



standards and grades

USDA grades for natural almonds are voluntary minimum standards. The California Almond industry can supply almonds to customers' unique specifications, both in terms of sizes and grades, based on the intended applications.

USDA GRADES

| USDA Grades (Effective 3/24/97) | Whole Kernels | Minimum Diameter (in in.) | Dissimilar | Doubles | Chip & Scratch | Foreign Material | Particles & Dust | Split & Broken | Other Defects | Serious Defects | Undersize |
|------------------------------------|------------------|---------------------------------|------------|---------|-------------------|---------------------|---------------------|-------------------|------------------|--------------------|-----------|
| US Fancy | — | — | 5% | 3% | 5% | .05% | .1% | 1% | 2% | 1% | — |
| US Extra No. 1 | — | — | 5% | 5% | 5% | .05% | .1% | 1% | 4% | 1.5% | — |
| US No. 1 (Supreme)* | — | — | 5% | 15% | 10% | .05% | .1% | 1% | 5% | 1.5% | — |
| US Select Sheller Run | — | — | 5% | 15% | 20% | .1% | .1% | 5% | 3% | 2% | — |
| US Standard Sheller Run | — | — | 5% | 25% | 35% | .2% | .1% | 15% | 3% | 2% | — |
| US No. 1 Whole & Broken | 30% | 20/64 UOS† | 5% | 35% | x | .2% | .1% | x | 5% | 3% | 5% |
| US No. 1 Pieces | x | 8/64 | x | x | x | .2% | 1% | x | 5% | 3% | 5% |

* US No. 1 is commonly referred to by industry as Supreme. However, Supreme is not a USDA grade.

† UOS = Unless Otherwise Specified

- X No limit established.
- Also included in "Other Defects."
- Includes max. 2% under 20/64 inch.
- Includes max. 5% under 20/64 inch.
% also included in "Chip & Scratch."

1 US ton = .907 metric ton
 1 metric ton = 2,204.6 pounds
 1 pound = 453.6 grams
 10 oz. = 283.5 grams

Sample Sizes (pounds)

| Lot Size | 10,000 | 10,000–44,000 | >44,000 |
|----------------|--------|---------------|---------|
| Grams Drawn | 2,000 | 4,000 | 6,000 |
| Grams Analyzed | 1,000 | 2,000 | 3,000 |

CALCULATION OF GRADING PERCENTAGES *[Example]*

$$\% \text{ [Dissimilar Kernels]} = \frac{\text{Weight of [Dissimilar Kernels]} (g) \times 100}{\text{Weight of Total Sample} (g)}$$

For additional information on USDA grades and standards, see the USDA website: www.ams.usda.gov/standards/almonds.pdf

UNDERSTANDING USDA GRADES

More rigorous specifications are typically negotiable in order to meet a customer's application requirements.

US FANCY

The highest grade—typically appropriate for products where the visual appeal of the almond is critical to the application. This grade is not widely used.

US EXTRA NO. 1

Similar to US Fancy—ideal for food applications where the appearance of the almond is very important.

US NO. 1 (SUPREME)

Typically used for whole almond applications or for further processing such as blanching and roasting.

US SELECT SHELLER RUN

Mid-quality grade—good choice for applications where the almonds with minimal sorting/processing can be incorporated with other ingredients; for example, inside a confectionery product and the higher level of chipped and scratched kernels is accepted. Also appropriate for further processing such as blanching, grinding, roasting, dicing, and slicing.

US STANDARD SHELLER RUN

Good grade for further processing such as blanching, dicing, grinding, or paste, particularly where a higher level of split and broken kernels is not a concern.

USDA GRADING PARAMETERS

DISSIMILAR

Typically used for whole almond applications or for further processing such as blanching and roasting.



DOUBLES

Two kernels developing in one shell. One side of a double kernel is flat or concave.



CHIP & SCRATCH

Loss of kernel skin as a result of mechanical processing. Greater than 1/8" (3.2mm) in diameter, it is defined as injury; if affecting, in aggregate, greater than 1/4" (6.4mm) in diameter, it is defined as defect.



FOREIGN MATERIAL

Pieces of shell, hulls, or other foreign matter that will not pass through a round-opening screen measuring 8/64" (3.2mm) in diameter.



PARTICLES & DUST

Fragments of almond kernels or other material that will pass through a round-opening screen measuring 8/64" (3.2mm) in diameter.



SPLIT & BROKEN

Seven-eighths or less of complete whole kernels that will not pass through a round-opening screen measuring 8/64" (3.2mm) in diameter.



OTHER DEFECTS

Any defect that materially detracts from the appearance of the individual kernel or the edible or shipping quality of the almonds. The defects include gum, shrivel, brown spot, discolored, and chipped and scratched kernels greater than 1/4" (6.4mm) in diameter.



SERIOUS DEFECTS

Any defect that makes a kernel or piece of kernel unsuitable (includes decay, rancidity, insect injury, and damage by mold).

