## SOYBEANS

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 cross-section 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 (<u>Glycine max</u> (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 VRI, 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 nonwhole 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."

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