Question & Answer

April 20, 2016

BAR Decisions

Occasionally, questions regarding the interpretation or application of inspection policies and procedures arise due to the relative complexity or ambiguity involved. In such instances, GIPSA prepares and posts a coordinated response to provide clarity and promote uniformity in the understanding and application of policies and procedures. These responses are organized by the following categories:

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1. BARLEY

1. Is all barley considered Malting barley until some factor takes it out of malting?

ANSWER. No. Effective June 1, 1997, customers have the option of having their barley inspected as barley or malting barley for quality assessments. If not requested by the applicant it is graded under the barley class.

2. Do damaged Other Grains (OG) in a sample of Six-Rowed Malting/Blue Malting barley function as Damaged Kernels (total) (DKT) and OG? If so, are they scored against sound barley twice?

ANSWER. Damaged OG are scored against DKT and OG but scored only once against sound barley.

3. When loading a shipment of U.S. No. 2 or better Barley, do you have to analyze the percentage of Two and Six-Rowed barley?

ANSWER. No. If you can visually tell the class to properly analyze moisture.

4. Can germ damage be determined on a pearled portion?

ANSWER. Yes. Inspectors have found that pearling the DKT portion for approximately two seconds does not affect the assessment and dramatically reduces the analytical time.

5. What does hull-less barley function as?

ANSWER. The Barley Standards do not include hull-less barley in the definition of "Barley". Consequently, barley samples containing more than 50 percent hull-less barley are considered Not Standardized Grain. In samples containing less than 50 percent hull-less barley, distinguishable hull-less barley kernels function as other grains and are scored against sound barley.

6. When you have a mixture of White and Blue Aleurone barley, and they are difficult to tell apart, which kernel on the VRI do you use for heat damage and injured by heat?

ANSWER. If you can not tell whether the affected kernel is blue or white, use the White Aleurone barley kernel for determining heat damage and injured by heat. NOTE: Heat damage: The White Aleurone barley is the kernel on the right. Injured by heat: The White Aleurone barley is the kernel on the left.

7. Can the two second pearl for determining germ damage be based on a different 25 gram portion size?

ANSWER. No. Since damage is scored against sound, all factors which are scored against sound should be based on the same portion.

8. Can other types of damage, other than germ damage, be based on the two second pearl?

ANSWER. No. Germ damage is the only type of damage this method is currently approved for.

NOTE: Obviously, damaged kernels that are overlooked prior to pearling are to be included in the DKT assessment.

9. If germ damage is based on the two second pearl, what portion size is it based on?

ANSWER. Germ damage is based on the same 25 gram portion for sound barley, but the sample has to be reweighed after the two second pearl to determine the percent of germ damage.

10. Can heat damage ever exceed the DKT percentage?

ANSWER. No. Since heat and DKT are determined on different portion sizes it is possible to have heat exceed DKT. However, when this occurs, the DKT should be adjusted to equal heat.

11. Can sprout sockets be taken as damage?

ANSWER. Yes. Because the seedcoat covers the germ, sprout sockets are rarely seen in barley. When present, to determine if kernels with broken off sprouts or sprout sockets qualify for damage use VRI W-8.0, Sprout Damage.

12. If an applicant requests a sample to be graded as Malting barley, is their a qualifying statement required in the "remarks" section mentioning that the applicant stated that the barley is a suitable malting type?

ANSWER. No. However, upon request, the field office manager may approve a statement in the remarks section showing that the applicant states the barley is a suitable malting type.

13. Can sprout damage be determined on a pearled portion?

ANSWER. No.

14. If the germ area is completely covered by the hull, but has a protruding sprout, does it function as Skinned and Broken (SKBN), as well as damage?

ANSWER. No. Under current SKBN evaluation criteria, the hull covering the germ area must be loose, missing, or split to the extent the germ area is visible from the top. In this instance these criteria have not been met.

15. If a barley sample has a smutty odor, but is not smutty in appearance in mass or contains more than 0.20 percent smut balls, can it be graded as Malting barley?

ANSWER. Yes. A smutty odor does not make the special grade smutty.

16. When necessary, kernel texture is determined on a 50 gram portion on a "1/3 pearl." In some instances blue aleurone barley is not always 100% blue after pearling. Is there a minimum amount of blue required on the kernel after pearling to be considered blue?

ANSWER. No. Any amount of blue on the kernel after the "1/3 pearl" is considered blue aleurone barley when determining kernel texture.

17. The determination of stones is determined after the removal dockage. Does this mean that the weight of the dockage has to be subtracted from the original weight of the sample to calculate the percent of stones?

ANSWER. Yes. Since stones are determined on the weight of the sample after the removal of dockage the dockage weight has to be subtracted from the original weight to calculate the percent of stones. {(Example: Original weight-1033 grams, Dockage-32.48 grams), Dockage free sample weight = 1033 – 32 (32.48 rounded) = 1001 grams)}

2. CANOLA

1. Approximately how many grams would you need to run test weight in canola?

ANSWER. With dockage - 750 grams/Without dockage - 850 grams.

NOTE: Upon request, TW is determined after the removal of dockage and certified in whole and tenth pounds to the nearest tenth pound. Show the results in the remarks section of the certificate using an approved statement.

2. What percent of canola is required in the definition of canola to function as canola?

ANSWER. Current standards define canola based on erucic acid and glucosinolate content with no restrictions placed on the percentage of canola present in the sample. Until the standards are amended to address this issue, 50 percent or more whole canola seeds should be used as a general guide. Deviations may be approved on a case-by-case basis.

3. What do lambs quarters function as in canola?

ANSWER. Inconspicuous admixture.

4. If you analyze yellow, brown, or oriental mustard on the 00-Dip-Test will the Clinistix strip color be lighter or darker than the medium color on the color chart?

ANSWER. Darker.

5. The material passing through the No. 4 sieve is reclaimed using the .035 sieve, unless otherwise requested by the applicant. If the material which passes through the reclaimed sieve is more than 50 percent canola, is it still added to the machine dockage?

ANSWER. Yes.

6. What does bedstraw or pennycrest function as in canola?

ANSWER. Conspicuous Admixture.

7. In Canola and Mustard Seed you have to examine the material that passes over the No. 4 sieve for wheat, buckwheat, weed seeds, or similar foreign material. If present, use a round-hole sieve (5/64, 5.5/64, 6/64, 6.5/64, 7/64, or larger) as an aid in separating. In the Rapeseed directive, reclaiming the material over the No. 4 sieve is not addressed. Is this procedure applicable for Rapeseed?

ANSWER. Yes

8. Do all stones, ergot, and/or sclerotinia present in the sample function as Conspicuous Admixture?

ANSWER. No, only those that remain in the sample after the removal of the machine separated dockage which, if necessary, includes any dockage removed by the use of an appropriate hand sieve(s).

9. When hand sieving the material that passes over the No. 4 sieve one has to return the canola passing through and remaining on top of the round-hole sieve to the clean sample. When sieving the material that passes through the No. 4 sieve one has to return the material remaining on the slotted-hole sieve and in the perforations to the clean sample and the material passing through the slotted-hole sieve to the dockage. Do you have to hand adjust the canola that passes through the slotted-hole sieve and return it to the cleaned sample?

ANSWER. No. No hand adjustment is required for the material that passes through the slotted-hole sieve.

3. CORN

1. Is smut affected corn considered damage?

ANSWER. Since smut and mold are virtually indistinguishable smut affected kernels are considered mold damage if they meet VRI C-10.0 Surface Mold (Blight). If the smut penetrates the seedcoat and adheres to the "meat" of the kernel it is considered damage. Otherwise, it is considered sound.

2. Are stained corn kernels (other than flooding or fumigant) considered damage or unknown foreign substance?

ANSWER. Stained corn kernels are not considered unknown foreign substance but will function as mold damage provided the kernel is affected by the mold and meets the VRI C-10.0 Surface Mold (Blight).

NOTE: Stained corn kernels function as unknown foreign substance if it is known that the stain is caused by a fumigant.

3. What does the variety of corn produced by Pioneer which is smoky in color function as?

ANSWER. Corn of other colors.

4. Can applicants still request the breakdown for BCFM?

ANSWER. Yes. Mandatory requirements for individual components for BC and FM is no longer required as of December 30, 1992. However, applicants may request separate certification of these components for domestic and export shipments. Unless requested by the applicant, report and certify BCFM as a single factor on the work records and inspection certificates.

5. What does the variety of corn which is blue in color function as?

ANSWER. Not Standardized Grain (NSG). This variety is predominantly used in making blue corn chips and is typically a "flour" type corn which is not covered by the U.S. Corn Standards. The standards only pertain to shelled dent/flint corn. As NSG, blue corn kernels found in flint or dent corn function as foreign material.

6. Can an inspector scrape the seedcoat on heat damaged suspected kernels if the seedcoat is bleached and/or blistered and it is hard to determine the color of the band extending out of the germ and around the sides and back of the kernel?

ANSWER. Yes.

7. If corn has been discolored as a result of artificial drying, but the affected kernels do not meet the requirements of VRI C-5.0, "Drier-heat," can they be taken as heat damage if they meet VRI C-5.1 or C-5.2, Heat Damage White and Yellow corn, respectively?

ANSWER. No. It only functions as damage.

8. If a sample offered for inspection contains 100% Indian corn, should it be graded as Mixed corn since it functions as corn of other colors?

ANSWER. No. If a sample of corn contains more than 50% of Indian corn, it is graded as "Not Standardized Grain." If the Indian corn is 50% or less, it functions as corn of other colors.

9. How should a sample of corn containing 80% Yellow corn, 11% White corn, and 9% Indian corn be certified in the remarks section of the certificate?

ANSWER. When certifying Mixed corn, record the percentage of the mixture, in order of predominance, to the nearest tenth percent. In this instance, the mixture would certify as Yellow corn 80%, White corn 11%, and corn of other colors 9%.

10. Is corn that is fire burnt on the cob considered damage if only the crown is discolored?

ANSWER. Yes. Currently, there is not an visual reference image, but it is considered damaged if:

- 1. The complete crown is burnt (black); or
- 2. The crown is burnt, cracked open, and the starch shows a creamy discoloration.
- 11. What does Kernel Red Streak function as?

ANSWER. Corn of Other Colors, provided it meets the VRI requirements of O.F.-7.5 in Yellow corn and Mixed corn and O.F.-7.7 in White corn. A toxin secreted by the wheat curl mite is responsible for the development of the reddish to pink/purple streaks on the kernel pericarp. Kernel Red Streak is a cosmetic blemish and has no reported effect on the feeding value of affected corn. It occurs in Yellow and White Corn, with major differences occurring among hybrids in the amount and intensity of red streaking.

12. Can specialty corns such as high amylose corn and high oil corn be graded under the U. S. corn standards?

ANSWER: Yes. Currently, the only restriction placed on the inspection of specialty type corn pertains to varieties which have a blue, red, or purple pericarp. These types are inspected on a factor only basis according to Directive 9180.82, "Inspection of Specialty Type Corn."

13. If an applicant requests a review inspection for Heat Damage (HT) only what result is shown for Damaged Kernels (total)(DKT)?

ANSWER. Since HT is included in DKT and performed on the same portion a new analysis for HT and DKT would have to be performed. The new analysis for HT and DKT would supersede the previous result.

4. EDIBLE BEANS

1. How would beans that contain feed pellets be graded?

ANSWER. Consider identifiable feed pellets as foreign material. If the pellets can not be identified, consider them to be FSUB.

2. How would cowpeas function in a sample of Blackeye beans?

ANSWER. Cowpeas which differ in color, size, or shape from Blackeye beans would function as beans of a contrasting class. Cowpeas which are similar in color, size, and shape to the Blackeye beans would function as classes that blend.

3. What moisture chart should be used when grading Azuki Beans?

ANSWER. The moisture chart would be the Pea bean chart. Azuki beans would be graded as miscellaneous beans; however, if the applicant requests, Azuki beans can be shown on the grade line.

4. Can carrier identification numbers/symbols on submitted samples be used for submitted sample identification?

ANSWER. Yes, according to the FGIS Policy Bulletin Board dated April 30, 1993, FGIS will certificate the identification for submitted samples as provided by the applicant for service.

5. Can reduced portion size be used for a sample of edible beans made sample grade or substandard?

ANSWER. Yes.

6. How would a damaged Great Northern bean function in Pinto beans?

ANSWER. Damage and contrasting class.

7. Can an applicant have a review inspection (appeal or Board appeal) on a new sample for insect webbing or filth?

ANSWER. No, because these are considered a deleterious situation.

8. Can an applicant have a review inspection (appeal or Board appeal) on a new sample for the determination of weevily/sample grade due to clean-cut weevil-bored beans?

ANSWER. Yes, because these are not considered deleterious.

9. Can an applicant have a review inspection on an unworked file sample for the determination of weevily/Sample grade due to insect webbing or filth or clean-cut weevil-bored beans?

ANSWER. Yes, but unless there has been a material error made, it should be explained to the applicant that the review inspection of the unworked file sample will not remove the designation "Sample Grade."

10. When DKT is determined on a portion smaller than 500 grams, can defects (total) be determined on the small portion size?

ANSWER. No. The remaining factors that comprise defects (total) are still analyzed on the prescribed portion size.

11. How would a Pea bean covered by dirt (equal to or greater than the amount shown on VRI Bean 3.0 Dirt and Grime Affected) function in a sample of Pinto beans?

ANSWER. Contrasting classes and damage. Since the Pinto beans are the predominant class, the Pea bean would function as damage because of the dirt.

12. Can a factor only determination (e.g. damage) be done on a portion size smaller than the prescribed portion?

ANSWER. Yes, if there is insufficient beans to use the prescribed portion size, the factor may be determined in the amount available. This policy is only applicable for factor-only submitted sample inspections.

13. Are lupins graded as miscellaneous beans?

ANSWER. Lupins are not considered edible beans. Consequently, under the AMA, they are to be graded "Not Standardized Commodity." Moisture and other factors may be determined upon request.

14. What does bearing grease function as when found on edible beans?

ANSWER. Unknown Foreign Substance. If two or more beans are found in a 1000 gram work sample, make the sample U.S. Sample grade. Because the substance is not considered deleterious, the sample grade designation may be removed either on the basis of a new sample or review of the file sample.

15. Can a commonly accepted commercial name be used for all classes of beans?

ANSWER. Yes. Here are some examples:

CLASS	COMMON NAME
Black Beans	Black Turtle Soup Beans
Pea Beans	Navy Beans
Miscellaneous Beans (Garbanzo Beans)	Chickpeas

16. If a sample is made not well screened, are the small beans and/or foreign material put back into the work sample where they would function as damage or foreign material, if applicable?

ANSWER. Yes. After the determination of not well screened, recombine the work sample before determining the remaining grading factors.

17. If an inspector questions whether the edible beans offered for inspection are uniform in size, what sieve(s) should be used in the determination of "not well screened?"

ANSWER. Suppliers of pinto and small red beans reportedly use a 9/64 roundhole sieve to separate small, undesirable beans and assure delivery of a uniform product. In view of this accepted practice, use the 9/64 sieve in the assessment of "not well screened" in these and other similarly sized classes of beans. For those classes that are significantly larger or smaller in size, it is recommended that you contact a local/regional supplier to determine what sieve they commonly use for clean out purposes and use the same or similar sized sieve.

18. An external examination of a whole bean reveals no visible indication of insect damage. After opening the bean to investigate for possible internal damage, evidence of insect damage is found. Does the bean function as damage or sound?

ANSWER. Sound. Insect damage is determined before splitting.

Note: If after opening the bean, there is evidence of refuse, excreta, dead insects, or larvae, the bean would function as insect webbing or filth.

19. Do immature beans which have a green discoloration on the inside only (split) function as damage?

ANSWER. No.

20. Detached hulls in edible beans function as splits. If a detached hull has dirt attached to the seedcoat, does it function as foreign material, damage, or splits?

ANSWER. If the amount of dirt on the detached hull meets the dirt or grime VRI, it is considered damage, otherwise it would function as a split.

21. If a sample contains two clean cut weevil bored beans, two live weevils or other live insects, or two beans that contain insect webbing or filth, the sample is graded U.S. Sample grade. Does the same grade apply if it contains one live insect or one clean-cut weevil bored bean and one bean contaminated with insect webbing or filth?

ANSWER. Yes. In this instance, the sample would be considered DLQ.

22. Can the barley pearler be used as an aid in grading edible beans that are suspected of containing a notable amount of internal damage?

ANSWER. Yes. But all other factor determinations have to be determined before pearling. (Refer to SPB's memo dated 2/6/97).

23. Are beans considered damage if the sprout has been broken off or contains sprout sockets and are not otherwise damaged?

ANSWER. Yes. If the "socket" area is discernible and there is evidence of sprout in the sample.

24. How would a Pinto bean covered by dirt (equal to or greater than the amount shown on VRI Bean-9.1 Dirt and Grime Damage) function in a sample of Pea beans?

ANSWER. Contrasting classes and damage.

25. Should a sample of cowpeas be inspected under the Blackeye bean or Miscellaneous bean standards; or are they considered a Not standardized commodity?

ANSWER. Miscellaneous beans.

26. When analyzing edible beans, what do the empty bean pods function as?

ANSWER. Foreign material.

27. Can you apply a numerical grade for a sample less than 1000 grams?

ANSWER. Yes. For officially sampled lots, work portions should weigh at least 900 grams. However, for submitted samples, a minimum of 450 grams is required to apply a numerical grade. Submitted samples weighing less than 450 grams shall be restricted to a factor-only inspection.

28. The current definition of edible beans does not contain any language establishing a minimum percent of whole beans that must remain in the sample after the removal of dockage or a maximum limit for foreign material, as do other commodities. Does this mean that a sample may contain an unlimited amount of splits and FM and still meet the definition of "whole dry beans?"

ANSWER: Yes. According to the United States Standards for Beans, beans shall be dry threshed field and garden beans, whole, broken, and split, commonly used for edible purposes. The definition does not contain a percent maximum limit of split beans; therefore, a sample may contain large amounts and still meet the definition of beans. However, if the sample exceeds the percent maximum limit of FM, splits, or Total Defects, the sample would grade U.S. Substandard.

29. When grading a sample of mixed beans, should the tolerance for dirt and grime be applied to all classes of beans, including pea beans?

ANSWER. Yes. The exemption GIPSA granted regarding the application of dirt and grime only pertains to the class Pea beans.

30. When inspecting a sample of pea beans that contain Great Northern bean splits, do the splits function as contrasting classes as well as splits?

ANSWER. Yes, provided the splits are sound. If the splits are damaged, they would function as damage and contrasting classes.

31. What does Sclerotinia function as when found in edible beans?

ANSWER. Foreign material

32. Can small seeded Garbanzo beans be picked on a different portion size than large seeded Garbanzo beans?

ANSWER. Yes. Garbanzo beans are considered Miscellaneous beans and damage is based for a class of beans of similar size and shape. Large seeded Garbanzos-500 grams Small seeded Garbanzos-250 grams If a portion smaller than 500 grams is used for damage the remaining factors that comprise defects are still analyzed on the prescribed portion size.

33. Are Cranberry beans considered white/off white for the determination for dirt/grime and water blistered damage?

ANSWER. Yes, in most instances. Aging Cranberry beans are the exception and the resulting discoloration must be considered in these visual assessments. The natural aging process darkens these beans such that their color approaches that of the pinto bean. As the color of the bean darkens, inspectors should use their judgement in determining which of the illustrated beans to use a guide. In the case of water blistered, the degree of discoloration will dictate which of the illustrated pinto beans to use.

34. Are Blackeyes with different colored eyes and/or size separated as either contrasting classes or classes that blend?

ANSWER. No.

35. How should an edible bean sample that contains two insect bored beans, the cavities of which have been invaded by mold, be graded?

ANSWER. U.S. Sample grade. Technically, the beans in their present state do not meet the definition of clean cut weevil bored, the fact that the moldy condition occurred after-the-fact must not be ignored. As such, sufficient evidence is available to consider the beans infested/weevily.

36. Do edible beans, (usually Pea beans or Great Northerns) which have a purple discoloration on the seed coat, function as damage?

ANSWER. Yes. Inspectors should use VRI Bean-9.0, "Mold Damaged Beans" (lower right bean) for a minimum color/coverage requirement. If any amount of purple discoloration penetrates the seed coat or is present on an exposed part of the bean, it is considered damage.

37. What does acrylic function as when found in edible beans?

ANSWER. Unknown Foreign Substance (FSUB)

38. How would you grade Dehydrated Pinto Beans?

ANSWER. Dehydrated Pinto Beans are a processed commodity and as a result, would be certified as Dehydrated Pinto Beans.

39. What does green plant matter function as when found on edible beans?

ANSWER. Plant material adhering to the seed coat in an amount equal to or greater than shown on VRI-Bean 3.0, "Dirt and Grime" (Pea Beans) or VRI-Bean 3.1, "Dirt and Grime" (other than Pea Beans), is considered damage.

40. In some instances Edible Beans function as Damage and Contrasting Classes. When this occurs are they scored only once against Total Defects?

ANSWER. No. Since they must be included in the reported percentage of each individual factor and total defects represents the sum of damage, foreign material, splits, and contrasting classes, they are essentially scored twice in the calculation of total defects.

41. The Bean Inspection Handbook defines, in part, the insects which function as weevils in determining "weevily" beans. It states that "Other live insects" shall include beetles, moths, meal worms, and other insects injurious to stored peas. To further define "other insects injurious to stored peas" should we refer to the USDA-ARS, Agricultural Handbook 500, "Stored–Grain Insects?"

ANSWER. Yes. Two or more live insects make a sample "Weevily" and graded U.S. Sample grade. One can also view images of insects on the GIPSA website.

42. Sometimes when Black beans are split to examine for internal damage the cotyledons are discolored a black/blue/gray. Are they considered damaged?

ANSWER. No. Carrington Research Extension Center, Carrington, North Dakota has evaluated this condition for evidence of fungal/bacterial growth and concluded that the condition/discoloration is a result of the seed coat pigment bleeding into the cotyledon, possibly due to poor (high moisture) harvesting conditions.

43. Pea beans are similar in size to Adzuki, Black-eye, Black, Flat Small White, Pink, and Small White beans but damage is currently based on a different portion size. Damage for Pea beans is based on approximately 500 grams while the other classes listed are based on approximately 250 grams. The Inspection Handbook also states the amount used for Miscellaneous beans is based on the class of beans of similar size and shape. Since Pea Beans are of similar size and shape to the classes listed is it permissible to base damage and/or dirt/grime on approximately 250 grams for Pea beans?

ANSWER. Yes. But if Badly Damaged Beans are present damage should be based on 500 grams.

44. How do Black Kidney Beans function in Dark Red Kidney or Light Red Kidney Beans?

ANSWER. Contrasting Classes

45. Can Black Beans in which the seed coats are missing the black pigment (usually brown to maroon in color) be considered as damage or made DLQ?

ANSWER. No. While the beans may detract from the general appearance and would appear to be candidates for damage, the US Dry Bean Council has advised GIPSA that the condition is a sign of immaturity, and that due to the normally smaller size they can be easily cleaned out when processed. Thus, unless the beans are otherwise damaged, they are considered sound. And with the removal of color from the bean standards (2005), unless specifically requested by an applicant, color is no longer a relevant quality measure.

46. Badly damaged beans are applicable only to classes Large Lima, Baby Lima, Miscellaneous Beans and Pea Beans. When present, is the percent of badly damaged beans included in the damage bean percentage (thus included in Defects).

ANSWER: Yes

47. Are Pinto Beans with black streaks instead of the normal brown or mahogany red streaks considered as Contrasting Classes or Classes that Blend?

ANSWER: No. They are still certified as Pinto Beans.

48. The certification chapter (Chapter 4, dated 4/01/99) of the Bean Inspection Handbook still states that "Off-color" is a special grade. Is this correct?

ANSWER: No. In 2005 "Off-color" was eliminated as a special grade and is now only determined only upon request. This will be corrected when the chapter is updated.

49. In pea beans, the grading standard requires that the percentage of "Contrasting Classes" and "Foreign Material" be reported to the nearest hundredth percent for special grades "Choice Handpicked" and "Prime Handpicked." If the requirements for these special grades are not met, do you still record the percentage of CCL and FM to the nearest hundredth percent?

ANSWER: Yes, up to 0.04%. Pea Beans that contain 0.05 percent or more of contrasting classes and/or foreign material are certified to the nearest tenth percent.

50. When found in a sample, are clean-cut weevil bored beans and/or insect webbing and filth, which are determined on a count basis, to be included in the damage percent as well?

ANSWER. Yes, when found in the damage subportion. Remember, the minimum "basis of determination" for either condition is the 1,000 gram work sample. If only one affected bean is found in the work, the file must be reviewed for any additional contamination.

51. What does the presence of honeydew function as when found on edible beans?

ANSWER. Honeydew (a yellow/brown sticky substance secreted by an aphid) adhering to the seed coat in an amount equal to or greater than shown on VRI-Bean 3.0, "Dirt and Grime" (Pea Beans) or VRI-Bean 3.1, "Dirt and Grime" (Other than Pea Beans), is considered damage. Beans which contain a substantial amount of honeydew affected beans which are not considered damage should be graded Distinctly Low Quality.

52. Can Black Beans in which the seed coats are missing the black pigment (varies from purple, pink, brown, maroon to white in color) be considered as Contrasting Classes.

ANSWER. No. While the beans may detract from the general appearance and would appear to be candidates for contrasting classes, the US Dry Bean Council has advised GIPSA that the condition is a sign of immaturity, and that due to the normally smaller size they can be easily cleaned out when processed. With this in mind, remember that the standard's definition limits Contrasting Classes to "beans of other classes that are of a different color, size, or shape from the beans of the class designated." Color is not the single criterion to consider in this assessment. To function as contrasting classes, the bean first must be of another class. And with the removal of color from the bean standards (2005), unless specifically requested by an applicant, overall color is no longer a relevant quality measure.

53. What standards are Pinkeye beans graded under?

ANSWER. Blackeye beans. Refer to FGIS POLICY BULLETIN BOARD, Reference #193, dated February 27, 2001. It has been determined that Pinkeye beans are a Violeteye cowpea, and conform to the standards under Blackeye beans. To certify Pinkeye beans, use the term Blackeye beans on the grade line. If an applicant requests "Pinkeye beans" on the certificate, enter it in the remarks section.

54. Is mildew considered a surface mold and considered damage?

ANSWER. Yes. Mildew affected beans, except Garbanzo Beans, are considered mold damage if they meet VRI BEAN-9.0 Mold Damage. Mildew affected Garbanzo Beans are considered mold damage if they meet VRI BEAN-9.2 Surface Mold / Mildew (Garbanzo). Beans containing any amount of mildew on the cotyledon are damaged.

NOTE: This type of damage does not go into effect until the 2012 harvest.

5. FLAXSEED

1. What hand sieve is used to reclaim the flaxseed passing over the No. 7 sieve?

ANSWER. One can use either the $3/64 \times 11/32$ inch or a $3/64 \times 3/8$ inch oblong hole sieve. The $3/64 \times 11/32$ inch sieve is currently not available from Seedburo.

2. The determination of stones is determined after the removal of mechanically separated dockage. Does this mean that the weight of the mechanically separated dockage has to be subtracted from the original weight of the sample to calculate the percent of stones?

ANSWER. Yes. Since stones are determined on the weight of the sample after the removal of mechanically separated dockage (mdkg) the weight of the mdkg has to be subtracted from the original weight to calculate the percent of stones. {(Example: Original weight-1028 grams, Mechanically Separated Dockage-14.82 grams), Dockage free sample weight = 1028 – 15 (14.82 rounded) = 1013 grams)}

6. FSUB OR SAMPLE GRADE FACTORS

1. When feed grain is being exported to Mexico and green dye is applied to the grain, does the green dye function as FSUB when the treated grain is returned to the elevator and offered for the same export shipment?

ANSWER. No. Knowing the source of the substance and reasons for its application it is unnecessary to penalize the shipper at the time of the local transfer or reelevation and subsequent inspection NOTE: If the re-elevated grain containing green-dyed kernels is not intended for the export shipment from which it came, consider the green-dyed kernels as FSUB.

2. If a sample contains more than one sample grade odor which odor applies?

ANSWER. If more than one sample grade odor is detectable, report or certify all odors detected.

3. What does grain treated with Zeolite function as?

ANSWER. Distinctly low quality and graded U.S. Sample grade.

NOTE: Zeolite has been used in grain as a moisture absorbent in an attempt to lower the moisture level in newly harvested wheat. Like diatomaceous earth, Zeolite adheres to the grain and causes problems with test weight. Most of the substance is removed in dockage but some residue remains on the kernels and restricts grain flow and compaction resulting in lower test weight.

4. When determining sample grade, due to the presence of animal filth (count), do deer pellets function as the same as other types (e.g., rodent pellets, bird droppings) of animal filth?

ANSWER. No, because whole deer pellets are distinctly larger than rodent pellets or bird droppings, one or more deer pellets would make the sample distinctly low quality.

5. Is insect (e.g. grasshopper, cricket) excreta considered as animal filth? If not, should it be considered as part of the assessment criteria for Sample Grade/DLQ?

ANSWER. Insect excreta is not considered "animal filth." At present, animal filth is limited to bird/rodent excreta, deer/elk droppings, and the like. Currently in grain, insect excreta only functions as dockage or foreign material. However, in processed peas, edible beans, and lentils, if 2 or more insect excreta are found in the sample it is considered Sample grade/DLQ. Also, in edible beans, when 2 or more beans are found to contain insect excreta it is considered Sample grade due to "insect webbing or filth." 6. Occasionally, lots of grain (usually soybeans) contain feed pellets, and as a result, have a feed pellet odor. Is a sample containing a feed pellet odor considered okay or COFO?

ANSWER. Samples containing a strong (distinct) feed pellet odor are considered to have a commercially objectionable foreign odor.

NOTE: Samples containing a partial feed pellet odor, whereby the natural odor is not masked, are not considered to have a commercially objectionable foreign odor. Other degrading odors will be applied if present (i.e., musty, sour).

7. What does coal function as when found in a sample?

ANSWER. Unknown Foreign Substance (FSUB).

8. If grain is treated with ozone and the ozone odor is present at the time of inspection, how is the odor treated?

ANSWER. Commercially Objectionable Foreign Odor (COFO). Ozone is being touted as a fumigant alternative to control insects and/or mold inhibitor. In keeping with established fumigant/insecticide odor policy, let the sample sit out up to 4 hours before making the odor assessment. If the odor persists, apply the COFO odor; otherwise, consider it to be "OK".

9. Insect odors are considered either sour or musty. An acrid insect odor is referred to as a sour odor, an insect odor other than acrid is considered musty. Are certain insects associated with either sour or musty?

ANSWER. Weevil and lesser grain borer are referred to as acrid, as such, considered Sour. All other insects (i.e. bran bugs) are associated with a musty odor.

10. Is fertilizer in grain reported to Food and Drug Administration (FDA)?

ANSWER. No. Refer to FGIS POLICY BULLETIN BOARD, Reference #196, dated May 1, 2002. Directive 9060.2 outlines the guidelines for reporting actionable lots to FDA according to the established memorandum of understanding. In grain, fertilizer is considered an unknown foreign substance but this specific condition is not included in the directive. Currently, FDA does not have an established tolerance for fertilizer in grain. Do not report fertilizer in grain to FDA since this condition is not specifically addressed in the directive.

11. If an original inspection is sour but the review inspection is musty should one certify the review inspection as musty even though the change in odor would not change the grade?

ANSWER. If the review inspection has a distinct difference in odor, the review inspection result should be certified. This policy is applicable for reinspections,

appeals, and/or board appeals. It should be noted for factor-only review inspections that odor should always be checked even if the applicant did call the review inspection on account of odor. For example, if the applicant calls a factoronly board appeal on damage but the board appeal denotes a material error on odor the sample would be certified with the new damage and odor.

12. Are all officially sampled lots that are graded U.S. Sample Grade for factors that have a numerical limit automatically actionable under FDA and have to be reported to FDA?

ANSWER. No. (i.e. 4 or more treated seeds in 1000 grams for wheat is graded U.S. Sample Grade while the FDA limit is 20 or more treated seeds in 1000 grams before it is considered actionable and mandatory to report to FDA). Always check the FDA guideline limits before reporting an actionable lot.

NOTE: If a review inspection (reinspection, retest, appeal, or Board appeal) is performed on an actionable lot before the original result is reported and the review inspection result is no longer actionable, it is not necessary to contact FDA regarding either result. Submitted samples are not reported.

13. U. S. Sample Grade criteria which have a numerical limit for barley, canola, corn, flaxseed, mixed grain, oats, rye, sorghum, soybeans, sunflower seed, triticale and wheat are based on an established work portion as stated in the Grain Inspection Handbook, Book II. If a sample is graded sample grade on the original inspection, does this mean that the results from the original inspection are not carried over for the review inspection?

Answer. Yes. If a review inspection is called, one would not carry over the results from the original inspection. The work and file are independent of each other.

7. GENERAL

1. Can the special grade infested be added to or removed during a reinspection/ appeal (basis file sample), or Board appeal when the original sample was based on a probed sample?

ANSWER. If the sample is made infested during the original inspection, the infested designation cannot be eliminated on a worked or unworked file sample. If, however, the infested designation is not applied during the original inspection, the infested designation may be added during the review inspection process provided sufficient numbers are present in the file sample.

NOTE: If the reinspection or appeal is based on a new sample, the infested designation can be added or taken away depending on the number of insects found in the new sample.

2. Can the special grade infested be added or taken away on the reinspection, appeal, or Board appeal when the original sample was based on a diverter sample and examined under continuous loading?

ANSWER. The reinspection, appeal, and Board appeal result will follow the original result unless it can be determined that the sampler made a material error at the time of sampling.

NOTE: For land carriers and barges an applicant may request that a probe sample be obtained as part of the reinspection or appeal, and examined for condition factors (i.e., musty, sour, heating, infested) only. The review inspection certificate will continue to show the D/T as the "method of sampling" in the sampling block of the certificate. The D/T file sample will be used to determine the factor information and the probe sample to review the condition in question. When a probed sample is used for condition, use the approved statement listed in Book IV (Pages 3-18 or 3-20). This option does not apply to multiple grade inspection lots.

3. Can an applicant request a reinspection, appeal, or Board appeal on a worked file sample for objective factors, such as test weight, moisture, broken corn and foreign material, or dockage when there is not a virgin portion to analyze?

ANSWER. An applicant always has the right to request a review inspection, but the applicant should be made aware that the review inspection will not be based on a new portion, the results will be carried over from the preceding inspection if there was not a material error.

4. What is the standardized work portion for the grains under the United States Grain Standards Act (USGSA)?

ANSWER. The standardized portion for all grains should range from 1 1/8 to 1 1/4 quarts. When converted to grams the normal range would be the following:

GRAIN	RANGE	GRAIN	RANGE
Barley	850-950	Rye	1000-1050
Canola	500	Sorghum	1000-1050
Corn	1000-1050	Soybeans	1000-1050
Flaxseed	1000-1050	Sunflower Seed	500-600
Mixed Grain	Depends on Mixture	Triticale	1000-1050
Oats	700-750	Wheat	1000-1050

5. What are the DKT portion size tolerances for the grains under the USGSA?

GRAIN	FACTOR	GRAMS	RANGE
Derlov (DKT	25	22.5-27.5
Barley	HT	50	48.5-51.5
	ODK	10	
Canola	HT	5	
	DKG	5	
Corn -	DKT	250	225-275
Com	HT	250	225-275
Flaxseed	DKT	15	13.5-16.5
FlaxSeeu	HT	15	13.5-16.5
Mixed Grain	DKT	Depends on mixture	
	HT	Depends on mixture	
Ooto	DKT	30	27.0-33.0
Oats	HT	30	27.0-33.0
Due	DKT	15	13.5-16.5
Rye	HT	30	27.0-33.0
Sorahum	DKT	15	13.5-16.5
Sorghum	HT	30	27.0-33.0
Osukasus	DKT	125	112-138
Soybeans	HT	125	112-138
Supflower Sood	DST	30	28.5-31.5
Sunflower Seed	HT	30	28.5-31.5
Triticale	DKT	15	13.5-16.5
Triticale	HT	30	27.0-33.0
	DKT	15	13.5-16.5
	DKT	20	18.0-22.0 (DU-CuSum)
Wheat	HT	50	45-65.0
	HT	66	60.0-72.0 (DU-CuSum)

ANSWER:

6. Does the quality qualifier "Distinctly Low Quality (DLQ)" apply to submitted samples?

ANSWER. Yes. Remember, the determination may be made on the lot and/or sample as whole. In the case of a submitted sample, the sample functions as both. Consequently, if you have large debris or other unusual conditions present in a submitted sample, (i.e., conditions not listed in Book II, Table No. 5 - "U.S. Sample Grade Criteria"), it would grade DLQ.

7. Approximately how many beans/peas/lentils are found per 500 grams?

Beans/Peas/Lentils per 500 grams			
Lentils (standard)	9,200	Yelloweye Beans	2,000
Lentils (small seeded)	14,800	Pinto Beans	1,820
Split Peas	6,900	Pink Beans	1,815
Winter Peas	4,690	Great Northern Beans	1,620
Wrinkled Peas	3,170	Small Red Beans	2,500
Smooth Green Peas	2,900	Baby Lima Beans	1,430
Smooth Yellow Peas	2,470	Cranberry Beans	1,090
Mung Beans	10,490	Light Red Kidney Beans	1,040
Small White Beans	3,565	White Kidney Beans	1,000
Flat Small White Beans	3,200	Dark Red Kidney Beans	950
Pea Beans	2,825	Marrow Beans	930
Black Turtle Soup Beans	2,820	Large Lima Beans	480
Blackeye Beans	2,030		

ANSWER:

8. What is the approximate number of kernels per gram and the approximate number of kernels per damage work portion for the following grains?

GRAIN	KERNELS PER GRAM	KERNELS PER DAMAGE WORK PORTION	
Wheat	33.3*	499	
Corn	3.5	875	
Soybeans	7.5	938	
Sorghum	36	540	
Barley	28.8	720	
Sunflower Seeds	19.6	588	
Rye	40	600	
Flaxseed	193	2,895	
Oats	30	900	
Triticale	25.4	381	
*Wheat by class:	HRS/SRW	37/gram	
	HRW	31/gram	
	WHCB	29/gram	
	SWH/DU	25/gram	

ANSWER:

9. Table No. 4 on page 1-18 of the Grain Inspection Handbook, Book II, General Information (8/9/04) appears to establish a revised reporting requirement for portion size weights. Is this interpretation correct, or should we continue recording according to the earlier edition (1997)?

ANSWER. Table 4 is intended to reflect the division size and sensitivity requirements for new scales. Generally, the work portion and separation shall be weighed to the smallest division of the scale.

 Under the Cu-Sum loading plan individual results for Dark, Hard, and Vitreous (DHV) are recorded on the inspection log to the tenth of a percent and the shiplot average is recorded to the nearest whole percent. How would a sublot result of 68.49% be recorded as a sublot and the final average?

ANSWER. The sublot would be recorded as 68.5% and the shiplot average would be certified as 68.0%. To ensure that the calculating devise being used does not automatically round, it may be necessary to set the calculator to the floating mode. Finally, as a reminder, for single lot certification the result would be certified as 68.0.

11. Does the Carter-Day Dockage Tester have to be turned off between samples?

ANSWER. No. As stated in Reference # 177, dated August 11, 1999, it is permissible to allow the Carter Day Dockage Tester to remain running between samples but for checktesting purposes the dockage tester must be turned off between samples.

12. For the determination of Test Weight "sufficient size" is defined as being sufficient quantity to overflow the test weight kettle. Is there a minimum size in grams or tolerance for determining Test Weight?

ANSWER. Not really. Test weight is the weight of a measured volume of grain, not quantity/weight: higher test weight grain requires more grain by weight to overflow the kettle than lower test weight grain. It has also been demonstrated that the accuracy of test weight measurements is not necessarily dictated by the amount of grain overflowing the kettle, or that all sides overflow. What appears to be most important is that sufficient grain is available to create the coning effect or inverted V shape that technicians strike off in order to level the grain. The mounding of grain should be sufficient when there is at least some kettle overflow. As a rule -of-thumb, however, it is probably wise to continue using the 950-1050 gram guideline recommended for most grains.

13. For grain shipments to Egypt, we occasionally get requests to check for the presence of "iron filings." How are we defining iron filings; are there any special procedures that should be used; and how should they be treated?

ANSWER: Iron filings" are metal particles from various sources (e.g., farming machinery) that could possibly find their way into a grain sample. Since the particles could be of varying size, it will be necessary to use the sample as a whole as the basis for determination. For wheat samples, official personnel should check the dockage portion and the remainder of the dockage-free sample for metal particles.

Official personnel should perform the inspection for iron filings on the basis of a visual inspection process only. It is not necessary to magnetize grain picks or use magnifying lenses to identify "iron filings."

"Iron filings" should be treated as dockage or foreign material, and if a substantial amount of particles is found in a sample the sample/lot would be considered as DLQ and graded as U.S. Sample Grade. Record the count and weight of the iron filings on the work record and report the findings on the certificate according to the terms of the contract.

14. Can moisture be certified when results are outside of the GAC 2100 approved calibration range?

ANSWER. Yes. Refer to FGIS POLICY BULLETIN BOARD, Reference #225, dated January 8, 2010. When the moisture reading is outside the approved calibration range and a moisture result is displayed, another determination shall be made from the work sample or file. If the second determination is not outside the approved calibration range, record the second moisture result. Otherwise, the final moisture result shall be based on the average of the two determinations and rounded to the nearest 0.1% moisture.

In case of extreme moisture conditions the GAC instrument may not display a result, and will only show ** and Error 11. If this occurs and there are no results available to average, report the following statement in the remarks section of the certificate. "Moisture exceeds approved calibration range."

15. If a sample is submitted for grade and the sample contains lumps of grain which make the sample Distinctly Low Quality (DLQ) can the original inspector remove the lumps of grain and certify the sample without the lumps.

ANSWER. No. The sample submitted would grade DLQ. We can only issue the certificate on the sample as submitted. If the applicant wants to know the grade of the non-lumpy portion, they can remove the offending lumps and submit the lump free sample for grading.

16. If an applicant request a moisture only for a grain/commodity (ex. Triticale) which standards have been established but you do not have any inspectors licensed to grade that grain/commodity can one still perform the function?

ANSWER. Yes. A technician is licensed to perform moisture testing. This is applicable to all determinations made by the approved instrument. It is not limited to certain grains/commodities. A technician with the moisture function or a licensed inspector can perform a moisture for triticale. You should make it a "factor analysis only" and identify the grain as "Triticale" on the grade line with the words "grade and kind" crossed out. In the remarks section indicate "factor analysis only".

17. An applicant requested a review inspection for DKT only on a corn lot. The applicant asked why we also certified odor with a new result for the review inspection.

ANSWER. The BAR/GSL has a standard policy that all sample grade and special grade factors will be reviewed on all review inspections. If it is deemed a material error has been made for any sample grade or special grade determination from the previous inspection the new determination will be certified for the review inspection. All other grading factors are visually reviewed and if a material error has been made from the previous inspection the new grading factor will also be certified for the review inspection.

18. An applicant asked can different factors be requested for each type of review inspection.

ANSWER. Yes, as long as the factor was determined on the original inspection (ex. The original inspection for corn certified Test weight, moisture, Heat damage, damage kernels, and broken corn and foreign material. The reinspection was requested on test weight, the appeal inspection was requested on damage kernels and the board appeal was requested on moisture). Since all these factors were analyzed on the original inspection the different factor requests for all the review inspections is permissible. This is not considered a change in scope.

19. According to FGIS Directive, 9180.38, 5-26-09, Falling Number Determination for Wheat when reporting Falling Number results for AMA certification it states to describe the commodity as "Wheat." At the request of the applicant GIPSA will provide the Falling Number results in the "Results" section of the USGSA inspection certificate. When reporting Falling Number on an AMA certificate is it permissible to state the commodity class or subclass of the wheat instead of just "Wheat."

ANSWER. Yes. If the class or subclass has been determined, it is permissible to certify the class or subclass instead of "Wheat" as the commodity. Never show the numerical grade on the AMA certificate.

20. Currently there are Interpretive Line Prints (ILP) for wheat, soybeans, sorghum, oats, and lentils. In most cases, the handbook states to cut out approximately 400 grams from the original sample and pour the grain into the empty plastic box until the grain is level with the top of the box and place the ILP on the lid of the box for comparison. Seedboro has deleted the plastic box from their inventory. Since the box is no longer available is it still mandatory to use the box?

ANSWER. No. Since the box is no longer available it is not mandatory to use the box. This requirement will be corrected when the handbook is updated. When not using the box, compare the same amount of grain as shown on the ILP for comparison to determine if it meets the ILP.

8. LENTILS

1. When inspecting decorticated (i.e., seedcoat removed) lentils, do the lentil standards apply or are they considered a "Not Standardized Commodity?"

ANSWER. Decorticated lentils are a processed commodity and as a result, would be certified as Decorticated Lentils. Consequently, they may be inspected for quality factors (e.g., damaged kernels, skinned lentils, etc.), but not graded. Apply the same factor definitions and interpretations to decorticated lentils as are applied to unprocessed lentils.

2. Are insect chewed lentils considered as damage or weevil damage?

ANSWER. Damage. Care should be taken not to confuse with chipped/broken lentils.

3. Are lentils with a dark discolored seedcoat (commonly referred to as rust colored lentils) considered damage?

ANSWER. The condition which is created in storage (oxidation process) or as a result of high moisture lentils being exposed to the sun/heat and becoming "sunburned" is currently NOT considered damage.

NOTE: Do not confuse with Ascochyta blight.

4. If an applicant requests a determination of test weight, what procedure should be used?

ANSWER. Test weight determinations should be made before the removal of dockage on a representative portion of sufficient size to overflow the kettle and certified to the nearest tenth of a pound.

5. How would a lentil sample containing two dead insects grade?

ANSWER. Distinctly Low Quality. Sample Grade.

6. If you have a sample of lentils that contains obvious contrasting classes, can the sample be made Good color?

ANSWER. Yes, provided the overall color of the predominating and contrasting lentils are of a good natural color.

7. When using the Carter Dockage Tester to determine dockage in Thresher-Run Lentils, what does the material removed by air function as?

ANSWER. Dockage.

8. When processing Thresher-Run Lentils, the handbook states that the air should be set to 9. Is it permissible to run Thresher-Run Lentils with the air setting at 6?

ANSWER. Yes, depending on the model being used. The particular model will dictate the position at which maximum airflow is achieved. For example, with the XT-1, the setting may very well approach 9. For the XT-3, a setting of 6 offers maximum airflow. The important thing to remember is to use the setting that provides the greatest amount of air. Consult your local equipment specialist for guidance, if needed.

9. How do pods with lentils inside function in a thresher-run sample?

ANSWER. Dockage.

10. The chapter for Dockage-Free Lentils does not define the insects which function as weevils or other live insects injurious to stored lentils. Should the USDA-ARS, Agricultural Handbook 500, "Stored-Grain Insects," serve as a reference in making this determination?

ANSWER. Yes. If two or more live insects are found, consider the Lentils to be "U.S. Sample Grade." One can also view images of insects on the GIPSA website.

11. Rogue lentils currently only function as Inconspicuous Admixture when inspecting Dockage-Free Lentils. Since "rogue" lentils also meet the definition of Foreign Material should they also function as Foreign Material?

ANSWER. No. Packers, exporters, and end users do not view seeds that closely mimic the appearance of lentils, such as Vicia sativa (commomly known as vetch, mimics, or rogue lentils), as being as detrimental to quality as dockage or foreign material. Hence, the U.S. lentil industry feels that such seeds should not be considered as foreign material, but as a separate factor.

12. Are bag markings/ink stains considered damage in Lentils?

ANSWER. Yes. Use VRI-Len 1.8 (lentil on the left) for guidance. Dirt and grime damaged lentils include lentils and pieces of lentils with dirt or grime (including nightshade juice) adhering to the seed coat equal to or greater than shown. Since nightshade juice is in the definition, this interpretation also pertains to lentils with bag markings/ink stains on the seed coat. The discoloration appearing on larger/ smaller lentils should be proportional.

13. Can sieves be used as an aid when determining contrasting classes in lentils?

ANSWER. Yes. The mechanical separation must, however, be reviewed to determine whether any hand adjustment is needed to recover lentils that may have fallen through a sieve but do not meet the practical definition of contrasting lentils. Remember, "substantially different in size," as mentioned in the standard, is defined visually, not by any particular sieve size.

14. Individual factors/subfactors identified and considered in the assessment of "Defective Lentils" can only be scored once against the total and are scored in the following order: weevil-damaged, heat damaged, damaged, and split lentils. The handbook states that damaged contrasting lentils function as damaged lentils and contrasting lentils. Can a contrasting lentil also function as weevil damage, heat damage, split lentil or skinned lentil?

ANSWER: Yes. But keep in mind the restriction placed on the scoring of "defective" lentils. Contrasting lentils can also function as skinned lentils (no restriction), but can only be scored once against damage, weevil damage, heat damage, or split lentils.

15. In the Upper Midwest, lentils which have been handled through grain facilities are seeing an increase in very small broken pieces of lentils. It is very time consuming to hand separate the small pieces of lentils and lentil seed coats. Can substantially small pieces of lentils be sieved and function as foreign material instead of splits?

ANSWER. No. Industry is reluctant to support any change in the broad definition of splits at this time. Consequently, until current definitions for splits and foreign material are modified, small pieces of lentils function as splits, and small pieces of seed coats function as foreign material.

16. Is there any intention of making an Interpretive Line Print (ILP) for color for Crimson (red cotyledon) Lentils?

ANSWER. No. Industry feels that a separate ILP for Crimson Lentils is not necessary. It is up to the inspector's discretion and experience to use either the Pardina or the Regular lentil Interpretive Line Prints for color.

17. Does color apply to bleached out lentils?

ANSWER. Yes. After consultation with the Pea & Lentil Association, bleached out lentils do affect the marketing of lentils. It is up to the inspector's discretion and experience to use either the Pardina or Regular lentil Interpretive Line Print (ILP) for color. When comparing the bleached lentil sample to the prints one should compare the amount of bleached out lentils to the amount of oxidized lentils, but the intensity only needs to contrast to the normal lentil color.

18. The current ILPs for non-uniform lentils show the amount and intensity of discolored lentils needed in a sample to affect color. Can the intensity of the discolored lentils be lighter than shown?

ANSWER. Yes. After consultation with the Pea & Lentils Association, they agreed that the amount of discolored lentils as shown is required but the intensity of the discolored lentils can be lighter if the lentils contrast with the remainder of the sample.

9. MIXED GRAIN

1. Can the percentage of FM and fines and the percentage of each kind of grain exceed 100 percent?

ANSWER. Yes, because the basis of determination requires that the percentage of grains comprising the mixture be made on a representative portion after the removal of FM and fines. Record the percentage of FM and fines and each kind of grain to the nearest whole percent.

2. Is it permissible to analyze protein for Mixed Grain when wheat is the predominant grain in the official system?

ANSWER: No. Protein is not allowed under the official system for Mixed Grain no matter what grain predominates.

3. The grade chart for Mixed Grain does not list moisture as a sample grade factor when the moisture exceeds 16.0 percent. Is this correct?

ANSWER. No. This was an oversight and will be corrected in the next printing for Mixed Grain. Under Section 6.10, Moisture, Certification, Mixed grain containing more than 16.0% moisture is graded U.S. Sample Grade.

10. OATS

1. What do hull-less oats function as?

ANSWER. Technically, because the U.S. Standards for oats do not include hulless oats (Avina nuda) in the definition of oats or "other grains," they function as foreign material. As a practical matter, however, the absence of any distinguishing physical characteristics prevents inspectors from differentiating hulless oat groats from dehulled common oat groats. Thus, it is impractical for inspectors to include hulless oats in reported FM percentages. In response to industry concern over possible blending of hulless oats or presence of excessive dehulled oats, inspectors may, upon request, include the following statement in the remarks section of the certificate: "Sample contains _____ % dehulled oats."

2. Are discolored oat groats caused by weathering or frost considering damage?

ANSWER. No, current visual references/standards address discolorations associated with heating/respiration (O-2.0/3.0) and badly ground or weather conditions (O-1.0). Unless the discoloration of the groat meets the minimum criteria of one of these slides, the oat is considered sound.

3. Can sprout sockets be taken as damage?

ANSWER. Yes. Although rarely seen, when sufficient evidence is present to suggest germination (sprouting) has occurred, whether the sprout is present or not (broken off), the oat groat is considered damaged.

4. Do the U.S. Standards for Oats include Black Oats?

ANSWER. No. The standards only cover the white, yellow, and red oats. As such, a sample of Black oats (Avena strigosa) would be certified "Not Standardized Grain." If found in a sample of white or red oats, black oats function as Foreign Material.

5. If a sample of oats contains heat-damaged wheat, does the heat-damaged wheat function as Heat Damage and Other Grains, whereby it would be deducted twice in the determination of sound oats?

ANSWER. Only heat damage; the percentage of "other grains" is only to include the sound or otherwise damaged other grains (e.g., mold, damaged-by-heat, sprout, etc.) present in the sample. This approach takes into account critical grade determining factor information without imposing unnecessary and excessive deductions.

6. Can a sample of oat groats, not hull-less oats, be graded under the Oat standards?

ANSWER. Yes

11. OTHER FACTORS

1. Do broken pieces of animal filth function as a whole animal filth when determining count?

ANSWER. Distinguishable broken pieces of animal filth are considered as whole for count purposes.

2. What are the requirements for a cocklebur to function as cocklebur?

ANSWER. Common bur of thorn-like seeds appearing in grain (i.e., cocklebur, yellow star, thistle, starbur, sandbur, etc.) which are of any size and have at least one hard and sharp barb.

3. If anhydrous ammonia is applied to cool off grain when a hot spot is found, can the sample be downgraded?

ANSWER. If the sample has an obvious odor, make it COFO. If the grain is also affected by color and appearance, it can be made distinctly low quality (DLQ).

4. What do pieces of suspected fertilizer smaller in size than shown on OF-31 or pulverized pellets of suspected fertilizer function as?

ANSWER. Distinguishable broken fertilizer pellets function as whole fertilized pellets for count purposes. (Discontinue use of or reference to OF-31).

5. What do Pelletized Chicken Manure pellets function as?

ANSWER. If it is known that the pellet(s) is comprised of chicken manure, it functions as Unknown Foreign Substance (FSUB).

6. When inspecting thresher-run or field-run pulses, is it required, under the FGIS-FDA Memorandum of Understanding, to report lots that contain animal excreta?

ANSWER. Thresher-run or field-run pulses are raw agricultural products that typically undergo further processing (cleaning). As such, it is generally not necessary to report such occurrences to the FDA. However, FDA would like to have extreme cases reported so they can handle them on a case-by-case basis. FDA has defined extreme as being severe enough, in the inspector's judgment, that normal processing procedures would not successfully remove the excreta.

12. PEAS

1. How would a pea sample containing two dead insects grade?

ANSWER. In whole dry peas, dead insects function as foreign material and, when found in the cavity of a pea, cause the pea to be considered weevil damage. According to industry, because whole peas are typically subjected to further processing, dead insects should be excluded from the definition of "animal excreta or other filth" as it relates to the application of Distinctly Low Quality. Thus, two dead insects would have no effect on the overall quality of the peas.

2. Occasionally, Smooth Yellow Dry peas have a growth stress crack which is usually tight and next to the hilum. Do they function as cracked seedcoats?

ANSWER. Yes.

3. If an applicant requests a determination of test weight, what procedure should be used?

ANSWER. Test weight determinations should be made before the removal of dockage on a representative portion of sufficient size to overflow the kettle and certified to the nearest tenth of a pound.

4. What moisture chart is used for Marrowfat Peas?

ANSWER. Smooth Green Dry Peas.

5. How do pods with peas inside function in a thresher-run sample?

ANSWER. Dockage.

6. What does whole Marrowfat Peas function as when found in whole Smooth Green Dry Peas?

ANSWER. Other Classes. However, if you exceed 1.5% the class becomes Mixed Dry Peas. When this occurs record the percent of each class of peas, to the nearest whole percent, in order of predominance, on the grade line of the certificate. If more than two classes are present, show the percent of each class to the nearest tenth percent. 7. Are fall planted pea varieties, which appear similar in color (i.e., Whistler, Specter) to Smooth Yellow Dry Peas (SYDP), classed as Mottled Dry Peas?

ANSWER. No. Peas similar in color to SYDP are classed as SYDP. In an effort to preserve class purity and permit new and future winter dry pea releases to be certified as being Smooth Yellow or Smooth Green Dry Peas, GIPSA reviewed the current marketing standards, identified the restrictive language, and rephrased the definitions to be more inclusive. The class Mottled Dry Peas are dry peas of Austrian winter pea type and other peas which have colored or distinctively mottled seed coats which contain not more than 1.5 percent of other classes. NOTE: The factor, "Bleached Peas" is not a grading factor for the class Mottled Dry Peas.

8. The chapter for Dockage-Free Peas defines, in part, the insects which function as weevils in the determination for insect infestation. It states that "Other live insects" shall include beetles, moths, meal worms, and other insects injurious to stored peas. To further define "other insects injurious to stored peas" should we refer to the USDA-ARS, Agricultural Handbook 500, "Stored– Grain Insects?"

ANSWER. Yes. If two or more live insects are found, consider the peas to be "U.S. Sample Grade." One can also view images of insects on the GIPSA website.

9. Are bag markings/ink stains considered damage in Peas?

ANSWER. Yes. Use VRI-Peas 1.1, Pea A for guidance. Dirt and grime damaged peas include peas and pieces of peas with dirt or grime (including nightshade juice) adhering to the seed coat equal to or greater than shown. Since nightshade juice is in the definition, this interpretation also pertains to peas with bag markings/ ink stains on the seed coat. The discoloration appearing on larger/smaller peas should be proportional.

10. The Grades and Grades Requirement Chart for dockage-free peas (standards and handbook) contains a footnote stating that the grade limits for bleached peas do not apply to Winter Field and Wrinkled peas. With the exception of Marrowfat peas, shouldn't the footnote also apply to Miscellaneous peas?

ANSWER. Yes. The standards definition for Miscellaneous peas contains a qualifying statement stipulating that the factor limits for bleached peas only apply to Marrowfat-type dry peas.

11. When certifying Mixed peas, how should the percentage of each class be reported on the certificate (the handbook is indecisive: stating nearest whole percent in one instance; nearest tenth percent the next)?

ANSWER. To the nearest tenth percent.

12. In case of Mixed Peas are bleached peas still applicable as a grading factor?

ANSWER. Yes. Mixtures involving Smooth Green Dry Peas and Smooth Yellow Dry Peas, for example, will require the use of two different Visual Reference Images.

13. Do kernels of corn function as Dockage or Foreign Material in Thresher Run Peas?

ANSWER. Foreign Material. Processors state that corn is difficult to remove in processing peas. Corn that remains on top of the hand sieves when determining dockage is considered foreign material and corn passing through the sieve is dockage.

14. In the Upper Midwest, peas which have been handled through grain facilities are seeing an increase in very small broken pieces of peas. It is very time consuming to hand separate the small pieces of peas and pea seed coats. Can substantially small pieces of peas be sieved and function as foreign material instead of splits?

ANSWER. No. Industry is reluctant to support any change in the broad definition of splits at this time. Consequently, until current definitions for splits and foreign material are modified, small pieces of peas function as splits, and small pieces of seed coats function as foreign material.

15. Occasionally, whole peas are dried in a grain drier to decrease moisture. Should the sample be downgraded on odor?

ANSWER. No. The grades committee of the Pea & Lentil Association agreed that a light drier odor is not considered an objectionable odor.

NOTE: If the drier odor creates a strong odor which resembles a moldy or basement odor, the sample should be made "Musty." If the drier odor creates a smoke odor, the sample should be made "Commercially Objectionable Foreign Odor (Cofo)."

13. RICE

1. When processing a Rough rice sample, is it mandatory to clean the sieves after every sample?

ANSWER. Yes, according to the Rice Inspection Handbook, all rice remaining in the sieve is to be added to the clean sample.

2. When determining milling yield, is it necessary to return the portion used in the determination of whole kernels back to the remainder of the sample before running the sample over the No. 6 plates?

ANSWER. No.

3. When processing Rough rice, is it required to run all samples over the two No. 6 plates after the determination of whole kernels?

ANSWER. Yes, the plates are used to separate out the whole and large broken kernels (refer to Rice Inspection Handbook, Section 3.11 [a] [11]).

4. Does the material removed by the No. 6 plate have to be hand adjusted?

ANSWER. No, hand adjusting the No. 6 plate or sieve is not required for Rough rice.

5. Occasionally, rice contracts limit the amount of heat damage/damage-by-heat. In these instances, does parboiled rice in non-parboiled rice function as heat damage or damage-by-heat?

ANSWER. Only if the color intensity meets the requirements depicted in the respective ILP. Regardless, it will function as damage.

6. How would a sample containing 39% paddy kernels and 61% milled rice be classified?

ANSWER. Since this mixture does not meet the definition for rough, brown, or milled rice, it would be considered Not Standardized rice.

7. The rice inspection handbook indicates that milled rice samples containing small stones may be considered "Distinctly Low Quality," depending on the quantity found and whether the condition adversely affects the overall quality. Are inspectors to base this decision on a count or percent by weight basis? And is there an established threshold?

ANSWER. On a weight basis. According to the FDA Memorandum of Understanding, milled and brown rice is considered actionable if stones constitute more than 0.1 percent by weight.

8. How does extruded rice function when found in Milled Rice?

ANSWER. Foreign Material. All matter other than rice and seeds. Hulls, germs, and bran which have separated from the kernels of rice shall be considered foreign material. If the amount of foreign material exceeds 0.1% the sample is considered U.S. Sample Grade.

Vitamin and mineral deficiencies affect more than 50% of the world population. One example of extruded rice is converting broken rice kernels into a molded rice kernel and fortifying it with iron, zinc, vitamin A, and other micronutrients. Another example of extruded rice is made from wheat and corn.

9. Does Brown Rice function as a Paddy when found in Milled Rice?

ANSWER. Yes. The definition of Paddy kernels in the Standards state: Paddy kernels are whole or broken unhulled kernels of rice; whole or broken kernels of brown rice; and whole or broken kernels of milled rice having a portion or portions of the hull remaining which cover one-eighth (1/8) or more of the whole or broken kernel.

10. Does cold mold only function as damage?

ANSWER. "Cold mold" would generally function as damage; however, if the color intensity meets or exceeds that depicted in VRI R-2.0, Heat Damage, it would function as heat damage.

Cold mold are kernels discolored by a storage fungi. Cold mold ranges from a light to dark amber/brown in color and can be distinguished from other types of damage or heat damage by its translucent appearance. While heat damage is generally associated with increased grain temperature, research shows this condition can occur in the absence of any measurable temperature increases. In fact, researchers have found a "significant correlation between the percentage of heat-damaged rice in experimental storage and an increase in storage fungi. Consumers would find materially discolored "cold mold" damaged kernels as objectionable as traditional heat-damaged kernels. For these reasons, such kernels, regardless of cause, are to be considered heat damage.

11. Is it permissible to use a wire mesh sieve to aid in hand-adjusting 4/6 sieve material?

ANSWER. Yes. The No. 12 or 14 mesh sieve improves the hand-adjusting for 6 sieve material. The No. 20 wire mesh sieve improves the hand-adjusting for 4 sieve material. Standards and Procedures Branch will incorporate the use of these sieves (12/14/20) as an aid in separating 4/6 sieve material in the next revision of the rice inspection handbook.

12. How is rough rice graded when after milling the sample has an overall yellowish cast (caused by fermentation)?

ANSWER. Since the overall appearance is such that the color can not be considered white or creamy and because the color is not slightly gray (permitted in U.S. No. 2) the sample would grade a U.S. No. 3. As such, in rough and milled rice, U.S. Nos. 3, 4, 5, 6, can have a yellowish discoloration. The following statement should be shown in the remarks section of the certificate: "This rice does not meet the color requirements for U.S. No. 1 or 2 (Rough/Milled) Rice.

13. Is mold in rice considered damaged?

ANSWER. Yes. Mold is defined as a "fungus growth" and the Rice Inspection Handbook defines fungus-damaged as "…kernels of rice that have one or more black, brown, red, or other discolored spots or areas on them caused by fungus growth…," therefore, we will treat mold as fungus-damaged.

14. How does false smut affect the grade in Milled rice?

ANSWER. If a Milled rice sample appears any color other than white or creamy, it shall receive a grade no higher than a U.S. No. 3. A statement should be placed in the remarks section of the certificate stating, "This rice does not meet the color requirements for U.S. No. 1 or 2 (Rough/Milled) rice."

In most instances smut-affected rough rice kernels are removed during the cleaning process; however, there is a possibility that contaminated kernels could make it past the cleaners. In this instance, according to industry sources, the overall color of milled rice may be impacted with as little as 0.2% or more contaminated kernels making its way through the cleaning process. When this occurs, it is possible for the overall color to change from the desired white or creamy to a slight tinge of green. For inspection purposes, the slight discoloration caused by false smut is a "color" issue.

15. How is Black rice graded?

ANSWER. Our current color standards and policy guidelines require that Black rice be graded a U.S. No. 5, due to its rosy color.

Black rice typically has a deep purple to black bran color and a purple to "rosy" colored appearance once the bran has been removed. The standards limit the grade that may be applied to any rice having a color other than white or creamy, especially one that mimics a color intensity with known marketing standards. If the Black rice color appears "rosy" it should receive a grade designation consistent with that color (i.e., U.S. No. 5). Should the milled rice offered for inspection take on a different appearance, one that is not addressed in the standards or included in established ILPs, instruct inspectors to grade the rice U.S. No. 3 and include the statement "This rice does not meet the color requirements for U.S. No. 1 or 2 (Rough/Milled) rice," in the remarks section of the certificate.

16. What does Black rice function as when found in Rough, Brown, or a Milled rice sample?

ANSWER. Red rice. The same guidelines for red rice function for black rice. Black rice would fall under the grading factor Red rice and Damaged kernels. A kernel or piece of kernel of rice that does not have sufficient black bran to be considered as red rice shall be considered as long grain, medium grain, or short grain rice, as appropriate and could function as other types.

17. What is the basis of determination for a rice contract that stipulates "zero heat and zero stained?"

ANSWER. Any request for "zero heat and zero stain" is reported on a count based on a 500 gram analytical portion. There are no tolerances under the round-lot plan for "zero heat and zero stained."

The U.S. Standards for Milled Rice and the U.S. Standards for Rough Rice require the certification of stain damage as a percentage. When applying a grade, rice kernels which meet VRI R-2.1 Damage by Heat (Stain) are considered damage and determined on a portion of not less than 25 grams. If the 25 gram portion is cut from the 500 gram portion for any heat, paddy, or seeds should be removed and based on a count basis. If the 25 gram portion is cut from the 500 gram portion damaged by heat (stain) would function as a percent for the 25 grams and a count for the 500 grams.

18. After milling a rough rice sample and cooling to room temperature one divides out a representative portion of not less than 40 grams to determine the percent of whole kernels. Is material other than rice included with the whole kernel percentage?

ANSWER. No. Only rice kernels which are $\frac{3}{4}$ or more of a whole kernel are considered as a whole kernel (i.e., seeds or other material other than rice are considered a broken kernel).

14. SORGHUM

1. Are insect chewed kernels in which the germ is eaten out and are free of refuse considered damage either before or after bleaching?

ANSWER. No. They are considered sound unless otherwise damaged.

2. If an insect damaged kernel is missed when analyzing Other Damaged Kernels (ODK) before bleaching and is in the bleached portion, can it be taken as damage?

ANSWER. Yes. Obvious ODK which were missed before bleaching can be taken after bleaching, if it is evident that they were damaged.

3. When you have Mixed Sorghum (XS) and the mixture contains Sorghum, White Sorghum (WHS), and Tannin Sorghum (TANS) is the mixture determined on only one portion?

ANSWER. Yes. The percentage of WHS is determined before bleaching. The sample is recombined after the WHS percentage has been analyzed and bleached to determine the percentage of TANS. The sum of WHS and TANS is subtracted from 100 to determine the percentage of Sorghum. When certificating XS, record in the "Remarks" section of the certificate, in the order of predominance, the name and percentage of the classes in the mixture to the nearest tenth percent.

4. Can applicants still request the breakdown for Broken Kernels and Foreign Material (BNFM)?

ANSWER. Yes. Mandatory requirements for individual components for broken kernels is no longer required as of December 30, 1992. However, applicants may request separate certification of this component for domestic and export shipments. Unless requested by the applicant, report and certify BNFM and FM as separate factors on the work records and inspection certificates.

5. When determining the percentage of Tannin Sorghum, is the bleach method the only approved method?

ANSWER. Yes.

6. When analyzing the bleached portion for TANS, if you have a kernel that does not meet the VRI but the inspector knows it is TANS because of its kernel characteristics, can it be taken as TANS?

ANSWER. Kernels not meeting the VRI can be taken for Tannin only if the inspector is confident the kernel in question is TANS.

7. If a sorghum sample contains non-grain sorghum and Tannin sorghum, should the non-grain sorghum be removed before bleaching for Tannin sorghum?

ANSWER. Yes. After bleaching, Tannin and non-grain sorghum cannot be separated on the basis of color - both appear black. If the non-grain sorghum can not be differentiated from the Tannin sorghum after bleaching, it is permissible to remove the non-grain sorghum before bleaching.

8. When using the riddle to separate the coarse FM in sorghum, should the material that passed through the riddle be reviewed to determine if there is additional coarse FM? If there is, should it be removed and combined with the material separated by the riddle?

ANSWER. No. If a No. 6 riddle is used to separate coarse FM, it is not necessary to review the material that passed through the riddle to determine additional coarse FM.

9. Can heat damage ever exceed the DKT percentage?

ANSWER. No. Since heat and DKT are determined on different portion sizes, it is possible to have heat exceed DKT. However, when this occurs the DKT should be adjusted to equal heat.

10. If you do not have mixed sorghum, do you show the percent of tannin sorghum on the FGIS-920 as "other classes" or "other colors"?

ANSWER. Other classes.

11. The Sorghum handbook states prior to bleaching, remove all types of damaged kernels, except germ damaged kernels. Does this mean that germ damaged wheat kernels should not be removed before bleaching?

ANSWER. No. Because the bleach procedures for germ damage in wheat and sorghum are different, germ damaged wheat should be removed before bleaching. Since germ damaged wheat is based on 10 grams of KOH compared to 15 grams of KOH for sorghum, obvious germ damaged wheat which was missed before bleaching can be taken after bleaching, if it is evident that they were damaged.

12. How should sorghum samples that have a sticky texture and contain clumped masses of sorghum kernels be treated/graded?

ANSWER. Sample grade, distinctly low quality. This condition is the result of a sorghum ergot (Claviceps africana) infection, a fungus introduced to the U.S. in 1997. During the initial stages of infection, a sticky liquid (honeydew) is released and drips over the sorghum head, creating the observed condition. The honeydew first appears clear but gradually becomes opaque and orange in color. Refer to FGIS' POLICY BULLETIN BOARD, reference #181, dated 11/29/99, for additional information. The resulting fungal bodies (ergot) are not considered damage but would function as hand picked foreign material.

13. The Interpretive Line Prints (ILP) for Soybeans and Oats state proration is permissible but the statement is not on the Sorghum ILP's. Is proration permissible on the Sorghum ILP's?

ANSWER. Yes. The omission of the proration statement was an oversight.

14. Policy memo #182, dated 2/15/2000 does not state a policy on certification of damage when a sample is not bleached for germ damage. To clarify its intent, is it mandatory to perform the bleach test when total damage is certified?

ANSWER. No. If the inspector feels there is no sign of germ damage the inspector does not have to perform the bleach test. By making this determination the inspector is stating that the percentage of germ damage is 0.0%. Therefore, total damage can be shown on the certificate. It is ultimately the inspector's responsibility for determining whether there is germ damage present and whether a bleach test is necessary. If the inspector decides there is no germ damage present and upon review we find that an error was made the inspector will have to deal with the consequences. Field offices/agencies always have the right to make an internal policy that all sorghum will be bleached for germ/internal mold damage.

15. The determination of stones is determined after the removal dockage and broken kernels (BN) removed by the 5/64 sieve. Does this mean that the weight of the dockage and BN has to be subtracted from the original weight of the sample to calculate the percent of stones?

ANSWER. Yes. Since stones are determined on the weight of the sample after the removal of dockage and BN the dockage and BN weight has to be subtracted from the original weight to calculate the percent of stones. {(Example: Original weight=1033 grams, Dockage=12.48 grams, BN=20.83 grams), Dockage & BN free sample weight = 1033 – 33 (33.31 rounded) = 1000 grams)}

15. SOYBEAN

1. What is the correct procedure when cross-sectioning a soybean for damage?

ANSWER. Cross-section a soybean through the middle of the hilum. Do not crosssection lengthwise.

2. Can Black soybeans be certified as Black soybeans on the grade line?

ANSWER. No. There are only two classes of soybeans which are based on color: Yellow and Mixed soybeans. Upon request, show the percentage of Black soybeans to the nearest tenth percent in the "remarks" section of the certificate. For further assistance, refer to Program Bulletin 93.1, dated July 21, 1993.

3. Can you still determine the percentage of Purple Mottled or Stained (PMS) when determining if a sample is PMS.

ANSWER. Effective September 1, 1994, PMS became a special grade and the grade limitation on PMS soybeans was eliminated. When determining whether a sample is PMS, the only approved method is the applicable interpretive line print. However, upon request, a percentage may be determined on a representative portion of 125 grams. Since the value of PMS affected soybeans vary according to customer preference/needs, the interpretation for individual soybeans will be adjusted to accommodate those preferences/needs. If requests become routine and widespread, FGIS will develop an appropriate VRI for this determination.

4. Do cross-sectioned soybeans that have a pinkish discoloration on the cotyledon function as damage?

ANSWER. Yes. Currently, there is not an Visual Reference Image (VRI), but it is considered damage if the color intensity meets VRI-8.1, Mold Damage (Pink) and the discoloration in the cross-section extends around the entire perimeter. If the color intensity is greater than shown in VRI-8.1, the extent of discoloration around the perimeter may be prorated.

5. When you have a variety which is green in the cross-section, does it function as damage if it is as dark as the VRI-3.0, Green Damage.

ANSWER. Yes.

6. Are hail affected soybeans considered damage?

ANSWER. Yes. Currently, there is not an VRI, but it is considered damaged when, in the cross-section, at least 1/4 of the surface area meets the color intensity of VRI-3.0, Green Damage.

7. Does a dust suppressant, such as mineral oil, affect the odor of soybeans when added in excessive concentration?

ANSWER. If the dust suppressant is evident when determining odor the sample would be made commercially objectionable foreign odor.

8. What do broken off sprouts function as?

ANSWER. The broken off sprouts function as foreign material and the soybean is considered sound unless otherwise damaged.

9. What do nightshade berries function as in soybeans?

ANSWER. Foreign material. If the soybeans contain a weed odor, the sample is made COFO.

10. Is there any instance in which "smoke" odors in soybeans can be considered "COFO" without evidence of fire-burnt material in the sample/lot?

ANSWER. Yes, provided the inspector has information indicating that the grain was involved in a fire which is responsible for the contamination odor. This policy also applies to the other USGSA inspected oilseeds.

11. Do sunflower seeds function as coarse foreign material or fine foreign material?

ANSWER. Sunflower seeds (confectionary and oil-type) are normally larger than soybeans, therefore, would function as coarse foreign material. Small, dehulled, and broken seeds would function as fine foreign material.

12. When stones are found, do they function as stones AND foreign material?

ANSWER. Yes. Stones are determined on the basis of the sample as a whole. As such, small stones found in the 125 gram portion for determining fine foreign material function as foreign material and contribute to the aggregate count/weight tolerance for stones. Stones similar is size to corn function as coarse foreign material.

13. What do the large soybeans (Edible soybeans) and small soybeans (Monk soybeans) function as?

ANSWER. They are graded under the USGSA and are classed as either Yellow soybeans or Mixed soybeans.

14. Should soybeans containing a soybean meal odor be considered okay or COFO?

ANSWER. While the odor is not common in the "raw" product it is related and does not, in and of itself, render the beans unfit for normal commercial usage. Consequently, soybean meal odors would be considered "okay."

15. When you have distinguishable soybean meal odor in other grains what odor is applied?

ANSWER. COFO.

16. When soybeans are discolored by the growth of a fungus and dirt, which Interpretive Line Print (ILP) should be used?

ANSWER. Use the ILP for which the majority of the soybeans are discolored.

17. What does the pioneer variety that has a smoky green color function as when found in Yellow soybeans?

ANSWER. Soybeans of other colors.

18. What do soybeans which have a blue/green or pinkish-purple colorant applied to the seedcoat function as when found in soybeans?

ANSWER. Unknown foreign substance. If a sample contains 4 or more soybeans with blue/green or pinkish-purple colorant, the sample will grade U.S. Sample grade.

19. Do Smooth Yellow dry peas function as fine foreign material or coarse foreign material when found in soybeans?

ANSWER. Fine foreign material.

20. Occasionally, soybeans have a growth stress crack which is usually tight and next to the hilum. Do they function as cracked seedcoats?

ANSWER. Yes.

21. When performing a white hilum test, should soybeans of other colors be considered in the percentage of whole soybeans with clean white hilum?

ANSWER. No.

22. When performing a white hilum test, should damaged whole soybeans be considered in the percentage of whole soybeans with clear white hilums?

ANSWER. Yes

23. Are Laredo Hay Beans graded under the U. S. Grain Standards as Soybeans?

ANSWER. Yes. Although Laredo Hay Beans are usually grown as forage/hay they are graded as Soybeans because they have the scientific name (Glycine max (L.) merr.). Laredo Hay Beans are small, flat, black soybeans and are to be classed as Mixed soybeans. When blended with Yellow soybeans, they function as Soybeans of Other Colors.

24. In recent years we have seen soybeans that have cracked and discolored seed coats. The seed coat color (yellow/gold) is of a different color that is shown on SB-12.0, Soybeans of Other Colors (SBOC). Do these types of Soybeans still function as SBOC? The image was not intended to serve as a visual reference for minimum color intensity.

ANSWER. Yes. Examples of these types of discolored soybeans were sent to the Seed Science Center at Iowa State University for analysis. Their opinion was the soybeans had imbibed too much moisture at some point then were dried back down again creating the cracked seed coats and discoloration. In April, 2003, Field Offices were sent an image to illustrate this condition, but is not intended to serve as the visual reference for color intensity. Instead, refer to ILP, SB-12.0 for the official interpretation.

25. Program Notice, PN-02-11 (12/02/02), "Stinkbug Damage Determination" improved the efficiency of determining heavily stinkbug-damaged soybeans by offering inspectors the option of using a reduced portion. However, the notice officially expired 12-02-03. Is the option to use this alternative procedure still permitted for those wishing to use it?

ANSWER. Yes

26. If a submitted sample of 800 grams is offered for full grade inspection and the applicant specifically requests that the Test Weight (TW) determination not be performed can you still apply a numerical grade?

ANSWER. No. Factors other than test weight are to be determined on the basis of 1000 grams (e.g., sample grade, foreign material), or within a reasonable proximity of 1000 grams. Consequently, submitted samples weighing less than 900 grams shall be restricted to a factor-only inspection.

27. When determining the percent of cracked seed coats, should soybeans in which one of more of the soybeans' 3 seed coat layers has separated function as a cracked seed coat, even though the cotyledon is not exposed?

ANSWER: Yes. Requestors of this information are just as concerned with the soybeans' external appearance and the negative affect it can have on commercial market value as they are with actual cotyledon exposure and related quality vulnerabilities (e.g., disease). As such, any obvious separation of the seed coat gives cause to consider the seed coat cracked.

28. If an applicant requests a review inspection for Heat Damage (HT) only what result is shown for Damaged Kernels (total)(DKT)?

ANSWER. Since HT is included in DKT and performed on the same portion a new analysis for HT and DKT would have to be performed. The new analysis for HT and DKT would supersede the previous result.

29. What procedure is used if an applicant requests the percentage of whole soybeans?

ANSWER. For determining the percent of whole soybeans refer to Section 10.23 OFFICIAL CRITERIA, f., White Hilum. Determine the percentage of whole soybeans on a portion of approximately 125 grams after the removal of foreign material and non-whole soybeans (soybeans with more than one-fourth of the bean removed). Follow the guidelines set forth in the Example. Record the percent of whole soybeans to the nearest tenth percent in the "Remarks" section of the certificate using the following statement: "Sample contains 94.4% of whole soybeans."

16. SPLIT PEAS

1. How would two halves of a pea that are stuck together with no seedcoat attached function in Split peas?

ANSWER. Unsplit peas without seedcoats shall be considered whole peas. Two halves of a pea that are misaligned but stuck together shall be considered split peas.

2. What do split Marrowfat Peas function as when found in Green Split Peas?

ANSWER. Green Split Peas.

3. Since Marrowfat peas may be used in the production of green split peas, are any restrictions imposed on the amount of marrowfats that may be included when a contract stipulates that split peas be processed from whole Smooth Green Dry Peas?

ANSWER. Yes, 1.5%. When this limit is exceeded, the split peas will be considered to have been processed from Mixed Dry Peas, not Smooth Dry Peas. If this should occur, a qualifying statement is to be included in the remarks section of the certificate explaining the reason for the nonconformance.

4. The chapter for Split Peas defines, in part, the insects which function as weevils in the determination for insect infestation. It states that "Other live insects" shall include beetles, moths, meal worms, and other insects injurious to stored peas. To further define "other insects injurious to stored peas" should we refer to the USDA-ARS, Agricultural Handbook 500, "Stored–Grain Insects?"

ANSWER. Yes. If two or more live insects are found, consider the Splits Peas to be "U.S. Sample Grade." One can also view images of insects on the GIPSA website.

5. Is dirt and/or grime considered damage on a split pea?

ANSWER. Yes. For Green Split Peas use VRI-4.0 Stained (Green) or for Yellow Split Peas use VRI-4.1 Stained (Yellow) as the reference when you have dirt and/or grime on a split pea. If the split pea has dirt and/or grime adhering to the cotyledon equal to or greater than shown it is considered damage.

6. Are split peas with a pinkish discoloration on the cotyledon considered damage?

ANSWER. Yes. For reference use the Note listed on VRI Peas 1.4 Mold/Mildew Damage. Any amount of mold/mildew on the cotyledon (meat) of the pea is damage. Mold occurs in many colors.

7. Occasionally, whole peas are dried in a grain drier to decrease moisture. When split, the peas

sometimes have a drier (cooked) smell. Should the sample be downgraded on odor?

ANSWER. No. The grades committee of the Pea & Lentil Association agreed that a light drier odor is not considered an objectionable odor.

NOTE: If the drier odor creates a strong odor which resembles a moldy or basement odor, the sample should be made "Musty." If the drier odor creates a smoke odor, the sample should be made "Commercially Objectionable Foreign Odor (Cofo)."

17. SUNFLOWER SEEDS

1. Normal sunflowers have a turpentine odor. Is this considered COFO?

ANSWER. No. The sample is made "okay" unless it has a distinct musty, sour, or COFO odor.

2. If a sunflower seed is green after pearling can it be taken as damage?

ANSWER. Yes. Currently there is not an VRI, but after pearling, the seed is considered damaged if the intensity of the green is equal to or greater than VRI SB-3.0 on both sides of the seed. Under the definition of damaged sunflower seeds, the green kernels would be included in the otherwise materially damaged.

3. What is the criteria for sprout damaged sunflower seeds?

ANSWER. Sprout damage is analyzed before pearling. A seed is sprouted if the sprout extends out of the hull or on dehulled seeds when the sprout is hooking around the seed.

4. Can the varieties of sunflower seeds which are whitish-to-gray in color be considered weathered sunflowers and downgraded on general appearance?

ANSWER. No. The whitish-to-gray hulls of these varieties were bred to differentiate them from normal sunflower seeds. They are high oleic type sunflower seed.

5. When processing a sample for dockage, do you separate sunflower seeds (hull and seed) that have been removed by the air?

ANSWER. No. Leave as dockage because these sunflowers are removed during processing.

6. What is the correct policy for reporting Sunflower seed Foreign Material (FM)?

ANSWER. Refer to FGIS POLICY BULLETIN BOARD, Reference # 217, dated October 6, 2008. The handbook does not provide a specific instruction for reporting FM on the work record. Currently, inspectors are rounding and reporting the results on the work record to the nearest half percent. From a quality control standpoint this can be problematic in determining the significance of comparison differences. As stated in the handbook, certify the FM to the nearest half percent as follows: 0.25 to 0.74 as 0.5 percent, 0.75 to 1.24 as 1.0 percent, etc. Record the percentage of FM on the work record to the nearest hundredth percent. 7. If an applicant requests a review inspection for Heat Damage (HT) only what result is shown for Damaged Kernels (total)(DKT)?

ANSWER. Since HT is included in DKT and performed on the same portion a new analysis for HT and DKT would have to be performed. The new analysis for HT and DKT would supersede the previous result.

18. TRITCALE/RYE

1. Do kernels affected by Black-tip fungus function as damage?

ANSWER. Yes, if they meet the wheat VRI W-1.0.

2. Can heat damage ever exceed the DKT percentage?

ANSWER. No. Since heat and DKT are determined on different portion sizes, it is possible to have heat exceed DKT. However, when this occurs the DKT should be adjusted to equal heat.

3. If Thins exceed the limit for U.S. No. 3, does the sample grade a U.S. No. 4 or Sample grade?

ANSWER. U.S. No. 4. The factor "thins" is a limiting grading factor for U.S. No. 1, 2, and 3 only. Consequently, samples containing more than 25% thins (maximum limit for No. 3) would receive a U.S. No. 4 designation.

4. The determination of stones is determined after the removal dockage. Does this mean that the weight of the dockage has to be subtracted from the original weight of the sample to calculate the percent of stones?

ANSWER. Yes. Since stones are determined on the weight of the sample after the removal of dockage the dockage weight has to be subtracted from the original weight to calculate the percent of stones. {(Example: Original weight-1033 grams, Dockage-32.48 grams), Dockage free sample weight = 1033 – 32 (32.48 rounded) = 1001 grams)}

19. WHEAT

1. If a sample is a factor analysis, for protein only, and the sample is appealed or Board appealed, can the class on the grain line be changed if the original used the wrong class?

ANSWER. Yes. You would change the class on the grade line.

2. If a sample is for grade and protein and the sample is appealed or Board appealed for protein only, can the class on the grade line be changed if the original inspector misclassed it?

ANSWER. Yes. You would change the class on the grade line.

3. What should you separate when determining whether a sample is 50 percent or more wheat when using the special dockage procedure for chess and similar seeds?

ANSWER. Separate only whole or broken kernels of wheat. All material other than wheat is included with the chess and similar seeds. If the material that passed over the Number 2 sieve (bottom collection pan) consists of 50 percent or more by weight of whole or broken kernels of wheat, recomposite the entire sample and determine dockage using the normal dockage procedure. The material will be considered dockage if the material is less than 50 percent of whole or broken kernels of wheat.

4. What functions as Insect Damaged Kernels (IDK) in wheat?

ANSWER. Whole and broken kernels of wheat and whole and broken kernels of other grains which standards have been established. Whole and broken kernels of wheat and other grains each function as one IDK.

NOTE: If the bran over the germ has a hole in it remove the bran to determine if the kernel is insect damaged.

5. Is smut affected wheat considered damaged when it is in the crease or on the meat of the kernel?

ANSWER. Since smut (a fungus) and mold are virtually indistinguishable smut affected kernels are considered mold damage if they meet the minimum requirement as shown on the left kernel of VRI W-4.1 Mold Damage. If the smut penetrates the seedcoat and adheres to the "meat" of the kernel it is considered damage. Otherwise, it is considered sound.

6. Should kernels of White Wheat with a red tinge function as either Contrasting Classes (CCL) or Wheat of Other Classes (WOCL) in a predominantly red wheat sample?

(Rev) ANSWER. Provided the "red tinge" is plainly evident, the kernel would not function as CCL. Whether the kernel functions as WOCL is dependent on its physical characteristics and how compatible those characteristics are to the predominating class. With that said, since "red tinge" is not universally understood (at least visually), to ensure a more consistent application of CCL/WOCL involving blends of red and white wheat, it is highly recommended that such samples be bleached before making any assessment.

7. Does a portion of a smut ball function as one smut ball?

ANSWER. Smut balls are recorded to the nearest whole number. Portions of smut balls are added together only when the portions are not equal to an average size smut ball otherwise the portion is considered as one smut ball.

8. How do you class the Hard Red wheat varieties grown in the Southwestern states and offered for inspection outside the designated policy area?

ANSWER. The Hard Red wheat varieties shall be classed on kernel characteristics. The only exceptions are the varieties Anza and Yolo. These two are always classed as HRW.

9. If you have to do more than one special dockage procedure, what order would you do them?

ANSWER. Do the special dockage procedures in the order they are listed in the Grain Inspection Handbook.

10. Can an inspector use an aid to assist in determining whether a garlic bulblet is green or dry?

ANSWER. Yes. But an aid should only be used on questionable garlic bulblets.

11. Can you use the Number 25 Riddle when determining dockage for other classes of wheat besides Durum wheat?

ANSWER. Yes. But you would only use the Number 25 Riddle if you were getting a large amount of wheat over the Number 2 Riddle.

12. Can wheat affected by the gibberella zea fungus be considered damage?

ANSWER. Yes. Currently there is not an interpretive line slide, but it is considered damaged if the gibberella is an intense pink and covers 50 percent or more of the kernel.

13. Is CCL or WOCL shown when you have Mixed wheat?

ANSWER. No. Contrasting Classes and WOCL are not shown, but the name and percentage of the classes that comprise the mixture are listed in the order of predominance to the nearest whole percent on the work record and in the "remarks" section of the certificate.

14. Do stones function as foreign material?

ANSWER. Yes, when they remain in the sample after the removal of dockage.

15. When requested, what is the basis of determination for determining black seed count?

ANSWER. Black seed count is not an official determination. As such, standardized procedures have not been established. Criteria used for the determination, including the basis of determination are negotiable. Nabisco, for example, currently requires black seed count to be determined on approximately 1000 grams after the removal of dockage and SHBN. All seeds with black seed coats are removed from the sample, counted, and recorded. Other customers may have different requirements.

16. Does Dark, Hard, and Vitreous (DHV) have to be analyzed on an export lot of U.S. No. 2 or better Northern Spring wheat if the inspector can visually determine the subclass, and the DHV percentage has not been requested by the applicant?

ANSWER. Yes. On February 18, 1997, FGIS reevaluated its policy regarding the analysis of DHV and HVAC and decided that it is necessary to analyze and report DHV/HVAC results for all export cargoes of HRS and Durum wheat, regardless of whether it is requested or not.

17. Can wheat which is submitted from a foreign country be graded under the USGSA?

ANSWER. Yes. Grade and class the wheat according to U.S. standards.

18. If a sample is a factor analysis for damage only and the sample is appealed or Board appealed, can the class on the grade line be changed if misclassed during the original inspection?

ANSWER. Yes.

19. Can heat damage ever exceed the DKT percentage?

ANSWER. Since heat and DKT are determined on different potion sizes, it is possible to have HT exceed DKT. When this occurs, the DKT should be adjusted to equal HT.

20. If a sample of wheat contains more than 50 percent dockage, can the sample be graded as wheat?

ANSWER. No. The sample does not meet the definition of wheat and is therefore considered a Not Standardized Grain.

21. What does malted wheat function as when found in a wheat sample?

ANSWER. Damage.

22. If a Durum wheat sample is submitted for an HVAC analysis only and it is determined that the sample is actually Mixed wheat, do you have to show the percentage of HVAC?

ANSWER. Although subclass is not applicable to Mixed wheat it is permissible and advisable to honor the applicant's request.

23. When analyzing a sample of Western White wheat, are the WOCL and foreign material included with the White Club or other White Wheat?

ANSWER. Wheat of other classes and foreign material are included with the predominant mixture of the Western White subclass.

24. If a sample contains 88% WHCB, 9% OWH (soft), and 3% HRW, should the sample be classed as SWH or XWHT?

ANSWER. The sample would class SWH and the subclass would be WHCB and certified with 3% CCL/WOCL.

25. Inspectors are finding what they believe to be black mold in the crease of Soft Red Winter wheat kernels. Does it function as damage, and if so, what visual reference should be used to guide their decisions?

ANSWER. Mold, regardless of its color, functions as damage if it penetrates the seedcoat or if there is an appreciable amount in the crease. Inspectors should refer to VRI W-4.1 (11/97) when making this assessment. The kernel on the left illustrates the minimum requirement for mold in the crease. Inspectors should be careful not to confuse black mold with discoloration associated with black-tip fungus, smut, or pigmentation stains that may also appear in the crease.

26. Do weed stained wheat kernels function as unknown foreign substance?

ANSWER. No. They are also considered sound unless they meet the mold Interpretation. If a sufficient amount of stained kernels are present in the sample, consider it to be DLQ. Of course, if a strong weed odor is present it is considered COFO as well. 27. Applicants occasionally request that the percentage of IDK included in the assessment of damaged kernels (total) be reported in the remarks section of the certificate, in addition to an IDK count. In rare instances, that percentage may exceed the number of insect damage kernels found in 100 grams. In these instances, should an adjustment be made to make the findings more consistent?

ANSWER. No. Report the number of IDK and the percentage of IDK on the actual basis of determination. For example, "4 IDK per 100 grams;" "0.0% IDK per 15 grams." To minimize the chance that this situation will occur, perform the percentage IDK on the basis of the 15 gram DKT portion, and cut out an additional 85 gram portion for the balance of the 100 gram portion used for IDK count per 100 grams.

28. Does chess ergot function as ergot when grading wheat?

ANSWER. Yes. All cereal grains and grasses affected by ergot function as ergot.

29. What does triticale function as when it comes over the riddle during processing?

ANSWER. Dockage

30. Is wheat affected by the Orange Wheat Blossom Midge considered damage?

ANSWER. Midge affected wheat is considered damage when it contains any amount of mold on the endosperm or is otherwise damaged. Midge is most prevalent in Minnesota, North Dakota and Canada, and occurs when the midge larva feeds on the developing wheat kernel. In past years, it has been most prevalent in Durum wheat. The Midge larva causes the wheat kernel to shrivel, crack and become deformed. Kernels of wheat that have been chewed by the Midge larva, but do not contain mold or are not otherwise damaged, are considered sound.

31. If a sample of wheat marketed as Western White Wheat contains sufficient other, nonsoft white wheat classes to meet the requirements of Mixed wheat, how should the percentage of white club be reported?

ANSWER. The percentage of white club and common soft white are to be combined and certified as Soft White wheat. Upon request, the actual White club percentage may be reported in the remarks section of the certificate.

32. When a Western White wheat sample contains "Wheat of Other Classes" (less than 10 percent), can the percentage of each class present be shown in the "Remarks" of the certificate?

ANSWER. Yes, upon request. If a breakdown is not requested, only report the percentage of White Club in the "Remarks" section of the certificate to the nearest whole percent. When requested, show the percentage of Soft White wheat, White Club wheat, and any wheat classes that make up WOCL to the nearest whole percent (i.e., 80% SWH, 15% WHCB, 5% HDWH) in the "Remarks" section of the certificate.

33. Should samples of red wheat originating from Arizona, California, Nevada, New Mexico, and Texas be classed as Hard Red Winter wheat (regardless of kernel characteristics) when submitted to a inspection service provider operating in another, non-specified state?

ANSWER. Yes, but only if the applicant states that the wheat was grown and is being marketed in one of these recognized states. This information should be included on the work record and may, upon request of the applicant for service, be reported in the remarks section of the certificate (i.e., "Applicant states this wheat is grown and marketed in _____."

34 After May 1, 2006 is the Hard White wheat (HDWH) color line still applicable?

ANSWER. Yes, but only upon request by the applicant. When requested, inspectors should visually examine the market sample, comparing its overall color to that depicted on the line print, and will certify in the remarks section of the certificate whether the color meets (as light or lighter) or exceeds (darker) the declared standard.

35. Is it permissible to analyze Dark, Hard, and Vitreous (DHV) in Hard Red Winter wheat in the official system?

ANSWER. No.

36. What special dockage procedure would be used when you have excessive weed seeds that are similar in size and shape to canola? The "Wild buckwheat or similar seeds" procedure requires more than 0.5%; but if canola, rapeseed or flaxseed is present, the requirement is 0.3% or more before the special dockage procedure is required.

ANSWER: Use the Wild buckwheat or similar seeds special dockage when this occurs.

37. If an applicant requests a review inspection for Contrasting Classes (CCL) only what result is shown for Wheat of Other Classes (WOCL)?

ANSWER. Since CCL is included in WOCL a new analysis for CCL and WOCL would have to be performed. The new analysis for CCL and WOCL would supersede the previous result.

38. If an applicant requests a review inspection for only one of the factors (DKT, SHBN, or FM) that comprise Defects (total) does Defects (total) have to be recalculated?

ANSWER. Yes. The new reviewed factor result would be added to the original results for the remaining two factors that comprise Defects (total).

39. An applicant was having a blanket appeal called on out wheat barges. The applicant wanted to know if they did not request IDK on the original inspection could they still request IDK on the review inspection. They stated since the appeal was going to supersede the original they wanted to save money by not requesting IDK on the original inspection.

ANSWER. No. Requesting IDK on the review inspection when the original inspection did not request an IDK determination is considered a change in scope. Since it is a change in scope the request was denied.

40. The determination of stones and ergot is determined after the removal of dockage. Does this mean that the weight of the dockage has to be subtracted from the original weight of the sample to calculate the percent of stones and ergot?

ANSWER. Yes. Since stones are determined on the weight of the sample after the removal of dockage the dockage weight has to be subtracted from the original weight to calculate the percent of stones and ergot. {(Example: Original weight-1033 grams, Dockage-32.48 grams), Dockage free sample weight = 1033 – 32 (32.48 rounded) = 1001 grams)}

41. Can a hand crank barley pearler be used as an aide for determining germ damage in wheat?

ANSWER. Yes. The aide can be used if the following criteria are adhered to: all other types of damage are removed first and the pearler does not destroy the germ or causes the germ to pop out of the socket to properly assess whether the germ is sound or damage.

20. REVISION HISTORY

01/23/2014	Updated Edible Beans
02/28/2012	Updated Barley, Corn, Flaxseed, FSUB, General, Lentils, Peas, Sorghum, Split Peas, Triticale/Rye, Wheat
06/08/2011	Updated Mixed Grain, Rice
11/05/2010	Updated Soybeans, Sunflower Seed
02/23/2009	Updated Oats
12/17/2008	Updated Other Factors
06/28/2006	Updated Canola