

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF AGRICULTURE

### Grain Inspection, Packers and Stockyards Administration

#### 7 CFR Part 810

RIN 0580-AA14

#### United States Standards for Corn

**AGENCY:** Grain Inspection, Packers and Stockyards Administration, USDA.

**ACTION:** Proposed rule.

**SUMMARY:** In its periodic review of existing regulations, the Federal Grain Inspection Service (FGIS), a program of the Grain Inspection, Packers and Stockyards Administration (GIPSA), proposes to amend the U.S. Standards for Corn to: Report test weight (TW) to the nearest tenth of a pound, eliminate the count limit on stones and reduce the U.S. Sample grade aggregate weight tolerance from more than 0.2 percent by weight to more than 0.1 percent by weight, and offers stress crack testing as official criteria. This proposed rule is intended to facilitate the marketing of corn.

**DATES:** Comments must be submitted on or before April 24, 1995.

**ADDRESSES:** Written comments must be submitted to George Wollam, GIPSA, USDA, Room 0623-S, P.O. Box 96454, Washington, DC 30090-6454; FAX (202) 720-4628.

All comments received will be made available for public inspection at Room 0623 South Building, 1400 Independence Avenue, SW., Washington, DC during regular business hours (7 CFR 1.27(b)).

**FOR FURTHER INFORMATION CONTACT:** George Wollam, address as above, telephone (202) 720-0292.

#### SUPPLEMENTARY INFORMATION:

##### Executive Order 12866

This rule is exempt from Executive Order 12866 review.

##### Executive Order 12778

This proposed rule has been reviewed under Executive Order 12778, Civil Justice Reform. This action is not intended to have a retroactive effect. The United States Grain Standards Act provides in Section 87g that no State or subdivision may require or impose any requirements or restrictions concerning the inspection, weighing, or description of grain under the Act. Otherwise, this proposed rule will not preempt any State or local laws, regulations, or policies, unless they present any irreconcilable conflict with this rule. There are no administrative procedures which must be exhausted prior to any judicial challenge to the provisions of this rule.

##### Regulatory Flexibility Act Certification

James Robert Baker, Administrator, GIPSA, has determined that this proposed rule will not have a significant economic impact on a substantial number of small entities as defined in the Regulatory Flexibility Act (5 U.S.C. 602 *et seq.*) because most users of the official inspection and weighing services and those entities that perform these services do not meet the requirements for small entities. Further, the regulations are applied equally to all entities.

##### Background

During October 1993, the Federal Grain Inspection Service (FGIS), prepared a discussion paper concerning the U.S. Standards for Corn. This paper addressed a number of issues relating to the standards and was distributed throughout the grain industry. The paper also served as a starting point for discussions with producers, trade associations, processors, handlers, and merchandisers to better understand their views on changes needed to improve existing standards. FGIS received positive feedback from the grain industry regarding the corn discussion paper; and, in fact, numerous industry representatives suggested that FGIS continue to develop and distribute similar documents before amending other standards.

FGIS received a total of 12 written comments concerning the discussion paper: 3 from research associations and universities, 1 from a producer organization, 4 from handler and processor associations, 1 from an

industry consortium, 2 from grain inspection and weighing associations, and 1 from a grain company. In addition to receiving written comments, FGIS reviewed the corn standards with representatives of the Iowa Department of Agriculture, the Grain Quality Workshops, and other corn-related associations.

On the basis of all comments and other available information, FGIS is proposing three changes to the corn standards that reflect current market needs and also serve to improve the effectiveness of the standards. The proposed amendments include: (1) Reporting TW to the nearest tenth of a pound, (2) eliminating the count limit on stones and reducing the U.S. Sample grade aggregate weight tolerance from more than 0.2 percent by weight to more than 0.1 percent by weight, and (3) offering stress crack testing as official criteria.

##### Test Weight (TW)

FGIS proposes to revise § 810.102(d) of the United States Standards for Grain to report TW in corn to the nearest tenth of a pound. This change will bring the reporting requirement for TW into line with the reporting requirements for other factors, such as total damaged kernels and broken corn and foreign material (BCFM).

This is not the first time that FGIS has proposed to revise the reporting requirement for TW in corn. In 1986, (51 FR 35224) to promote greater uniformity among the grain standards, FGIS proposed to reformat the grain standards and solicited comments regarding certification requirements for factors not expressed to the nearest tenth. FGIS proposed to report all percentages (except ergot) and all TW values to the nearest tenth. The proposal included TW in corn which is certified in whole and half pounds with fractions of a half pound disregarded.

The majority of commentors who opposed the proposal indicated that sufficient data were not available to determine how a change in reporting requirements would affect reproducibility of results—especially for TW in coarse grains. FGIS decided not to revise the reporting requirements, except for dockage in wheat (52 FR 24414). FGIS does offer, upon request, the recording of TW results to the nearest tenth pound in the Remarks section of the grade certificate.

An extensive review of FGIS grain inspection and monitoring data, which represent over 4,200 samples, provides standard deviation values for each of the mandatory factors across all grade levels within the corn standards. Standard deviation is a measure of variation; and a particular type of standard deviation, the standard deviation of the difference (SDD), can be used as a measure of reproducibility. When a sample is reanalyzed for a particular factor, the reproducibility of results improves as the SDD becomes smaller.

The review of inspection data resulted in separate SDD values for each grade level for both domestic and export corn samples. Only the export SDD values, however, were calculated from raw TW data reported to the nearest tenth of a pound. Comparison of SDD values between factors will therefore focus on the export values. For TW, the SDD value was the same, 0.366, for all grade levels, thus indicating an insignificant range and a consistent reproducibility in TW values across all grade levels. For damaged kernels total (DKT), the SDD values ranged from 0.853 to 1.814 for U.S. Grade Nos. 1 to 5. For BCFM, the corresponding values ranged from 0.197 to 0.359 for U.S. Grade Nos. 1 to 5. The range in SDD values reflects the range in DKT and BCFM levels and the variance in the reproducibility of results across grade levels.

The TW SDD values are either close to or lower than the SDD values for the other factors when all raw data used in the calculation of the SDD values had been reported to the nearest tenth. It can be inferred from SDD values that the reproducibility of TW results is similar to or better than the reproducibility of DKT and BCFM results. The industry accepts the current practice of reporting DKT and BCFM results to the nearest tenth. Therefore, based on the comparison of SDD values, the industry may also find the reporting of TW to the nearest tenth of a pound acceptable.

Another consideration for the industry is that virtually all TW results are currently rounded down. For example, under the current reporting method, a scale reading 53.99 pounds per bushel is certified as 53.5 pounds per bushel which would meet the TW grade limit for U.S. No. 3 corn. If the results, however, were rounded to the nearest tenth of a pound, the resultant 54.0 pounds per bushel would meet the grade limit for U.S. No. 2 corn. In general, the current practice of rounding down causes TW to almost always be underrepresented throughout the marketing channel. Furthermore, the rounding of TW results to the nearest tenth of a pound will not significantly

affect the assigned grade, since in most cases the rounded result will fall within the grade requirement.

#### **Stones**

FGIS proposes to eliminate the count limit on stones and reduce the aggregate weight tolerance from more than 0.2 percent by weight to more than 0.1 percent by weight. Stones have a harmful effect on corn quality and milling. Several industry representatives have requested that the count limit on stones be eliminated and the aggregate weight tolerance be reduced from more than 0.2 percent by weight to more than 0.1 percent by weight. The elimination of the count limit would serve to further tighten the tolerance of stones by allowing a smaller number of heavy stones to downgrade a sample.

#### **Stress Crack Testing**

FGIS proposes to offer corn stress crack (SC) testing as official criteria under the United States Grain Standards Act. This testing service will be optional and FGIS will recover the cost of providing this service through the applicable inspection fees as set forth in section 800.71(a) of the regulations.

Corn kernels which contain stress cracks tend to break apart, and, as a result, are undesirable in the corn dry milling, wet milling, and food manufacturing processes. In the dry milling process, cracked kernels yield lower percentages of large flaking grits which are the highly valued prime product (ref. 1). Starch recovery, which is an essential component of the wet milling process, is also lower from kernels possessing numerous stress cracks. To the food manufacturer, stress cracks are of concern because of the adverse effect on soaking which is an essential component of the manufacturing process. Some snack food companies currently limit the percent of kernels with stress cracks to values less than 20 percent (ref. 2). Cracked corn is also more difficult to store than undamaged corn, since cracked corn is more readily attacked by microorganisms and is difficult to aerate uniformly.

Cracked corn could also contribute to increased elevator dust levels and, thus, negatively impact elevator safety.

Commentors addressed the various detrimental effects of stress cracks and broken corn, and the majority of commentors recommended that FGIS offer stress crack testing as part of the national inspection service. Due to the importance of stress crack testing, GIPSA proposes to offer stress crack testing, upon request, as official criteria. GIPSA and the official agencies of the

national inspection system will use the method recommended by the Illinois Crop Improvement Association's Identity Preserved Grain Lab (IPGL) which performs stress crack tests on over 4,000 corn samples per year. FGIS will use this method because it is cost-effective, easy to use, and quick.

As described by the IPGL, stress crack tests are performed on random subsamples of 100 kernels. The kernels are inspected visually on a back lighting lightboard and separated into four categories: no or zero stress cracks, and more than two or multiple stress cracks. The percentage of kernels falling into each category is used to calculate the percentage of stress cracks and a stress crack index as follows:

$$\% \text{ TSC} = [\% \text{ single SC} + \% \text{ double SC} + \% \text{ multiple SC}]$$

$$\text{SCI} = [(\% \text{ single SC}) + (\% \text{ double SC} \times 3) + (\% \text{ multiple SC} \times 5)]$$

where SC = stress cracks, SCI = stress crack index,

and TSC = total stress cracks

The stress crack index is an indication of the multiplicity of stress cracks in each kernel. The weighting factors indicate that corn kernels with double and multiple stress cracks are more susceptible to breakage than kernels with single stress cracks.

FGIS seeks comments not only on the proposal to offer stress crack testing as official criteria but on the reporting method for results. Since the information will be readily available, commentors should address whether the percentage of stress cracks in each of the three categories, single, double, and multiple, should, be reported. If no comments are received on the reporting method, FGIS will report only the total percent of stress cracks and the stress crack index.

#### **Miscellaneous Changes**

FGIS proposes to revise the format of the grade chart in § 810.404, Grades and grade requirements for corn, to improve the readability of the grade chart.

#### **Proposed Action**

FGIS proposes to revise § 810.102, Definition of other terms, by revising section (d), Test weight per bushel. It is proposed that TW in corn be reported to the nearest tenth of a pound.

FGIS proposes to revise § 810.404, Grades and grade requirements for corn, by revising the definition of U.S. Sample grade by eliminating the count limit on stones and reducing the aggregate weight criteria from more than 0.2 percent by weight to more than 0.1 percent by weight.

Comments including data, views, and arguments are solicited from interested

persons. Pursuant to Section 4(b)(1) of the United States Grain Standards Act, as amended (7 U.S.C. 76(b)(1)), upon request, such information concerning changes to the standards may be orally presented in an informal manner. Also, pursuant to this section, no standards established or amendments or revocations of standards are to become effective less than one calendar year after promulgation unless, in the judgement of the Administrator, the public health, interest, or safety require that they become effective sooner.

**References**

- (1) Reid, J.F., Kim, C., and Paulsen, M.R. 1991, "Computer Vision Sensing of Stress Cracks in Corn Kernels" ASAE, Sept/Oct, v.34 p. 8-9.
- (2) Strohshine, R. 1991, "Breakage Susceptibility Technology, Uniformity by 2000," Scherer communications, Urbana. p. 410-416.

**List of Subjects in 7 CFR Part 810**

Exports, Grain.

For reasons set out in the preamble, 7 CFR Part 810 is proposed to be amended as follows:

**PART 810—OFFICIAL UNITED STATES STANDARDS FOR GRAIN**

1. The authority citation for Part 810 continues to read as follows:

**Authority:** Pub. L. 94-582, 90 Stat. 2867, as amended (7 U.S.C. 71 *et seq.*).

2. Section 810.102(d) is revised to read as follows:

**§ 810.102 Definition of other terms.**

(d) *Test-weight.* 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 in the standards for corn, mixed grain, oats,

sorghum, and soybeans is determined on the original sample. Test-weight in the standards for barley, flaxseed, rye, sunflower seed, triticale, and wheat is determined after mechanically cleaning the original sample. Test-weight is recorded to the nearest tenth pound for corn, rye, triticale, and wheat. Test-weight for all other grains, if applicable, is recorded in whole and half pounds with a fraction of a half pound disregarded. Test-weight is not an official factor for canola.

\* \* \* \* \*

3. Section 810.404 is revised to read as follows:

**§ 810.404 Grades and grade requirements for corn.**

Grading factors	Grades U.S. Nos.				
	1	2	3	4	5
<b>Maximum limits of:</b>					
Test Weight (lbs/bu) .....	56.0	54.0	52.0	49.0	46.0
<b>Maximum percent limits of:</b>					
Damaged kernels Heat (part of total) .....	0.1	0.2	0.5	1.0	3.0
Total .....	3.0	5.0	7.0	10.0	15.0
Broken corn and foreign material .....	2.0	3.0	4.0	5.0	7.0
Animal filth .....	0.2	0.2	0.2	0.2	0.2
Stones .....	0.1	0.1	0.1	0.1	0.1
<b>Maximum count limits of:</b>					
Other materials:					
Castor beans .....	1	1	1	1	1
Cockleburs .....	7	7	7	7	7
Crotalaria seeds .....	2	2	2	2	2
Glass .....	1	1	1	1	1
Unknown foreign substance .....	3	3	3	3	3
U.S. Sample grade:					
U.S. Sample grade is corn that:					
(a) Does not meet the requirements for the grades U.S. Nos, 1, 2, 3, 4, or 5; or					
(b) Has a musty, sour, or commercially objectionable foreign odor; or					
(c) Is heating or otherwise of distinctly low quality.					

**Harold W. Davis,**

Acting Administrator, Grain Inspection, Packers and Stockyards Administration.  
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**DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
14 CFR Part 39**

[Docket No. 94-ANE-41]

**Airworthiness Directives; General Electric Company CF6 Series Turbofan Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to General Electric Company (GE) CF6-80A series turbofan engines. This proposal would require an initial and repetitive on-wing eddy current inspection or an on-wing spot fluorescent penetrant inspection of the compressor rear frame (CRF) midflange for cracks, and replacement, if