

**UNKNOWN FOREIGN SUBSTANCE (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 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 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.*

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.

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