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United States Standards for Beans

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UNITED STATES STANDARDS FOR BEANS

Source: 34 FR 7863, May 17, 1969, unless otherwise noted.

Effective December 19, 2008

Terms Defined

101 Beans.

Beans shall be dry threshed field and garden beans, whole, broken, and split, commonly used for edible purposes.

102 Classes.¹

Beans shall be divided into classes as follows, each of which, except Mixed beans, may contain not more than 2.0 percent of beans of contrasting classes and not more than 15.0 percent of beans of other classes that blend:

Pea beans (the type as grown in the Great Lakes region known also as Navy beans).

Blackeye beans (cowpeas of the Blackeye variety).

Cranberry beans (known also as Speckled Cranberry and Horticultural Pole).

Yellow beans.

Pinto beans (including the Mexican Pinto type but not the type known as Spotted Red Mexican).

Marrow beans (not including Red Marrow).

Great Northern beans.

Small White beans (the type as grown on the Pacific coast, not including Tepary beans).

Flat Small White beans (the type as grown in northern Idaho).

White Kidney beans.

Light Red Kidney beans.

Dark Red Kidney beans.

Small Red beans (known also as Red Mexican, California Red, and Idaho Red).

Pink beans.

Black beans.

Mung beans.

Miscellaneous beans: Beans that are not otherwise classified in these standards shall be classified and designated according to the commonly accepted commercial name of such beans.

Large Lima beans (characteristic of the Large White Pole and Burpee Bush Lima type).

Baby Lima beans (characteristic of Small White Lima beans of the Henderson Bush and similar types).

Miscellaneous Lima beans: Lima beans that do not come within the classes Large Lima or Baby Lima shall be classified and designated according to their commonly accepted commercial name.

Mixed beans: Mixed beans shall be any mixture of beans not provided for in the classes listed above.

[62 FR 52967, Oct. 10, 1997]

¹ *The use of a variety name in the designation of the class of beans does not imply any guarantee of varietal purity.*

103 Grades.

Grades shall be the numerical grades, substandard grades, sample grades, and special grades provided for in 125 through 135. *[47 FR 19310, May 5, 1982][62 FR 52967, Oct. 10, 1997]*

104 Sound beans.

Sound beans shall be beans that are free from defects.

105 Defects.

Defects for the classes Baby Lima and Miscellaneous Lima beans shall be damaged beans, contrasting classes, and foreign material. Defects for all other classes of beans shall be splits, damaged beans, contrasting classes, and foreign material.

106 Splits.

Splits shall be pieces of beans that are not damaged, each of which consists of three-fourths or less of the whole bean, and shall include any sound bean the halves of which are held together loosely.

107 Damaged beans.

Damaged beans shall be beans and pieces of beans that are damaged by frost, weather, disease, weevils or other insects, or other causes.

108 Badly damaged beans.

Badly damaged beans shall be beans and pieces of beans that are materially damaged or discolored by frost, weather, disease, weevils or other insects, or other causes so as to materially affect the appearance and quality of the beans.

109 Foreign material.

Foreign material shall be stones, dirt, weed seeds, cereal grains, lentils, peas, and all matter other than beans.

[44 FR 73007, Dec. 17, 1979]

110 Stones.

Stones shall be concreted earthy or mineral matter, and other substances of similar hardness that do not disintegrate readily in water.

111 Contrasting classes.

Contrasting classes shall be beans of other classes that are of a different color, size, or shape from the beans of the class designated.

112 Classes that blend.

Classes that blend shall be sound beans of other classes that are similar in color, size, and shape to the beans of the class designated, and shall include white beans in the class Yelloweye which are similar in size and shape to the Yelloweye beans.

113 Broken beans.

Broken beans shall be sound beans with some but less than one-fourth of each bean broken off or with one-fourth or more of the seedcoat removed.

114 Blistered beans.

Blistered beans shall be sound beans with badly blistered or burst seedcoats.

115 Wrinkled beans.

Wrinkled beans shall be sound beans that have deeply wrinkled seedcoats and/or are badly warped or misshapen.

116 Weevily beans.

Weevily beans shall be beans that are infested with live weevils or other insects injurious to stored beans or that contain weevil-bored beans.

117 Clean-cut weevil-bored beans.

Clean-cut weevil-bored beans shall be beans from which weevils have emerged, leaving a clean-cut open cavity free from larvae, webbing, refuse, mold, or stain.

118 Well screened.

Well screened, as applied to the general appearance of beans, shall mean that the beans are uniform in size and are practically free from such small, shriveled, underdeveloped beans, splits, broken beans, large beans, and foreign material that can be removed readily by the ordinary process of milling or screening through the proper use of sieves.

119 30/64 sieve.

A 30/64 sieve shall be a metal sieve 0.0319-inch thick perforated with round holes 0.4687 (30/64) inch in diameter which are 11/16 inch from center to center. The perforations of each row shall be staggered in relation to the adjacent rows.

120 28/64 sieve.

A 28/64 sieve shall be a metal sieve 0.0319-inch thick perforated with round holes 0.4375 (28/64) inch in diameter which are 19/32 inch from center to center. The perforations of each row shall be staggered in relation to the adjacent rows.

[34 FR 7863, May 17, 1969, as amended at 54 FR 51344, Dec. 14, 1989]

121 24/64 sieve.

A 24/64 sieve shall be a metal sieve 0.0319-inch thick perforated with round holes 0.3750 (24/64) inch in diameter which are 17/32 inch from center to center. The perforations of each row shall be staggered in relation to the adjacent rows.

PRINCIPLES GOVERNING APPLICATION OF STANDARDS

122 Basis of determination.

All determinations shall be upon the basis of the beans as a whole.

[62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]

123 Percentages.

All percentages shall be determined upon the basis of weight, and shall be stated in terms of whole, tenths, and hundredths of a percent as required for individual factors.

[62 FR 52967, Oct. 10, 1997]

124 Moisture.

Water content in beans as determined by an approved device according to procedures prescribed in FGIS instructions.

GRADES, GRADE REQUIREMENTS, GRADE DESIGNATIONS, SPECIAL GRADES AND SPECIAL GRADE REQUIREMENTS

125 Grades and grade requirements for the class Cranberry Beans.

Grade	Percent Maximum Limits of ---						Classes that Blend ³
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, & Splits)	Total Damaged	Foreign Material		Contrasting Classes ²	
				Total (including stones)	Stones		
U.S. No. 1	18.0	4.0	2.0	0.5	0.2	0.5	5.0
U.S. No. 2	18.0	6.0	4.0	1.0	0.4	1.0	10.0
U.S. No. 3	18.0	8.0	6.0	1.5	0.6	2.0	15.0
<p>U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.</p> <p>U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality. <i>[62 FR 52967, Oct. 1997]</i></p> <p>¹Beans with more than 18.0 percent moisture are graded High moisture. ²Beans with more than 2.0 percent contrasting classes are graded Mixed beans. ³Beans with more than 15.0 percent classes that blend are graded Mixed beans. <i>[47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]</i></p>							

126 Grades and grade requirements for the class Pea Beans.

Grade	Percent Maximum Limits of ---						Classes that Blend ³
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, & Splits)	Badly Damaged	Foreign Material		Contrasting Classes ²	
				Total (including stones)	Stones		
U.S. Choice Handpicked	18.0	1.5	0.3	0.01	0.01	0.01	2.0
U.S. Prime Handpicked	18.0	3.0	0.3	0.01	0.01	0.01	2.0
U.S. No. 1	18.0	2.0	2.0	0.4	0.2	0.5	4.0
U.S. No. 2	18.0	3.0	3.0	0.8	0.4	1.0	4.0
<p>U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. Choice Handpicked through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.</p> <p>U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.</p> <p>¹Beans with more than 18.0 percent moisture are graded High moisture. ²Beans with more than 2.0 percent contrasting classes are graded Mixed beans. ³Beans with more than 15.0 percent classes that blend are graded Mixed beans.</p> <p>[47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]</p>							

127 Grades and grade requirements for the class Blackeye Beans.

Grade	Percent Maximum Limits of ---						
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, & Splits)	Total Damaged	Foreign Material		Contrasting Classes ²	Classes that Blend ³
				Total (including stones)	Stones		
U.S. No. 1	18.0	4.0	2.0	0.5	0.2	0.5	5.0
U.S. No.2	18.0	6.0	4.0	1.0	0.4	1.0	10.0
U.S. No. 3	18.0	8.0	6.0	1.5	0.6	2.0	15.0

U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.

U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.

¹Beans with more than 18.0 percent moisture are graded High moisture.
²Beans with more than 2.0 percent contrasting classes are graded Mixed beans.
³Beans with more than 15.0 percent classes that blend are graded Mixed beans.
*[47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997]
[69 FR 75504, Dec. 17, 2004]*

128 Grades and grade requirements for the class Yelloweye Beans.

Grade	Percent Maximum Limits of ---							
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, Splits)	Total Damaged	Foreign Material		Contrasting Classes ²	Classes that Blend ³	In Addition to Classes that Blend, White Beans Similar in Size and Shape in the Class Yelloweye Beans
				Total (including stones)	Stones			
U.S. No. 1	18.0	4.0	2.0	0.5	0.2	0.5	5.0	5.0
U.S. No.2	18.0	6.0	4.0	1.0	0.4	1.0	10.0	5.0
U.S. No. 3	18.0	8.0	6.0	1.5	0.6	2.0	15.0	--
<p>U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.</p> <p>U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.</p> <p>¹Beans with more than 18.0 percent moisture are graded High moisture. ²Beans with more than 2.0 percent contrasting classes are graded Mixed beans. ³Beans with more than 15.0 percent classes that blend are graded Mixed beans.</p> <p>[47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]</p>								

129 Grades and grade requirements for the class Pinto Beans.

Grade	Percent Maximum Limits of ---						Classes that Blend ³
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, & Splits)	Total Damaged	Foreign Material		Contrasting Classes ²	
				Total (including stones)	Stones		
U.S. No. 1	18.0	3.0	3.0	0.5	0.2	0.5	5.0
U.S. No.2	18.0	5.0	5.0	1.0	0.4	1.0	10.0
U.S. No. 3	18.0	7.0	7.0	1.5	0.6	2.0	15.0
<p>U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.</p> <p>U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.</p> <p>¹Beans with more than 18.0 percent moisture are graded High moisture. ²Beans with more than 2.0 percent contrasting classes are graded Mixed beans. ³Beans with more than 15.0 percent classes that blend are graded Mixed beans. [47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]</p>							

130 Grades and grade requirements for the classes Marrow, Great Northern, Small White, Flat Small White, White Kidney, Light Red Kidney, Dark Red Kidney, Small Red, Pink, Black, and Miscellaneous.

Grade	Percent Maximum Limits of ---						
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, & Splits)	Total Damaged	Foreign Material		Contrasting Classes ²	Classes that Blend ³
				Total (including stones)	Stones		
U.S. No. 1	18.0	2.0	2.0	0.5	0.2	0.5	5.0
U.S. No.2	18.0	4.0	4.0	1.0	0.4	1.0	10.0
U.S. No. 3	18.0	6.0	6.0	1.5	0.6	2.0	15.0
<p>U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.</p> <p>U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.</p> <p>¹Beans with more than 18.0 percent moisture are graded High moisture. ²Beans with more than 2.0 percent contrasting classes are graded Mixed beans. ³Beans with more than 15.0 percent classes that blend are graded Mixed beans. [47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]</p>							

131 Grades and grade requirements for the class Mung Beans.

Grade	Percent Maximum Limits of ---							
	Moisture ¹	Total Defects (Total damaged, Total foreign material, Contrasting classes, & Splits)	Total Damaged	Clean cut Weevil Bored ²	Foreign Material		Contrasting Classes ³	Classes that Blend ⁴
					Total (including stones)	Stones		
U.S. No. 1	18.0	2.0	2.0	0.1	0.5	0.2	0.5	5.0
U.S. No.2	18.0	4.0	4.0	0.2	1.0	0.4	1.0	10.0
U.S. No. 3	18.0	6.0	6.0	0.5	1.5	0.6	2.0	15.0

U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.

U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.

¹Beans with more than 18.0 percent moisture are graded High moisture.
²Beans with more than 0.5 percent clean cut weevil bored beans are graded U.S. Sample Grade.
³Beans with more than 2.0 percent contrasting classes are graded Mixed beans.
⁴Beans with more than 15.0 percent classes that blend are graded Mixed beans.
*[47 FR 19311, May 5, 1982] [47 FR 20547, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997]
[69 FR 75504, Dec. 17, 2004]*

132 Grades and grade requirements for the class Large Lima Beans

Grade	Percent Maximum Limits of ---											
	M o i s t u r e ¹	Total Blistered, Wrinkled, and Defects (Blistered, Wrinkled, Total damaged, Total foreign material, Contrasting Classes, Splits)	Damaged Beans		Foreign Material		Contrasting Classes ²	S p l i t s	B r o k e n s	Classes that Blend ³	Beans Through a Sieve	
			Total	Badly Damaged	Total (includes stones)	Stones					28/64"	24/64"
U.S. No. 1	18.0	6.0	2.0	0.5	0.5	0.2	0.5	3.0	5.0	5.0	25.0	5.0
U.S. No. 2	18.0	9.0	3.0	1.0	1.0	0.3	1.0	5.0	5.0	10.0	40.0	5.0
<p>U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.</p> <p>U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.</p> <p>¹Beans with more than 18.0 percent moisture are graded High moisture. ² Beans with more than 2.0 percent contrasting classes are graded Mixed beans. ³ Beans with more than 15.0 percent classes that blend are graded Mixed beans. [47 FR 19312, May 5, 1982; 47 FR 20551, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997] [69 FR 75504, Dec. 17, 2004]</p>												

133 Grades and grade requirements for the classes Baby Lima and Miscellaneous Lima Beans.

Grade	Percent Maximum Limits of ---								
	Moisture ¹	Total Defects (Total damaged, Total foreign material, &Contrasting classes)	Badly Damaged	Foreign Material		Contrasting Classes ²	Blistered, Wrinkled and/or Broken	Splits	Classes That Blend ³
				Total (includes stones)	Stones				
U.S. No. 1	18.0	2.0	1.0	0.5	0.2	0.5	2.0	2.0	5.0
U.S. No. 2	18.0	4.0	1.5	1.0	0.3	1.0	4.0	4.0	10.0
U.S. No. 3	18.0	6.0	2.0	1.5	0.6	2.0	6.0	6.0	15.0

U.S. Sample grade shall be beans which are musty, sour, heating, materially weathered, or weevily; which have any commercially objectionable odor; which contain insect webbing or filth, animal filth, any unknown foreign substance, broken glass, or metal fragments; or which are otherwise of distinctly low quality.

U.S. Substandard shall be beans which do not meet the requirements for the grades U.S. No. 1 through U.S. Sample grade. Beans which are not well screened shall also be U.S. Substandard, except for beans which meet the requirements for U.S. Sample grade.

¹Beans with more than 18.0 percent moisture are graded High moisture.
² Beans with more than 2.0 percent contrasting classes are graded Mixed beans.
³ Beans with more than 15.0 percent classes that blend are graded Mixed beans.

[47 FR 19312, May 5, 1982; 47 FR 20551, May 13, 1982] [60 FR 36030, July 13, 1995] [62 FR 52967, Oct. 10, 1997]
 [69 FR 75504, Dec. 17, 2004]

134 Grade designations

The grade designation for all classes of beans shall include, in the following order: (1) the letters "U.S."; (2) the number of the grade, or the words Substandard or Sample Grade, as warranted, or the name of any applicable special grade designation as appears in 135 (a) and (b); (3) the words "or better" when applicable and requested by the applicant prior to inspection; (4) the class; (5) the special grade designation, if applicable, as appears in 135 (c).

In addition, the designation for the grade "U.S. Substandard" shall include the percentage of sound beans.

Mixed beans shall be graded according to the grade requirements of the class of beans which predominates in the mixture. The factors of contrasting classes, classes that blend and sieve size requirements in the class Large Lima beans shall be disregarded in Mixed beans.

135 Special grade designations

(a) *Choice handpicked*. The special grade designation "Choice handpicked" shall be applicable only to the class Pea beans. The "Choice handpicked" designation shall include in the following order: (1) The letters "U.S."; (2) the words "Choice handpicked"; and (3) "Pea beans".

(b) *Prime handpicked*. The special grade designation "Prime handpicked" is applicable only to the class Pea beans. The "Prime handpicked" designation shall include in the following order: (1) The letters "U.S."; (2) the words "Prime handpicked"; and (3) "Pea beans".

(c) *High moisture*. The special grade designation "High moisture" is applicable to all classes of beans containing over 18.0 percent moisture. The words "high moisture" shall follow the class name.

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