

THE ALMOND BOARD: A TRUSTED RESOURCE

ABC acts as a trusted resource for data and industry expertise, providing stakeholders with valuable information on matters impacting the California almond industry.

As a Federal Marketing Order, ABC is precluded from any lobbying or advocacy activities meant to influence legislation or specific policies. However, USDA/AMS does not restrict ABC's ability to pursue many opportunities to share its expertise and fact-based information with government and other stakeholders in the U.S. and abroad.

In other words, ABC can educate but not advocate.

To further engage on legislation or policy-related matters, ABC staff provides consulting expertise to the Almond Alliance of California, supplying valuable input in support of the Alliance's efforts to ensure the California almond industry has "a seat at the table" with legislators and policymakers.

Why California?

Family farms

There are 7,600 almond farmers in California: **90% are family farms**, and 70% of orchards are 100 acres or less.



Ideal climate

California is **1 of only 5 Mediterranean climates** on Earth, essential to growing almonds.

High standards

California's growing environment is one of the **most regulated globally**, with strict laws protecting the environment, worker and food safety.

GLOBAL TRADE STRATEGY

- Unimpeded market access is critical; ABC drives for recognition that almond practices align with food safety, sustainable production and climate/environmental priorities.
- ABC's global trade strategy focuses on both tariffs and technical barriers to trade, particularly in new, developing markets.
- The strategy synergizes with demand building initiatives conducted by ABC global marketing programs, such as initiating new, trade servicing activities in Morocco and Turkey.
- In 2023, almonds were the #2 ag export to the EU (\$1.2 billion) and the #1 ag export to India (\$932 million) – accounting for 33% of all U.S. ag exports to India.
- In 2023, India eliminated additional tariffs on various U.S. agricultural imports including almonds.
- In April 2024, the UK lifted tariffs on all raw almonds for an initial period of two years.
- Almond hull pellets and cubes were included in China official feed ingredients catalog in January 2024 finally allowing imports of almond hulls to be used there as livestock feed.
- Australia benefits from favorable duty status in four of our top ten markets:
 - ◆ 0% tariffs in China; 50% of the normal MFN tariff levels for 34,000 MT of Australian almonds in India; 10% additional tariff on California almonds in Turkey which benefits Australian products; a recent agreement with the UAE will likely result in 0% tariffs.

EXPORT TECHNICAL ISSUES

- ABC is a globally trusted resource to government authorities and the industry for wide-ranging, fact-based information concerning agricultural practices and trade flows.
- Technical Barriers to Trade range from pesticide MRLs to labeling to certification requirements -- all of which can disrupt almond shipments. Key areas include:
 - ◆ California almonds are the only U.S. commodity recognized under the European Union's Pre-Export Certification (PEC) regulation, specifying < 1% inspection on import.
 - ◆ Collaboration with Food & Drug Administration (FDA) and U.S. Department of Agriculture (USDA), to recognize USDA-approved labs for aflatoxin inspection to streamline U.S. goods return.
 - ◆ Working with USDA and Japan to address Japan's 100% import control of almonds.
- Since 2022, ABC staff helped 70 handlers finalize registration of their facilities for exports in compliance with China's Decree 248 food facility registration law; avoiding significant trade disruption.
- Working with USDA and FDA, ABC developed instructional videos and a protocol to assist "new" facilities register for exports to China.
- Technical advisors and experts in key markets are used to keep ABC updated on tariff or technical issues.
- Almond industry priorities are amplified by ABC's participation in global organizations and ag coalitions addressing trade impacts, grade standards, import procedures, contaminants, pesticides, and labeling.
- Since 2020, ABC has submitted more than 35 comments to U.S. and global authorities that highlight the California almond industry's responsible use of pest management tools.

PESTICIDES AND PEST MANAGEMENT

- California regulations for pesticide approval, usage and reporting are among the strictest in the world.
- Successful pest management contributes to wholesome nuts as well as efficient use of water and other inputs.
- ABC pursues a holistic pest management strategy that includes research, outreach to growers & handlers, and engagement on policy issues in conjunction with other collaborators.
- Since 1973, ABC pest management research has provided almond growers with science-based, Integrated Pest Management (IPM) solutions for many pest problems, balancing the use of nonchemical and chemical tactics to manage pests effectively and safely.
- IPM solutions developed with ABC funding support include pheromone-based mating disruption for key insect pests, beneficial thresholds for mites, and assessing the value of cover crops for weed management and soil health.
- ABC engages with registrants, industry, and government authorities to encourage a risk-based, harmonized approach to setting and evaluating global pesticide Maximum Residue Limits (MRLs). In export markets, MRLs that are not science-based can result in trade disruption.
- Market basket surveys in Europe and the U.S. show negligible pesticide residues associated with almonds and tree nuts.

CLIMATE SMART AGRICULTURE

- The California almond industry has been an early investor in research on climate smart agriculture including Whole Orchard Recycling, the largest single practice for adding carbon into agricultural soils, planting cover crops, composting, fertilizer, emissions, and nitrogen and water management. Some 55% growers have now adopted Whole Orchard Recycling.
- Grower-funded research and outreach together with market incentives drove a fourfold adoption of cover crop planting in just three years.
- ABC is exploring grower access to ecosystem services markets for practices that store carbon, foster biodiversity, and improve water quality and quantity.
- The almond industry has long worked to reduce impacts on air quality from dust; low-dust harvesting equipment reduces PM2.5 and PM10 dust emissions on average by 50%.¹
- Growers and handlers have been adding solar power to their operations, along with starting to use zero-emissions vehicles such as forklifts and electric tractors.

1. El Jirje N. Baticados et al. Particulate matter emission factors using low-dust harvesters for almond nut-picking operations. Journal of the Air & Waste Management Association. 2019.

KEY ISSUES & FAST FACTS 2024

California almonds play a significant role in the overall health and well-being of our communities, consumers, environment, and economy. With more than 1.38 million bearing acres statewide, the California almond industry recognizes its role as a leader in California agriculture and global almond production, aiming to make life better by what we grow and how we grow.

California almonds are ...

- #1 U.S. specialty crop export.
- California's #1 ag export with a value of \$4.7 billion in 2022.
- California's fifth-largest commodity with a 2023 farmgate value of \$3.88 billion.
- Around 76% of global almond production.
- Over 70% export, shipped to more than 100 countries.
- Creating more than 110,000 California jobs and contribute \$9.2 billion to California GDP (Aug 2020).
- 90% family farms – nearly 70% farming 100 acres or less.
- #1 nut in global new product introductions since 2007.

For additional information on key issues impacting the California almond industry, please contact regulatoryissues@almondboard.com



HIGHEST STANDARD OF PRODUCTION & QUALITY

- California almond growing practices, combined with California and U.S. regulatory requirements, have been benchmarked at Gold level to the Sustainable Ag Initiative's (SAI) Farm Sustainability Assessment (FSA) framework.
- California almonds are the only U.S. commodity recognized under the EU's Pre-Export Certification (PEC) regulation.
- The industry implements widespread food safety practices in compliance with FDA Food Safety Modernization Act (FSMA) requirements.
- The California Almond Stewardship Platform (CASP) grower self-assessment tool is one of the largest data sets on grower practices, with almost 32% of industry acres assessed.

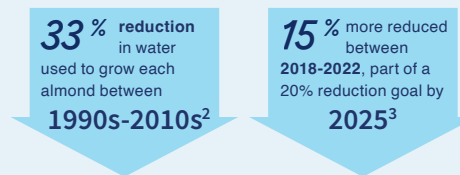
Growing more than *almonds*



- While growers are investing in these growing practices, low profitability in recent years means that incentive programs, cost-share grants, and other economic programs enable continued progress.
- Scan the QR code to see more information about how California almonds are grown:

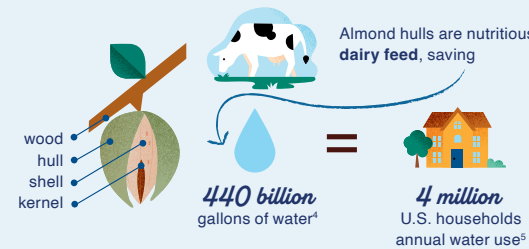
WATER EFFICIENCY AND USE

- 80% of almond orchards use efficient micro-irrigation, allowing precision irrigation based on tree/soil needs and weather conditions.¹



- Groundwater recharge is essential to support implementation of California's Sustainable Groundwater Management Act (SGMA).
- ABC's Introduction to Groundwater Recharge guide has been cited as a model resource for growers seeking to do on-farm recharge.

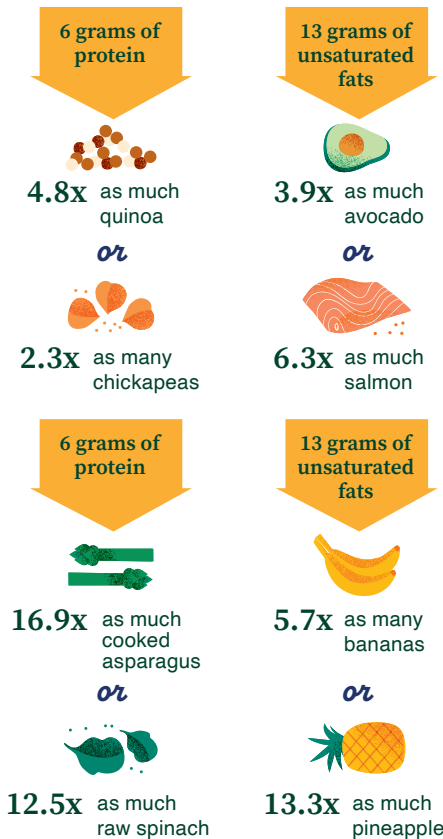
Four crops for every drop



1. CASP. November 2024.
2. University of California, 2010. Food and Agriculture Organization of the United Nations, 2012. Almond Board of California, 1990-94, 2000-14.
3. CASP Almond Orchard 2025 Goals MidPoint, SureHarvest, November 2022.
4. UC Davis, Department of Agricultural and Resource Economics. Sample Cost Study Alfalfa Hay and Organic Alfalfa Hay, 2020.
5. United States Environmental Protection Agency. How We Use Water, 2023. The average US household uses 109,500 gallons annually.

NUTRITIONAL POWERHOUSE

- One portion (1 Oz) of almonds provide¹



1. United States Department of Agriculture, Agricultural Research Service. USDA National Nutrient Database for Standard Reference, Release 28, 2015.

ZERO WASTE

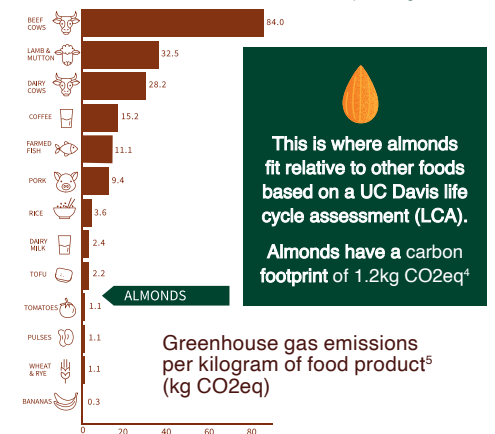
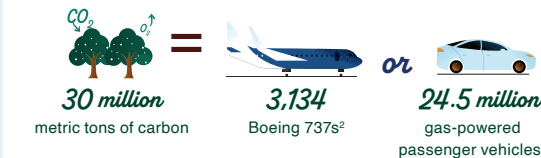
- Almond hulls, shells and woody biomass can be reused as feedstocks for bioplastics, bioenergy, clothing fiber, soil amendments, food and cosmetic ingredients.
- Efforts are underway to obtain GRAS (generally regarded as safe) status for almond hulls for food applications, adding fiber and phytonutrients while upcycling this almond product.
- Export markets for almond hulls and shells are being pursued, with the objective of bringing more economic value to growers.
- A renewable solution for the trees at the end of their productive lives is Whole Orchard Recycling, which involves grinding up orchards and incorporating the woody biomass into the soil. ABC-funded research indicates that over time this practice increases yields, returns nutrients to the soil, increases water infiltration and storage¹, and sequesters 2.4 tons of carbon per acre in the soil.²
- In the space of only a few years, Whole Orchard Recycling has been adopted by some 55% of farm organizations.³



1. Emad Jahanzad, et al. Orchard recycling improves climate change adaptation and mitigation potential of almond production systems. PLoS ONE. March 2020.
2. Seth Wynes, et al. Climate mitigation gap: education and government recommendations miss the most effective individual actions. Environmental Research Letters. 2017.
3. CASP. November 2024.

LOW CARBON FOOTPRINT

- Trees store carbon in their wood and roots as they grow. Almond trees store one of the highest amounts of carbon, 18 metric tons, per acre. That amounts to 30 million metric tons¹ of carbon sequestered in all California almond acreage.



This is where almonds fit relative to other foods based on a UC Davis life cycle assessment (LCA). Almonds have a carbon footprint of 1.2kg CO₂eq⁴

1. California Air Resources Board. An Inventory of Ecosystem Carbon in California's Natural & Working Lands. 2018 Edition (Updated 2020), p. 41.
2. U.S. Environmental Protection Agency. Greenhouse Gas Equivalencies Calculator. July 2023.
3. Reuters. Boeing jets emissions data highlights industry's green challenge. April 2021. Assumes industry average 25-year operable lifespan.
4. Alissa Kendall, et al. Lifecycle Based Assessment of Energy and Greenhouse Gas Emissions in Almond Production. Part 1: Analytical Framework and Baseline Results. Journal of Industrial Ecology. 2015. Almond LCA captures emissions through brownskin almond processing.
5. Joseph Poore, et al. Reducing food's environmental impacts through producers and consumers. Science. June 2018. Emissions are measured in kilograms of carbon dioxide equivalents (kg CO₂eq). Data captures emissions from land use change, farms, animal feed and processing