CHAPTER 3

THRESHER-RUN PEAS

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3.1 DEFINITIONS

Thresher-Run Dry Peas. Dry peas from which the dockage has not been removed.

Whole Dry Peas. Threshed seeds of the pea plant (Pisum sativum L.) and the winter field pea plant (Pisum sativum var. arvense (L.) Poir.) which after the removal of dockage, contain 50 percent or more of whole peas and not more than 10.0 percent of foreign material.

3.2 FACTORS AND FACTOR DESIGNATIONS

Thresher-run dry peas shall be inspected for factors only without reference to grade.

Thresher-run dry peas may be inspected for: class; defective peas and foreign material; dockage; color description; and moisture.

The factor designation for all classes of thresher-run peas may include the name of the class; percentage of dockage and type of sieve used in making the determination; the percentage of weevil-damaged peas, heat-damaged peas, damaged peas, other classes, bleached peas, split peas, shriveled peas, peas with cracked seedcoats, and foreign material, and the computed total percentage thereof; the color description; and the percentage of moisture.

3.3 WORK RECORD

Record the results of all tests and findings clearly and accurately on a laboratory ticket or similar form. This will be used as the source of the information reported on the inspection certificate. FGIS personnel shall use either form FGIS-981, "Pea and Lentil Laboratory Ticket" or form FGIS-982, "Pea and Lentil Sample Ticket." Cooperators shall use a similar form.

3.4 REPRESENTATIVE PORTION

A specified quantity of peas divided out from the representative sample by means of an FGIS approved device.

3.5 WORK SAMPLE

A representative portion of peas (approximate size - 1,000 grams) that is used to make all such determinations required for a particular class of peas.

3.6 FILE SAMPLE

a. A representative portion of peas (approximate size - 1,000 grams) that may be used in conjunction with the work sample, when needed. File samples may also be used for monitoring, retest, and appeal inspection purposes.

b. Retain file samples in appropriate containers for the required retention period. After maintaining for the required period, dispose of the file samples in accordance with established procedures. See FGIS Directive 9170.13, "Uniform File Sample Retention System," for additional information.

3.7 PERCENTAGES

a. Percentages are determined on the basis of weight and are rounded as follows:

(1) When the figure to be rounded is followed by a figure greater than or equal to 5, round to the next higher figure; e.g., report 6.36 as 6.4, 0.35 as 0.4, and 2.45 as 2.5.

(2) When the figure to be rounded is followed by a figure less than 5, retain the figure; e.g., report 8.34 as 8.3 and 1.22 as 1.2.

b. Record factor results to the nearest tenth percent.

3.8 LABORATORY SCALES

Weigh samples and portions of samples using the proper class of FGIS approved laboratory scales, and record the results to the correct division size. Use the following table to determine the scale class and division size required for weighing particular sized samples.

Table 1 - Laboratory Scales

Position Size	Scale Class	Maximum Division Size	Record Results to at Least the Nearest--
120 grams or less	Precision	0.01 gram	0.01 gram
Samples for moisture determinations	Precision or Moisture	0.1 gram	0.1 gram
More than 120 grams	Precision, Moisture, or General	1 gram	1 gram

NOTE: See Chapter 2 of the Equipment Handbook for additional information.

3.9 PRELIMINARY EXAMINATION

a. The sampler must observe the uniformity of the peas as to class, quality, and condition; make the determination for "Heating;" draw the representative sample and report relevant information to the inspector.

b. The inspector must review the sampler's remarks/information. If the inspector has questions or doubts the representativeness of the sample, he or she must contact the sampler and obtain the needed information or make arrangements to obtain another sample.

3.10 BASIS OF DETERMINATION

All factor determinations shall be made upon the basis of the dry peas after the removal of dockage with the following exceptions:

Dockage in thresher-run dry peas shall be determined upon the basis of the peas as sampled.

Color shall be determined after the removal of dockage, defective peas, and foreign material.

Defects in peas shall be scored in accordance with the order shown in section 868.402(d) and once an individual pea is scored in a defective category, it shall not be scored for any other defect. Percentages for all categories of defects shall be calculated on the basis of the total weight of the sample analyzed for defective peas.

NOTE 1: When peas that are offered for inspection as one lot are found to contain more than 10,000 containers or 1,000,000 pounds (bulk) of peas, the lot must be sampled on the basis of two or more (approximately) equal-sized sublots of 10,000 containers or 1,000,000 pounds or less. Inspect each sublot separately.

NOTE 2: When peas that are offered for inspection as one lot are subsequently found to contain portions that are distinctly different in quality or condition, the peas in each portion shall be inspected separately.

NOTE 3: Seed peas are not considered standardized peas and may, upon request, be inspected according to applicant specifications.

Follow a systematic factor examination procedure. The order of procedure may vary depending on the quality of the peas and the tests that are requested. A general order of procedure is as follows:

(1) Review the information on the sample ticket.

(2) Examine the representative sample for odor, broken glass, and metal fragments.

(3) Use an FGIS approved divider to process the representative sample into two representative portions: a work sample and a file sample.

NOTE: For specific information on the operation and maintenance of dividers, see Chapter 7 of the Equipment Handbook.

(4) Remove the dockage from the work sample.

(5) Examine the work sample for class and distinctly low quality.

(6) Upon request, determine or estimate the percent of small peas, split peas, or other material that comprise the dockage. When this breakdown is not requested, determine the percent of total dockage.

(7) Upon request, divide out a 250-gram portion from the dockage-free portion and determine the percent of moisture.

(8) Divide out another 250-gram portion from the dockage-free portion and determine the percent of defective peas, other classes, and foreign material.

(9) After removing the defective peas and foreign material from the portion, examine the portion for color.

3.11 TOTAL DOCKAGE, DEFECTS, AND FOREIGN MATERIAL

The percentage of total dockage, total defects, and foreign material shall be computed on the basis of the sample as a whole and be shown on the certificate as Total Dockage, Defects, and Foreign Material.

a. Compute the percent of total dockage, total defects, and foreign material as follows:

(1) Determine the weight of the work sample.

(2) Determine the weight of the dockage in the work sample (e.g., 120 grams).

(3) Calculate the percent of dockage (e.g., 120 g) 1000 g = 12 %).

(4) Calculate the percent of dockage-free peas (e.g., 100 % - 12 % = 88 %).

(5) Determine the weight of the defective peas and foreign material portion (e.g., 250 grams).

(6) Determine the weight of the defective peas and foreign material (e.g., 12.5 grams).

(7) Calculate the percentage of defective peas and foreign material (e.g., 12.5 g) 250 g = 5 %).

(8) Adjust the percentage of defective peas and foreign material by the base (e.g., 5 % x 88 % = 4.4 %).

(9) Calculate the percentage of total dockage, defects, and foreign material (e.g., 12 % + 4.4 % = 16.4 %).

b. Record the percent of "total dockage, defects, and foreign material" on the work record and the certificate to the nearest tenth percent.

3.12 MOISTURE

Water content in whole peas as determined by an approved device in accordance with procedures prescribed in the inspection handbook for dry peas, split peas, and lentils, and the Equipment Handbook. For the purpose of this paragraph, approved device shall include the Motomco Moisture Meter and any other equipment that is approved by the Administrator as giving equivalent results.

a. Upon request or when deemed necessary, determine moisture on a representative portion of exactly 250 grams of peas after the removal of dockage.

b. Refer to Chapter 5 of the Moisture Handbook for information about determining moisture using the Motomco Moisture Meter.

NOTE: If a representative portion of the original sample of thresher-run dry peas was not placed in a moisture-proof container at the time of sampling, promptly do so upon arrival at the laboratory. Seal the container with a friction or screw-top lid to preserve the moisture. The use of open containers, paper containers, and similar containers for holding moisture samples is prohibited.

c. Record the percent of moisture on the work record to the nearest tenth percent.

3.13 CLASS

Peas shall be divided into the following classes:

Smooth Green Dry Peas. Dry peas of the garden type which have smooth seedcoats and green cotyledons and contain not more than 1.5 percent of other classes.

Smooth Yellow Dry Peas. Dry peas of the garden type which have smooth seedcoats and yellow cotyledons and contain not more than 1.5 percent of other classes.

Wrinkled Dry Peas. Dry peas of the garden type which have wrinkled seedcoats and contain not more than 1.5 percent of other classes.

Winter Dry Peas. Dry peas of the winter field pea type which contain not more than 1.5 percent of other classes.

Miscellaneous Dry Peas. Dry peas that do not meet the criteria for any other class of dry peas and contain not more than 1.5 percent of other classes. (The grade limits for the factor Bleached peas shall not apply to Miscellaneous Dry peas, except for Marrowfat-type dry peas.)

Mixed Dry Peas. Any mixture that does not meet the requirements for the classes Smooth, Green, Smooth Yellow, Wrinkled, or Winter Dry peas; or any mixture of different types of Miscellaneous Dry peas.

NOTE: Thresher-run peas offered as "seed peas" shall be considered to be non-standardized peas. Do not identify "seed peas" by a class designation; instead show either "Peas" or "Seed Peas" on the certificate.

a. Class is usually determined by a cursory examination of the work sample as a whole.

b. When a detailed examination is necessary, make this determination on a representative portion of approximately 250 grams of dockage-free peas.

c. If the peas contain more than 1.5 percent of "other classes:"

(1) Record the percent of each class on the work record to the nearest tenth percent.

(2) Grade the peas "Mixed Dry Peas," and record the percent of each class of peas, to the nearest tenth percent, in order of predominance, on the gradeline of the certificate. (If more than two classes are present, show the percent of each class to the nearest tenth percent.)

3.14 ODOR

a. Determine odor on the basis of the lot as a whole or the representative sample as a whole.

(1) Off-odors (i.e., musty, sour, and commercially objectionable odors) are usually detected at the time of sampling.

(a) If there is any question as to the odor when the sample is being taken, put part of the sample into an airtight container to preserve its condition for further examination in the laboratory.

(b) Return the portion to the sample before other tests are made.

(2) A musty odor shall be any odor that is earthy, moldy, and ground-like. Do not confuse a burlap bag odor with a musty odor.

(3) A sour odor shall be any odor that is rancid, sharp, or acrid.

(4) A commercially objectionable odor shall be any odor that is not normal to dry peas and that, because of its presence, renders the dry peas unfit for normal commercial usage; e.g., animal hides, fertilizer, oil products, skunk, smoke, fire-burnt, and decaying animal and vegetable matter odors.

(5) Fumigant or insecticide odors are considered commercially objectionable odors if they linger and do not dissipate. When a sample of peas contains a fumigant or insecticide odor that prohibits a determination as to whether any other odor(s) exists, apply the following guidelines:

(a) Original Inspections. Allow the work portion to aerate in an open container for a period not to exceed 4 hours.

(b) Appeal and Board Appeal Inspections. Allow unworked file samples and new samples to aerate in an open container for a period not to exceed 4 hours. The 4-hour aeration requirement does not apply when the original work portion was aerated and retained as the final file.

(c) Final Action. Consider the sample as having a commercially objectionable odor if the fumigant or insecticide odor persists based on the above criteria.

b. When peas are determined to be musty, sour, or have a commercially objectionable odor, record the type of odor on the work record and in the Remarks section of the certificate.

3.15 HEATING

a. Determine heating on the basis of the lot as a whole.

(1) When high temperatures develop in dry peas as the result of excessive respiration, such peas are heating.

(2) Heating peas usually give off a sour or musty odor.

(3) Care should be taken never to confuse peas that are warm due to storage in bins, cars, or other containers during hot weather with peas that are heating from excessive respiration.

b. When applicable, show the term "Heating" on the work record and in the Remarks section of the certificate.

3.16 DOCKAGE

Dockage. Small, underdeveloped dry peas, pieces of dry peas, and all matter other than dry peas which can be removed readily by the use of an FGIS approved device.

a. Determine dockage on a representative portion of approximately 1,000 grams.

b. Remove the dockage from the peas by sieving the representative portion with the appropriate size sieve. For Mixed dry peas, use the sieve prescribed for the class of peas that predominates the mixture.

NOTE: If official personnel determine that the prescribed sieve removes too many small, fully developed peas (not screenings), the field office/Federal-State manager may allow them to use a slightly smaller sieve. Furthermore, if official personnel determine that the prescribed sieve allows too many underdeveloped peas to remain with the "clean" peas, the field office/Federal-State manager may allow them to use a slightly larger sieve. If the peas are offered for inspection as "seed peas," the applicant for inspection may specify the sieve size to be used.

Table 2 - Prescribed Sieves

Classes	Sieves
Winter Dry Peas	9/64" x 3/4"
Smooth Green Dry Peas	11/64" x 3/4"
Smooth Yellow Dry Peas	11/64" x 3/4"
Wrinkled Dry Peas	11/64" x 3/4"
Miscellaneous Dry Peas	Use appropriate size sieve

(1) Nest the sieve on top of a bottom pan.

(2) Place the sieve in a mechanical grain sizer so that the slotted perforations are parallel to the motion of the sizer and set the timer to 20.

(3) Put one-third of the representative portion in the center of the sieve and actuate the sizer.

NOTE: If a mechanical sizer is unavailable, hold the sieves and bottom pan level and, using a steady motion, move the sieves from right to left approximately 10 inches, and return from left to right to complete one sieving operation. Repeat this operation twenty times.

(4) Return the material remaining in the perforations of the sieve to the portion that remains on top of the sieve.

(5) Consider all material that passed through the sieve as dockage. Pick out large material, such as pods and stems, from the peas remaining on top of the sieve and add it to the dockage.

(6) Remove the dockage from the remainder of the representative portion in the same manner.

c. Record the percent of dockage, with the size of sieve(s) used in the determination, on the work record and the certificate to the nearest tenth percent.

d. Upon request, determine (by handpicking the entire separation) or estimate the percent of small peas, split peas, and other material that comprise the dockage; i.e., a dockage breakdown. The percent of grain in the "other material" dockage may also be estimated or determined.

(1) The breakdown of dockage may be estimated either by using hand sieves or by handpicking a representative portion of the dockage separation. Hand adjusting of the material through or over sieves is not required when the breakdown is estimated.

(2) Record the percent of small peas, split peas, and other material on the work record and the certificate to the nearest tenth percent. If an "estimated" dockage breakdown was performed, show the statement "Estimated using hand sieves" or, when handpicked, "(Estimated)" immediately following the results. When requested, record the percent of grain in the "other material" dockage on the work record and the certificate to the nearest whole percent, and show the following statement on the certificate "Other material includes (__) percent of grain."

3.17 DEFECTIVE PEAS

The categories of defective peas shall be weevil-damaged peas, heat-damaged peas, damaged peas, other classes, bleached peas, split peas, shriveled peas, and peas with cracked seedcoats.

The percentage of defective peas and foreign material shall be combined and shown on the certificate as Total Defects and Foreign Material.

a. Determine defective peas on a representative portion of approximately 250 grams of dockage-free peas.

b. Score defects in the following order: Weevil-damaged, heat-damaged, damaged, other classes, bleached peas, split peas, shriveled peas, and peas with cracked seedcoats.

(1) Once an individual pea is scored, do not score it for any other defect but retain it as part of the sample for purposes of determining the percentage of other defects in the sample.

(2) Record the percent of each type of defect on the work record and the certificate to the nearest tenth percent.

c. Add the percentages of each type of defect and record the total defective peas on the work record and the certificate to the nearest tenth percent.

d. Add the percent of total defective peas to the percent of foreign material and record the sum as "total defects and foreign material" on the work record and the certificate to the nearest tenth percent.

NOTE: For the classes of Smooth Seeded peas (but not "Seed Peas"), only the percentage of peas with cracked seedcoats in excess of 3.0 percent shall be included in the factor Total Defects and Foreign Material." (EXAMPLE: In a sample containing 3.2 percent of peas with cracked seedcoats, only 0.2 percent would be included in the Total Defects and Foreign Material.) For Seed Peas and Wrinkled peas, include all peas with cracked seedcoats with Total Defects and Foreign Material.

3.18 WEEVIL-DAMAGED PEAS

Weevil-Damaged Peas. Whole and pieces of dry peas which are distinctly damaged by the pea weevil or other insects.

a. Determine weevil-damaged peas on a representative portion of approximately 250 grams of dockage-free peas.

(1) Weevil-eaten damage. Peas which have been eaten by weevils to the extent that the peas are light in weight and can be removed readily from the sound peas in the processing plant by either a gravity machine or brine solution. (See Peas-1.6 Weevil Damage.)

(2) Pinhole damage.

(a) Peas which have been stung by the pea weevil or other insect, and the damage extends into the cotyledon. Peas that have been "marked" by insects, but where the sting does not penetrate the cotyledon, are not considered weevil-damaged peas.

(b) Peas containing dead larvae in which the cavities are small (e.g., about dull pencil lead size). (See Peas-1.6 Weevil Damage.)

NOTE: Any pea that contains or has contained a weevil or a larvae of the pea weevil is considered weevil-damaged.

(c) Upon request, show the percent of pinhole damage on the pan ticket and grade certificate. Many processors need this information because pinhole damaged peas cannot be removed in the normal cleaning operation.

b. Weevil-damaged peas are usually bleached in appearance and show a discoloration window which indicates the presence of larvae within the pea. There are two methods of determining weevil damage.

(1) Visual Examination.

(a) Examine each pea for evidence of weevil stings or boring.

(b) If a pea has been stung, cut the pea to determine the extent of the penetration.

(2) Brine Solution Test.

NOTE 1: Complete all other factor examinations before soaking the peas in a brine solution.

NOTE 2: This method is not satisfactory for wrinkled peas as the wrinkles form pockets which may cause many sound peas to float along with the weevil-damaged peas.

(a) Place a wire basket (a tube 6 inches wide by 7 inches deep with an eight-mesh-per-inch screen) in a stone jar. Fill the stone jar about half full of water and to this add calcium chloride until a specific gravity of 1.225 is reached.

(b) Pour the representative portion into the screen and stir so that all air pockets are eliminated.

(c) Use a tea strainer-type ladle to lift out the peas which float on top of the solution. Peas that float are normally weevil-damaged, but this should be confirmed by visual examination.

(d) Skim off the peas that float and thoroughly rinse them under running water.

(e) Partially dry the "floaters" on blotter trays. Then place the peas in heater trays (wire screens having 1/8 inch openings), set them in a heater/dryer until all the surface moisture has disappeared, and then visually examine to confirm weevil-damage.

c. Record the percent of weevil-damaged peas (total of those found by visual examination and by brine solution test) on the work record and the certificate to the nearest tenth percent.

3.19 HEAT-DAMAGED PEAS

Heat-Damaged Peas. Whole and pieces of dry peas which have been materially discolored as a result of heating.

a. Determine heat-damaged peas on a representative portion of approximately 250 grams of dockage-free peas.

b. Record the percent of heat-damaged peas on the work record and the certificate to the nearest tenth percent.

3.20 DAMAGED PEAS

Damaged Peas. Whole and pieces of dry peas which are distinctly: (1) Damaged by frost, weather, disease, heat (other than materially discolored as a result of heating), or other causes; and (2) soiled or stained by dirt (not applicable for the class Wrinkled Dry peas).

Damaged peas shall not include weevil-damaged peas or heat-damaged peas.

a. Determine damaged peas on a representative portion of approximately 250 grams of dockage-free peas.

b. The major types of damaged peas are as follows:

(1) Dirt and Grime Damaged Peas. Peas and pieces of peas with dirt or grime (including nightshade juice) adhering to the seedcoat equal to or greater than that shown on Peas-1.1 Damage (Dirt/Grime).

NOTE: Dirt and grime damage does not apply to the class Wrinkled Dry peas or Smooth Seeded peas grown for seed purposes.

(2) Frost Damaged Peas. Peas and pieces of peas which have been damaged by frost to the extent that the cotyledon has been discolored green with an area of coverage and intensity equal to or greater than shown on Peas-1.8 Frost Damage. Frost damage is indicated by the appearance of the whole pea; but the actual determination for damage shall be made on the basis of the opened pea.

(3) Mold Damaged Peas. Peas and pieces of peas which contain mold equal to or greater than that shown on Peas-1.4 Mold Damage. Mold may appear on or around the hilum, the surface, and/or the cotyledon. A pea that contains any mold on the cotyledon shall be considered damaged.

(4) Sprout Damaged Peas. Peas and pieces of peas which are sprouted in which the sprout is equal to or greater than that shown on Peas-1.5 Sprout Damage.

(5) Badly Shriveled Peas. Peas that are shriveled and discolored to a deep brown or reddish cast.

(6) Worm-Eaten or Worm-Cut Peas. Peas and pieces of peas which have been chewed by insect larvae. Not to be confused with weevil-bored peas containing insect webbing or filth. Any chewed pea is considered damaged.

(7) Chalky Peas. Peas that have a white spot on the surface of the cotyledon caused by unusual weather conditions, some harvesting practices, and/or Lygus bug stings. (Do not scrape the cotyledon of suspect peas, merely remove their seedcoats.) Chalky peas are considered damaged peas, not weevil-damaged peas. (See Peas/Split Peas-1.0 Damage (Chalky).

(8) Damaged by Heat. Peas that have been damaged by heat to the extent that the cotyledon has been discolored equal to or greater than that shown on Peas/Split Peas-1.3 Damage By Heat.

c. Record the percent of damaged peas on the work record and the certificate to the nearest tenth percent.

3.21 OTHER CLASSES

Other Classes. Whole and pieces of dry peas which are of a contrasting color or which differ materially in shape, or other characteristics from the predominating class; and in the case of Miscellaneous Dry peas, which differ from the predominating type.

a. Determine other classes on a representative portion of approximately 250 grams of dockage-free peas.

b. Mixed peas rarely appear on the market. Slight mixtures sometimes occur affecting the quality or grade of peas. This is especially true of peas of widely different types.

(1) Examples of mixtures of other classes are Smooth Green Dry Peas mixed with Smooth Yellow Dry Peas or vice versa.

(2) Wrinkled varieties found in smooth varieties always function as other classes even though the cotyledon and seedcoat may be the same color as the smooth peas. Conversely, smooth peas function as other classes when found in the wrinkled varieties.

c. Record the percent of other classes on the work record and the certificate to the nearest tenth percent.

3.22 BLEACHED PEAS

Bleached Peas. Whole and pieces of dry peas of green-colored varieties which are bleached distinctly yellow in color or peas of yellow-colored varieties which are bleached distinctly green in color. (NOTE: The grade limits for the factor Bleached peas shall not apply to Miscellaneous Dry peas, except for Marrowfat-type dry peas.)

a. Determine bleached peas on a representative portion of approximately 250 grams of dockage-free peas.

b. Bleached peas are usually caused by adverse weather conditions prior to and during harvest, or by storage.

c. Bleached Green peas are green colored varieties of peas with one-eighth or more of the surface distinctly bleached to a white or light creamy yellow color (see Peas/Split Peas-2.0 Bleached (Green Peas)). Bleached Yellow peas are yellow-colored varieties of peas with one-eighth or more of the surface distinctly bleached to a greenish color (Peas/Split Peas-2.1 Bleached (Yellow Peas)).

NOTE: To facilitate the determination of this factor, the seedcoat may be broken or removed to enable a better examination of the cotyledon.

d. Record the percent of Bleached peas on the work record and the certificate to the nearest tenth percent.

3.23 SPLIT PEAS

Split Peas. The halves or smaller pieces of dry peas and dry peas in which the halves are loosely held together.

a. Determine split peas on a representative portion of approximately 250 grams of dockage-free peas.

b. Record the percent of split peas on the work record and the certificate to the nearest tenth percent.

3.24 SHRIVELED PEAS

Shriveled Peas. Dry peas which are distinctly shriveled in contrast to the natural shape and appearance of normally developed peas.

a. Determine shriveled peas on a representative portion of approximately 250 grams of dockage-free peas.

b. Shriveled (smooth-type) peas are usually discolored, misshapen, deeply dimpled, and/or withered in appearance. (See Peas-5.0 Shriveled (Smooth).

c. Care should be taken not to confuse "normal" wrinkled peas for shriveled peas. Wrinkled peas are considered shriveled if they are either slightly shriveled and distinctly discolored (caramelized), or slightly discolored with severe dimpling in the seedcoat. (Peas-5.2 Shriveled (Wrinkled))

d. Record the percent of shriveled peas on the work record and the certificate to the nearest tenth percent.

3.25 PEAS WITH CRACKED SEEDCOATS

Peas with Cracked Seedcoats. Dry peas having readily discernible cracked seedcoats or peas which have all or a part of the seedcoat removed, and broken peas which are more than one-half of a whole pea.

NOTE: For the classes of Smoth Seeded peas (but not "Seed Peas"), only the percentage of peas with cracked seedcoats in excess of 3.0 percent shall be included in the factor "Total Defects and Foreign Material." (EXAMPLE: In a sample containing 3.2 percent of peas with cracked seedcoats, only 0.2 percent would be included in the Total Defects and Foreign Material.) For "Seed Peas" and Wrinkled Peas, include all peas with cracked seedcoats with Total Defects and Foreign Material.

a. Determine peas with cracked seedcoats on a representative portion of approximately 250 grams of dockage-free peas.

NOTE: When the brining method is used to determine weevil-damaged peas, do not use the brined portion to determine peas with cracked seedcoats.

b. Do not consider the peas to be "peas with cracked seedcoats" if the cracked seedcoats can only be detected by rubbing the peas between your fingers. Peas-3.0 Cracked Seed Coats

c. Record the percent of peas with cracked seedcoats on the work record and the certificate to the nearest tenth percent.

3.26 FOREIGN MATERIAL

Foreign Material. All matter other than dry peas, including detached seedcoats, which cannot be readily removed in the determination of dockage.

a. Determine foreign material on a representative portion of approximately 250 grams of dockage-free peas.

NOTE: Mud lumps or stones that are too large to pass through the sieve used in making the dockage determination should be handpicked from the peas and added to the dockage. Mud lumps or stones that are approximately the size and shape of peas should be considered foreign material.

b. Record the percent of foreign material on the work record and the certificate to the nearest tenth percent.

3.27 COLOR

Good Color Peas. Dry peas that in mass are practically free from discoloration and have the natural color and appearance characteristics of the predominating class.

Poor Color Peas. Dry peas that in mass are distinctly off-color from the characteristic color of the predominating class as a result of age or any other cause.

a. Determine color on a representative portion of approximately 250 grams after the removal of dockage, defective peas, and foreign material.

(1) Peas shall be considered as "poor color" if they are not of a good natural color or are stained to an extent that seriously affects the appearance of the lot.

(2) Peas that are discolored by dust or a slight amount of dirt, which can be removed by processing methods, shall not be considered as "poor color."

b. When thresher-run peas are determined to be other than "good color," record this information on the work record and in the Remarks section of the certificate.

3.28 BROKEN GLASS

a. Determine broken glass on the basis of the lot as a whole and/or the representative sample (before the removal of dockage) as a whole.

b. The presence of any broken glass (regardless of the size or amount) in the lot as a whole, work sample, or sample as a whole, shall be sufficient evidence of broken glass.

c. When applicable, show the term "Broken glass" on the work record and in the Remarks section of the certificate.

3.29 METAL FRAGMENTS

a. Determine metal fragments, such as metal filings or metal shavings, on the basis of the lot as a whole and/or the representative sample (before the removal of dockage) as a whole.

b. Sufficient evidence of metal fragments shall be:

(1) Two or more metal fragments in the lot as a whole or the work sample; or

(2) One metal fragment in the work sample and one or more in the file sample.

c. When applicable, show the term "Metal fragments" on the work record and in the Remarks section of the certificate.

3.30 DISTINCTLY LOW QUALITY

Distinctly Low Quality. Whole dry peas which are obviously of inferior quality because they are stained by an unknown foreign substance or because they otherwise contain a known toxic substance(s) or an unknown foreign substance(s) or because they are in an unusual state or condition, and which cannot be graded by use of the other grading factors provided in the standards.

a. Determine distinctly low quality on the basis of the dockage-free sample as a whole.

b. Peas that are obviously affected by unusual conditions which adversely affect the quality of the peas, such as animal excreta or other filth, unknown foreign substance, or treatment with a fungicide, shall be considered to be "distinctly low quality."

c. When applicable, show the statement "Distinctly low quality on account of (cause or reason)." on the work record and in the Remarks section of the certificate.

3.31 INTERPRETIVE LINE SLIDES

The interpretive line slides (ILS) system assists inspectors in making subjective grading decisions. This system consists of a portable tabletop transparency viewer and photographic slide transparencies. The viewer uses a precisely controlled light source of low intensity designed to provide a standard picture and to protect the slide. Therefore, only use the special viewer for ILS. Other light sources, such as a regular slide projector, may provide a distorted picture and damage the ILS. Use of such a projector is not prohibited; but, once used in this manner, the slides may not be used for official purposes.

Table 3
Currently Available Interpretive Line Slides

Peas/Split Peas-1.0 Damage (Chalky)
Peas-1.1 Damage (Dirt/Grime)
Peas/Split Peas-1.2 Heat Damage
Peas/Split Peas-1.3 Damage By Heat
Peas-1.4 Mold Damage
Peas-1.5 Sprout Damage
Peas-1.6 Weevil Damage
Split Peas-1.61 Weevil Damage (Cavity)
Peas-1.7 Weevil Damage (Sting)
Peas-1.8 Frost Damage
Peas/Split Peas-2.0 Bleached (Green Peas)
Peas/Split Peas-2.1 Bleached (Yellow Peas)
Peas-3.0 Cracked Seed Coats
Split Peas-4.0 Stained (Green)
Split Peas-4.1 Stained (Yellow)
Peas-5.0 Shriveled (Smooth)
Peas-5.2 Shriveled (Wrinkled)P
Peas-5.3 Bacterium Stain
Peas-5.4 Weather Damage