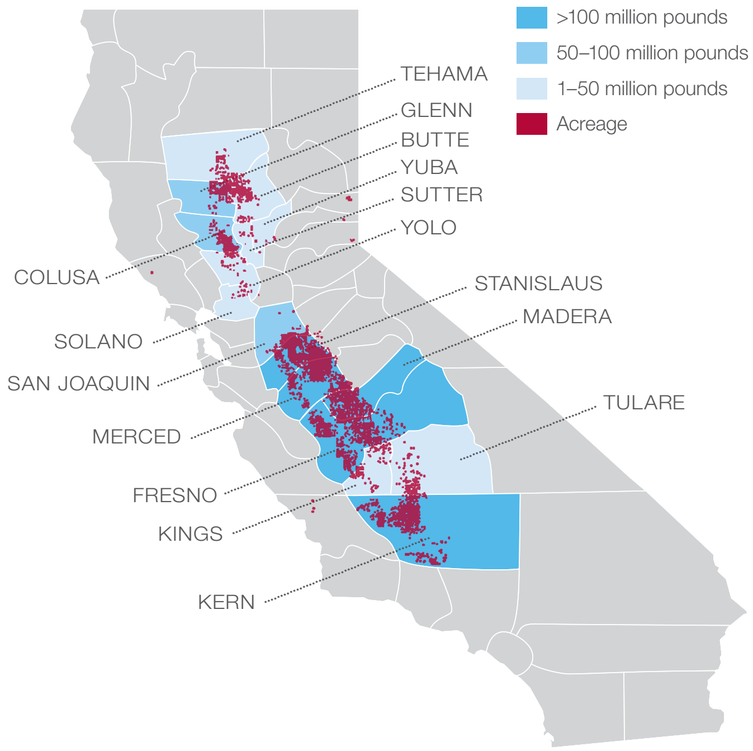
Guide to California Almonds

Almond Production by County



Composition of Whole Natural Almonds

100 grams, edible portion

PROXIMATE		MINERALS		VITAMINS	
Food Energy	575 KCAL	Calcium	264.0 mg	Vitamin E*	26.2 mg
Protein	21.2 g	Iron	3.7 mg	Thiamin (B1)	0.2 mg
Total Lipid (fat)	49.4 g	Magnesium	268.0 mg	Riboflavin (B2)	1.0 mg
Saturated Fatty Acids	3.7 g	Phosphorus	484.0 mg	Niacin	3.4 mg
Monounsaturated Fatty Acids	30.9 g	Potassium	705.0 mg	Vitamin B6	0.1 mg
Polyunsaturated Fatty Acids	12.1 g	Sodium	1.0 mg	Pantothenic Acid	0.5 mg
Cholesterol	0.0 g	Zinc	3.1 mg	Folate	50.0 mcg
Dietary Fiber	12.2 g	Manganese	2.3 mg		

*Alpha-tocopherol.

DISCLAIMER: The range of values obtained through various private and government investigators are true and accurate to the best knowledge. Variations may occur due to crop differences year to year. Analyses and ranges of values obtained by various private and governmental sources may vary from actual data obtained from current and future crops.

Source: USDA National Nutrient Database for Standard References, Release 24 (2011).

Varieties/Sizes*

18/20 20/22 23/25 25/27 27/30 30/32 32/34

NONPAREIL

CLASSIFICATION
Nonpareil

SHELL
Soft shell, light color, high suture opening

NUT
Medium, flat shape, smooth surface

CARMEL

CLASSIFICATION
California type

SHELL
Soft shell, good shell integrity, fair suture opening

NUT
Medium, narrow shape, slightly wrinkled surface

BUTTE

CLASSIFICATION
California type, Mission type

SHELL
Semi-hard shell, light color, smooth surface, low suture opening

NUT
Small, short plump shape, wrinkled surface

PADRE

CLASSIFICATION
California type, Mission type

SHELL
Hard shell, good shell integrity, no suture opening

NUT
Small, short wide shape, wrinkled surface

MISSION

CLASSIFICATION
Mission type

SHELL
Hard shell, good shell integrity, no suture opening

NUT
Small, short wide shape, dark brown, deeply wrinkled surface

MONTEREY

CLASSIFICATION
California type

SHELL
Hard shell, smooth surface, low suture opening

NUT
Large, long narrow shape, deeply wrinkled surface

SONORA

CLASSIFICATION
California type

SHELL
Soft shell, dark brown color, rough surface, high suture opening

NUT
Large, long narrow shape, light color, smooth surface

FRITZ

CLASSIFICATION
California type, Mission type

SHELL
Semi-hard shell, good shell integrity, low suture opening

NUT
Small, medium plump shape, fairly wrinkled surface

PRICE

CLASSIFICATION
California type

SHELL
Soft shell, dark brown color, rough surface, high suture opening

NUT
Small, short narrow shape, fairly wrinkled surface

PEERLESS

CLASSIFICATION
California type, In-shell/hard shell

SHELL
Hard shell, good shell integrity, smooth surface, no suture opening

NUT
Medium, wide shape, fairly wrinkled surface

*Size, color and/or shape varies by year.

USDA Grades

	Whole Kernels	Minimum Diameter (inches)	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%

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."

*US No. 1 is commonly referred to by industry as Supreme. However, Supreme is not a USDA grade. †UOS = Unless Otherwise Specified. (Effective 3/24/97)


US Fancy


US Extra No. 1


US No. 1 (Supreme)*


US Select Sheller Run


US Standard Sheller Run


US No. 1 Whole & Broken


US No. 1 Pieces

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 and discolored.

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

Forms

WHOLE
NATURAL OR BLANCHED

COMMON SPECIFICATIONS
USDA grades for natural almonds; processor or customer specifications for blanched almonds

TYPICAL APPLICATIONS
Natural, roasted or flavored snacks
Embedded or enrobed in chocolate
Ingredients for confectionery, energy bars, bakery
Inputs for processing

SLICED
NATURAL OR BLANCHED

COMMON SPECIFICATIONS
THICKNESS
Thick: 1.5–1.8 mm
Regular: 1.1–1.4 mm
Thin: 0.7–1.0 mm
Extra Thin: 0.5–0.7 mm

TYPICAL APPLICATIONS
Topping for salads
Ingredient for cereal
Coating for savory dishes
Garnishing for baked goods, desserts

SLIVERED
BLANCHED

COMMON SPECIFICATIONS
THICKNESS
Regular: 3.0–5.0 mm
Medium: 4.0–6.0 mm

TYPICAL APPLICATIONS
Roasted or flavored snacks
Ingredient for baked goods, cereal
Texture for confectionery
Topping for prepared foods, salads

DICED
NATURAL OR BLANCHED

COMMON SPECIFICATIONS
Large: 28/18.....28/64" & 18/64" (11.1 & 7.1 mm)
Medium: 22/8.....22/64" & 8/64" (8.7 & 3.2 mm)
Small: 12/8.....12/64" & 8/64" (4.8 & 3.2 mm)
Fine: 8/0..... 8/64" (3.2 mm)

TYPICAL APPLICATIONS
Topping for dairy items, baked goods
Coating for ice cream bars
Filling for bakery or confectionery
Crust for meats, seafood

MEAL OR FLOUR
NATURAL OR BLANCHED

COMMON SPECIFICATIONS
Coarse ground
Fine ground
(Grinders and screens determine particle size)

TYPICAL APPLICATIONS
Sauce thickener
Ingredient and filling for confectionery
Flavor enhancer in bakery
Coating for fried foods

BUTTER, PASTE
NATURAL OR BLANCHED

TYPICAL APPLICATIONS
Alternative to other nut butters
Filling for chocolate, cereal bars, confectionery, bakery

OIL

COMMON SPECIFICATIONS
Cold-pressed, light and pale amber color

TYPICAL APPLICATIONS
Cooking oil, non-food (e.g., cosmetics, moisturizer)

1150 Ninth St., Ste. 1500 • Modesto, CA 95354 USA • T: +1.209.549.8262 • F: +1.209.549.8267 • AlmondBoard.com

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Almond Board of California