

M. WHEAT

Established standards for Hard Red Winter Wheat, Soft Red Winter Wheat, Common White Wheat, and Club Wheat effective July 1, and standards for all other wheat effective August 1, 1917

Revised effective July 15, 1918

1. Eliminated the subclasses Red Spring Humpback and Soft Red. Wheat of the variety Humpback was included in the subclass Red Spring. A grade "Garlicky" was established which applied to all classes and took the place of subclass Soft Red in the class Soft Red Winter Wheat. The class name Common and Red Durum Wheat was changed to Durum Wheat.
2. Changed the minimum limits of dark, hard, and vitreous kernels in the subclass Dark Hard Spring from 85 percent to 75 percent, in the subclass Dark Hard Winter from 90 percent to 80 percent, and for No. 1 Dark Hard Winter from 95 percent to 80 percent.
3. Changed the definition for the subclass Hard White from "not more than 20 percent of kernels of soft and chalky texture" to "75 percent or more of hard (not soft and chalky) kernels," and for the subclass Soft White from "more than 20 percent of kernels of soft and chalky texture" to "less than 75 percent of hard (not soft and chalky) kernels."
4. Changed the minimum test weight per bushel for grade No. 1 for all subclasses of Hard Red Spring Wheat from 59 pounds to 58 pounds. Changed the minimum test weight per bushel for all subclasses of Durum Wheat, Hard Red Winter Wheat, and the subclass Red Winter of the class Soft Red Winter Wheat from 61, 59, 57, 55, and 53 pounds for grades Nos. 1 through 5 to 60, 58, 56, 54, and 51 pounds. Changed the minimum test weight per bushel for the subclass Red Walla of the class Soft Red Winter Wheat from 60, 58, 56, 54, and 52 pounds for grades Nos. 1 through 5 to 58, 56, 54, 52, and 49 pounds, and from 52 pounds to 51 pounds for grade No. 5 for all subclasses of White Wheat.
5. Changed the maximum limits of damaged kernels in grade No. 1 from 1 percent to 2 percent and of heat-damaged kernels from no heat-damaged kernels and 0.1 percent in grades No. 1 and No. 2 to 0.1 percent and 0.2 percent.
6. Changed the names of grading factors "Inseparable foreign material" and "Kinghead, corncockle, vetch, darnel, and wild rose" to "Foreign material other than dockage" and "Matter other than cereal grains." Changed the maximum limits of foreign material other than dockage from 0.5, 1, 2, 4, and 6 percent for grades Nos. 1 through 5 to 1, 2, 3, 5, and 7 percent, and of matter other than cereal grains from 0.25, 0.5, 1, 2, and 3 percent for grades Nos. 1 through 5 to 0.5, 1.0, 2.0, 3.0, and 5.0 percent.
7. Changed the maximum limits of wheats of other classes for all classes except Durum

Wheat from 2, 4, and 6 percent in grades Nos. 1, 2, and 3 to 5, 10, and 10 percent.

Changed the maximum limits of wheats of other classes in the subclasses Amber Durum and Durum in the class Durum Wheat from 2 percent in grade No. 1 to 5 percent.

Changed the maximum limits of wheat of other classes in the subclass Red Durum in the class Durum Wheat from 2, 4, and 6 percent for grades Nos. 1 through 3 to 5, 10, and 10 percent.

Changed the maximum limits of Common White, White Club, and Durum Wheat, singly or combined, in the classes Hard Red Spring Wheat and Hard Red Winter Wheat from 1, 2, 3, 5, and 5 percent for grades Nos. 1 through 5 to 2, 5, 10, 10, and 10 percent.

Changed the maximum limits of Soft Red Winter, Common White, and White Club wheat, singly or combined, in the subclasses Amber Durum and Durum of the class Durum Wheat from 1, 5, 5, 5, and 5 percent in grades Nos. 1 through 5 to 2, 5, 10, 10, and 10 percent.

Changed the maximum limits of Soft Red Winter, Common White, and White Club wheat, singly or combined, in the subclass Red Durum of the class Durum Wheat from 1, 2, 3, 5, and 5 percent for grades Nos. 1 through 5 to 2, 5, 10, 10, and 10 percent.

Changed the maximum limits of Durum wheat in the classes Soft Red Winter Wheat and White Wheat from 1 percent in each of the grades Nos. 1 through 5 to 2, 3, 10, 10, and 10 percent.

8. Changed the maximum moisture limits for the classes Hard Red Spring Wheat and Durum Wheat from 13.5, 14.5, 14.5, 15.5, and 15.5 percent for grades Nos. 1 through 5 to 14.0, 14.5, 15.0, 16.0, and 16.0 percent.

Changed the maximum moisture limits for the classes Hard Red Winter Wheat, Soft Red Winter Wheat, and White Wheat from 13, 13, 14, 14, and 15 percent for grades Nos. 1 through 5 to 13.5, 14.0, 14.5, 15.5, and 15.5 percent.

9. Added a grade for Garlicky wheat, Treated wheat, and Smutty wheat and changed the method of expressing the grades for Mixed Wheat.
10. Excluded emmer, spelt, and einkorn from the definition for wheat.
11. Changed the method of expressing dockage from whole and half percent to whole percent.

Amended effective August 15, 1921

Eliminated "bright" from the No. 1 grade requirements.

Amended effective July 17, 1922

Combined the classes Common White Wheat and White Club Wheat into one class White Wheat with three subclasses Hard White, Soft White, and Western White. In the class Soft Red Winter Wheat, changed the subclass Red Walla to Western Red.

Amended effective August 15, 1924

1. Established the grade No. 1 Hard Spring for Hard Red Spring Wheat with 85 percent or more dark, hard, and vitreous kernels and test weight of not less than 60 pounds.
2. Provided grades for Mixed Durum, for Mixed Wheat with more than 70 percent of Durum and not more than 5 percent of Soft Red Winter and/or White Wheat.
3. Changed the test weight per bushel requirements for the several numerical grades of the subclass Western Red from 58, 56, 54, 52, and 49 to 60, 58, 56, 54, and 51.
4. Changed the grading of wheat infested with live weevils from Sample grade to a grade Weevily Wheat.
5. Excluded Polish and poulard wheat from the definition of wheat.
6. Revised the definition for treated wheat.

Revised effective July 2, 1934

1. Removed moisture as a specific numerical grading factor and established a special grade Tough wheat for wheat between 14.5 and 16 percent moisture for the classes Hard Red Spring Wheat, Durum Wheat, and Red Durum Wheat and for wheat between 14 and 15.5 percent moisture for the classes Hard Red Winter Wheat, Soft Red Winter Wheat, and White Wheat. Wheat with more than the maximum moisture permitted in the special grade Tough wheat was graded Sample grade.
2. Divided the class Durum Wheat into two classes, Durum Wheat and Red Durum Wheat. Durum Wheat was divided into three subclasses, Hard Amber Durum, Amber Durum, and Durum. The subclass White Club was added to the class White Wheat, and a slight change was made in the definition of the subclass Western White.
3. Changed the grading of musty and sour wheat from No. 5 to Sample grade.
4. The grade No. 1 Hard Spring was dropped and No. 1 Heavy was adopted for Hard Red Spring Wheat with a test weight of 60 pounds.

5. The minimum percentage of dark, hard, and vitreous kernels in the subclass Dark Hard Winter was changed from 80 percent to 75 percent.
6. Redesignated the grades Treated wheat, Garlicky wheat, Smutty wheat, and Weevily wheat as special grades and added a special grade Ergoty wheat.
7. The special grade Garlicky wheat was liberalized from "one or more garlic bulblets" to "two or more green garlic bulblets or an equivalent quantity of dry or partly dry bulblets" per 1,000 grams of wheat and the special grade was divided into Light garlicky and Garlicky, based on the number of bulblets.
8. The special grade Smutty wheat was liberalized from "in excess of 2 balls of average size in 50 grams of wheat" to "10 balls of average size in 250 grams of wheat," and the special grade was divided into Light smutty and Smutty based on the quantity of smut.
9. A limit of 10 percent of Red Durum was allowed in Mixed Durum.
10. Damaged and heat-damaged was applied to kernels and pieces of kernels of other grains as well as to the wheat kernels.
11. The determination of other grains in the definition of wheat was on the basis of the wheat before the removal of the dockage rather than on the dockage-free basis as before.
12. Changed the maximum limits of wheats of other classes in all classes of wheat from 5 to 10 percent for grade No. 2.

Amended effective July 25, 1934

Increased the amount of smut in the special grade Smutty wheat from "in excess of a quantity equal to 10 balls of average size," to "in excess of a quantity equal to 14 balls of average size" in 250 grams of wheat.

Amended effective July 1, 1935

Changed the basic moisture method from the Brown-Duvel to the air-oven or any method giving similar results.

Revised effective October 1, 1937

1. Prescribed the manner in which the grade designation for Mixed Wheat was to be written and changed the grade requirements for Mixed Durum to provide that wheat with not less than 60 percent of kernels that are hard and vitreous and of amber color be designated as Amber Mixed Durum.
2. Provided limits of 7 percent of shrunken and broken kernels in the top two grades and 10 percent in grade No. 3.

Amended effective August 2, 1954

Changed the method of expressing smut dockage.

Revised effective June 15, 1957

1. Changed the maximum limits of foreign material from 1.0, 2.0, 3.0, 5.0, and 7.0 percent in grades Nos. 1 through 5 to 0.5, 1.0, 2.0, 3.0, and 5.0 percent.
2. Eliminated the factor "matter except other grains."
3. Changed the maximum limits of shrunken and broken kernels from 7 percent for grades No. 1 and No. 2 and 10 percent for grade No. 3 to 5.0 percent and 8.0 percent.
4. Changed the maximum limits of wheats of other classes in grade No. 2 from 10 percent to 5.0 percent.
5. Changed the minimum limits of dark, hard and vitreous kernels in the subclass Hard Winter Wheat from 25 percent to 40 percent.
6. Eliminated Amber Mixed Durum and Mixed Durum from the grade designation in the class Mixed Wheat.
7. Provided that distinctly low quality be determined on the basis of the grain as a whole.

Amended effective February 8, 1961

Provided that the term D.L.Q. (Distinctly low quality) be construed to include wheat which contains more than two crotalaria seeds in 1,000 grams.

Revised effective June 1, 1964 (29 FR 1309, 2593, 5378, 5/29/64)

1. Changed the method of expressing dockage from whole percent to whole and half percent.
2. Eliminated the subclasses Red Winter Wheat and Western Red Wheat in the class Soft Red Winter Wheat.
3. Provided that the name and percentage of White Club Wheat and other White Wheat be given as a part of the grade designation in the subclass Western White Wheat.
4. The clause "and may include not more than 10.0 percent of wheats of other classes" was deleted from the definition for the classes Hard Red Spring Wheat, Durum Wheat, Red Durum Wheat, Hard Red Winter Wheat, Soft Red Winter Wheat, and White Wheat.
5. Changed the definition for the class Mixed Wheat.
6. Changed the maximum limits of shrunken and broken kernels from 5.0 percent for grades No. 1 and No. 2 and 8.0 percent for grade No. 3 to 3.0, 5.0, 8.0, 12.0, and 20.0 percent for grades No. 1, No. 2, No. 3, No. 4, and No. 5, respectively.
7. Added a factor "total defects" which included damaged kernels, foreign material, and shrunken and broken kernels and provided maximum limits of 3.0, 5.0, 8.0, 12.0, and 20.0 percent for grades No. 1, No. 2, No. 3, No. 4, and No. 5, respectively.
8. Combined the tables of grade requirements for all classes of wheat into one table.
9. Reduced the minimum moisture requirements for the special grade Tough wheat for the classes Hard Red Winter Wheat, Soft Red Winter Wheat, and White Wheat from 14.0 percent and for the classes Hard Red Spring Wheat, Durum Wheat, and Red Durum Wheat from 14.5 percent to 13.5 percent for all classes. Eliminated the maximum moisture requirement for the special grade Tough wheat for all classes and deleted reference to moisture in the definition for Sample grade.
10. Provided a special grade Heavy wheat for all classes to be applied to grades No. 1, No. 2, and No. 3. Eliminated the grade No. 1 Heavy in the class Hard Red Spring Wheat.
11. Deleted smut dockage in the special grade Smutty wheat.
12. Moisture in Durum Wheat was rescinded not to become effective until June 1, 1965, so Durum Wheat with over 16 percent moisture is graded Sample grade. Durum Wheat with over 14.5 percent but not over 16.0 percent moisture is graded special grade Tough wheat.

13. Changed the maximum limits of wheat of other classes in grade No. 1 from 5.0 to 3.0 percent. A new factor, Contrasting Classes, was created and defined as: (a) Durum Wheat, Red Durum Wheat, and White wheat in the classes Hard Red Spring Wheat and Hard Red Winter Wheat; (b) Hard Red Spring Wheat, Red Durum Wheat, Hard Red Winter Wheat, Soft Red Winter Wheat, and White Wheat in the class Durum Wheat; (c) Durum Wheat and Red Durum Wheat in the class Soft Red Winter Wheat; and (d) Durum Wheat, Red Durum Wheat, Hard Red Spring Wheat, and Hard Red Winter Wheat in the class White Wheat. The maximum limits of contrasting classes in all classes of wheat were set at 0.5, 1.0, 2.0, 10.0, and 10.0 for grades No. 1, No. 2, No. 3, No. 4, and No. 5, respectively.

NOTE: The provision rescinding the moisture requirement for Sample grade and the special grade Tough wheat in Durum Wheat until June 1, 1965, was not extended; and on June 1, 1965, the moisture requirement for the special grade Tough wheat was reduced from 14.5 percent to 13.5 percent, and the reference to moisture in the definition in Sample grade was deleted.

Amended effective June 15, 1965

Changed the maximum limits of contrasting classes in grades No. 1, No. 2, and No. 3 from 0.5, 1.0, and 2.0 percent to 1.0, 2.0, and 3.0 percent, respectively, in all classes of wheat except Mixed Wheat.

Amended effective January 31, 1969 (33 FR 16065, 11/1/68)

1. Lowered the test weight per bushel requirements for White Club Wheat to those established for Hard Red Spring Wheat.
2. Redefined Sample grade to include factors previously considered under the term "otherwise of distinctly low quality."

Amended effective March 30, 1969

The wheat standards were assigned new section numbers (§§ 26.101 - 26.129 changed to read §§ 26.301 - 26.329).

Amended effective February 28, 1970 (34 FR 3591, 2/28/69)

Provided that the prefix U.S. be shown on all official grain grades.

Amended effective August 10, 1973 (38 FR 21639, 8/10/73)

The determination for crotalaria seeds, large stones, castor beans, broken glass, animal filth, unknown foreign substances, and commonly recognized harmful or toxic substances changed from the basis of the dockage-free wheat to the basis of the wheat as a whole.

Amended effective January 8, 1974

The name of the wheat standards changed from "Official Grain Standards of the United States for Wheat" to "United States Standards for Wheat."

Revised effective May 1, 1977 (41 FR 26670, 6/29/76)

1. Deleted the class Red Durum Wheat.
2. Established a new class Unclassed Wheat.
3. Deleted the subclasses in the class Hard Red Winter Wheat.
4. Changed the basis of determination for heat-damaged kernels, damaged kernels (total), and foreign material from a dockage-free basis to a dockage and shrunken and broken kernel-free basis.
5. Changed the limits for heat-damaged kernels in grades U.S. Nos. 1 and 2 from 0.1 and 0.2 percent, respectively, to 0.2 percent for both grades.
6. Deleted the special grade Heavy wheat.
7. Deleted the special grade Tough wheat.
8. The components and percentages for the subclass Western White Wheat and the classes Unclassed Wheat and Mixed Wheat to be shown under "Remarks" on the inspection certificate.

Amended effective May 1, 1977 (42 FR 9379, 2/16/77)

1. Section 26.303(b), heading changed to read "Certain Quality Determinations."
2. Included broken glass in the definition of sample grade to correct an inadvertent omission.

Amended effective September 8, 1977 (42 FR 30146, 6/13/77)

Certification requirements were changed so that a lot would be certificated:

1. As being of a specific U.S. grade, or
2. As being equal to or better in quality, as defined by the U.S. Standards for Wheat, than the grade specified by the contract; i.e., U.S. No. 2 or better, U.S. No. 3 or better, etc.

Amended effective October 28, 1983 (48 FR 44167, 9/28/83)

Changed inspection procedures so the determination of odor may be performed either prior to or after mechanical cleaning of the sample.

Amended effective May 1, 1985 (49 FR 20640, 5/16/84)

1. Deleted the special grade "Light garlicky wheat." The special grade "Garlicky wheat" is redefined as wheat containing more than 2 green bulblets or an equivalent quantity of dry or partly dry bulblets in 1,000 grams. The work portion is reduced to 250 grams for counts in excess of 10 green garlic bulblets.
2. Reduced the limit for castor beans permitted in the numerical grades to 1 from 2.
3. Clarified the grade chart to show that when Hard Red Spring wheat or White Club wheat predominates in Mixed wheat, the test weight requirements for those wheats would apply.
4. Deleted the presence of a quantity of smut so great that one or more grade requirements cannot be accurately determined as a criterion in designating wheat Sample grade.
5. The components of the subclass Western White wheat are listed in the order of predominance on the official certificate.
6. Changed inspection procedures so the factors wheat of other classes, contrasting classes, and subclasses are analyzed on a work portion of wheat free from dockage and shrunken and broken kernels.

Revised effective May 1, 1987 (52 FR 30325, 8/26/86)

Revised § 810.305(b) to state the percentage of dockage in whole and tenth percents to the nearest 0.1 percent.

Revised effective June 30, 1987 (52 FR 24418, 6/30/87)

Removed rounding procedures for inclusion into Subpart A, General Provisions.

Amended effective May 1, 1988 (52 FR 24441, 6/30/87)

1. Redesignated the special grade "weevily" to "infested" to more appropriately describe grain containing live insects injurious to stored grain.
2. Revised tolerances for "infested."
3. Revised the definition for Sample grade to include a limit of 32 insect-damaged kernels per 100 grams of representative sample.

Revised effective May 1, 1990 (54 FR 48735, 11/27/89)

Replaced the single class White wheat with two classes, Hard White wheat and Soft White wheat. The class Soft White wheat has three subclasses, Common White wheat, White Club wheat, and Western White wheat. The class Hard White wheat has no subclasses. This change provides greater consistency in applying the standards; makes the standards easier to interpret; and facilitates trade in both hard and soft white wheat.

Revised effective May 1, 1993 (57 FR 58966, 12/14/92)

1. Removed the description Red Durum wheat from the definition of Unclassed wheat.
2. Tightened the limit for stones from 8 or more to 4 or more and reduced the aggregate weight criteria from more than 0.2 percent by weight to more than 0.1 percent by weight.
3. Reduced the tolerances for pieces of glass from 2 or more to 1 or more (0 tolerance).
4. Established a cumulative total for factors which may cause a sample to grade U.S. Sample grade. Any combination of stones, crotalaria seeds, castor beans, particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance, or animal filth per 1,000 grams would cause the wheat to be graded U.S. Sample grade if the total exceeds a count of 4.
5. Tightened the limit for ergot from 0.30 percent to 0.05 percent by weight.
6. Tightened the limit for the special grade "Light smutty" wheat from more than 14 smut balls to more than 5 smut balls.

7. Tightened the limits for foreign material for U.S. Nos. 1, 2, and 3 to 0.4, 0.7, and 1.3 percent, respectively.