

Official United States Standards for Grain

Subpart A -- General Provisions

Note: *Compliance with the provisions of these standards does not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act or other Federal laws.*

Terms Defined

§ 810.101 Grains for which standards are established.

Grain refers to barley, canola, corn, flaxseed, mixed grain, oats, rye, sorghum, soybeans, sunflower seed, triticale, and wheat. Standards for these food grains, feed grains, and oilseeds are established under the United States Grain Standards Act.

§ 810.102 Definition of other terms.

Unless otherwise stated, the definitions in this section apply to all grains. All other definitions unique to a particular grain are contained in the appropriate subpart for that grain.

(a) *Distinctly low quality.* Grain that is obviously of inferior quality because it is in an unusual state or condition, and that cannot be graded properly by use of other grading factors provided in the standards. Distinctly low quality includes the presence of any objects too large to enter the sampling device; i.e., large stones, wreckage, or similar objects.

(b) *Moisture.* Water content in grain as determined by an approved device according to procedures prescribed in FGIS instructions.

(c) *Stones.* Concreted earthy or mineral matter and other substances of similar hardness that do not disintegrate in water.

(d) *Test weight per bushel.* The weight per Winchester bushel (2,150.42 cubic inches) as determined using an approved device according to procedures prescribed in FGIS instructions. Test weight per bushel in the standards for corn, mixed grain, oats, sorghum, and soybeans is determined on the original sample. Test weight per bushel in the standards for barley, flaxseed, rye, sunflower seed, triticale, and wheat is determined after mechanically cleaning the original sample. Test weight per bushel is recorded to the

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nearest tenth pound for corn, rye, soybeans, triticale, and wheat. Test weight per bushel for all other grains, if applicable, is recorded in whole and half pounds with a fraction of a half pound disregarded. Test weight per bushel is not an official factor for canola.

(e) *Whole kernels.* Grain with one-fourth or less of the kernel removed.

Principles Governing the Application of Standards

§ 810.103 Basis of determination.

(a) *Distinctly low quality.* The determination of distinctly low quality is made on the basis of the lot as a whole at the time of sampling when a condition exists that may or may not appear in the representative sample and/or the sample as a whole.

(b) *Certain quality determinations.* Each determination of rodent pellets, bird droppings, other animal filth, broken glass, castor beans, cockleburs, crotalaria seeds, dockage, garlic, live insect infestation, large stones, moisture, temperature, an unknown foreign substance(s), and a commonly recognized harmful or toxic substance(s) is made on the basis of the sample as a whole. When a condition exists that may not appear in the representative sample, the determination may be made on the basis of the lot as a whole at the time of sampling according to procedures prescribed in FGIS instructions.

(c) *All other determinations.* The basis of determination for all other factors is contained in the individual standards.

§ 810.104 Percentages.

(a) *Rounding.* Percentages are determined on the basis of weight and are rounded as follows:

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

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

(b) *Recording.* The percentage of dockage in flaxseed and sorghum is reported in whole percent with fractions of a percent being disregarded. Dockage in barley and triticale is

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reported in whole and half percent with a fraction less than one-half percent being disregarded. Dockage in wheat and rye is reported in whole and tenth percents to the nearest tenth percent. Foreign material in sunflower seed is reported to the nearest one-half percent. Ranges of sunflower seed foreign material are reported as follows: 0.0 to 0.24 is reported as 0.0 percent, 0.25 to 0.74 as 0.5 percent, 0.75 to 1.24 as 1.0 percent, and the like. Foreign material and fines in mixed grain is reported in whole percent. The percentage of smut in barley, sclerotinia and stones in canola, and ergot in all grains is reported to the nearest hundredth percent. The percentage when determining the identity of all grains is reported to the nearest whole percent. Also reported to the nearest whole percent are the classes and subclasses in wheat; flint corn; flint and dent corn; waxy corn; classes in barley; and the percentage of each kind of grain in mixed grain. Plump barley shall be expressed in terms of the range in which it falls. Ranges shall be: Below 50 percent, 50 to 55 percent, 56 to 60 percent, 61 to 65 percent, and the like. All other percentages are reported in tenths percent.

Grades, Grade Requirements, and Grade Designations

§ 810.105 Grades and grade requirements.

The grades and grade requirements for each grain (except mixed grain) are shown in the grade table(s) of the respective standards. Mixed grain grade requirements are not presented in tabular form.

§ 810.106 Grade designations.

(a) *Grade designations for grain.* The grade designations include in the following order:

- (1) The letters "U.S.";
- (2) The abbreviation "No." and the number of the grade or the words "Sample grade";
- (3) When applicable, the subclass;
- (4) The class or kind of grain;
- (5) When applicable, the special grade(s) except in the case of bright, extra heavy, and heavy oats or plump rye, the special grades "bright", "extra heavy", "heavy", and "plump" will precede the word "oats" or "rye" as applicable; and
- (6) When applicable, the word "dockage" together with the percentage thereof.

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When applicable, the remarks section of the certificate will include in the order of predominance; in the case of a mixed class, the name and approximate percentage of the classes; in the case of sunflower seed, the percentage of admixture; in the case of mixed grain, the grains present in excess of 10.0 percent of the mixture and when applicable, the words *Other grains* followed by a statement of the percentage of the combined quantity of those kinds of grains, each of which is present in a quantity less than 10.0 percent; in the case of barley, if requested, the word "plump" with the percentage range thereof; and in the case of wheat, if requested, the percentage of protein content.

(b) *Optional grade designations.* In addition to paragraph (a) of this Section, grain may be certificated under certain conditions as described in FGIS instructions when supported by official analysis as "U.S. No. 2 or better (*type of grain*)", "U.S. No. 3 or better (*type of grain*)", and the like.

Special Grades, Special Grade Requirements, and Special Grade Designations

§ 810.107 Special grades and special grade requirements.

A special grade serves to draw attention to a special factor or condition present in the grain and, when applicable, is supplemental to the grade assigned under § 810.106. Except for the special grade "infested," the special grades are identified and requirements are established in each respective grain standards.

(a) *Infested wheat, rye, and triticale.* Tolerances for live insects responsible for infested wheat, rye, and triticale are defined according to sampling designations as follows:

(1) *Representative sample.* The representative sample consists of the work portion and the file sample if needed and when available. These grains will be considered infested if the representative sample (other than shiplots) contains two or more live weevils, or one live weevil and one or more other live insects injurious to stored grain, or two or more live insects injurious to stored grain.

(2) *Lot as a whole (stationary).* The lot as a whole is considered infested when two or more live weevils, or one live weevil and one or more other live insects injurious to stored grain, or two or more other live insects injurious to stored grain are found in,

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on, or about the lot (excluding submitted samples and shiplots).

(3) *Sample as a whole (continuous loading/unloading of shiplots and bargelots).* The minimum sample size for bargelots and shiplots is 500 grams per each 2,000 bushels of grain. The sample as a whole is considered infested when a component (as defined in FGIS instructions) contains two or more live weevils, or one live weevil and one or more other live insects injurious to stored grain, or two or more other live insects injurious to stored grain.

(b) *Infested barley, canola, corn, oats, sorghum, soybeans, sunflower seed, and mixed grain.* Tolerances for live insects responsible for infested barley, canola, corn, oats, sorghum, soybeans, sunflower seed, and mixed grain are defined according to sampling designations as follows:

(1) *Representative sample.* The representative sample consists of the work portion, and the file sample if needed and when available. These grains will be considered infested if the representative sample (other than shiplots) contains two or more live weevils, or one live weevil and five or more other live insects injurious to stored grain, or ten or more other live insects injurious to stored grain.

(2) *Lot as a whole (stationary).* The lot as a whole is considered infested when two or more live weevils, or one live weevil and five or more other live insects injurious to stored grain, or ten or more other live insects injurious to stored grain are found in, on, or about the lot (excluding submitted samples and shiplots).

(3) *Sample as a whole (continuous loading/unloading of shiplots and bargelots).* The minimum sample for shiplots and bargelots is 500 grams per each 2,000 bushels of grain. The sample as a whole is considered infested when a component (as defined in FGIS instructions) contains two or more live weevils, or one live weevil and five or more other live insects injurious to stored grain, or ten or more other live insects injurious to stored grain.

§ 810.108 Special grade designations.

Special grade designations are shown as prescribed in § 810.106. Multiple special grade designations will be listed in alphabetical order. In the case of treated wheat, the official certificate shall show whether the wheat has been scoured, limed, washed, sulfured, or otherwise treated.