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# **United States Standards for Grades of Shelled Almonds**

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## United States Standards for Grades of Shelled Almonds

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### **Grades**

#### **§51.2105 U.S. Fancy.**

"U.S. Fancy" consists of shelled almonds of similar varietal characteristics which are whole, clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, doubles, split or broken kernels, particles and dust, and free from injury caused by chipped and scratched kernels, and free from damage caused by mold, gum, shriveling, brown spot or other means. (See §§51.2113 and 51.2114.)

In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

- (a) **For dissimilar varieties.** 5 percent, including not more than one-fifth of this amount, or 1 percent, for bitter almonds mixed with sweet almonds;
- (b) **For doubles.** 3 percent;
- (c) **For kernels injured by chipping and/or scratching.** 5 percent;
- (d) **For foreign material.** One-twentieth of 1 percent (0.05 percent). No part of this percentage shall be allowed for glass and metal;
- (e) **For particles and dust.** One-tenth of 1 percent (0.10 percent); and,
- (f) **For other defects.** 2 percent, including not more than one-half of this amount, or 1 percent, for split or broken kernels, and including not more than one-half of the former amount, or 1 percent, for seriously damaged kernels.

**§51.2106 U.S. Extra No. 1.**

"U.S. Extra No. 1" consists of shelled almonds of similar varietal characteristics which are whole, clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, doubles, split or broken kernels, particles and dust, and free from damage caused by chipped and scratched kernels, mold, gum, shriveling, brown spot or other means. (See §§51.2113 and 51.2114.)

In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

- (a) **For dissimilar varieties.** 5 percent, including not more than one-fifth of this amount, or 1 percent, for bitter almonds mixed with sweet almonds;
- (b) **For doubles.** 5 percent;
- (c) **For kernels damaged by chipping and/or scratching.** 5 percent;
- (d) **For foreign material.** One-twentieth of 1 percent (0.05 percent). No part of this percentage shall be allowed for glass and metal;
- (e) **For particles and dust.** One-tenth of 1 percent (0.10 percent); and,
- (f) **For other defects.** 4 percent, including not more than one-fourth of this amount, or 1 percent, for split or broken kernels, and including not more than three-eighths of the former amount, or 1-1/2 percent, for seriously damaged kernels.

**§51.2107 U.S. No. 1.**

"U.S. No. 1" consists of shelled almonds of similar varietal characteristics which are whole, clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, doubles, split or broken kernels, particles and dust, and free from damage caused by chipped and scratched kernels, mold, gum, shriveling, brown spot or other means. (See §§51.2113 and 51.2114.)

In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

- (a) **For dissimilar varieties.** 5 percent, including not more than one-fifth of this amount, or 1 percent, for bitter almonds mixed with sweet almonds;
- (b) **For doubles.** 15 percent;
- (c) **For kernels damaged by chipping and/or scratching.** 10 percent;
- (d) **For foreign material.** One-twentieth of 1 percent (0.05 percent). No part of this percentage shall be allowed for glass and metal;

- (e) **For particles and dust.** One-tenth of 1 percent (0.10 percent); and,
- (f) **For other defects.** 5 percent including not more than one-fifth of this amount, or 1 percent, for split or broken kernels, and including not more than three-tenths of the former amount, or 1-1/2 percent, for seriously damaged kernels.

**§51.2108 U.S. Select Sheller Run.**

"U.S. Select Sheller Run" consists of shelled almonds of similar varietal characteristics which are whole, clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, doubles, split or broken kernels, particles and dust, and free from damage caused by chipped and scratched kernels, mold, gum, shriveling, brown spot or other means. (See §§51.2113 and 51.2114.)

In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

- (a) **For dissimilar varieties.** 5 percent, including not more than one-fifth of this amount, or 1 percent, for bitter almonds mixed with sweet almonds;
- (b) **For doubles.** 15 percent;
- (c) **For kernels damaged by chipping and/or scratching.** 20 percent;
- (d) **For foreign material.** One-tenth of 1 percent (0.10 percent). No part of this percentage shall be allowed for glass and metal;
- (e) **For particles and dust.** One-tenth of 1 percent (0.10 percent);
- (f) **For split and broken kernels.** 5 percent: Provided, that not more than two-fifths of this amount, or 2 percent, shall be allowed for pieces which will pass through a round opening 20/64 inch (7.9 mm) in diameter; and,
- (g) **For other defects.** 3 percent, including not more than two-thirds of this amount, or 2 percent, for serious damage.

**§51.2109 U.S. Standard Sheller Run.**

"U.S. Standard Sheller Run" consists of shelled almonds of similar varietal characteristics which are whole, clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, doubles, split or broken kernels, particles and dust, and free from damage caused by chipped and scratched kernels, mold, gum, shriveling, brown spot or other means. (See §§51.2113 and 51.2114.)

In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

- (a) **For dissimilar varieties.** 5 percent, including not more than one-fifth of this amount, or 1 percent, for bitter almonds mixed with sweet almonds;
- (b) **For doubles.** 25 percent;
- (c) **For kernels damaged by chipping and/or scratching or split and broken.** 35 percent; Provided, that not more than three-sevenths of this amount, or 15 percent, shall be allowed for split and broken: And Provided Further, that not more than one-third of this latter amount, or 5 percent, shall be allowed for pieces which will pass through a round opening 20/64 inch (7.9 mm) in diameter;
- (d) **For foreign material.** Two-tenths of 1 percent (0.20 percent). No part of this percentage shall be allowed for glass and metal;
- (e) **For particles and dust.** One-tenth of 1 percent (0.10 percent); and,
- (f) **For other defects.** 3 percent, including not more than two-thirds of this amount, or 2

percent, for serious damage.

**§51.2110 U.S. No. 1 Whole and Broken.**

"U.S. No. 1 Whole and Broken" consists of shelled almonds of similar varietal characteristics which are clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, doubles, particles and dust, and free from damage caused by mold, gum, shriveling, brown spot or other means.

(a) In this grade not less than 30 percent, by weight, of the kernels shall be whole. Doubles shall not be considered as whole kernels in determining the percentage of whole kernels.

(b) Unless otherwise specified, the minimum diameter shall be not less than 20/64 of an inch (7.9 mm). (See §§51.2113 and 51.2114.)

(c) In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

(1) **For dissimilar varieties.** 5 percent, including not more than one-fifth of this amount, or 1 percent, for bitter almonds mixed with sweet almonds;

(2) **For doubles.** 35 percent;

(3) **For foreign material.** Two-tenths of 1 percent (0.20 percent). No part of this percentage shall be allowed for glass and metal;

(4) **For particles and dust.** One-tenth of 1 percent (0.10 percent);

(5) **For undersize.** 5 percent; and,

(6) **For other defects.** 5 percent, including not more than three-fifths of this amount, or 3 percent, for serious damage.

**§51.2111 U.S. No. 1 Pieces.**

"U.S. No. 1 Pieces" consists of shelled almonds which are not bitter, which are clean and well dried, and which are free from decay, rancidity, insect injury, foreign material, particles and dust, and free from damage caused by mold, gum, shriveling, brown spot or other means.

(a) Unless otherwise specified, the minimum diameter shall be not less than 8/64 of an inch (3.2 mm). (See §§51.2113 and 51.2114.)

(b) In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, shall be permitted:

(1) **For bitter almonds mixed with sweet almonds.** 1 percent;

(2) **For foreign material.** Two-tenths of 1 percent (0.20 percent). No part of this percentage shall be allowed for glass and metal;

(3) **For particles and dust.** 1 percent; and

(4) **For other defects.** 5 percent, including not more than three-fifths of this amount, or 3 percent, for serious damage.

**Mixed Varieties**

**§51.2112 Mixed varieties.**

Any lot of shelled almonds designated as "one type" or undesignated as to type, which consists of a mixture of two or more dissimilar varieties which meet the other requirements of any of the grades of U.S. No. 1, U.S. Select Sheller Run, U.S. Standard Sheller Run, U.S. No. 1 Whole and Broken may be designated as: "U.S. No. 1 Mixed;" "U.S. Select Sheller Run Mixed;" "U.S. Standard Sheller Run Mixed;" "U.S. No. 1 Whole and Broken Mixed;" respectively; but no lot of any of these grades may include more than 1 percent of bitter almonds mixed with sweet almonds.

## **Size**

### **§51.2113 Size requirements.**

The size may be specified in terms of range in count of whole almond kernels per ounce or in terms of minimum, or minimum and maximum diameter. When a range in count is specified, the whole kernels shall be fairly uniform in size, and the average count per ounce shall be within the range specified. Doubles and broken kernels shall not be used in determining counts. Count ranges per ounce commonly used are shown below, but other ranges may be specified: Provided, that the kernels are fairly uniform in size.

### **Count Range per Ounce**

16 to 18, inclusive.  
18 to 20, inclusive.  
20 to 22, inclusive.  
22 to 24, inclusive.  
23 to 25, inclusive.  
24 to 26, inclusive.  
26 to 28, inclusive.  
27 to 30, inclusive.  
30 to 34, inclusive.  
34 to 40, inclusive.  
40 to 50, inclusive.  
50 and smaller.

### **§51.2114 Tolerances for size.**

- (a) When a range is specified as, for example, "18/20," no tolerance for counts above or below the range shall be allowed.
- (b) When the minimum, or minimum and maximum diameter are specified, a total tolerance of not more than 10 percent, by weight, may fail to meet the specified size requirements: Provided, that not more than one-half of this amount, or 5 percent, may be below the minimum size specified.

### **Application of Tolerances**

#### **§51.2115 Application of tolerances.**

The tolerances for the grades are to be applied to the entire lot, and a composite sample shall be taken for determining the grade. However, any container or group of containers in which the almonds are found to be materially inferior to those in the majority of the containers shall be considered a separate lot.

### **Definitions**

#### **§51.2116 Similar varietal characteristics.**

"Similar varietal characteristics" means that the kernels are similar in shape and appearance. For example, long types shall not be mixed with short types, or broad types mixed with narrow types, and bitter almonds shall not be mixed with sweet almonds. Color of the kernels shall not be considered, since there is often a marked difference in skin color of kernels of the same variety.

- (a) When a lot is specified as "one type," all kernels shall be the same in shape and appearance; and,

(b) When a lot is specified and carton marked as "California," kernels present may include any one or a combination of blanchable varieties within the "California" Marketing Classification. In addition, Nonpareil or similar types may be included provided that it does not exceed twenty-five percent (25%), by weight, of the lot.

**§51.2117 Whole.**

"Whole" means that there is less than one-eighth of the kernel chipped off or missing, and that the general contour of the kernel is not materially affected by the missing part.

**§51.2118 Clean.**

"Clean" means that the kernel is practically free from dirt and other foreign substance.

**§51.2119 Well dried.**

"Well dried" means that the kernel is firm and brittle, and not pliable or leathery.

**§51.2120 Decay.**

"Decay" means that part or all of the kernel has become decomposed.

**§51.2121 Rancidity.**

"Rancidity" means that the kernel is noticeably rancid to the taste.

**§51.2122 Insect injury.**

"Insect injury" means that the insect, web, or frass is present or there is definite evidence of insect feeding.

**§51.2123 Foreign material.**

"Foreign material" means pieces of shell, hulls or other foreign matter which will not pass through a round opening  $\frac{8}{64}$  of an inch (3.2 mm) in diameter.

**§51.2124 Doubles.**

"Doubles" means kernels that developed in shells containing two kernels. One side of a double kernel is flat or concave.

**§51.2125 Split or broken kernels.**

"Split or broken kernels" means seven-eighths or less of complete whole kernels but which will not pass through a round opening  $\frac{8}{64}$  of an inch (3.2 mm) in diameter.

**§51.2126 Particles and dust.**

"Particles and dust" means fragments of almonds kernels or other material which will pass through a round opening  $\frac{8}{64}$  of an inch (3.2 mm) in diameter.

**§51.2127 Injury.**

"Injury" means any defect which more than slightly detracts from the appearance of the individual almond. The following shall be considered as injury:

(a) Chipped and scratched kernels when the affected area on an individual kernel aggregates more than the equivalent of a circle one-eighth inch (3.2 mm) in diameter.

**§51.2128 Damage.**

"Damage" means any defect which materially detracts from the appearance of the individual kernel, or the edible or shipping quality of the almonds. Any one of the following defects or combination thereof, the seriousness of which exceeds the maximum allowed for any one defect shall be considered as damage:

(a) Chipped and scratched kernels, when the affected area on an individual kernel aggregates more than the equivalent of a circle one-quarter inch (6.4 mm) in diameter;

(b) Mold, when visible on the kernel, except when white or gray and easily rubbed off with the fingers.

- (c) Gum, when a film of shiny, resinous appearing substance affects an area aggregating more than the equivalent of a circle one-quarter inch (6.4 mm) in diameter;
- (d) Shriveling, when the kernel is excessively thin for its size, or when materially withered, shrunken, leathery, tough or only partially developed: Provided, that partially developed kernels are not considered damaged if more than three-fourths of the pellicle is filled with meat;
- (e) Brown spot on the kernel, either single or multiple, when the affected area aggregates more than the equivalent of a circle one-eighth inch (3.2 mm) in diameter; and,
- (f) Skin discoloration when more than one-half of the surface of the kernel is affected by very dark or black stains contrasting with the natural color of the skin.

**§51.2129 Serious damage.**

"Serious damage" means any defect which makes a kernel or piece of kernel unsuitable for human consumption, and includes decay, rancidity, insect injury and damage by mold.

**§51.2130 Diameter.**

"Diameter" means the greatest dimension of the kernel, or piece of kernel at right angles to the longitudinal axis. Diameter shall be determined by passing the kernel or piece of kernel through a round opening.

**§51.2131 Fairly uniform in size.**

"Fairly uniform in size" means that, in a representative sample, the weight of 10 percent, by count, of the largest whole kernels shall not exceed 1.70 times the weight of 10 percent, by count, of the smallest whole kernels.