredths.

24. **Total percent surviving yield with GP damaged:** Multiply the factor for computing percent surviving yield for GP damaged (item 22) by the percent surviving stand with GP damaged (item 23) expressed in hundredths.

25. **Total percent surviving yield for leaf and GP damage:** Add the total percent surviving yield with GP intact (item 20) plus the total percent surviving yield with GP damaged (item 24) expressed in hundredths.

26. **APH Yield:** Approved APH yield in whole pounds from the APH form.

27. **Total pounds per acre:**

    Stand Reduction Appraisal Method: Multiply the percent surviving stand yield (item 15) by the APH yield (item 26) expressed in pounds per acre.

    Plant Damage Appraisal Method: Multiply the total percent surviving yield for leaf and GP damage (item 25) by the APH yield (item 26) expressed in pounds per acre.

    Capsule Count Appraisal Method: Leave blank

    Harvested Production Appraisal Method: Enter the figures from column 15b in pounds per acre.

28-33 MAKE ENTRY ONLY for these numbered items under the Capsule Count Appraisal Method

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 sample area (1/1000 acre). Refer Section 6D(2)(c)

30. **Average seed weight per capsule:** The number, in grams, is found in **Table F** 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 the number of capsules (item 29) by the average seed weight per capsule (item 30).

32. **Convert grams to pounds**. Divide sample weight in grams by 454, the number of grams in a pound.

33. **Total pounds per acre**. Multiply pounds in the sample (item 32) by 1,000.

34. **Sub-total:** In the case of using the stand reduction, plant damage, or harvested production appraisal methods, add all the figures in the total pounds per acre column (item 27). In the case of using the capsule count appraisal method, add all of the figures in the total pounds per acre column (item 33). Place in item 34.

35. **Number of samples:** The number of samples used in the appraisal. Place in item 35 in the appropriate appraisal method column.

36. **Appraisal yield:** Divide the sub-total (item 34) by the number of samples (item 35). Place in the appropriate appraisal method column as a whole number.

37. **Remarks:** Enter pertinent information about the appraisal. Include any appropriate calculations. For all zero appraisals, refer to the LAM.

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

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 Production Worksheet.

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

STAND REDUCTION APPRAISAL METHOD

SESAME APPRAISAL WORKSHEET (Stand reduction method)	1. COMPANY NAME:	2. INSURED'S NAME	3. POLICY NUMBER	4. UNIT NUMBER
	ANY COMPANY	I.M. INSURED	XXXXXXX	00100

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
	MAY	XXXXXXXX	YYYY	SINGLE/SINGLE	Vegetative (seedling)	10.0	002

Sample No.	Field ID	Surviving Stand	% Surviving Yield (Table C)	Percent Leaf Loss	% Plants With GP Intact	Factor for Computing % Surviving Yield For GP Intact (Table D)	% 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 (Table E)	% 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															
5															
6															

SAMPLE NUMBER 28	NUMBER OF CAPSULES 29	AVG SEED WEIGHT PER CAPSULE (grams) (TABLE F) 30	SAMPLE WEIGHT (grams) (29X30) 31	CONVERT GRAMS TO POUNDS (31/454) 32	TOTAL POUNDS PER ACRE (32X1,000) 33		STAND REDUCTION METHOD
NO ENTRY REQUIRED						34. SUB-TOTAL	510
						35. NUMBER OF SAMPLES	3
						36. Pounds per acre APPRAISAL	170

37. REMARKS

Field B was damaged by drought during the 20 days from planting. Field was appraised 25 days after planting.

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

PLANT DAMAGE APPRAISAL METHOD

SESAME APPRAISAL WORKSHEET (Plant damage method)	1. COMPANY NAME:	2. INSURED'S NAME	3. POLICY NUMBER	4. UNIT NUMBER
	ANY COMPANY	I.M. INSURED	XXXXXXX	00100

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
	MMM/DD	XXXXXXXX	YYYY	SINGLE/SINGLE	Mid-BLOOM - (8 NP) (64)	20.0	002

Sample No.	Field ID	Surviving Stand	% Surviving Yield (Table C)	Percent Leaf Loss	% Plants With GP Intact	Factor for Computing % Surviving Yield For GP Intact (Table D)	% 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 (Table E)	% 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 28	NUMBER OF CAPSULES 29	AVG SEED WEIGHT PER CAPSULE (grams) (TABLE F) 30	SAMPLE WEIGHT (grams) (29X30 31	CONVERT GRAMS TO POUNDS (31/454) 32	TOTAL POUNDS PER ACRE (32X1,000) 33		PLANT DAMAGE METHOD
NO ENTRY REQUIRED						34. SUB-TOTAL	1,850
						35. NUMBER OF SAMPLES	4
						36. Pounds per acre APPRAISAL	463

37. REMARKS

Field A was damaged by hail 52 days after planting. Field was appraised 64 days after planting.

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

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	XXXXXXX	00100

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
	MMM/DD	XXXXXXXX	YYYY	BRANCHED/SINGLE	LATE DRYDOWN (135)	25.0	002

Sample No.	Field ID	Original Stand Surviving Stand	% Surviving Yield (Table C)	Percent Leaf Loss	% Plants With GP Intact	Factor for Computing % Surviving Yield For GP Intact (Table D)	% 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 (Table E)	% 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 28	NUMBER OF CAPSULES 29	AVG SEED WEIGHT PER CAPSULE (grams) (TABLE F) 30	SAMPLE WEIGHT (grams) (29X30) 31	CONVERT GRAMS TO POUNDS (31/454) 32	TOTAL POUNDS PER ACRE (32X1,000) 33		CAPSULE COUNT METHOD
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.).

HARVESTED PRODUCTION APPRAISAL METHOD

SESAME APPRAISAL WORKSHEET (Harvested production method)	1. COMPANY NAME:	2. INSURED'S NAME	3. POLICY NUMBER	4. UNIT NUMBER
	ANY COMPANY	I.M. INSURED	XXXXXXX	00100

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
	MMM/DD	XXXXXXXX	YYYY	SINGLE/SINGLE	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										26	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.).

9. CLAIM FORM ENTRIES AND COMPLETION PROCEDURES

A. CLAIM FORM STANDARDS

(1) The entry items in subsection C are the minimum Claim Form (hereafter referred to as "Production Worksheet") requirements. All of these entry items are considered "Substantive" (i.e., they are required.)

(2) Production Worksheet Instructions. The completion instructions for the required entry items on the Production Worksheet in the following subsections are "Substantive" (i.e., they are required.)

(3) The Privacy Act and Non-Discrimination Statements are required statements that must be printed on the form or provided to the insured as a separate document. These statements are not shown in the example form in this exhibit. The current Non-Discrimination Statement and Privacy Act Statement can be found on the RMA website at http://www.rma.usda.gov/regs/required.html or successor website.

(4) The certification statement required by the current DSSH must be included on the form directly above the insured's signature block 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."

(5) Refer to the DSSH for other crop insurance form requirements (e.g., point size of font, etc.)

B. GENERAL INFORMATION FOR WORKSHEET ENTRIES AND COMPLETION PROCEDURES

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

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

(a) Acreage report errors.

(b) Delayed notices and delayed claims.

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

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

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

(4) The late planting provisions of the Basic Provisions are not applicable.

(5) Prevented planting does not apply to sesame.

(6) The adjuster is responsible for determining if any of the insured has complied with all of their requirements under the notice and claim provisions of the policy. If they have not, the adjuster should contact the AIP.

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

C. CLAIM FORM ENTRIES AND COMPLETION INFORMATION

Verify or make the following entries:

Item No.	**Information Required**
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 Common Land Units (CLU) and tract numbers; GPS identifications; or Grid identifications) as applicable for the crop.
4.	**Date(s) of Damage:** First three letters of the month(s) during which the determined insured damage occurred for the inspection and cause(s) of damage listed in item 5 below. If no entry in item 5 below MAKE NO ENTRY. For progressive damage, enter in chronological order the month that identifies when the majority of the insured damage occurred. Include the SPECIFIC DATE where applicable as in the case of hail damage (e.g., Aug 11). Enter additional dates of damage in the extra spaces, as needed. If more space is needed, document the additional dates of damage in the Narrative (or on a Special Report). Refer to the illustration in item 6 below. If there is no insurable cause of loss, and a no indemnity due claim will be completed, MAKE NO ENTRY.
5.	**Cause(s) of Damage:** Name of the determined insured cause(s) of damage for this crop as listed in the LAM for the date of damage listed in item 4 above for this inspection. If an insured cause(s) of damage is coded as "Other," explain in the Narrative. Enter additional

causes of damage in the extra spaces, as needed. If more space is needed, document the additional determined insured causes of damage in the Narrative (or on a Special Report). Refer to the illustration in item 6 below.

If it is evident that no indemnity is due, enter "NO INDEMNITY" across the columns in Item 5 (refer to the LAM for more information on no indemnity due claims). If the claim is denied, enter "DC" and refer to the LAM for further instructions.

6. **Insured Cause %:**

PRELIMINARY: MAKE NO ENTRY.

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

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

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

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

7. **Company/Agency:** Name of company and agency servicing the contract.

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

9. **Claim #:** Claim number as assigned by the AIP.

10. **Policy #:** Insured's assigned policy number.

11. **Crop Year:** Four-digit crop year, as defined in the policy, for which the claim is filed.

12. **Additional Units:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Unit number(s) for **ALL** non-loss units for the crop at the time of final inspection. A non-loss unit is any unit for which a Production Worksheet has not been completed. Additional non-loss units may be entered on a single Production Worksheet. If more spaces are needed for non-loss units, enter the unit numbers and identified as "Non-Loss Units," in

the Narrative or on an attached Special Report.

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

PRELIMINARY: MAKE NO ENTRY.

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

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

PRELIMINARY:

a. Date the first or second notice of damage or loss was given for the unit in item , in the 1st or 2nd space, as applicable. Enter the complete date (MM/DD/YYYY) for each notice.

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

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

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

e. If the notice does not require an inspection, document as directed in the Narrative instructions.

FINAL: Transfer the last date (in the 1st or 2nd space from the first or second set of Production Worksheets) to the FINAL space on the first page of the first set of Production Worksheets if a final inspection should be made as a result of the notice. Always enter the complete date of notice (MM/DD/YYYY) for the "FINAL" inspection in the final space on the first set of production worksheets. For a delayed notice of loss or delayed claim, refer to the LAM.

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

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

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

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

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

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

c. Refer to the LAM for further information regarding companion contracts.

SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

Make separate line entries for varying:

(1) Rate classes, types, class, sub-class, intended use, irrigated practice, cropping practice, 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.

Verify or make the following entries:

Item No.	**Information Required**
16.	**Field ID:** The field identification symbol from a sketch map or aerial photo. Refer to the "Narrative."
17.	**Multi-Crop Code:** **PRELIMINARY AND FINAL:** The applicable two-digit code for first crop and second crop. REFER TO THE LAM FOR INSTRUCTIONS REGARDING ENTRY OF FIRST CROP AND SECOND CROP CODES.
18.	**Reported Acres:** In the event of over-reported acres, handle in accordance with the individual AIP's instructions. In the event of under-reported acres, enter the reported acres to tenths for the field or sub field. If there are no under-reported acres MAKE NO ENTRY.
19.	**Determined Acres:** Refer to the LAM for definition of acceptable determined acres used herein. Enter the determined acres to tenths for the field or subfield for which consent is given for other use and/or: a. Put to other use without consent; b. Abandoned; c. Damaged by uninsured causes; or d. For which the insured failed to provide acceptable records of production.

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

PRELIMINARY AND FINAL: Determined acres to tenths. Acreage breakdowns WITHIN a unit or field may be estimated (refer to the LAM) if a determination is impractical.

ACCOUNT FOR ALL PLANTED ACREAGE IN THE UNIT

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

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

Unrated land is uninsurable without a written agreement.

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

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

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

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

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

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

28. **Organic Practice:** Three-digit code number, entered exactly as specified on the actuarial documents for the organic practice carried out by the insured. If "No Organic Practice Specified" is shown in the actuarial documents, enter the appropriate three-digit code number from the actuarial documents (e.g., 997). If an organic practice is not specified on the actuarial documents, MAKE NO ENTRY.

29. **Stage:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Stage abbreviation as shown below.

STAGE	EXPLANATION
"P".	Acreage abandoned without consent, damaged solely by uninsured cause(s), put to other use without consent, or for which the insured failed to provide acceptable records of production to the AIP.
"H".	Harvested.
"UH".	Unharvested or put to other use WITH consent.

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

30. **Use of acreage:** Use the following "Intended Use" abbreviations.

USE	EXPLANATION
"To Millet," etc..	Other use made of the acreage
"WOC".	Other use without consent
"SU".	Solely uninsured
"ABA".	Abandoned without consent
"H".	Harvested
"UH".	Unharvested

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

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

31. **Appraised Potential:**

PRELIMINARY AND FINAL: Per-acre appraisal in whole pounds of POTENTIAL production for the acreage appraised as shown on the appraisal worksheet. Refer to section 6 "Appraisal Methods" for additional instructions.

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

32a-32b. MAKE NO ENTRY.

33. **Shell %, Factor, or Value:** MAKE NO ENTRY.

34. **Production Pre QA:**

PRELIMINARY AND FINAL: Result of multiplying column 31 times column 19, and multiplying this result times column 33, to whole pounds. If no entry in column 31, MAKE NO ENTRY.

35. **Quality Factor:** MAKE NO ENTRY.

36. **Production Post QA:**

PRELIMINARY AND FINAL: Result of multiplying column 34 times column 35, rounded to whole pounds. If no entry in column 35, transfer entry from column 34.

37. **Uninsured Causes:**

PRELIMINARY AND FINAL: 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. EXPLAIN IN THE NARRATIVE. If no uninsured causes, MAKE NO ENTRY.

a. Hail and Fire exclusion NOT in effect.

(1) Enter the result of multiplying column 19 entry by NOT LESS than the insured's production guarantee per acre in whole pounds for the line, (calculated by multiplying the elected coverage level percentage times the approved APH yield per acre shown on the APH form) for any "P" stage acreage.

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

(3) For acreage that is damaged PARTLY by uninsured causes, enter the result of multiplying the APPRAISED UNINSURED loss of production per acre in whole pounds, by column 19 entry for any such acreage.

b. The late planting provisions of the Basic Provisions are not applicable for sesame.

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

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

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

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

39. **Total:**

PRELIMINARY: MAKE NO ENTRY.

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

40. **Quality:**

PRELIMINARY AND FINAL: Check "None" (refer to the table below).

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

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

(1) Document the level for each qualifying QA condition as indicated by approved test results, and the name and location of each testing facility that verifies the presence of the qualifying QA condition and the date of the test(s); or

(2) Enter "See documentation included in the claim file" (e.g., include copy of the test facility certificate, grade certificate, summary or settlement sheet, etc., that documents the QA condition).

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

(1) A description of the qualifying QA condition;

(2) The name of the controlling authority that considers this qualifying QA condition to be injurious to human and animal health and why.

c. Check "None" if none of the production qualifies for QA.

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

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

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

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

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

d. If there is an appraisal in Section I, column 37 for uninsured causes due to a hail/fire exclusion, show the original hail/fire liability per acre and the hail/fire indemnity per acre.

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

f. State that there is "No other fire insurance" when fire damages or destroys the insured crop and it is determined that the insured has no other fire insurance. Refer to the LAM.

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

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

i. Explain any entry for "Production Not to Count" in Section II, column 62 and/or any production not included in Section II, column 56 or column 49 - 52 entries (e.g., harvested production from uninsured acreage that can be identified separately from the insured acreage in the unit).

j. Explain a "NO" checked in item 44, "Damage Similar to Other Farms in the Area."

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

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

(3) For unusual or controversial cases.

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

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

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

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

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

p. Document any authorized estimated acres, as instructed in the LAM, shown in Section I, column 19. Example: "Line 3 'E' acres authorized by the AIP MM/DD/YYYY."

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

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

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

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

SECTION II – DETERMINED HARVESTED PRODUCTION

GENERAL INFORMATION:

(1) Account for ALL HARVESTED PRODUCTION (for **ALL ENTITIES** sharing in the crop) except production appraised BEFORE harvest and shown in Section I because the quantity cannot be determined (e.g. released for other uses, etc.).

(2) Columns 49 through 52 are for structure measurements entries (Rectangular, Round, Square, **Conical Pile**, etc.). If structures are a combination of shapes, break into a series of average measurements, if possible. Enter "Odd Shape" if production is stored in an odd shaped structure. Document measurements on a Special Report or other worksheet used for this purpose.

(3) If farm-stored production has been weighed prior to storage and acceptable weight tickets are available showing gross weights, enter "Weighed and Stored On Farm" in columns 49 through 52 Refer to 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; i.e. 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.

Verify or make the following entries:

Item No.	**Information Required**
43.	**Date Harvest Completed: (Used to determine if there is a delayed notice or a delayed claim. Refer to the LAM.)** **PRELIMINARY:** MAKE NO ENTRY. **FINAL:** a. The earlier of the date the ENTIRE acreage on the unit was (1) harvested, (2) totally destroyed, (3) put to other use, (4) a combination of harvested, destroyed, or put to other use, or (5) the calendar date for the end of the insurance period. b. If at the time of final inspection (if prior to the end of the insurance period), there is any unharvested insured acreage remaining on the unit that the insured does not

intend to harvest, enter "**Incomplete.**"

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

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

44. **Damage Similar to Other Farms in the Area?:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Check "Yes" or "No." Check "Yes" if 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.

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

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

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

47b. **Field ID:**

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

b. If more than one practice and/or type of harvested production is listed in Section I, and a separate approved APH yield exists, indicate for each practice/type the corresponding Field ID (from Section I, column 16).

48. **Multi-Crop Code:** The applicable two-digit code for first crop and second crop. REFER TO THE LAM FOR INSTRUCTIONS REGARDING ENTRY OF FIRST CROP AND SECOND CROP CODES.

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

a. Length if rectangular or square.

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

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

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

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

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

54. **Conversion Factor:** Enter 36.2 as the conversion factor. (Standard weight of a bushel of field run sesame seed is 45 pounds. One bushel is 2,150.42 cubic inches. One cubic foot is 1,728 cubic inches. Factor = 1,728 / 2,150.42 * 45 = 36.2).

55. **Gross Prod.:** Multiply column 53 times column 54 and enter as whole pounds of field run sesame.

56. **Bu., Ton, Lbs., Cwt.:** Circle "Lbs" in the 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 Section 6E(2)(f)) to the gross weight of the sample.

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.

57 -60b. MAKE NO ENTRY.

61. **Adjusted Production:** Enter same number of whole pounds as in column 56.

62. **Prod. Not to Count:** 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).

THIS ENTRY MUST NEVER EXCEED PRODUCTION SHOWN ON THE SAME LINE. EXPLAIN THE TOTAL STORAGE STRUCTURE CONTENTS (storage structure sesame depth, etc.) AND ANY "PRODUCTION NOT TO COUNT" IN THE NARRATIVE.

63. **Production Pre-QA:** Result of subtracting the entry in column 62 from column 61 to whole pounds.

64a. **Value:** MAKE NO ENTRY

64b. **MKT Price:** Enter the base contract price per pound, in dollars and cents.

65. **Quality Factor:** Enter 1.000

66. **Production to Count:** Enter result from multiplying column 63 times column 65 **rounded to whole pounds.**

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

68. **Section II Total:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total of column 66 in whole pounds.

69. **Section I Total:**

PRELIMINARY: MAKE NO ENTRY.

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

70. **Unit Total:**

PRELIMINARY: MAKE NO ENTRY.

FINAL: Total of items 68 and 69, to whole pounds.

71. **Allocated Prod.:** Refer to the LAM paragraph 127 for instructions for determining allocated production. Enter the total production, rounded to whole pounds, allocated to this unit that is included in Sections I or II of the Production Worksheet. Document how allocated production was determined and record supporting calculations in the Narrative or on a Special Report.

72. **Total APH Prod.:** MAKE NO ENTRY

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

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

Final indemnity inspections and final replanting payment inspections should be signed on bottom line.

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

Final indemnity inspection and final replanting payment inspections should be signed on the bottom line.

75. **Page Numbers:**

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

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

PRODUCTION WORKSHEET

1. Crop/Code #	2. Unit #	3. Location Description				
Sesame 0396	0001-0001-xx	SE6-140N-50W				
4. Date(s) of Damage	AUG 10	OCT 1				
5. Cause(s) of Damage	HAIL	Freeze				
6. Insured Cause %	60	40				
12. Additional Units	0002-0002-xx	0003-0003-xx				
13. Est. Prod. Per Acre	1,100	1,500				

7. Company: ANY COMPANY
Agency: ANY AGENCY

8. Name of Insured: I.M. INSURED

9. Claim #	11. Crop Year		
XXXXXXXX	YYYY		
10. Policy #	XXXXXX		
14. Date(s) Notice of Loss	1st	2nd	Final
	MM/DD/YYYY	MM/DD/YYYY	MM/DD/YYYY
15. Companion Policy(s)	NONE		

SECTION I – DETERMINED ACREAGE APPRAISED, PRODUCTION AND ADJUSTMENTS

A. ACTUARIAL / B. POTENTIAL YIELD

16. Field ID	17. Multi-Crop Code	18. Reported Acres	19. Determined Acres	20. Interest or Share	21. Risk	22. Type	23. Class	24. Sub-Class	25. Intended Use	26. Irr Practice	27. Cropping Practice	28. Organic Practice	29. Stage	30. Use of Acreage	31. Appraised Potential	32a. Moisture % / 32b. Factor	33. Shell %, Factor, or Value	34. Production Pre QA	35. Quality Factor	36. Production Post QA	37. Uninsured Causes	38. Total to Count
A	NS		20.0	1.000		462					003		UH	UH	463			9,260		9,260		9,260
B	NS	13.0	12.5	1.000		462					003		H	H								
C	NS		25.0	1.000		462					002		UH	UH	471			11,775		11,775		11,775
		39. TOTAL	57.5												42. TOTALS			21,035		21,035		21,035

40. Quality: TW ☐ KD ☐ Aflatoxin ☐ Vomitoxin ☐ Fumonisin ☐ Garlicky ☐ Dark Roast ☐ Sclerotinia ☐ Ergoty ☐ CoFo ☐ Other ☒ None ☐
41. Mycotoxins exceed FDA, State or other health organization maximum limits? Yes ☐

NARRATIVE (If more space is needed, attach a Special Report): Field A and C from FSA permanent field measurements. Field B was wheel measured. 12,000 lbs harvested.

SECTION II – DETERMINED HARVESTED PRODUCTION

43. Date Harvest Completed	44. Damage similar to other farms in the area?	45. Assignment of Indemnity	46. Transfer of Right to Indemnity?
MM/DD/YYYY	Yes [X] No [ ]	Yes [ ] No [X]	Yes [ ] No [X]

A. MEASUREMENTS / B. GROSS PRODUCTION / C. ADJUSTMENTS TO HARVESTED PRODUCTION

47a. Share / 47b. Field ID	48. Multi-Crop Code	49. Length or Diameter	50. Width	51. Depth	52. Deduction	53. Net Cubic Feet	54. Conversion Factor	55. Gross Prod.	56. ~~Ctns~~ ~~Bu Ton~~ (Lbs.) ~~CWT~~	57. Shell/ Sugar Factor	58a. FM% / 58b. Factor	59a. Moisture % / 59b. Factor	60a. Test WT / 60b. Factor	61. Adjusted Production	62. Prod. Not to Count	63. Production Pre-QA	64a. Value / 64b. Mkt. Price	65. Quality Factor	66. Production to Count
	NS	ACME ELEVATOR Any Town, Any State							12,000					12,000		12,000	0.28	1.000	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.	

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

NOTES

10. REFERENCE MATERIAL

TABLE A - MINIMUM REPRESENTATIVE SAMPLE REQUIREMENTS

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

TABLE B – SAMPLE ROW LENGTH

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 bend out beyond the sample length. Branches of plants outside the sample area that bend into the sample area will not be counted.

ROW WIDTH	ROW LENGTH FOR 1/1000 ACRE
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 TABLE B, use the following formula:

$$\frac{43{,}560 \text{ sq. ft./acre} \div \frac{\text{row width in inches}}{12''}}{1000 \text{ ft.}}$$

EXAMPLE:

$$\frac{43{,}560 \text{ sq. ft./acre} \div \frac{25''}{12''}}{1000 \text{ ft.}} = \frac{43{,}560 \text{ sq. ft.} \div 2.083}{1000} = 20.9 \text{ ft. row length}$$

For double or other multiple rows, use as the row width the measurement from the center of one double row to the center of the next double row and then take all of the rows in the distance computed. For example, in double row 38s, use 13.8 feet of the double row as the sample.

TABLE C – PERCENT SURVIVING YIELD FROM SESAME STAND REDUCTION

Use **TABLE C** 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 Section 5E for instructions on determining phenotypes. A stand of 40 plants per 1/1000 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.

Table C – Yield surviving from sesame stand reduction

	Surviving stands per 1/1000 of an acre																			
Phenotype	≥ 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

TABLE D – PERCENT SURVIVING YIELD FROM SESAME DEFOLIATION AND GROWING POINT INTACT

Use **TABLE D** to determine the surviving yield from defoliation with the main stem growing point intact.

For % leaf loss, round off. For the lower two of the four numbers between two row headings, round down. For the higher two, round up.

Table D – Yield remaining from defoliation with main stem growing point intact.

	Growth stage					
% 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
	Factor for percent of yield remaining after defoliation loss					

TABLE E – PERCENT SURVIVING YIELD FROM SESAME DEFOLIATION AND GROWING POINT DAMAGED

Use **TABLE E** to determine the surviving yield from defoliation with the main stem growing point damaged.

For % leaf loss, round off. For the lower two of the four numbers between two row headings, round down. For the higher two, round up.

Table E – Yield remaining from defoliation with main stem growing point broken.

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

TABLE F – SEED WEIGHT PER CAPSULE

This table takes into account a 7% loss in potential yield due to weather during the drying phase and from combine header loss.

	Seed weight per capsule (grams)	
Plant genotype	**Irrigated**	**Non-Irrigated**
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