

Question & Answer

March 01, 2022

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, AMS 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. Refer to Class and Subclass.*

2. Do damaged Other Grains (OG) in a sample of Six-Rowed 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. Refer to Other Grains.*

3. 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. Refer to Definition of Barley and Other Grains.*

4. 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. Refer to Damaged Kernels: Certification.*

5. If an applicant requests a sample to be graded as Malting barley, is there 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.*

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

ANSWER. *No.*

7. 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.*

8. If a barley sample has a smutty odor, but is not smutty in appearance in mass nor 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.*

2. CANOLA

1. 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.*

2. 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

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 as per VRI – [C - 7.0 Mold 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 or other unknown foreign substances such as grease, ink, or oil.*

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

ANSWER. *Corn of Other Colors.*

4. 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.*

5. 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. Refer to Damaged Kernels.*

6. 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 Heat Damage \(Drier\)](#), can they be taken as heat damage if they meet VRI – [C - 5.1 Heat Damage \(White\)](#) or [C - 5.2 Heat Damage \(Yellow\)](#) corn, respectively?

ANSWER. *No. It only functions as damage.*

7. How should a sample of corn containing 80.09% Yellow corn, 11.23% White corn, and 8.68% Indian corn be certified in the results section of the certificate?

ANSWER. *When certifying Mixed corn, record the percent of the mixture to the nearest tenth percent. In this instance, the mixture would certify as Yellow corn 80.1%, White corn 11.2%, and Corn of Other Colors 8.7%.*

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

ANSWER. *Yes. Currently, there is not a 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.*

9. What does Kernel Red Streak function as?

ANSWER. *Corn of Other Colors, provided it meets the VRI requirements of [\(C\) O.F. - 7.5 Corn of Other Colors](#) in Yellow corn and Mixed corn and [\(C\) O.F. - 7.7 Mixed Corn \(More Than Slight Tinge-Pink\)](#) 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.*

10. 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"](#).*

11. 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 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.*

2. 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 certify the identification for submitted samples as provided by the applicant for service.*

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

ANSWER. *No. Reduced portions sizes are only stated for CCWB and IWOFF.*

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

ANSWER. *Damage and contrasting class.*

5. Can an applicant have a Federal appeal or Board appeal on a new sample for insect webbing or filth?

ANSWER. *No, because these are considered a deleterious situation. Refer to General Information, Appeal Inspection Services and [Directive 9170.15, "Review Inspections of Grains and Commodities."](#)*

6. Can an applicant have a Federal 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 but, a Board appeal must be done/based on the official file sample. Refer to General Information, Appeal Inspection Services and [Directive 9170.15, "Review Inspections of Grains and Commodities."](#)*

7. Can an applicant have a Federal appeal or Board appeal 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 Federal appeal or Board appeal of the unworked file sample will not remove the designation "Sample Grade." Refer to General Information, Appeal Inspection Services.*

8. 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. Refer to Defects.*

9. 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. Refer to Damaged Beans.*

10. 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.*

11. 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 round-hole 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.*

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

ANSWER. *No, except for Chickpea/Garbanzo Beans as per VRI – [Bean - 5.0 Green Damage \(Chickpea\)](#).*

13. 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).*

14. 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.*

15. 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.*

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

ANSWER. *No. They are all considered Blackeye Beans.*

17. 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, except for Blackeye Beans. 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.*

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

ANSWER. *Yes. Inspectors should use VRI – [Bean - 9.0, Mold/Mildew Damage](#) (far 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.*

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

ANSWER. *Unknown Foreign Substance (FSUB).*

20. 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.*

21. 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 \(Not Damage\)](#) or [Bean - 3.1 Dirt and Grime Damage \(Other Than Pea Beans\)](#), is considered damage.*

22. 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. Refer to Defects.*

23. 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.*

24. Damage for Pea beans are based on approximately 250 grams, but Badly Damaged (BD) beans are based on approximately 500 grams. How would damaged beans be determined?

ANSWER. *Divide out 500 grams into two 250-gram portions. Pick and determine the percent of Damaged beans from the first 250-gram portion, then separate and weigh the BD and note its percentage to the hundredth (disregarding the thousandth). Pick BD from the second 250-gram portion and note its percentage to the hundredth (disregarding the thousandth). Add both BD together and round to the nearest tenth percent.*

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

ANSWER. *Contrasting Classes.*

26. 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 FGIS 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.*

27. 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.*

28. In pea beans, the grading standard requires that the percent of “Contrasting Classes” and “Foreign Material” be reported to the hundredth percent (disregarding thousandths) 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 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.*

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

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

30. 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 FGIS 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.*

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

ANSWER. *Yes. Mildew affected beans are considered mold damage if they meet VRI – [BEAN - 9.0 Mold Damage](#). Beans containing any amount of mildew on the cotyledon are damaged.*

5. FLAXSEED

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 re-elevation 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 most prominent odor 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. 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 (COFO).*

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).*

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

ANSWER. *Unknown Foreign Substance (FSUB).*

7. 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".*

8. 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.*

9. 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, "Implementation of the FGIS-FDA Memorandum of Understanding"](#) 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.*

10. 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 factor-only 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.*

11. 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.

12. 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 the [Grain Inspection Handbook IV, Forms and Certificates](#). 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?

ANSWER.

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

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

ANSWER.

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

7. 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 the Grain Inspection Handbook II, “U.S. Sample Grade Criteria”), it would grade DLQ.

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

ANSWER.

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		

9. 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 ship lot average is recorded to the nearest whole percent. How would a subplot result of 68.49% be recorded as a subplot and the final average?

ANSWER. *The subplot would be recorded as 68.5% and the ship lot average would be certified as 68.0%. To ensure that the calculating device 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.*

10. 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 check testing purposes the dockage tester must be turned off between samples. Refer to General Information.*

11. 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.*

12. 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.

13. 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.*

14. 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”.

15. 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/DIOO 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.

16. 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.

17. According to FGIS [Directive, 9180.38, 5-1-19, 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 FGIS 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.

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. Refer to Skinned Lentils.*

2. 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. Refer to Color.*

3. 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.*

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

ANSWER. *Dockage. Refer to Dockage.*

5. Individual factors/sub factors 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.*

6. 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.*

7. 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.*

8. 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. Refer to Color.*

9. 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.*

10. What are considered two or more dead insects in Lentils?

ANSWER. *Any two insects or parts thereof. (A head and a leg of a grasshopper would be considered as 2 dead insects.) If 2 or more dead insects or pieces are found in a sample of Dockage-Free Lentils, it is considered SG/DLQ and counted toward the percent of FM. If 2 or more dead insects or pieces are found in a sample of Thresher-Run Lentils after the removal of dockage, it is ONLY counted toward the percent of FM. However, if an applicant requests a Grade Equivalent Statement/After Dockage Statement on how the Thresher-Run Lentils would have graded after the removal of DKG, then the Lentils would be considered Sample Grade on account of DLQ due to 2 or more dead insects found in the sample after the removal of DKG. Refer to Distinctly Low Quality and Foreign Material.*

EXAMPLE. *"After the removal of dockage, this thresher-run lot would have graded U.S. Sample Grade Lentils under the U.S. standards for dockage-free lentils."
"Condition of Lentils: Distinctly Low Quality due to 2 dead insects."*

9. MIXED GRAIN

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

ANSWER. *Yes, because the basis of determination requires that the percent of grains comprising the mixture be made on a representative portion after the removal of FM and fines. Record the percent 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.*

10. OATS

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

ANSWER. *Only if the oat groats meet the minimum criteria of VRI – [O - 1.0 Badly Ground and/or Weather Damage](#) and [O - 2.0 Germ Damage \(Sick and/or Mold\)](#), otherwise they are considered sound.*

2. 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.*

11. OTHER FACTORS

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

ANSWER. *Yes, 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. *Yes, 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. *FSUB, distinguishable broken fertilizer pellets function as whole fertilized pellets for count purposes. (Discontinue use of or reference to OF - 31.0 Suspected Fertilizer (FSUB)).*

5. What do Pelletized Chicken Manure pellets function as?

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

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. 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, FGIS 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.*

13. RICE

1. 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.*

2. 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.

14. SORGHUM

1. 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 percent of WHS is determined before bleaching. The sample is recombined after the WHS percentage has been analyzed and bleached to determine the percent of TANS. The sum of WHS and TANS is subtracted from 100 to determine the percent of Sorghum. When certifying XS, record in the results section of the certificate the name and percent of the classes in the mixture to the nearest tenth percent.

2. 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.

3. When determining the percent of Tannin Sorghum, is the bleach method the only approved method?

ANSWER. Yes.

4. When analyzing the bleached portion for TANS, if you have a kernel that does not meet VRI – [S - 9.0 Tannin Sorghum \(Bleached\)](#) 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.

5. 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.

6. 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.

7. 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.*

8. 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 handpicked foreign material.*

9. 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.*

10. 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 percent 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. SOYBEAN

1. 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 prints. ILP – [Purple Mottled or Stained by Dirt or Dirt-like Substances](#), [Purple Mottled or Stained by Growth of a Fungus](#), and [Purple Mottled or Stained by Pokeberry Stain](#). 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.

2. Are hail affected soybeans considered damage?

ANSWER. Yes. Currently, there is not a 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 – [SB - 3.0 Green Damage](#).

3. 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 (COFO).

4. 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.

5. 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.

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

ANSWER. OK, 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.”

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

ANSWER. COFO.

8. 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.

9. 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 (FSUB). If a sample contains 4 or more soybeans with blue/green or pinkish-purple colorant, the sample will grade U.S. Sample Grade.

10. 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.

11. 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 VRI – 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 VRI – [SB - 12.0 Soybeans of Other Colors](#) for the official interpretation.

12. 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.

13. 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.*

14. 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.*

15. 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.*

16. SPLIT PEAS

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

ANSWER. *Un-split peas without seedcoats shall be considered whole peas. Two halves of a pea that are misaligned but stuck together shall be considered split peas. Refer to Definitions.*

2. 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. Refer to Damaged Split Peas.*

17. SUNFLOWER SEEDS

1. 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.*

2. 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. TRITICALE/RYE

1. 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.

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 misclassified it?

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

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

ANSWER. Whole and broken kernels of wheat or other grains that meet the definition of IDK.

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

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

ANSWER. Yes, 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 as per VRI – [W - 7.0 Other Damage \(Mold\)](#). Otherwise, it is considered sound.

5. 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?

ANSWER (Rev). 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.

6. 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.*

7. 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 II, Grain Grading Procedures](#).*

8. 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.*

9. 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.*

10. 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.*

11. 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.*

12. 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.*

13. 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.*

14. 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 misclassified during the original inspection?

ANSWER. *Yes.*

15. 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.*

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

ANSWER. *Damage.*

17. 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.*

18. 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.*

19. 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.*

20. 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 Mold Damage](#) 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.*

21. 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.*

22. Applicants occasionally request that the percent of IDK included in the assessment of damaged kernels (total) be reported in the results section of the certificate, in addition to an IDK count. In rare instances, that percent 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 percent of IDK on the actual basis of determination.*

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.*

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

ANSWER. *Dockage.*

24. 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.*

25. If a sample of wheat marketed as Western White Wheat contains sufficient other, non-soft white wheat classes to meet the requirements of Mixed wheat, how should the percent of white club be reported?

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

26. When a Western White wheat sample contains “Wheat of Other Classes” (less than 10 percent), can the percent of each class present be shown in the “Results” of the certificate?

ANSWER. *Yes, upon request. If a breakdown is not requested, only report the percentage of White Club in the results section of the certificate to the nearest whole percent. When requested, show the percent 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 results section of the certificate.*

27. 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 an 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 _____.”)*

28. 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 ILP – [Hard White Wheat \(HDWH\) Color Line](#), and will certify in the “Results” section of the certificate whether the color meets (as light or lighter) or exceeds (darker) the declared standard.*

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

ANSWER. *No.*

30. 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.*

31. 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.*

32. 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.*

33. 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

8/01/2022	Updated All Chapters
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