

CALIFORNIA WALNUTS

RESOURCE GUIDE FOR FOODSERVICE OPERATORS

NUTRITION INFO / HARVEST / STORAGE / RECIPES



INDUSTRY OVERVIEW

The walnut was first cultivated in California by the Franciscan fathers in the late 1700s. The first commercial plantings began in 1867 when Joseph Sexton, an orchardist and nurseryman in the Santa Barbara County town of Goleta, planted English walnuts. Today, the Central Valley of California is the main walnut growing region.

California walnuts have a sweet mild taste and crunchy texture making them a versatile ingredient that can be used in recipes for all meal occasions. Menu items containing walnuts raise customers perception of value without substantially raising food costs.

Walnuts are nutrient-rich, and the only nut to contain a significant amount of plant-based ALA omega-3 fatty acids (2.5g of ALA/oz). Over 25 years of health research by the California walnut industry has raised awareness of the nutritional value of California walnuts. Additionally, a recent investment in U.S. advertising is sharing the versatility and appeal of California walnuts with consumers in a powerful way.

41% of Foodservice operators report that specifying California walnuts on a menu item, makes it more appealing than just saying walnuts, and 44% agree that you can charge more for a dish by adding walnuts. (Technomic Survey, 2016)



WHERE DO CALIFORNIA WALNUTS COME FROM?

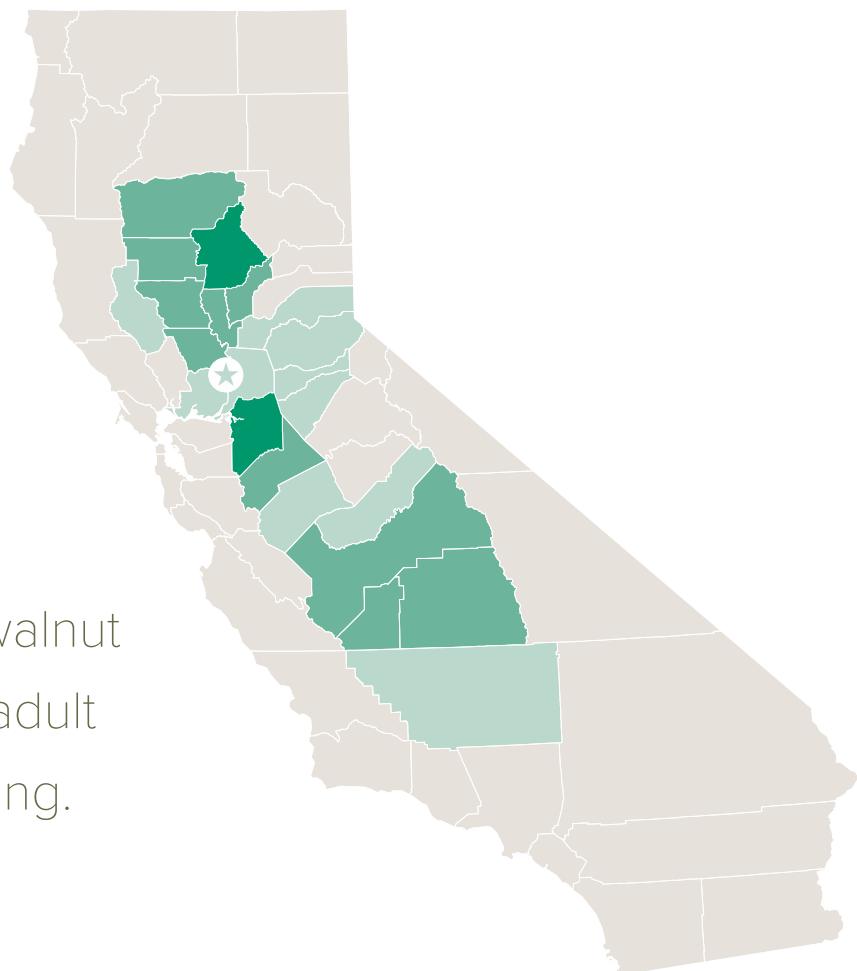


When people enjoy a recipe which includes walnuts, they don't always realize the walnuts they are eating are likely from a family-owned farm in California.

- ▶ More than 99% of walnuts grown in the United States come from California's 335,000 bearing acres of walnut orchards.
- ▶ The Central Valley of California is the state's prime walnut growing region, with the mild climate and deep fertile soils that provide ideal growing conditions.
- ▶ There are more than 4,800 California walnut growers, and most farms are owned and operated by families who have been in the walnut business for several generations. Walnut production takes commitment and patience, and our farmers are passionate about growing and harvesting high-quality walnuts.

WHERE ARE WALNUTS GROWN?

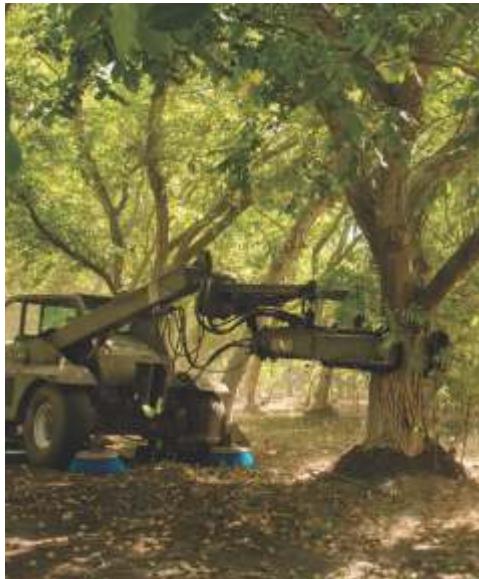
Walnut Tonnage by County



It takes 4-5 years for a walnut sapling to grow into an adult tree suitable for harvesting.

THE WALNUT HARVEST

The harvest begins in early September, when the outer green hulls start to split, and continues through mid-November.



Step 1

Mechanical shakers vigorously shake each tree and thousands of walnuts fall to the ground.

Step 2

The walnuts are then carefully swept into rows to allow mechanical harvesters to pick them up for cleaning.

Step 3

Once walnuts are harvested, a huller removes the outer green husk. Then the walnuts are washed and dried to stabilize moisture and protect quality during storage.



Step 4

After the huller and dryer, walnuts are transported to the packing plant where they are graded based on usage, in-shell or shelled.

Step 5

Shelled walnuts are mechanically cracked as needed and further graded by color before kernels are screened and separated into different sizes according to USDA standards.

Step 6

Finally, the walnuts are inspected and hand-sorted by trained sorters to ensure they are clean and of specified color.

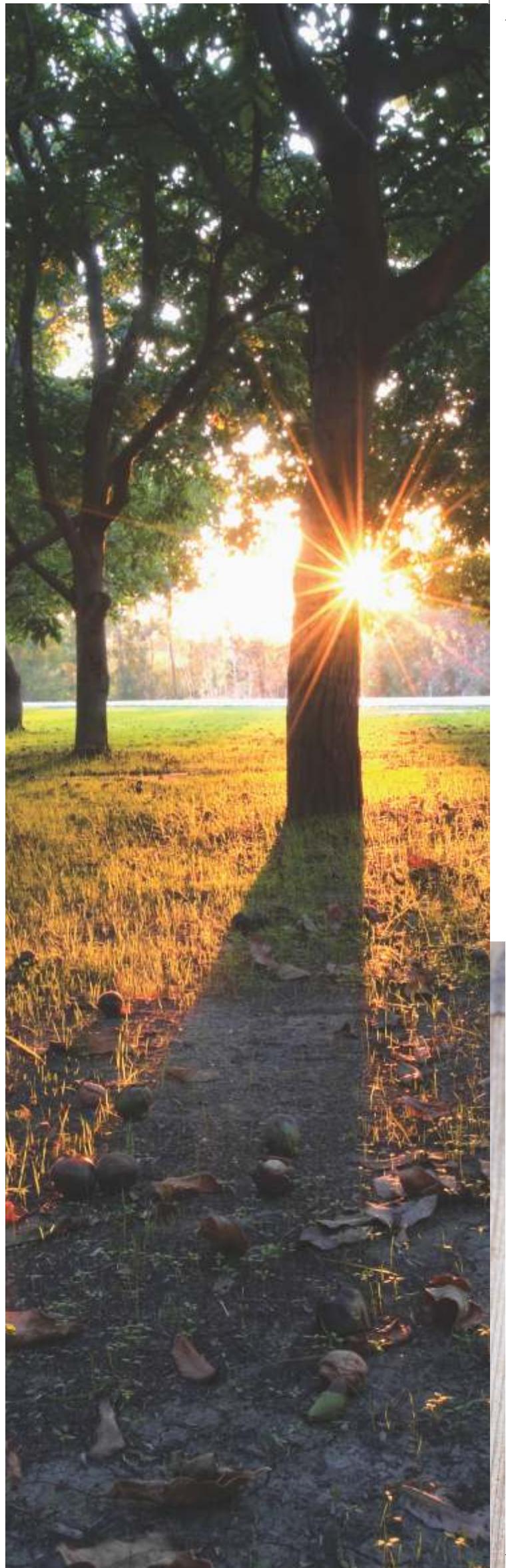
At the end of this process, the walnuts are packaged and shipped or stored until needed.

SUSTAINABILITY

Sustainability is important to the California walnut industry and the California Walnut Board has supported these growing practices throughout its production research program for over 20 years.

The California Walnut Sustainable Program focuses on integrated pest management, energy efficiency, water quality, air quality, nutrient efficiency, and food safety. Over the past two decades, the industry has shown a reduction in pesticide use, improvements in energy efficiency in walnut drying, and improvement of surface water quality. This includes improved nutrient and irrigation efficiency and improved water quality. Current research is identifying and testing potential ways the industry could further improve food safety and contribute to best management practices for walnut growers.

The program is economically viable for walnut growers, follows environmentally responsible practices and is socially acceptable by improving the quality of life for growers, neighbors, and consumers. The California Walnut Board is committed to investing in research that will help the industry continue to raise the bar for sustainability. The **4,800** growers and close to **100** handlers in the California walnut industry are committed to continuing to produce high-quality, sustainable, nutritious, and safe walnuts for people to enjoy worldwide.



10 REASONS YOU SHOULD ADD CALIFORNIA WALNUTS TO YOUR MENU

1. Heart-healthy* walnuts are the only nuts that contain a significant amount of plant-based ALA omega-3 (2.5g/oz).
2. Versatile walnuts add flavor and texture to all kinds of recipes, from salads to desserts, baked goods to entrées, and sides to smoothies.
3. Walnuts can be used in all day parts, from breakfast to lunch to dinner.
4. 44% of Foodservice operators report that you can charge more for a dish by adding walnuts.¹
5. Walnuts make great gluten-free crusts and coatings.
6. 41% of Foodservice operators report that specifying California Walnuts makes a menu item more appealing than simply saying walnuts alone. ²
7. Walnuts add texture and flavor as a component of a plant-based protein replacement for meat. Adding a menu item that appeals to flexitarians is increasingly important as the number of people shifting to more plant-based eating continues to grow.
8. The top reason customers enjoy walnuts is because of their reputation as a nutritious addition to their diets.³
9. Foodservice operators agree that customers perceive a dish containing walnuts to have more texture (64%), and flavor (53%), and to be more unique (53%), more authentic (43%), and healthier (58%) than dishes without walnuts.⁴
10. Walnuts can act as a naturally cholesterol-free thickener for soups and sauces, taking the place of cream or butter.

^{1,2,4} Source: Technomic Foodservice Attitudes & Practices Towards Walnuts 2016

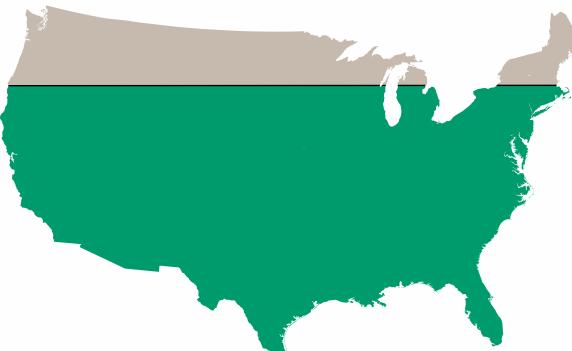
³ Source: Rose Research Attitude & Usage Study 2013

*Supportive but not conclusive research shows that eating 1.5 ounces of walnuts per day, as part of a low saturated fat and low cholesterol diet and not resulting in increased caloric intake, may reduce the risk of coronary heart disease. (FDA) One ounce of walnuts provides 18g of total fat, 2.5g of monounsaturated fat, 13g of polyunsaturated fat including 2.5g of alpha-linolenic acid - the plant-based omega-3.



CALIFORNIA WALNUTS AND HEALTH

- ▶ 89% of Indian consumers think walnuts are nutritious and nutrition research has contributed to the evolving understanding of the health benefits of walnuts.



The California Walnut Commission has invested more than \$15 million in nutrition research in the last 25 years, with more than 132 papers published by 57 institutions in 10 countries. Over 40 current projects are investigating areas of interest including heart health, cognitive health, cancer prevention, weight, and diabetes management.

California walnuts are proud to be Heart-Check certified by the American Heart Association.*



Per one ounce serving.

46% of Foodservice operators interviewed said they were aware that walnuts are heart-healthy.
(Technomic Survey, 2016)

Nutrition Facts

Serving size 1 ounce (28g)

Amount per serving

Calories 190

% Daily Value*

Total Fat 18g 23%

Saturated Fat 1.5g 8%

Trans Fat 0g

Polyunsaturated Fat 13g

Monounsaturated Fat 2.5g

Cholesterol 0mg 0%

Sodium 0mg 0%

Total Carbohydrate 4g 1%

Dietary Fiber 2g 7%

Total Sugars 1g

Includes 0g Added Sugars 0%

Protein 4g

Vitamin D 0mcg 0%

Calcium 28mg 2%

Iron 1mg 6%

Potassium 125mg 2%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

USDA National Nutrient Database for Standard Reference, Release 28. Version Current: September 2015, slightly revised May 2016.

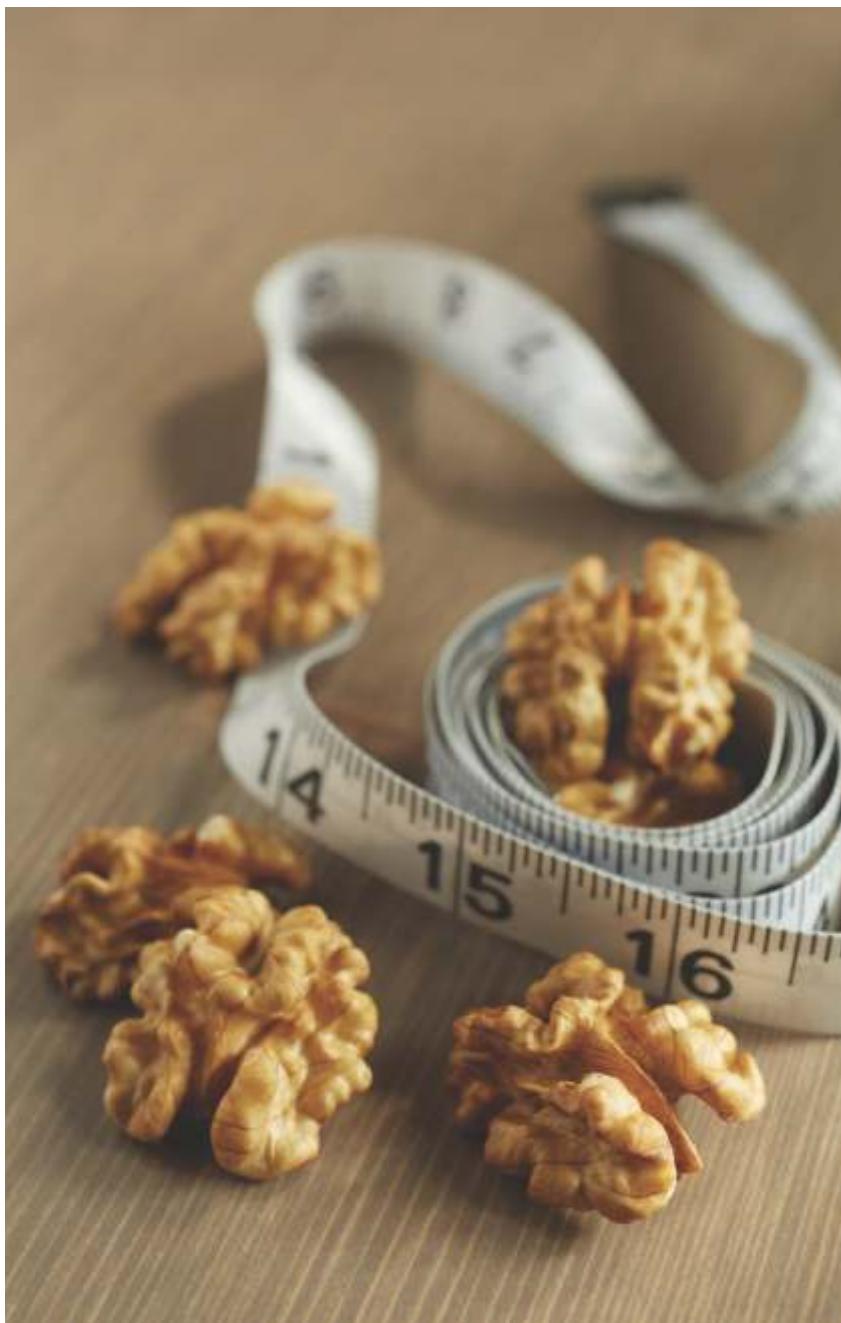
* Heart-Check food certification does not apply to recipes unless expressly stated. See heartcheckmark.org/guidelines.

DIETARY GUIDELINES

The 2015-2020 Dietary Guidelines for Americans encourage a shift from current eating patterns to a healthy eating pattern that includes nutrient-dense foods and beverages in place of less healthy choices. Among other things, a healthy eating pattern includes a variety of protein foods, including nuts and seeds along with seafood, lean meats and poultry, eggs, legumes and soy products.

SOURCE OF GOOD FATS

Certain fats are better than others. The best options are unsaturated fats, which include monounsaturated and polyunsaturated fats both of which are found in California walnuts. One ounce of walnuts provides 18g of total fat, 2.5g of monounsaturated fat, 13g of polyunsaturated fat including 2.5g of alpha-linolenic acid - the plant-based omega-3. The Dietary Guidelines recommend that individuals should aim to shift food choices from those high in saturated fats to those high in polyunsaturated fats and monounsaturated fats. For details, visit walnuts.org.



The only nut that contains a significant amount of plant based ALA omega-3

Omega-3s are essential fatty acids critical to various body processes. The body can only obtain these necessary fatty acids through food.



USDA National Nutrient Database for Standard Reference, Release 28. Version Current: September 2015, slightly revised May 2016.

BUYING TIPS

California walnuts are harvested late August through November and then stored in cold storage to maintain freshness. Walnut handlers shell walnuts as needed throughout the year to fill orders from retailers globally. Keeping walnuts cold and in-shell as long as possible ensures that consumers will receive high-quality, fresh-tasting California walnuts throughout the year.

IN-SHELL WALNUTS

Available in bags and in bulk bins, typically in the produce section. Buy for holiday decorating, festive snacking, and for social after-meal cracking sessions. Most readily available during the fall and winter months, so if you like to have in-shell walnuts on hand throughout the year, be sure to stock up in the fall!

SHELLED WALNUTS

Available in bags and in bulk bins. Look for them in the produce section, snacking and baking aisles at your local supermarket. Sold as halves, halves and pieces, pieces and chopped, among other forms. Shelled walnuts are available in supermarkets and club stores year-round.

ONE FINAL TIP

Wait to shell or chop walnuts until you're ready to use them. The same applies for ground walnut meal; don't grind walnuts until you're ready to add the walnut meal to your recipe. This will help maintain great flavor.

WHERE TO STORE WALNUTS

When you bring walnuts home from the store, the best place to store them is in your refrigerator or freezer, depending on when you're going to use them. If you're going to use the walnuts right away, place them in your refrigerator. If you'll be storing them for a month or longer, store them in your freezer.

HOW TO STORE WALNUTS

If you buy walnuts in sealed packaging, you can store the walnuts in their original packaging. Once you open the bag, transfer the walnuts to an airtight container to maintain freshness. If you buy bulk walnuts, either in-shell or shelled, place the walnuts in an airtight container for long-term cold storage.

MORE STORAGE & HANDLING TIPS

When storing walnuts in your refrigerator, store them away from foods with strong odors (e.g. fish, cabbage, onions). Walnuts can absorb the flavors of other foods.

COLD STORAGE = FRESH TASTE

You can maintain the fresh taste of California walnuts by keeping them cold. Walnuts go rancid when exposed to warm temperatures for long periods of time. Heat causes the fat in walnuts to change structure, which creates off odors and flavors. Fresh walnuts smell mildly nutty and taste sweet. If your walnuts smell like paint thinner, you know they're rancid. And if they're rancid, you should throw them away!





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