

ALMOND ALMANAC 2014





AT YOUR FINGERTIPS

Almond Board of California (ABC) promotes almonds through its research-based approach to all aspects of farming, production and marketing on behalf of California Almond growers and handlers. The Almond Almanac is ABC's annual report, which outlines the programs and projects that power the industry toward meeting its vision, and it provides a comprehensive analysis of the production and marketing of California Almonds.

The Almond Almanac is prepared by ABC on a crop-year basis, spanning August 1 through July 31, and includes comprehensive historical information about almond production, acreage and varieties, as well as shipment and market information. The statistical content is compiled using various handler forms required by the industry's Federal Marketing Order. Additional data, including crop estimates and farm price, are supplied by the USDA National Agricultural Statistics Service, Pacific Region Field Office (NASS/PRO).



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STRATEGIC PRIORITIES + SUPPORTING OBJECTIVES 2014

INVEST IN PROGRAMS AND RESEARCH THAT MAKE ALMONDS A CROP OF CHOICE FOR CALIFORNIA

- Promote the sustainability* of California Almonds
- Enhance industry-wide quality and food safety
- Support basic and applied research to advance production and processing efficiencies
- Demonstrate water use efficiency and supply implications
- Enhance leadership position in bee health research, education and outreach

INVEST IN PROGRAMS AND RESEARCH THAT BUILD MARKET DEMAND FOR ALMONDS, MAKING THEM THE NUT OF CHOICE

- Expand the science-based foundation for the health benefits and functional attributes of almonds in dietary patterns and healthy lifestyles
- Increase consumers perceived value of almonds
- Implement actions that mitigate trade and regulatory barriers
- Use market research and performance analysis for strategy development and resource allocation
- Establish a proactive public relations stewardship program

BUILD AN ALMOND BOARD ORGANIZATION THAT OPTIMIZES ITS EFFECTIVENESS IN ESTABLISHING AND EXECUTING GOALS

- Ensure that Almond Board representatives understand and adhere to fiduciary responsibility standards
- Implement Board of Directors development initiatives
- Optimize staff and committee structures and processes
- Provide fact-based information to support industry advocacy efforts
- Enhance the relationship with and education of the growers and almond community

*Please see page 26 for the Almond Board of California definition for sustainability.



ALMOND BOARD OF CALIFORNIA PROGRAMS + BUDGET

Key programs for ABC contribute to meeting our vision and mission. These areas include a comprehensive global marketing program in established, emerging and exploratory markets; nutrition, production, environmental and technical research; a sustainability program; industry communications outreach; and more. ABC programs are funded by a handler assessment placed on each pound of almonds produced. Each year, the ABC Board of Directors, made up of both growers and almond handlers, approves the allocation given to each program area. ABC staff is responsible for implementing the programs detailed on the following pages.

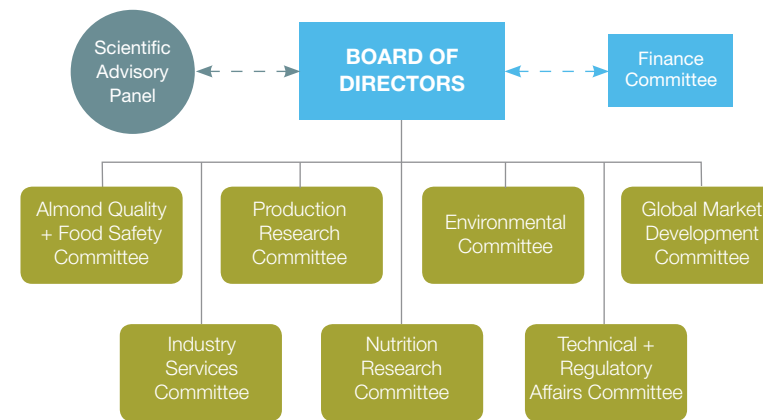
VISION

To bring great taste, health and vitality to people around the world through the enjoyment of California Almonds.

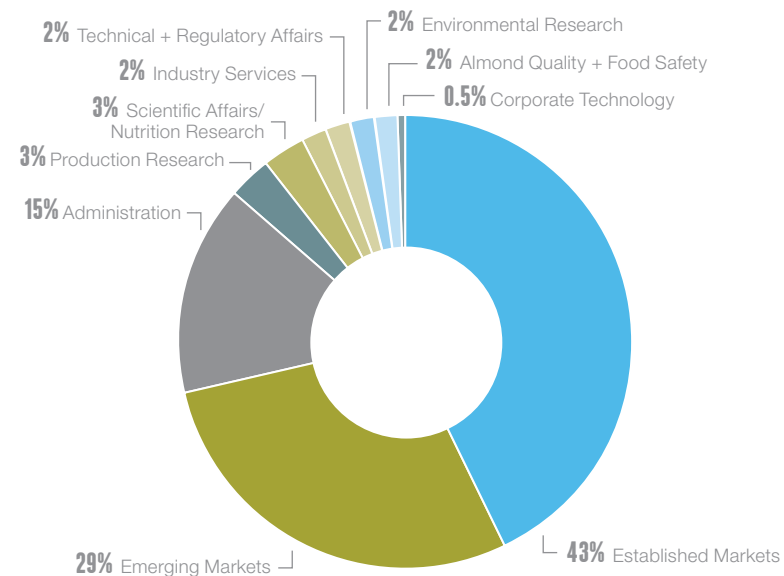
MISSION

To make California Almonds essential to customers and consumers worldwide through innovative research, market development and industry support.

Committee Structure



Program Budget Allocation 2013/14



Source: Almond Board of California. Note: Total does not sum to 100% due to rounding.

WHAT A DIFFERENCE A YEAR MAKES

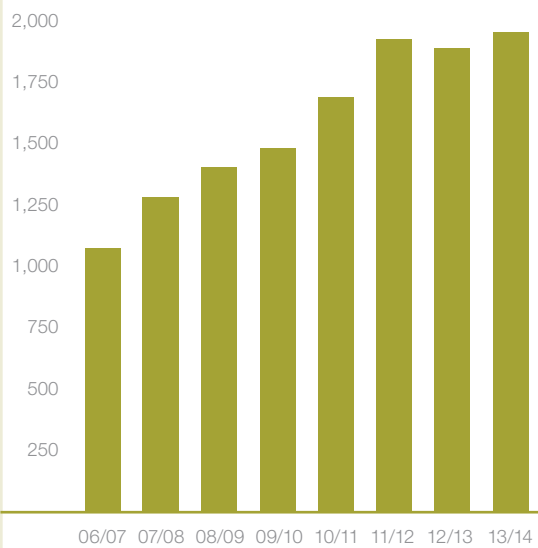
LARGEST GLOBAL, INTERNATIONAL + DOMESTIC SHIPMENTS EVER¹



1.9 BILLION POUNDS OF ALMONDS SHIPPED

SHIPMENTS CROP YEARS 2006/07-2013/14

shipments in million pounds



EATING NUTS LINKED TO LOWER DEATH RATE²

A study in the New England Journal of Medicine found that study participants of health professional adults who reported eating an ounce of nuts daily were associated with a 20% lower death rate from any cause compared to those who did not eat nuts. The study participants who were nut eaters were also inversely associated with deaths from cancer, heart disease, and other major causes of death compared to those who did not eat nuts. While this study does not indicate cause and effect, the findings are significant. Researchers also reported that those who ate more nuts were slimmer, ate more fruits and vegetables, more likely to exercise, less likely to smoke, and drank more alcohol.

The study examined the diets of 119,000 health professional men and women, tracked for roughly 30 years.

HIGHEST GROWER PRICE EVER

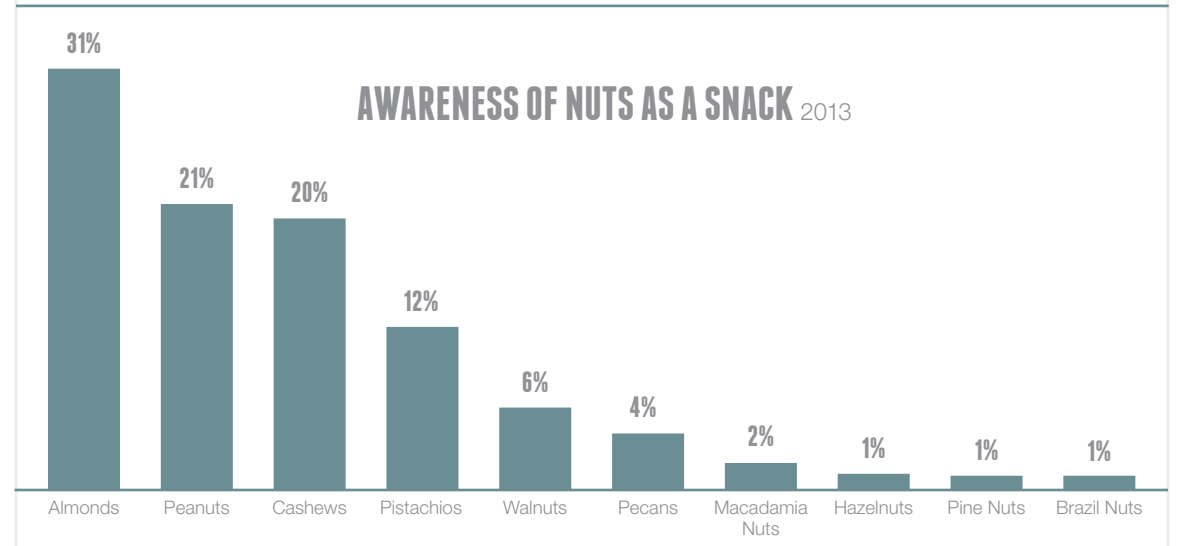
The long-term focus on building loyal consumers has allowed almonds to demonstrate real demand inelasticity in several markets at record prices.



2014 has been a year of significant milestones for the almond industry. Many record-breaking achievements were reached, but the industry also faced major challenges. The progress made in the last year demonstrates how effective the industry can be when we all join forces and move toward common goals.

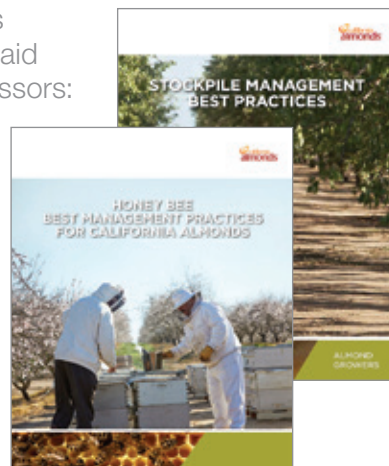
ALMONDS ARE AMERICA'S #1 SNACK NUT³

Almonds are an essential food in the U.S. and for the first time ever overtook peanuts in snack awareness measures.



DRIVING INDUSTRY IMPROVEMENT

Two new resources were developed to aid growers and processors: a Stockpile Management Best Practices guide and Honey Bee Best Management Practices (BMPs) for California Almonds.



Almond Board launched new Web sites for California Almond growers and processors. These Web sites provide a more valuable, user-friendly experience.



CALIFORNIA, AGRICULTURE + ALMONDS ARE FACING AN UNPRECEDENTED DROUGHT

- First year ever with 0 water allocation to parts of the growing region.
- Industry members are being faced with life-changing decisions.
- New groundwater legislation being implemented.



ADVANCEMENTS IN SUSTAINABILITY PROGRAMS

- Sustainability program learnings have resulted in new **GROWER OUTREACH PROGRAMS** to improve practices and reduce costs.
- Almond Board's Bob Curtis was awarded the **SUSTAINABLE CONSERVATION AWARD** and the **UC DAVIS "FRIEND OF THE COLLEGE" AWARD**.
- Attendance at **IMPORTANT SUSTAINABILITY MEETINGS**, including the California Agriculture Assembly hearing on bees and the White House Science Council Meeting.
- ABC held its **10TH ANNUAL ENVIRONMENTAL STEWARDSHIP TOUR**.



FOOD QUALITY + SAFETY LEADERSHIP CONTINUES

- Almonds transitioned from special measures to a voluntary aflatoxin program in the EU.
- Almond Board team is coordinating with the Almond Hullers and Processors Association (AHPA) through a Memorandum of Agreement to participate in the public comment period for the Food Safety Modernization Act.
- Almonds' leadership role in tree nut food safety and pasteurization research will help to shape new food safety law.

1. Almond Board of California, July 2014 Position Report. 2. Bao Y, Han J, Hu FB, Giovannucci EL, Stampfer MJ, Willett WC, Fuchs CS. Association of nut consumption with total and cause-specific mortality *New England Journal of Medicine* 2013;369:2001-11. 3. Almond Board of California, Consumer AAU, 2013. 4. Almond Board of California, July 2014 Position Report.





CALIFORNIA ALMOND GROWERS

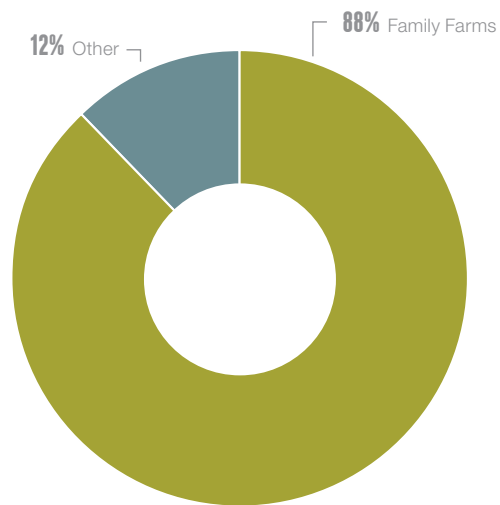
California's Central Valley has ideal conditions for growing almonds with its mild climate, rich soil and abundant sunshine. California Almonds make up about 80% of the global and virtually 100% of the U.S. supply.

The California Almond growing community is driven by multigenerational family farmers. According to the 2012 USDA Ag Census, there are around 6,600 California Almond farms. Of those, more than 88% are family farms and 61% consist of 1–49 acres.

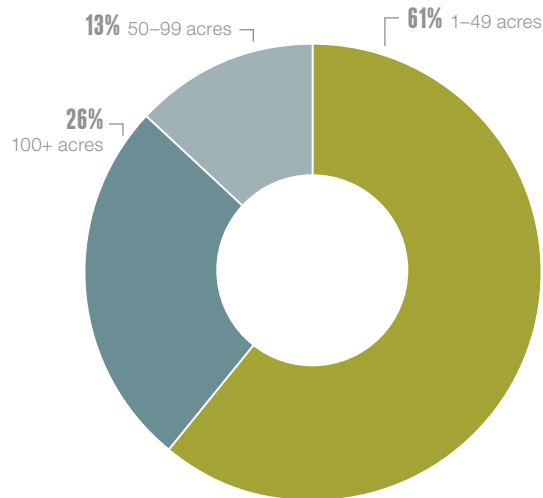
Almond growers depend on natural resources for their livelihood. Some are third and fourth generation family farmers who live on their land and expect to pass it along to their children and grandchildren. They understand that near record production has to be matched by an unprecedented commitment to sustainability. Almond growers have continued to invest in research and make advances in water efficiency, promote the health of honey bees and other pollinators, use pesticides responsibly and, above all, protect the quality and safety of California Almonds.

Please see pages 24–31 to learn more.

Almond Farms



Source: USDA 2007 Census of Agriculture.

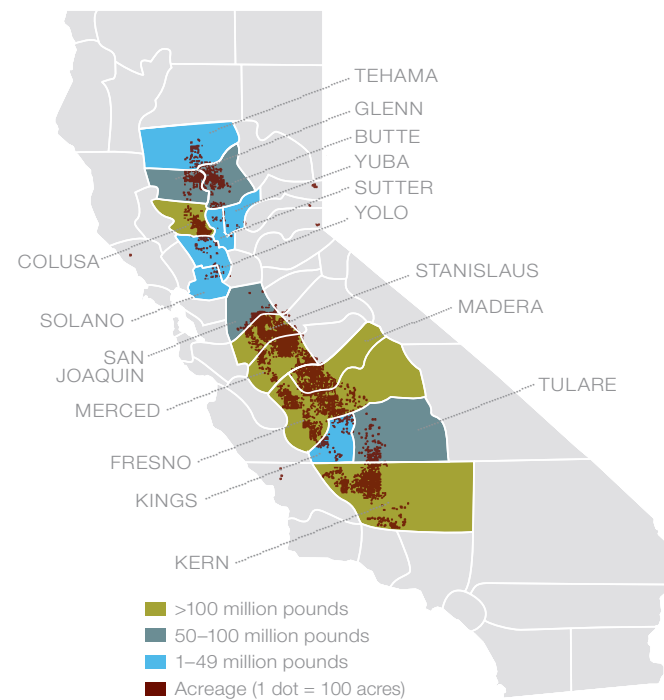


Source: USDA 2012 Census of Agriculture.

Distribution of Crop by Handler Size 2013/14

Handler Size	Number of Handlers	Percentage of Crop Handled
<1M pounds	28	<1%
1–24M pounds	53	23%
25–49M pounds	13	23%
50–74M pounds	6	17%
>75M pounds	5	36%
Total	105	100%

Almond Production by County 2013/14



CALIFORNIA ALMOND INDUSTRY OVERVIEW

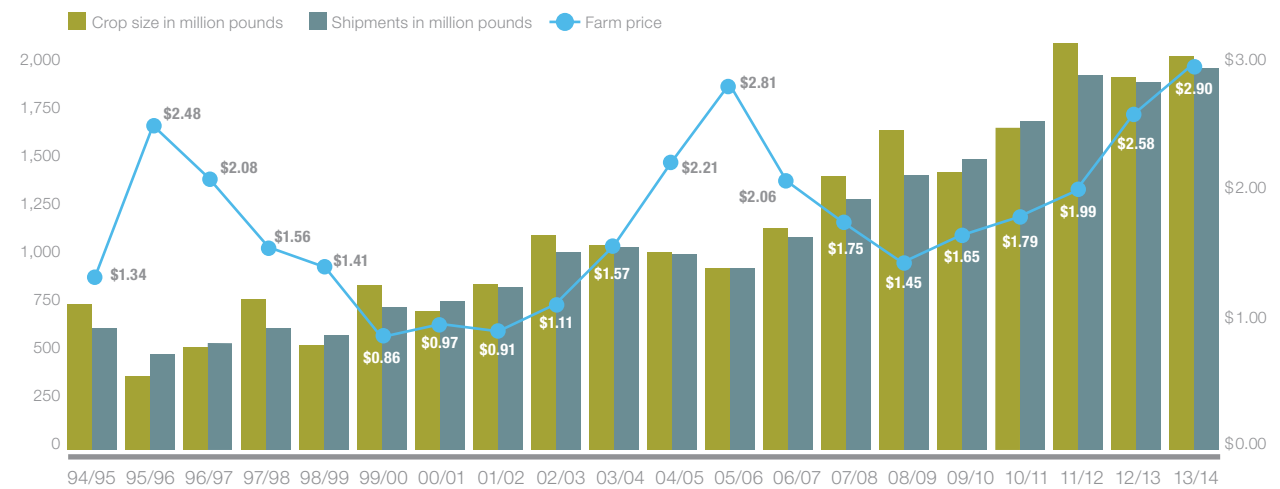
Global demand for California Almonds continues to grow across markets with crop year 2013/14 achieving the highest overall shipments and the second highest production level by almond growers.

Overall shipments were up 3.8%, at a record 1.94 billion pounds. The U.S. accounted for 33% share of total shipments and 67% were destined for more than 90 countries around the world.

For the eighth consecutive year, the U.S. market set a record—shipments were up 9% over the prior year, at 641.8 million pounds. U.S. increases were across all categories—shelled, inshell and manufactured product. For the fifth year, California Almond handlers shipped over 1 billion pounds to export destinations. With shipments up slightly over last year at 1.3 billion, making it the second largest export year.

The 2014/15 crop is forecasted at 2.1 billion pounds and is based on an estimated 860,000 bearing acres.

Historical Crop Size + Shipments vs. Farm Price crop years 1994/95–2013/14



Sources: Almond Board of California, USDA, NASS/PRO.



California's Central Valley is one of the few places in the world, and the only place in the U.S., with an ideal almond-growing climate due to its mild winters, rich soil and abundant sunshine.

POSITION REPORT OF CALIFORNIA ALMONDS

in million pounds

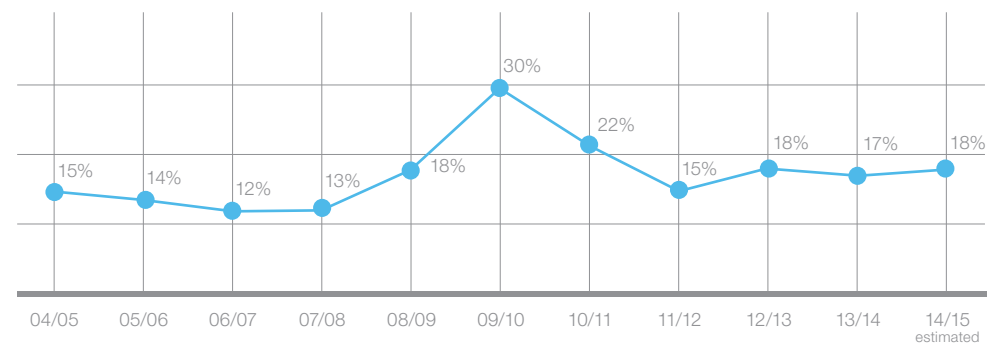
Crop Year	Redetermined Marketable	Carry-in	Reserve	Total Salable Supply	Domestic Shipments	Export Shipments	Total Shipments	Salable Carryover
1995/96	352.3	204.8	N/A	557.1	132.8	335.1	467.9	92.8
1996/97	489.3	92.8	N/A	582.1	137.5	395.8	533.3	48.3
1997/98	736.8	48.3	N/A	785.1	159.6	452.4	612.1	172.0
1998/99	492.4	172.0	N/A	664.4	167.0	405.5	572.5	91.8
1999/00	795.5	91.8	0.0	887.3	209.6	503.0	712.6	174.7
2000/01	672.4	174.7	0.0	847.1	211.2	528.7	739.8	107.3
2001/02	794.8	107.3	N/A	902.1	239.3	581.8	821.1	80.9
2002/03	1,063.5	80.9	N/A	1,144.4	291.7	690.6	982.4	162.0
2003/04	1,011.1	162.0	N/A	1,173.1	312.2	712.1	1,024.3	148.9
2004/05	972.8	148.9	N/A	1,121.7	331.6	652.5	984.1	137.7
2005/06	888.7	137.7	N/A	1,026.4	303.9	610.4	914.2	112.2
2006/07	1,087.8	112.2	N/A	1,200.0	368.3	697.8	1,066.1	133.9
2007/08	1,358.3	133.9	N/A	1,492.2	394.8	866.4	1,261.2	231.2
2008/09	1,571.9	231.2	N/A	1,803.1	411.0	978.4	1,389.4	413.7
2009/10	1,379.0	413.7	N/A	1,792.7	449.5	1,022.0	1,471.5	321.3
2010/11	1,600.3	321.3	N/A	1,921.6	489.7	1,177.9	1,667.6	254.0
2011/12	1,979.9	254.0	N/A	2,233.9	546.7	1,351.9	1,898.6	335.2
2012/13	1,848.4	335.2	N/A	2,183.6	588.4	1,278.0	1,866.5	317.2
2013/14	1,794.5	317.2	N/A	2,111.7	641.8	1,295.6	1,937.4	350.6
2014/15*	2,037.0	350.6	N/A	2,387.6	693.0	1,407.0	2,100.0	287.6

Source: Almond Board of California. Note: Totals may not add precisely due to rounding.*Estimated.



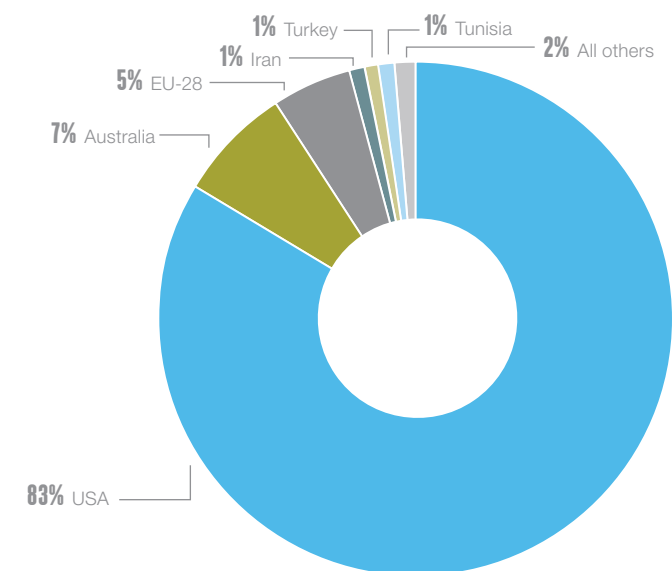
CARRY-IN AS A PERCENTAGE OF PRIOR YEAR SHIPMENTS

2004/05–2014/15

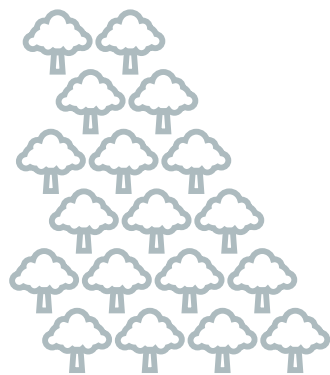


Source: Almond Board of California.

WORLD ALMOND PRODUCTION 2013/14



Sources: Almond Board of California and INC (International Nut and Dried Fruit Council), *The Cracker* 2014.

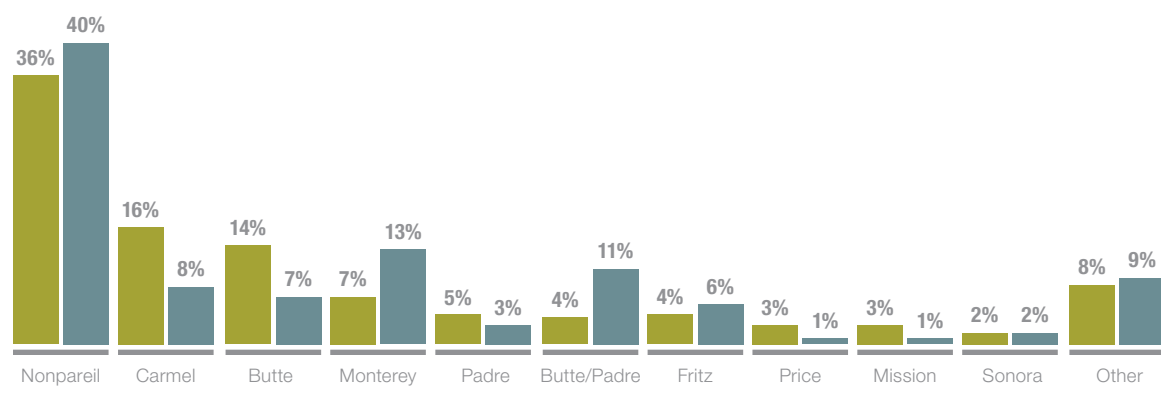


2014/15 Forecasted:
860,000 bearing acres

TOP TEN ALMOND-PRODUCING VARIETIES

2003/04 vs. 2013/14 tonnage

● 2003/04 ● 2013/14

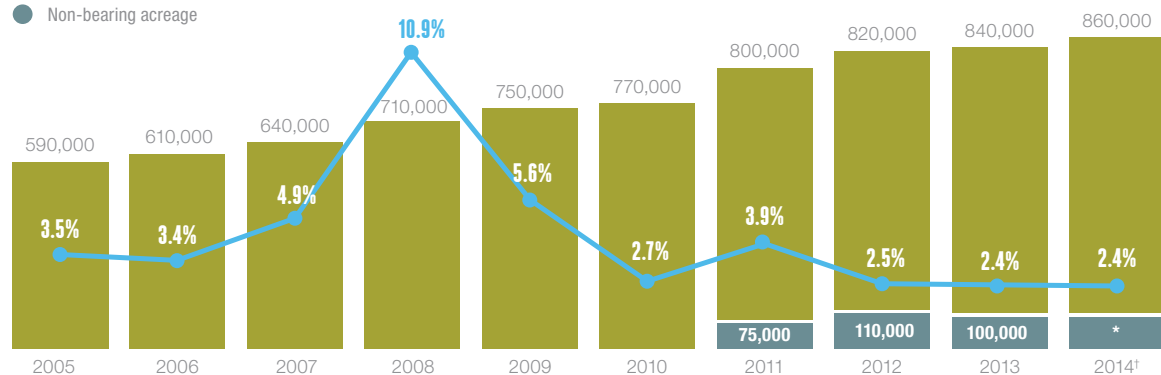


Source: USDA Incoming Receipts from FV193 certificates reported to Almond Board of California.

CALIFORNIA ALMOND ACREAGE

crop years 2005–2014

● Bearing acreage
● Percentage change from previous year bearing acres
● Non-bearing acreage

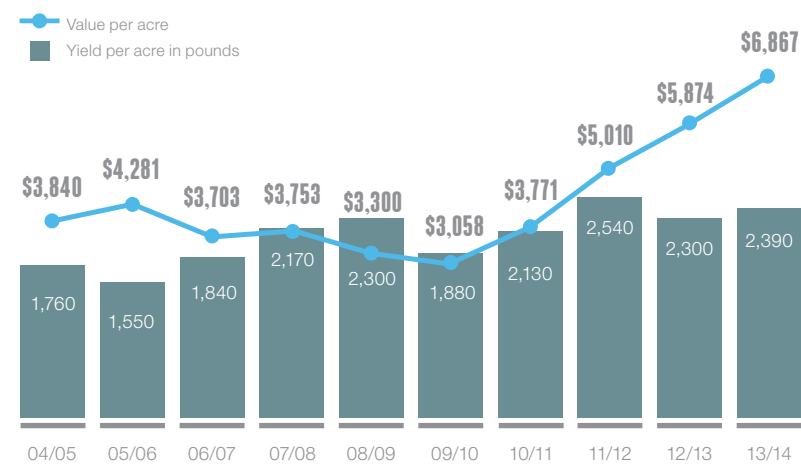


Source: USDA Agricultural Statistics Service, Pacific Region Field Office (NASS/PRO) 2013 Acreage Report. *Non-bearing acreage available in April 2015. †Estimate.



CROP VALUE + YIELD PER BEARING ACRE

crop years 2004/05–2013/14



Source: USDA Agricultural Statistics Service, Pacific Region (NASS/PR) 2013 Acreage Report.

California's almond growers are leaders in water efficiency. Through state-of-the-art farming practices and technologies, growers have reduced the amount of water they use per pound of almonds by 33% in the past 20 years.

See page 28–29 for more information.

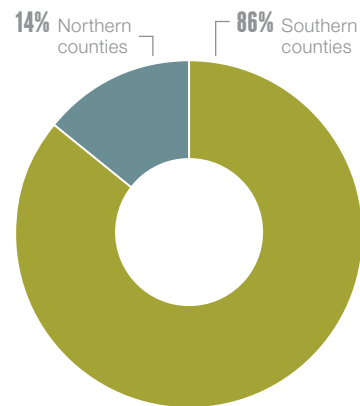
Source: Almond Board of California, 2014.

California Almond Acreage + Farm Value

CROP YEAR	ACREAGE					YIELD		VALUE IN DOLLARS		
	Bearing	Non-Bearing	Total	New Plantings	Average Trees/Acre	Bearing Acre Yield (lbs.)	Production* (million lbs.)	Farm Price	Farm Value (\$1,000)	Value per Bearing Acre
2003/04	550,000	60,000	610,000	14,167	103.0	1,890	1,032.9	\$1.57	\$1,600,144	\$2,909
2004/05	570,000	70,000	640,000	26,420	103.0	1,760	998.0	\$2.21	\$2,189,005	\$3,840
2005/06	590,000	110,000	700,000	34,033	104.0	1,550	911.7	\$2.81	\$2,525,909	\$4,281
2006/07	610,000	145,000	755,000	31,970	105.0	1,840	1,116.7	\$2.06	\$2,258,790	\$3,703
2007/08	640,000	125,000	765,000	14,381	105.0	2,170	1,383.0	\$1.75	\$2,401,875	\$3,753
2008/09	710,000	115,000	825,000	21,678	107.0	2,300	1,614.6	\$1.45	\$2,343,200	\$3,300
2009/10	750,000	90,000	840,000	18,264	108.0	1,880	1,405.9	\$1.65	\$2,293,500	\$3,058
2010/11	770,000	85,000	855,000	13,362	108.0	2,130	1,628.2	\$1.79	\$2,903,380	\$3,771
2011/12	800,000	75,000	875,000	14,960	111.0	2,540	2,020.3	\$1.99	\$4,007,860	\$5,010
2012/13	820,000	110,000	930,000	12,269	112.0	2,300	1,885.0	\$2.58	\$4,816,860	\$5,874
2013/14†	840,000	100,000	940,000	11,105	112.0	2,390	2,009.7	\$2.90	\$5,768,100	\$6,867
2014/15†	860,000	‡	‡	‡	‡	2,440	2,100.0	‡	‡	‡

Source: USDA, National Agricultural Statistics Service, Pacific Region Field Office (NASS/PRO). Note: Almond Board does not track prices.

*Production numbers provided by Almond Board of California. †Estimated as of June 30, 2014. ‡Not available at time of publication.



CALIFORNIA ALMOND PRODUCTION BY COUNTY

in million pounds crop year 2013/14

Crop Year	Northern California Valley Counties						Southern California Valley Counties								All Others	Total
	Colusa	Glenn	Butte	Yolo	Tehama	Sutter	Kern	Fresno	Stanislaus	Merced	Madera	San Joaquin	Tulare	Kings		
2003/04	55.0	42.3	50.0	6.6	8.0	5.7	205.9	176.9	169.3	129.3	94.5	55.3	18.5	12.3	4.1	1,033.6
2004/05	38.0	37.2	45.0	4.7	6.9	4.6	215.8	173.5	163.9	127.6	93.4	51.0	20.4	13.0	2.9	997.9
2005/06	40.3	42.6	50.4	5.6	8.4	4.6	210.1	160.1	132.2	102.1	82.4	41.8	15.9	12.0	2.7	911.4
2006/07	50.8	38.4	41.8	6.3	7.7	4.9	247.8	232.7	163.6	124.6	100.1	55.6	21.5	17.7	3.8	1,117.3
2007/08	66.2	51.8	66.7	10.0	11.4	5.6	271.0	253.8	223.3	172.9	125.3	75.2	26.7	17.9	5.1	1,383.6
2008/09	86.0	48.6	56.9	10.4	9.7	5.3	354.3	322.2	240.6	187.3	142.7	82.1	36.2	23.4	5.2	1,611.0
2009/10	75.7	52.7	49.2	12.4	10.9	5.2	317.9	281.9	198.8	156.7	112.3	70.7	32.6	20.6	4.9	1,402.6
2010/11	83.0	55.8	47.1	13.6	11.7	4.9	403.5	344.2	202.5	164.2	149.7	68.0	42.4	29.9	6.0	1,626.6
2011/12	85.5	59.7	49.0	17.9	11.9	6.9	472.6	443.0	269.7	216.7	206.1	87.9	44.5	39.0	6.6	2,017.1
2012/13	85.1	57.9	50.9	18.1	12.5	7.0	393.4	413.6	261.8	201.4	203.5	91.5	49.1	30.7	7.5	1,884.1
2013/14	103.6	69.7	56.0	22.5	14.7	7.3	427.2	398.1	284.9	213.8	216.9	95.9	55.8	32.6	7.9	2,006.9

Source: USDA Form FV193, Report of Inedible Content of Almond Receipts.

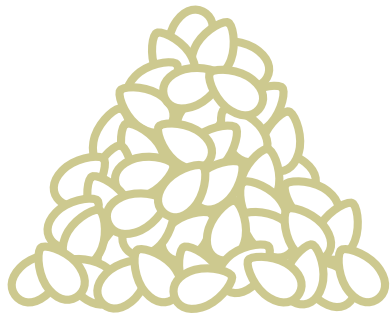


CALIFORNIA ALMOND RECEIPTS BY COUNTY + VARIETY

crop year 2013/14

Counties	Percentage Crop	Nonpareil Lbs.	Monterey Lbs.	Butte/Padre Lbs.	Carmel Lbs.	Butte Lbs.	Fritz Lbs.	All Others Lbs.	All Varieties Lbs.
NORTH VALLEY									
BUTTE	2.79%	23,931,248	1,927,913	2,318,482	5,729,294	4,310,413	326,984	17,461,000	56,005,334
COLUSA	5.16%	45,516,504	9,068,728	1,348,753	10,275,832	13,818,449	6,263,807	17,306,614	103,598,687
GLENN	3.48%	33,221,292	3,439,652	2,149,189	7,499,090	7,630,442	1,073,144	14,734,447	69,747,256
SOLANO	0.30%	3,179,520	217,273	317,954	274,773	918,290	12,544	1,067,555	5,987,909
SUTTER	0.37%	2,083,953	316,109	1,057,726	571,044	753,533	46,412	2,507,992	7,336,769
TEHAMA	0.73%	6,524,336	299,648	878,342	1,879,846	2,043,325	39,577	3,017,138	14,682,212
YOLO	1.12%	9,798,346	2,176,137	540,767	1,926,548	2,355,636	659,733	5,042,458	22,499,625
YUBA	0.07%	638,303	124,820	51,018	75,325	10,698	44,349	380,671	1,325,184
TOTAL	14.01%	124,893,502	17,570,280	8,662,231	28,231,752	31,840,786	8,466,550	61,517,875	281,182,976
SOUTH VALLEY									
FRESNO	19.84%	154,788,365	66,494,004	41,103,121	22,123,804	33,463,464	18,009,819	62,118,060	398,100,637
KERN	21.29%	168,656,555	81,860,740	41,084,894	14,445,279	29,669,127	41,193,814	50,272,891	427,183,300
KINGS	1.62%	13,031,477	4,933,467	6,719,382	826,333	634,501	2,601,573	3,846,594	32,593,327
MADERA	10.81%	84,945,135	37,964,549	31,694,826	15,807,639	7,677,143	9,818,756	28,949,500	216,857,548
MERCED	10.65%	82,621,765	19,924,679	25,228,610	25,893,118	11,728,927	10,155,048	38,260,040	213,812,187
SAN JOAQUIN	4.78%	41,075,450	3,503,861	14,296,758	15,039,814	3,531,107	5,370,533	13,035,690	95,853,213
STANISLAUS	14.20%	111,361,810	20,996,176	37,347,436	41,129,817	12,424,251	11,897,129	49,778,460	284,935,079
TULARE	2.78%	23,583,573	10,431,851	6,250,824	1,550,131	2,191,019	5,849,958	5,981,771	55,839,127
TOTAL	85.96%	680,064,130	246,109,327	203,725,851	136,815,935	101,319,539	104,896,630	252,243,006	1,725,174,418
ALL OTHERS									
DEL NORTE	0.01%	206,628	0	0	0	0	0	0	206,628
MARIPOSA	0.00%	36,839	25,879	0	0	0	0	13,233	75,951
MENDOCINO	0.00%	35,811	0	0	15,305	0	0	11,033	62,149
ORANGE	0.00%	0	0	0	0	6,154	0	0	6,154
SHASTA	0.01%	18,360	0	0	12,003	52,926	0	45,113	128,402
TUOLUMNE	0.00%	21,793	0	0	0	0	0	27,974	49,767
TOTAL	0.03%	319,431	25,879	0	27,308	59,080	0	97,353	529,051
GRAND TOTAL	100.00%	805,277,063	263,705,486	212,388,082	165,074,995	133,219,405	113,363,180	313,858,234	2,006,886,445

Source: USDA Form FV193, Report of Inedible Content of Almond Receipts.



2014/15 Almond Forecast:
2,100 million pounds

CALIFORNIA ALMOND CROP ESTIMATES VS. ACTUAL RECEIPTS

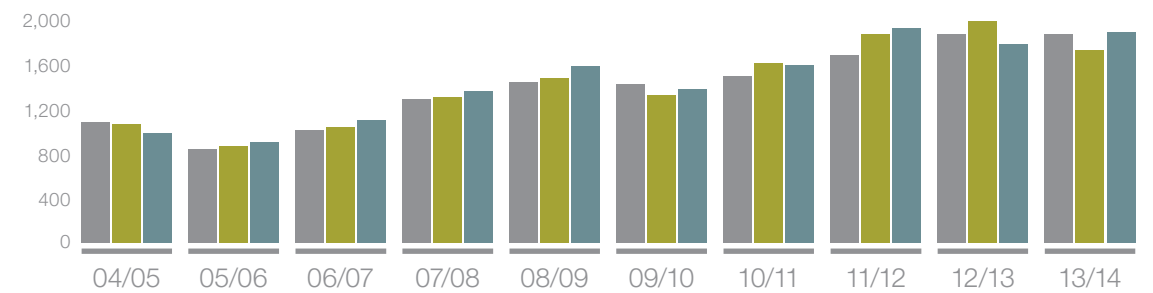
in million pounds

Crop Year	Objective Forecast	Handler Receipts	Loss and Exempt	Redetermined Marketable Weight	Pounds Rejects in Receipts
1995/96	310.0	366.7	14.4	352.3	10.4
1996/97	530.0	507.5	18.2	489.3	13.0
1997/98	680.0	756.5	19.7	736.8	14.3
1998/99	540.0	517.0	24.6	492.4	14.9
1999/00	830.0	829.9	34.4	795.5	9.3
2000/01	640.0	698.4	26.0	672.4	15.7
2001/02	850.0	824.1	29.3	794.8	16.7
2002/03	980.0	1,083.7	20.2	1,063.5	8.2
2003/04	1,000.0	1,032.9	21.8	1,011.1	19.8
2004/05	1,080.0	998.0	25.2	972.8	14.5
2005/06	880.0	911.7	23.0	888.7	16.0
2006/07	1,050.0	1,116.7	28.9	1,087.8	24.0
2007/08	1,330.0	1,383.0	24.7	1,358.3	17.2
2008/09	1,500.0	1,614.6	42.7	1,571.9	13.9
2009/10	1,350.0	1,405.9	26.9	1,379.0	19.6
2010/11	1,650.0	1,628.2	27.9	1,600.3	18.1
2011/12	1,950.0	2,020.4	40.5	1,979.9	16.1
2012/13	2,100.0	1,884.0	35.6	1,848.4	23.1
2013/14	1,850.0	2,009.7	39.0	1,970.7	21.0
2014/15	2,100.0	*	63.0	2,037.0 [†]	*

Source: Almond Board of California. Objective forecast provided by USDA, National Agricultural Statistics Service Pacific Region Field Office (NASS/PRO). *Not available at time of publication. [†]Estimate.

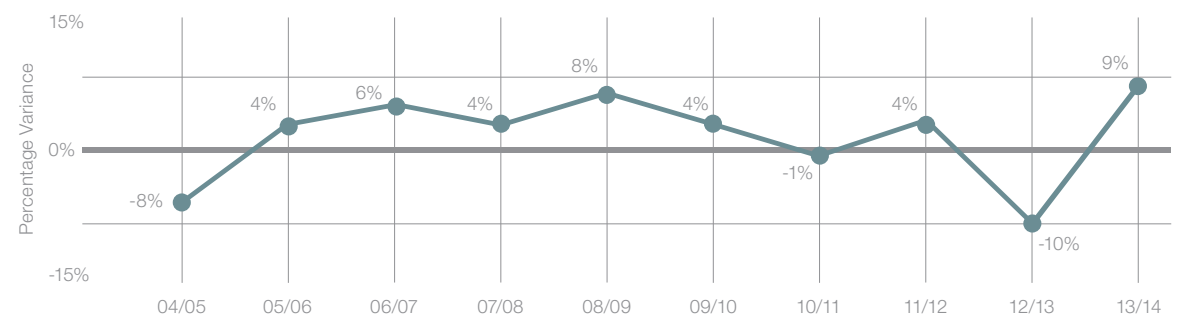


California Almond Crop Estimates vs. Actual Receipts crop years 2004/05–2013/14, in million pounds



Crop Year	Objective Forecast	Actual Production	Subjective Forecast
04/05	1,080	998	1,100
05/06	880	912	850
06/07	1,050	1,117	1,020
07/08	1,330	1,383	1,310
08/09	1,500	1,615	1,460
09/10	1,350	1,406	1,450
10/11	1,650	1,628	1,530
11/12	1,950	2,020	1,750
12/13	2,100	1,884	2,000
13/14	1,850	2,010	2,000

California Almond Receipts Variance from Objective Forecast crop years 2004/05–2013/14



Source: Almond Board of California. Note: Objective forecast provided by USDA, NASS/PRO.

WORLD DESTINATIONS

in million pounds

World Region	Destination	2013/14	2012/13	2011/12	2010/11	2009/10	
AMERICAS							
North America	United States (domestic)	641.81	588.40	546.71	489.68	449.50	
	Canada	40.67	44.22	47.79	45.04	39.42	
	Mexico	14.53	14.53	10.55	11.24	7.82	
	Total North America (exports)	55.20	58.74	58.34	56.29	47.25	
Latin America/Caribbean	Argentina	1.21	0.74	0.25	0.80	0.50	
	Brazil	4.03	1.89	0.53	0.72	0.60	
	Chile	10.06	7.74	7.86	6.12	6.96	
	Colombia	1.80	1.50	0.45	0.63	0.38	
	Costa Rica	0.54	0.47	0.29	0.38	0.22	
	Peru	1.42	0.99	0.73	0.52	0.40	
	Trinidad	0.62	0.50	0.47	0.45	0.43	
	Total Latin America/Caribbean	21.07	14.44	11.06	10.36	10.07	
	TOTAL AMERICAS	76.27	73.18	69.40	66.65	57.32	
	ASIA-PACIFIC						
	Northeast Asia	China/Hong Kong	144.82	208.18	236.19	167.55	133.04
Japan		75.85	65.96	61.87	55.82	52.93	
South Korea		53.50	45.99	44.84	32.07	25.69	
Taiwan		12.69	10.90	11.77	10.49	7.06	
Total Northeast Asia		286.86	331.03	354.66	265.93	218.72	
Southeast Asia	Indonesia	2.14	2.33	1.72	1.40	1.38	
	Malaysia	5.96	4.95	5.69	5.27	4.18	
	Singapore	3.50	2.24	1.99	3.33	2.06	
	Thailand	4.15	3.80	3.34	4.08	3.90	
	Vietnam	18.40	15.44	17.53	2.91	4.27	
	Total Southeast Asia	34.40	28.99	30.53	17.10	15.97	
South/Central Asia	India	102.16	125.09	118.97	106.03	83.93	
	Pakistan	2.62	4.06	5.67	6.43	4.86	
	Total South/Central Asia	105.44	130.12	125.10	113.35	89.02	
Australasia/Oceania	Australia	4.01	5.81	4.14	2.13	2.47	
	New Zealand	3.34	3.19	2.44	1.73	2.24	
	Total Australasia/Oceania	7.34	9.01	6.58	3.86	4.71	
TOTAL ASIA-PACIFIC	434.04	449.14	516.88	400.24	328.43		
EUROPE							
Western Europe	Belgium	20.78	19.21	22.86	17.78	17.37	
	Denmark	9.06	9.44	9.21	9.47	7.28	
	Finland	1.01	1.04	1.33	1.45	2.82	
	France	23.03	24.18	28.31	30.32	30.12	
	Germany	126.82	121.03	116.52	113.16	109.04	
	Greece	8.97	7.87	8.90	8.71	12.01	
	Italy	53.47	37.22	45.27	43.07	34.64	
	Netherlands	45.34	41.90	38.80	41.09	35.70	
	Norway	4.48	4.73	5.68	4.20	4.76	
	Portugal	2.39	1.73	1.85	2.94	2.51	
	Spain	193.40	158.52	156.99	158.34	143.36	
	Sweden	6.68	7.94	8.44	7.47	6.35	
	Switzerland	8.60	6.64	5.99	5.85	5.66	
	United Kingdom	27.86	26.41	24.51	25.58	25.66	
	Total Western Europe	532.32	468.34	475.42	470.33	438.23	
	Central/Eastern Europe	Belarus	0.84				
		Bosnia	0.56		0.35	0.21	0.18
		Bulgaria	2.94	1.96	2.63	1.17	0.67
		Croatia	1.62	1.57	1.99	1.90	2.69
		Czech Republic	2.70	3.50	3.73	4.25	4.78
Estonia		1.41	2.19	0.92	0.56	1.63	
Latvia		1.95	2.19	1.88	0.88	1.20	
Lithuania		4.15	2.85	1.75	1.80	1.54	
Poland		1.89	2.14	2.95	2.65	1.51	
Russia		32.51	45.28	38.57	33.55	22.69	
Serbia		0.58	0.51	0.60	0.66	0.31	
Ukraine		2.17	3.32	2.16	1.80	1.09	
Total Central/Eastern Europe		55.48	65.63	59.80	51.87	39.90	
TOTAL EUROPE		587.80	533.97	535.22	522.20	478.13	
MIDDLE EAST/AFRICA							
Middle East	Bahrain	1.03	0.57	1.19	0.84	0.74	
	Cyprus	1.29	1.38	1.30	1.14	1.42	
	Israel	6.35	2.38	4.63	6.14	6.57	
	Jordan	8.51	6.62	8.60	10.05	8.80	
	Kuwait	2.48	3.31	3.02	2.76	2.37	
	Lebanon	5.15	4.55	6.85	8.39	5.59	
	Saudi Arabia	14.27	9.81	19.63	10.84	7.52	
	Turkey	52.70	39.21	59.30	38.09	36.60	
	United Arab Emirates	86.08	81.40	93.92	82.58	67.20	
	Total Middle East	178.16	149.64	199.59	161.67	137.27	
	North Africa	Algeria	6.40	11.61	11.97	11.25	6.88
		Egypt	3.98	4.61	9.41	7.12	8.62
Libya		1.54	0.79	1.18	1.04	0.13	
Tunisia		1.72		2.47	3.01	1.24	
Total North Africa		13.82	17.59	25.57	23.01	17.81	
Sub-Saharan Africa	South Africa	5.05	4.13	4.76	3.80	2.79	
	Total Sub-Saharan Africa	5.48	4.53	5.25	4.13	3.00	
	TOTAL MIDDLE EAST/AFRICA	197.45	171.76	230.41	188.81	158.08	
TOTAL SHIPMENTS							
	Total Export Shipments	1,295.57	1,278.05	1,351.91	1,177.89	1,021.96	
	Total U.S. Shipments	641.81	588.40	546.71	489.68	449.50	
	TOTAL GLOBAL SHIPMENTS	1,937.38	1,866.45	1,898.62	1,667.57	1,471.46	

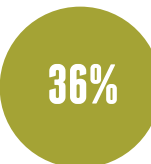
Source: Almond Board of California.

Note: Totals may not add precisely due to rounding. Destinations that shipped more than 500,000 pounds are listed.

2013/14

Shipments by Region

North America



Western Europe



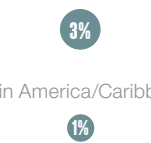
Asia-Pacific



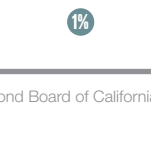
Middle East/Africa



Central/Eastern Europe



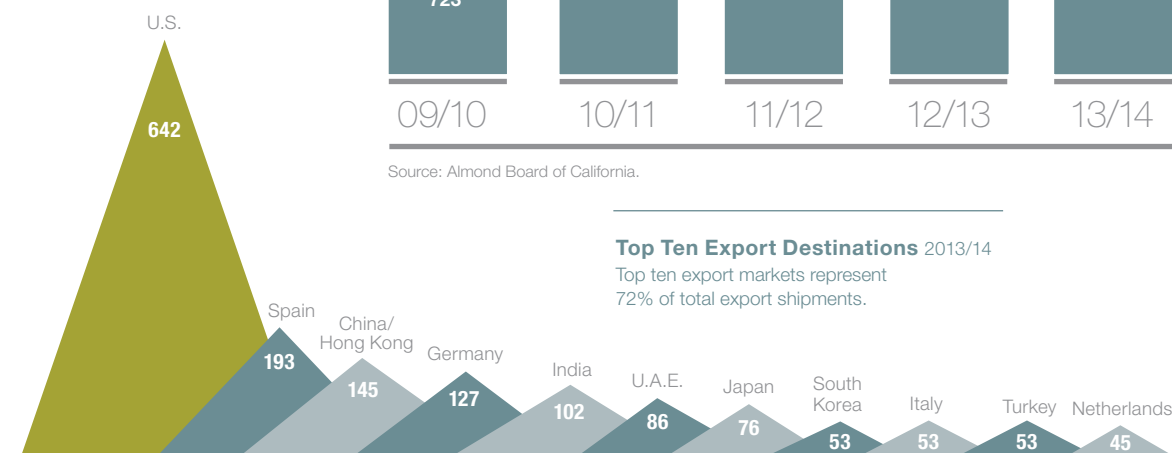
Latin America/Caribbean



Source: Almond Board of California.

Top World Destinations 2013/14

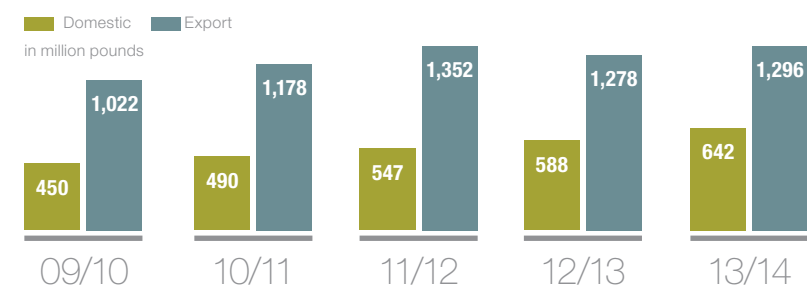
in million pounds



Source: Almond Board of California, July 2014 Position Report.



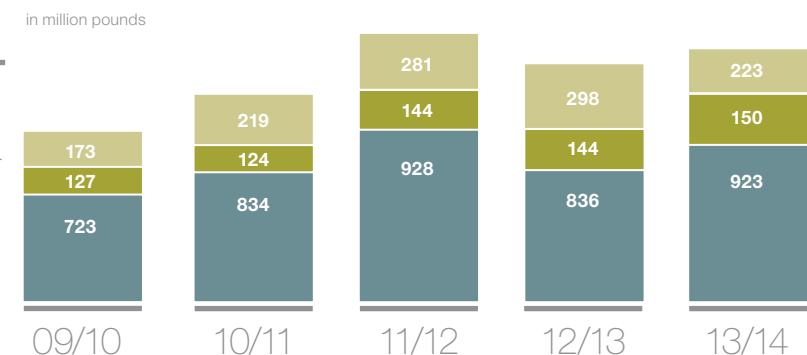
DOMESTIC + EXPORT SHIPMENTS 2009/10-2013/14



Source: Almond Board of California.

Export Shipments by Product Type 2009/10-2013/14

in million pounds



Source: Almond Board of California.

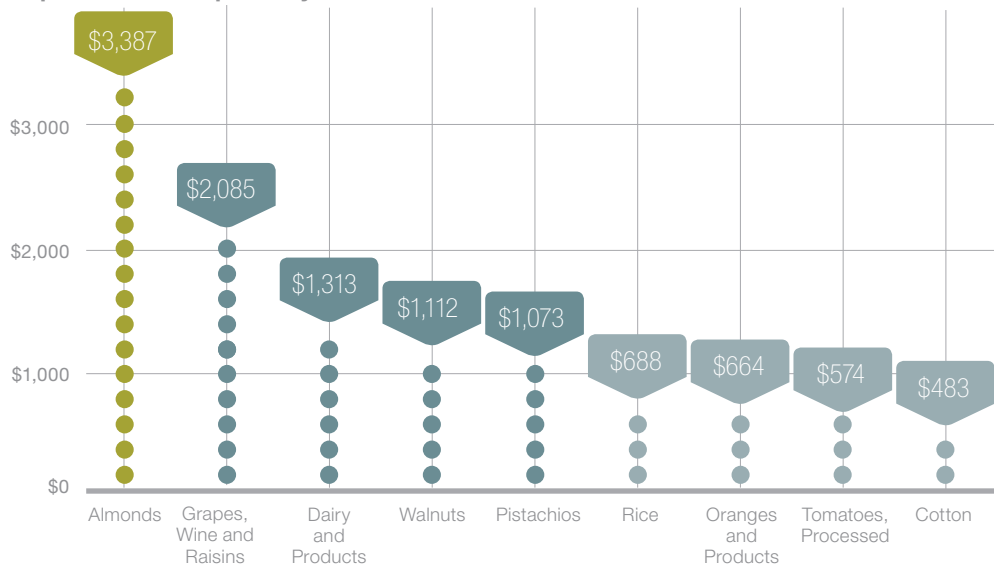
Top Ten Export Destinations 2013/14

Top ten export markets represent 72% of total export shipments.



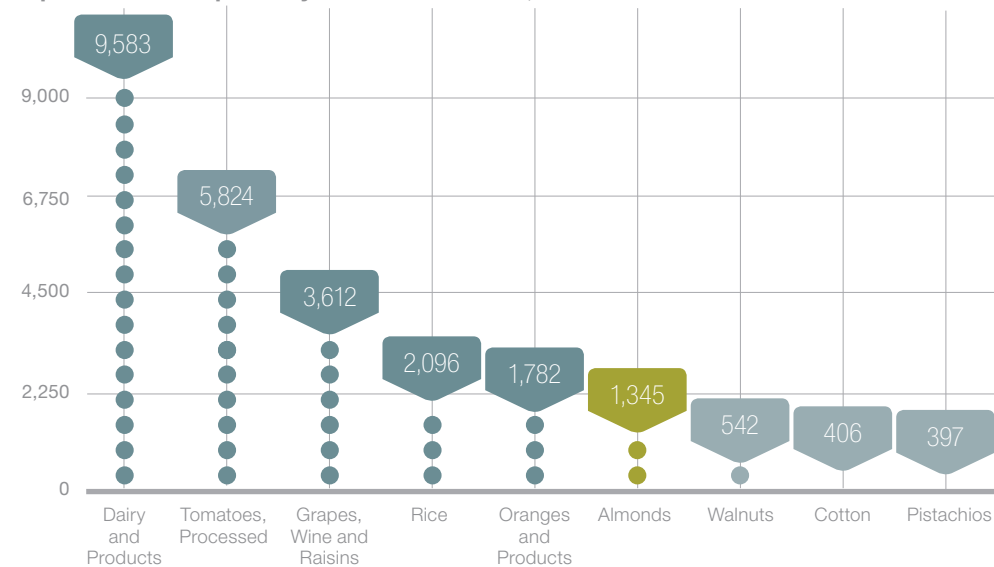
TOP CALIFORNIA AGRICULTURAL EXPORTS

Top California Exports by Value 2012,* in millions



Source: University of California, Agricultural Issues Center. *Calendar year January through December 2012.

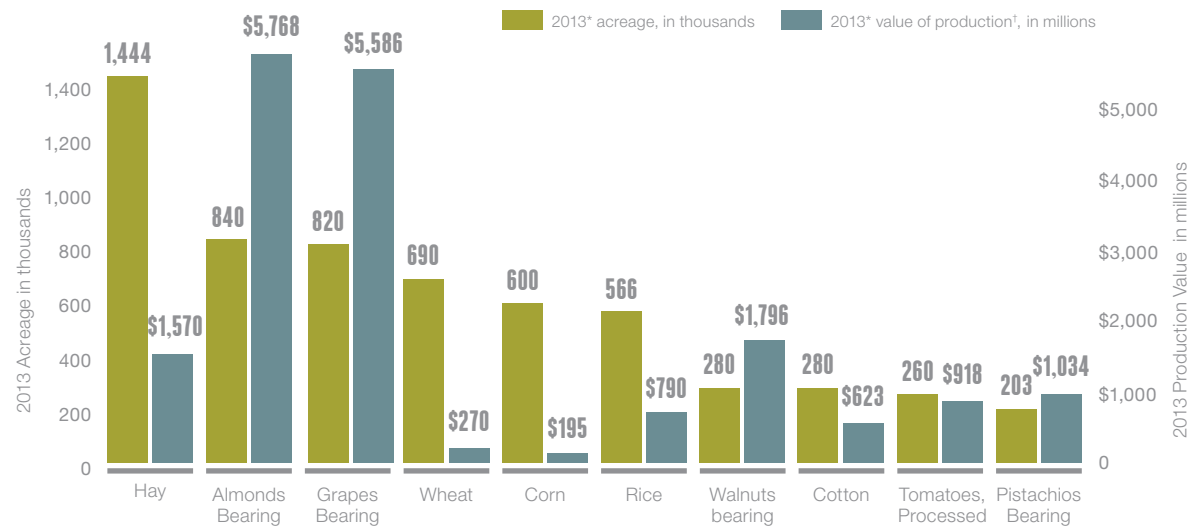
Top California Exports by Volume 2012,* million pound units



Source: University of California, Agricultural Issues Center. *Calendar year January through December 2012.

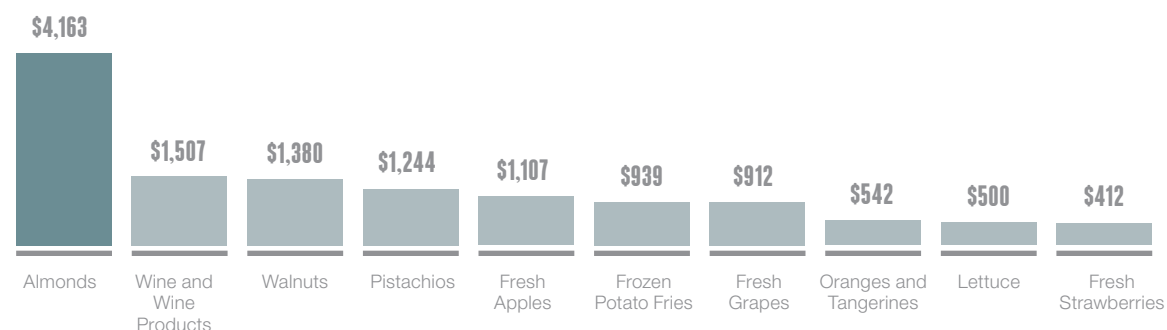
This graph shows export volumes in comparable converted weights, measured in pounds. Volumes include fresh products and fresh equivalent of processed products that were converted to farm-fresh quantities using conversion factors published by USDA ERS.

TOP TEN CALIFORNIA CROP ACREAGE



Source: USDA, NASS. *Calendar year January through December 2013. †Value based on farm-gate prices.

TOP TEN U.S. SPECIALTY CROP EXPORTS BY VALUE 2013,* in millions



Source: Bureau of the Census, U.S. Department of Commerce, Foreign Trade Statistics. *Calendar year January through December 2013.

ALMOND MARKET VARIETY CLASSIFICATIONS

Due to changes in the varieties produced within the industry, some older varieties are contributing very low volumes to the overall production and marketing numbers. At the same time, newer varieties have come into production. Based on current crop production, the Industry Services Committee has updated the market classifications. Because the market classification affects the price received, it is important for growers to consult their handler before planting and delivering new varieties. It is also important not to mix varieties at harvest, even when these varieties are in the same marketing category, as this will make handling more difficult and will reduce marketability and value.

Marketing classifications are grouped by general size and shape. Only varieties producing in excess of 1,000,000 pounds as of July 2014 are listed. Other varieties that are not listed are still produced; if you have any questions about where they are classified for marketing purposes, please contact your handler.

Of the five classifications listed, most almond production falls into the three major classifications: Nonpareil, California and Mission. Beyond these standard classifications are numerous "minor varieties" whose use and, therefore, market classification will vary among almond handlers. The physical characteristics of some varieties vary from year to year, which also may affect how they are marketed. It is important to remember that these classifications are for reference only. Your handler can provide specific information since they may classify market varieties differently.

All varieties can be blanched; those classified as California type are known for their ease of blanching. Although some varieties fall under a like classification, they can vary slightly in shape, color from variety to variety and should not be mixed. Always consult your handler when purchasing a mix of more than one variety.

Variety	Shelled Types					Inshell Types		Appearance	
	Nonpareil Type	California Type	Carmel Type	Mission Type	Other Types	Inshell Hard Shell	Inshell Soft Shell	Long and Flat	Short and Plump
Aldrich		●	●				●	●	
Avalon		●	●				●	●	
Butte		●		●		●			●
Butte/Padre		●		●		●			●
Carmel		●	●				●	●	
Fritz		●		●		●			●
Independence	●	●					●	●	
Livingston		●	●			●		●	
Marcona				●	●	●			●
Mission				●		●			●
Monterey		●	●				●	●	
Nonpareil	●	●					●	●	
Padre		●		●		●			●
Peerless		●				●			●
Price		●	●				●	●	
Ruby		●		●		●			●
Sonora	●	●					●	●	
Winters		●					●	●	
Wood Colony		●	●				●	●	



CALIFORNIA CLASSIFICATION

This marketing classification was established in June 1972 by the USDA, Federal-State Inspection Service, Sacramento, at the request of the almond industry.

In addition to the varieties listed on page 20, the variety Nonpareil may be included in the California classification but not to exceed 25% by weight of the lot.

NONPAREIL CLASSIFICATION

In essence this group is the Nonpareil variety, which has the widest range of uses of all the marketing categories, from use as whole natural kernels to manufactured products. The attractive kernels are a medium shape and size, uniform, fairly flat and light (blond) colored. Nonpareil is often used where the nut is visible and also in manufactured products because the kernels are readily blanched and/or mechanically cut to produce a variety of forms. Furthermore, the thin shell allows maximum yield of undamaged kernels after cracking. Nonpareil is the major producing variety of the California Almond industry. Because Nonpareil receives a premium price, it is most critical that this variety not be mixed with any other varieties. Sonora and Independence are also included in this classification for their similar use and acceptability as a substitute for Nonpareil variety for whole natural kernels to manufactured products.

Similar Varietal Characteristics

United States Standards for Grades of Shelled Almonds, §51.2116 (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 25%, by weight, of the lot.
- Further, with the exception of Nonpareil, Sonora and Independence varieties, other varieties included in the California classification shall not be permitted in the Nonpareil classification.

This group has become the marketing outlet for kernels of many almond varieties with a wide range of shapes and sizes. Despite this diversity, the almonds in this classification are known for their ease of blanching. As mentioned above, caution must be exercised by growers not to deliver mixed varieties, even when they are in the same market classification.

CARMEL CLASSIFICATION

Processors have been offering Carmel as a separate item and this action is based on sufficient volume received; handling and processing facilities, which can accommodate such a separation and marketing opportunities. Carmel is a relatively long, narrow, large, light-colored kernel. The Carmel variety has lost 50% of its production in the last 10 years while the Monterey variety has doubled in volume and is commonly sold as a Carmel type. All Carmel types are also listed as California types.

MISSION CLASSIFICATION

Mission type kernels are small, wide and often thick (round) and their pellicles (skins) are brown. This type is often used as whole brown-skin forms. Blanching is possible, although not as efficiently as California/ Nonpareil and Carmel type.

INSHELL HARD SHELL CLASSIFICATION

Peerless is the principal variety sold to consumers as an inshell hard shell product, although it can be cracked out and blanched. These inshell varieties are characterized by an attractive closed shell with a firm outer "cork", which both protects the kernel against worm damage and other contamination. The inshell hard shell market is firmly established, but has a relatively limited volume in relation to other marketing outlets.

INSHELL SOFT SHELL CLASSIFICATION

This group is market specific. The snack market prefers soft shell with greater suture openings to allow seasons to permeate the shell. Hand-crack market that will be sold as kernels also prefers soft shell to allow for manual cracking. Please consult your handler to determine the right inshell soft shell variety for your needs.

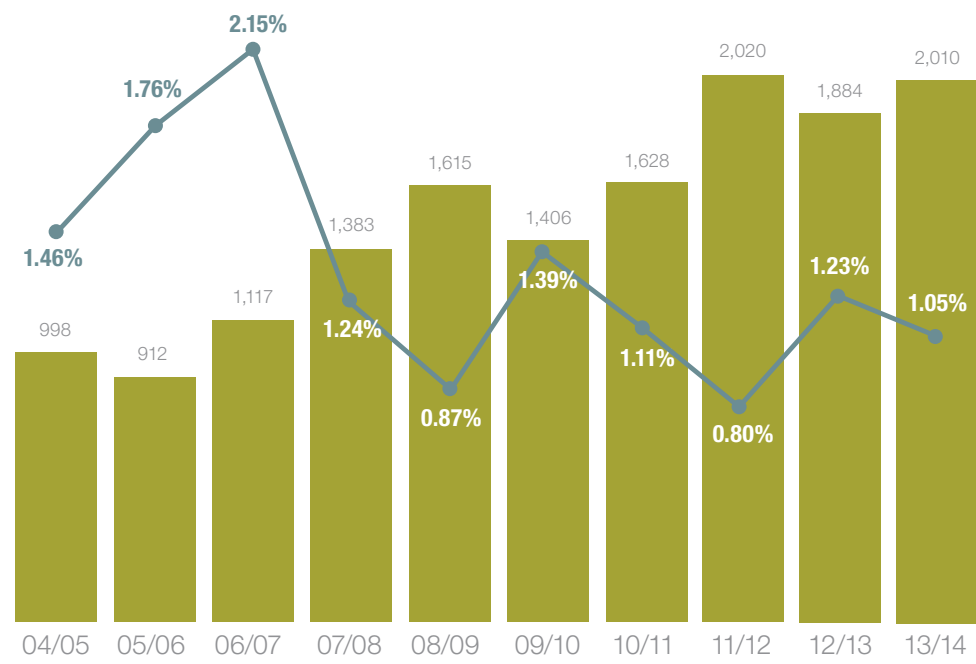
To learn more about Almond Market Variety Classifications, contact Sue Olson at solson@almondboard.com or 209.343.3224.



CALIFORNIA ALMOND CROP-SIZE HISTORY VS. INEDIBLE PERCENTAGE

crop years 2004/05–2013/14

- Gross crop size, including inedibles, in million pounds
- Inedible gross percentage



Source: Almond Board of California.



Almond Advertising Share of Voice

Overall, ABC U.S. advertising spending represents 1% of entire snacking category and 22% of the nut category.

Note: All brands, including Almond Board of California, are reported based on Nielsen reported spending for 2013 not actual negotiated spending.

Source: U.S. Nielsen AdViews.

COMPETING NUTS

U.S. Marketable Production and Imports of Competing Nuts 2002/03–2012/13, in million pounds (shelled basis)

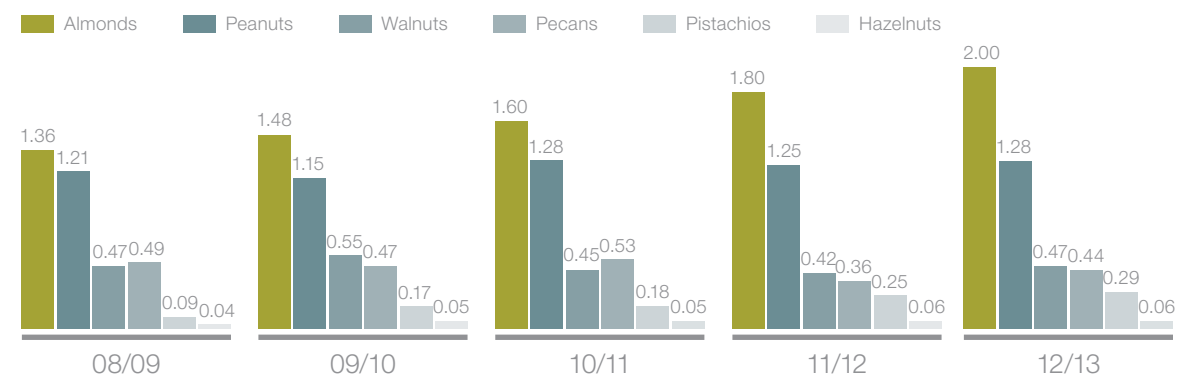
CROP YEAR	ALMONDS		WALNUTS		HAZELNUTS		PECANS		PISTACHIOS		OTHER NUTS*	
	Crop	Imports	Crop	Imports	Crop	Imports	Crop	Imports	Crop	Imports	Crop	Imports
2002/03	1,063.5	1.9	240.5	0.2	15.3	16.4	78.4	41.7	149.5	0.8	26.7	301.7
2003/04	1,011.1	2.8	281.5	0.4	29.5	10.9	117.0	62.7	56.2	1.5	21.2	352.4
2004/05	972.8	5.7	288.4	0.8	27.2	12.8	82.6	81.2	170.5	0.8	18.7	402.4
2005/06	888.7	9.2	288.2	1.1	20.0	12.1	125.3	75.4	139.0	0.9	51.4	334.9
2006/07	1,087.8	8.1	294.6	2.3	36.4	13.5	91.4	57.0	119.0	1.4	27.8	358.8
2007/08	1,358.3	7.1	295.0	9.0	28.6	13.4	180.3	79.9	207.0	0.9	16.4	378.3
2008/09	1,571.9	4.2	395.5	2.0	26.2	10.0	94.3	61.9	135.4	0.9	32.7	360.4
2009/10	1,379.0	5.6	381.5	3.2	37.4	8.0	127.5	80.1	174.8	1.3	19.1	366.4
2010/11	1,600.3	8.1	436.8	0.5	21.3	11.0	140.4	82.8	250.1	0.5	18.2	379.5
2011/12	1,979.9	15.9	399.8	4.9	29.1	9.7	124.6	74.6	222.0	0.9	22.3	339.0
2012/13†	1,848.4	39.4	440.4	8.0	29.1	15.3	141.0	79.3	275.5	2.5	20.0	351.5

Source: USDA, Economic Research Service, *Fruit & Tree Nut Situation and Outlook*.

*Other Nuts includes Brazil nuts, macadamia nuts, pine nuts, chestnuts, cashews and mixed nuts. †Preliminary.

Note: Marketable production is utilized production minus inedibles and noncommercial use.

Domestic Per Capita Consumption of Competing Snack Nuts 2008/09–2012/13, pounds per capita



Source: USDA, Economic Research Service, *Fruit & Tree Nut Situation and Outlook*.

RESEARCH OVERVIEW

The almond industry is a leader in California agriculture and has a long-standing history of research investment to support the quality of our crop and food product. In addition to providing nutrients consumers need and delivering benefits that support the health of the population, almonds are also a sustainable commodity. In our 40-plus years of research exploration we realized that using simple metrics was not appropriate for dealing with the complexity and the natural variability of the physical and biological systems that farming takes place in.

Any practice that a grower chooses to use will have trade-offs in terms of impacts on the environment, humans and economics. It's essential to support these good agricultural and manufacturing practices with sound science. We recognize how interconnected all the research we support is and that the almond industry must collaborate with a wide range of research partners in state and federal research centers, government labs and universities to ensure the sustainability of the U.S. food supply to optimize use of natural resources and minimize environmental impacts.



*Environmental research was underway prior to the initiation of this committee, activities conducted under the Production Research Committee.

ALMOND QUALITY + FOOD SAFETY PROGRAM

The Almond Quality and Food Safety (AQFS) Committee's original and sole responsibility was to administer a compliance program—"inedible" disposal based on incoming inspection. This quality control program also had an important food safety aspect. Research in the early 1970s indicated an association between aflatoxin occurrence and the percentage of inedible, especially insect-damaged kernels. Removal of "inedible" from the distribution channel minimizes aflatoxin occurrence. In 1995 the Committee began to fund aflatoxin testing. After the first Salmonella outbreak associated with raw almonds in 2001, the role of the Committee was broadened to develop and implement food safety programs while supporting research projects in almond safety and quality.

From the mid-2000s the AQFS Committee began to manage a sophisticated almond quality and food safety system including: (1) mandatory compliance programs: mandatory treatment rule, inedible disposal, and voluntary aflatoxin sampling plan (i.e., a voluntary plan implemented with compliance mode); (2) almond quality and safety research program; (3) educational programs: Hazard Analysis and Critical Control Points (HACCP), Good Agricultural Practices (GAPs), Good Manufacturing Practices (GMPs), Sanitation Standard Operating Procedures (SSOPs), Pathogen Environmental Monitoring (PEM), and the annual quality and safety symposium; and (4) survey and monitoring: pesticide residue, pathogen, heavy metals and aflatoxin.

Continued advancements in food safety technology and implementation steps will help us to build a quality reputation among our buyers, food manufacturers and, ultimately, the consumers around world.



2014 Long-Term Strategic Plan Meeting

Revised AQFS mission:

To ensure the quality and safety of California Almonds, through science, research, leadership and industry-wide education.

Strategic priorities:

**MRLs Management
Food Safety Modernization Act
Pasteurization
Almond Quality**



CALIFORNIA ALMOND SUSTAINABILITY PROGRAM

Following more than 30 years of research aimed at improving production practices, in 2009 the almond industry established the California Almond Sustainability Program (CASP). Sustainability is about continuous improvement to show respect for the environment, neighbors, employees, as well as for profit. The program is based on grower and handler self-assessments that benchmark the ongoing status in practices of growers related to the following aspects in their operations:

- **Water (usage and quality)**
- **Land (nutrient management, pest management and bee health)**
- **Air quality**
- **Energy**

With more than 10 percent of California Almond acreage assessed, each practice was analyzed for its relative impact on the environment or grower economics. This value analysis helped identify which practices with the most impact are most widely in use, and which our industry could use more effectively. The results of the analysis have directly impacted the ongoing Almond Board research and grower education programs run by the Almond Board. Having growers document what they are doing daily on their farms also has another important benefit—allows us to share the real story of what is involved in growing and handling almonds.

Sustainability is about understanding the integrated nature of farming. For example, a number of the key practices almond growers are already using in their orchards—careful fertilizer and irrigation management—not only mean efficient use of water and fertilizers but also efficient energy use and a reduction in air and water quality impacts.

There is no single sustainable way to grow almonds in California; each location has different resources and issues. But in the end, CASP helps demonstrate the many ways California Almond growers are supporting and caring for people and the resources that make California unique for growing almonds.

To learn more about the California Almond Sustainability Program and how you can participate, visit Almonds.com/Sustainability or contact Jenny Nicolau at jnicolau@almondboard.com or 209.343.3248.

What defines California Almond sustainability?

Sustainable almond farming utilizes production practices that are economically viable and are based upon scientific research, common sense and a respect for the environment, neighbors and employees.

The result is a plentiful, nutritious, safe food product.

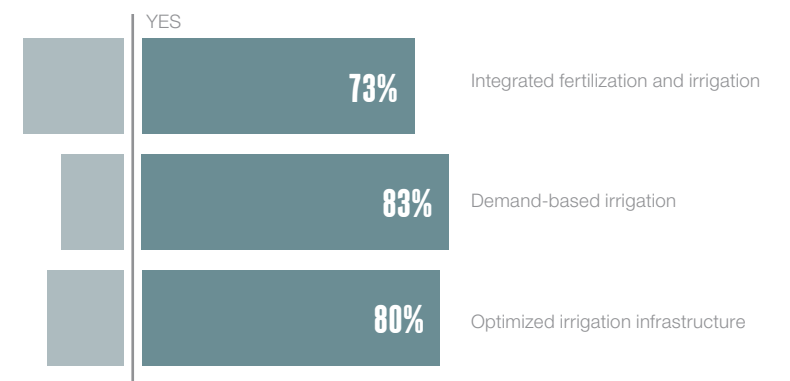


The CASP logo



Water Usage Strengths

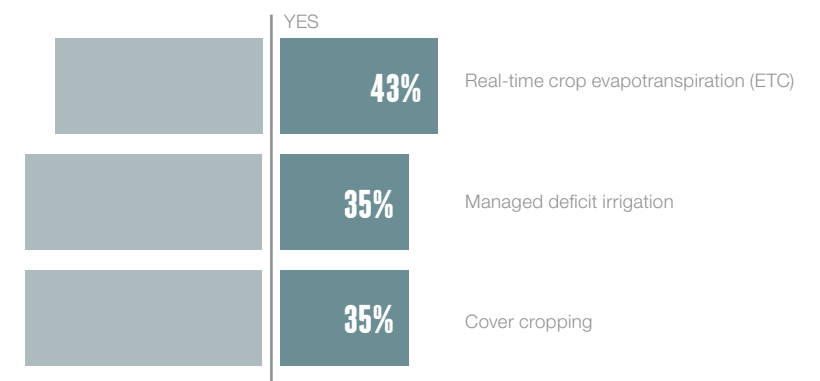
The top three ways that almond growers increase water efficiency while protecting the environment (percentage of assessed orchards):



Current status: Most almond growers use water efficiently by properly scheduling irrigation and the optimal setup of irrigation system infrastructure.

Water Usage Opportunities

The top three ways that growers could increase water efficiency and protect the environment (percentage of assessed orchards):



Opportunities: Almond growers could further refine irrigation efficiency by accounting for real-time crop evapotranspiration and using managed deficit irrigation, where appropriate. While cover crops can improve soil water holding capacity, they also need water to grow. Almond Board outreach is focused on these refinements.

Sources: Almond Board of California, California Almond Sustainability Program 2014.

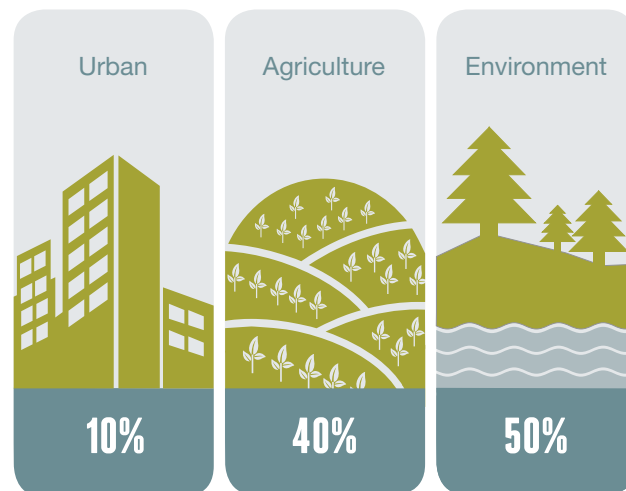
THE FACTS ABOUT WATER + ALMONDS

CALIFORNIA + WATER

CALIFORNIA'S WATER IS A SHARED AND MANAGED RESOURCE

- For over **100** years, Californians have been developing water infrastructure to effectively capture and transport surface water for use throughout the year and to store for dry years. While a majority of California's precipitation falls in the north of the state, it is moved through a network of canals and aqueducts to urban population centers and agricultural land?
- All Californians, not just agriculture, rely on water captured and stored during wet winter months to access in dry summer months.
- With population growth and increased regulatory demands, California's water resources are more stretched than ever.

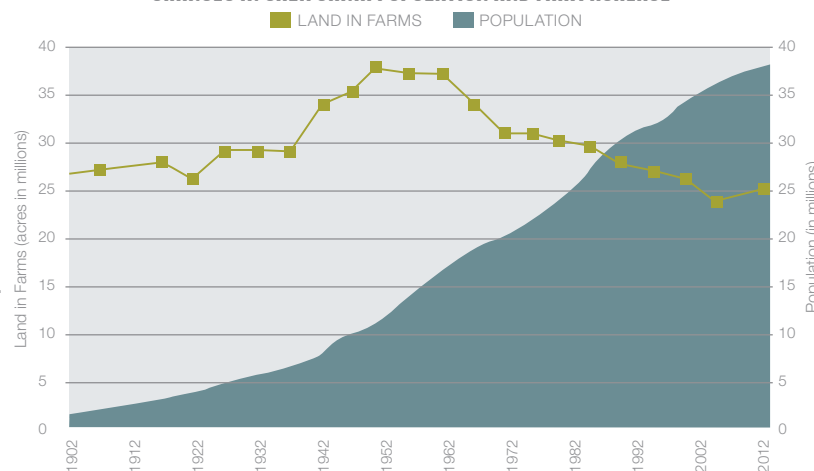
CALIFORNIA'S MANAGED WATER DISTRIBUTION¹



CALIFORNIA AGRICULTURE PRODUCES MORE WITH LESS

- Despite population growth and decreased acreage dedicated to agriculture, the output of California agriculture has continually increased.
- In the last **40** years the value of California agriculture has increased by more than **85%**. During that period, the total California crop-applied water use fell by more than **5%**, from **31.2** million acre-feet, to **29.6** million acre-feet.⁵

CHANGES IN CALIFORNIA POPULATION AND FARM ACREAGE^{3,4}



CALIFORNIA IS THE NUT, FRUIT AND VEGETABLE BASKET OF THE U.S.

- California contributes over **50%** of fruits, vegetables and nuts in U.S. agriculture, allowing for a diversity of healthy foods in Americans' daily diet.
- California produces 100% of the U.S. domestic supply of almonds.
- California's Mediterranean climate, with its cool wet winters and hot dry summers, offers ideal growing conditions for many diverse crops.
- California's top ten crops in acreage are hay, almonds, grapes, wheat, corn, rice, walnuts, cotton, tomatoes and pistachios, and they all need water to grow. Combined, they cover **76%** of California's irrigated land.^{6,7}



1. California Department of Water Resources (DWR), 2014. 2. Public Policy Institute of California, 2011. 3. United States Department of Agriculture (USDA), 1910-2012. 4. California Department of Finance, 2013. 5. DWR, 2014 (updated version published by source, Feb. 2015). 6. National Agricultural Statistics Service, 2014. 7. USDA, 2012. 8. Almond Board of California (ABC), 2014. 9. California Almond Sustainability Program.

ALMONDS + WATER

THE CALIFORNIA ALMOND INDUSTRY IS COMMITTED TO WATER EFFICIENCY

- Through Almond Board of California (ABC), almond farmers have been funding water efficiency research since **1982**.
- Since the early **1990s**, advanced production practices have helped almond growers improve their water efficiency by **33%**, producing more crop per drop.⁸
- The water almond farmers use grows more than just almonds. Almond hulls, the fuzzy green outer covering, feed dairy cows and are a part of a cow's balanced diet.
- Almond by products don't go to waste—in fact, shells are used for energy production through cogeneration and as animal bedding.



AND OUR GROWERS AREN'T STOPPING THERE⁹

- 83%** of growers practice demand-based irrigation, tracking items like soil moisture, tree water status or weather conditions to determine when to irrigate their orchards rather than watering on a predetermined schedule.
- 70%** of almond orchards use micro irrigation systems, decreasing water runoff, putting water directly in the root zone and allowing for precise timing and rate of irrigation.
- 62%** of growers use soil maps while designing their irrigation systems to best match the soil characteristics of their orchards for optimal water infiltration and distribution.

ALMONDS + CALIFORNIA

Ideal climate combined with the Central Valley's rich soil, water availability and infrastructure, innovative technology and research makes California the most productive almond growing region in the world.

Bloom season doesn't have a large threat of frost, meaning optimal pollination of delicate almond blossoms.

GLOBAL MEDITERRANEAN CLIMATES



Cool winters provide adequate chilling without damaging trees.


Warm, dry summers mean perfect weather for almond kernel development and harvest.

LOOKING TO THE FUTURE

Almond Board of California invests over \$2 million a year researching production and environmental issues. Current research projects include:

 ABC started funding traditional almond breeding research in 1974. Over the years, this research has added focus on traits that require less water and can withstand higher salinity.

 Soil can vary significantly; therefore, ABC is funding research to manage irrigation and production practices that can match the different soil types within one orchard.

 Ongoing research will increase irrigation efficiency by improving understanding of complex factors like tree size that impact evapotranspiration (water lost through soil, air and leaves).

THE POLLINATION PARTNERSHIP



HONEY BEES ARE VITAL TO AGRICULTURE

1/3 of global food production volume relies on pollinators to some degree.¹

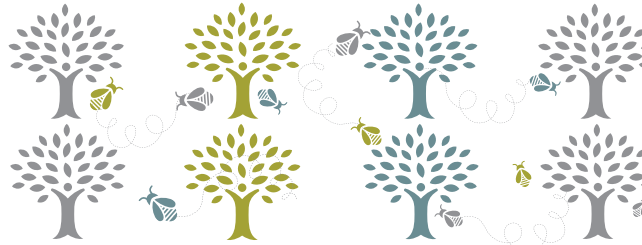
90 More than 90 crops are pollinated by commercial honey bees.

\$18,000,000,000 per year = U.S. agricultural production supported by honey bee pollination.²

ALMONDS AND HONEY BEES ARE ESSENTIAL TO EACH OTHER

ALMONDS NEED HONEY BEES

Almond trees require cross-pollination between varieties, and orchards are planted with multiple almond varieties in alternating rows. Honey bees are necessary to move pollen between varieties (and within flowers) to pollinate almond blossoms, which, when fertilized, become the almond kernels that we all love to eat.



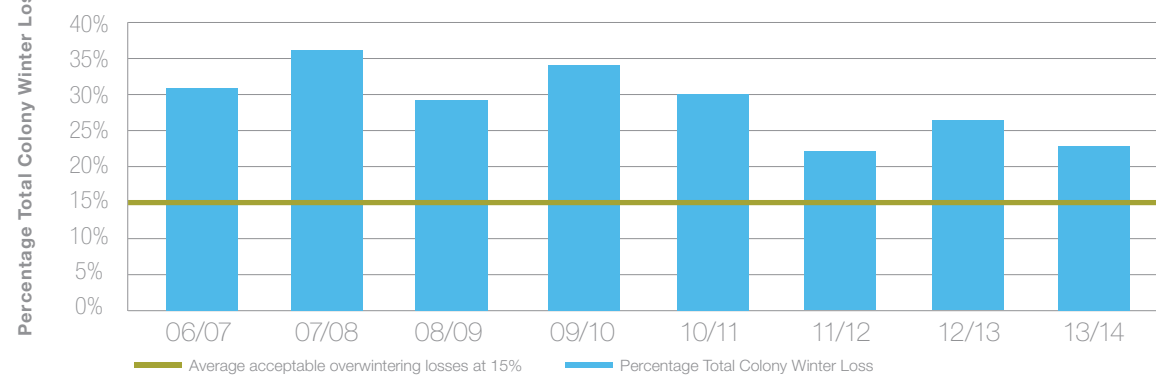
HONEY BEES BENEFIT FROM ALMONDS

- Almond bloom is the first natural pollen source for bees after winter.
- Almond bloom pollen is very nutritious for honey bees.
- Honey bee hives grow stronger from almond bloom, and many hives are then split to grow beekeeper apiaries.

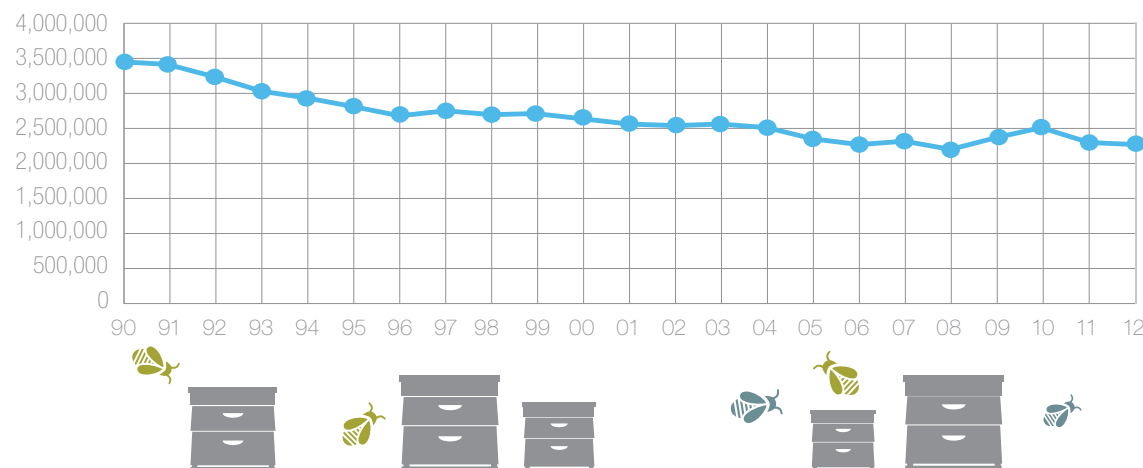
HOWEVER, A DECLINE IN HONEY BEE HEALTH HAS PUT AGRICULTURE AT RISK

- The number of hives in the U.S. remains relatively stable.
- However, overwintering honey bee losses are of concern, requiring beekeepers to put in more work to maintain their hives.
- But all of us want better than just stable, we want healthier bees.

Managed Honey Bee Overwinter Losses in the U.S.³



Number of U.S. Honey Bee Colonies.⁴



ALMOND BOARD OF CALIFORNIA IS COMMITTED TO IMPROVING HONEY BEE HEALTH

Almond Board of California (ABC) has and continues to fund more research on bee health than any other crop or commodity group.

ABC has funded research in pollination since 1976, investing almost **\$2,500,000** of almond industry dollars.

Honey bee health has been a focus since 1995, with almost **\$1,600,000** devoted to several different research areas (i.e., nutrition, stock improvement, pest/disease management, impact of pesticides, technical assistance for beekeepers).

ABC is a thought leader in honey bee health initiatives and engages with several government and private organizations, the research community and beekeeping associations.

And ABC recommends grower best practices for honey bee health through grower education programs. See Almonds.com/Pollination for more information.

KNOW THE FACTS ON HONEY BEE HEALTH

The decline in honey bee health has been linked to a variety of complex factors, including those influenced by the activities associated with both beekeeping and crop production⁵:

- Varroa mites
- Lack of forage and nutrition
- Other pests and diseases
- Pesticide exposure
- Lack of genetic diversity in breeding

BASED ON THE RESEARCH, ABC DEVELOPS BEST PRACTICES FOR HONEY BEE HEALTH AND EDUCATES ALL POLLINATION PARTNERS



1. Klein, 2007. 2. USDA. 3. Apiary Inspectors of America and USDA-ARS Beltsville Lab. 4. USDA NASS Honey Production Report. 5. Honey Bee Health Coalition, 2014.

NUTRITION RESEARCH:

UNDERSTANDING THE IMPACT OF CALIFORNIA ALMONDS ON HUMAN HEALTH AND WELLNESS

COMMITMENT TO HEALTH + NUTRITION RESEARCH

Since **1995**, almond growers have funded approximately **\$18.3 MILLION** in nutrition research and continue to dedicate **\$1.6 MILLION** per year to better understand the nutrient composition and potential health benefits of almonds.

- There are currently **12** human clinical studies ongoing in three key areas that build the sound science to support snacking on **1-2** ounces of almonds daily for cardiometabolic health: heart health, diabetes prevention and weight management.
- **12** new research papers were published in **2014** to add to the growing body of almond nutrition research, comprising just over **116** scientific publications.

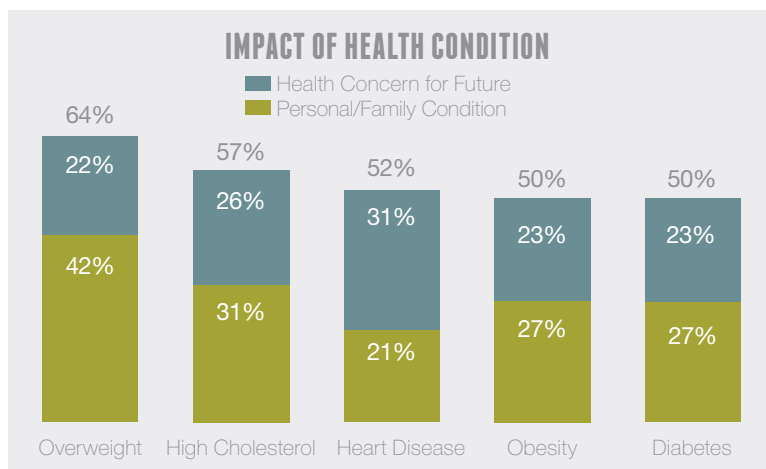
HEALTH RESEARCH ALIGNS WITH CONSUMER CONCERNS

Almond Board of California funds research in health areas that consumers care about around the world.

- Historically, much of this research has been in the area of heart health. However, the growing interest in weight management among consumers globally has prompted a shift in emphasis toward weight management and satiety research.
- Currently, a growing body of research supports the role of almonds in promoting satiety or the feeling of fullness.

• There is also great interest around the world in understanding how to prevent and manage diabetes, an area ABC is exploring with several ongoing research projects, both domestic and international.

• Almond Board continues to fund research in emerging areas of interest to identify other potential health benefits.



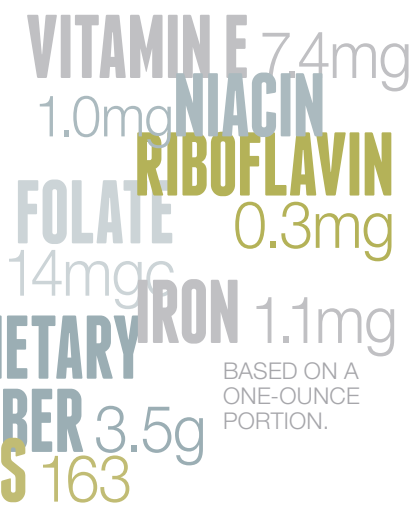
Source: Almond Board Global Perceptions Study, 2013.

UNDERSTANDING NUTRIENT COMPOSITION

Almond Board of California is committed to understanding as much as possible about the product we grow and provide to consumers.

- This includes not only understanding almonds' potential health benefits, but also the nutrient composition.

• ABC analyzes almond samples for macronutrients and key vitamins and minerals. These analyses are done using accredited independent testing laboratories in the U.S. The data is submitted to the U.S. Department of Agriculture (USDA) for use in their National Nutrient Database and is available for use in nutrient databases globally.



RESEARCH RESULTS IN ACTION

The results of our research projects help consumers, health professionals, food professionals, government officials and many others make informed choices and recommendations.

Results of our research are used to:

- Help the almond growers and industry better understand their product.
- Educate consumers and help promote public health by providing additional reasons to choose nutritious, whole-food snack options.

- Educate health professionals.
- Inform the international scientific community at conferences and symposia. This not only leads to more questions and more independent research, but also makes current health and nutrition information available to policymakers who make recommendations for national dietary guidelines.
- Make nutrient analysis data available to government agencies around the world for use in updating nutrient databases.

RESEARCH HELPS ADVANCE DIETARY GUIDANCE AROUND THE WORLD

Almond Board research has helped reshape consumer and health professional understanding and perceptions of nuts and almonds, in particular. Countries around the world are adopting research-based dietary guidance. Almond nutrition research is made publicly available and has helped inform recommendations for nut intake around the world.

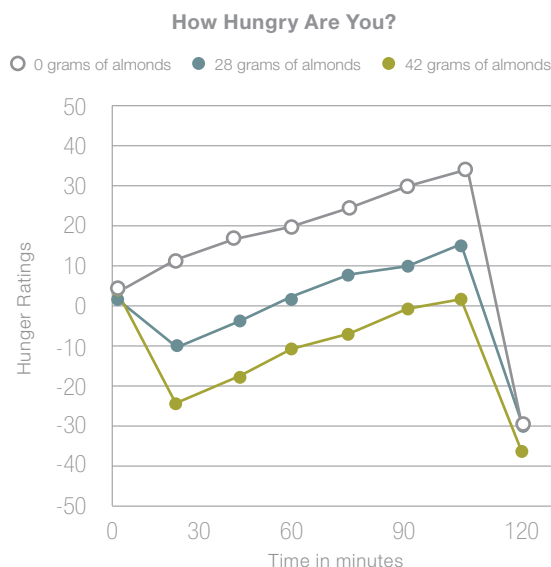


Visual representation of the Korean Dietary Guidelines Endorsed by the Korean Nutrition Society

- For example, South Korea recently moved nuts from the “eat sparingly” category to the “protein” category, emphasizing to consumers that nuts are now a recommended protein source.
- Language around nut intake in the U.S. Dietary Guidelines has been increasingly positive over the past 15 years. These guidelines are currently being revised for 2015 with a new focus on sustainability and how to define sustainable diet patterns.

ALMONDS: MAKING THE SMART CHOICE THE EASY CHOICE

A Mid-Morning Snack of Almonds Generates Satiety



Hunger and fullness ratings from pre mid-morning snack (no snack, 28g almonds or 42g almonds) to immediately following lunch.

Research shows that snacking has become a nearly universal behavior, with an estimated 97% of Americans reporting snacking at least once a day. Almond Board of California has funded a number of studies looking at the health effects of choosing almonds as a snack. Many of these studies focus on the impact of choosing almonds on satiety.

In fact, a new study published in late 2014 in the *European Journal of Nutrition* showed that for healthy women, a mid-morning snack of almonds helped control appetite and resulted in reduced calorie intake over the rest of the day. The study suggests that almonds may be a smart snack option since they helped enhance satiety without increasing daily calorie consumption.

This study helps address the growing need to identify snacks that are desirable and satisfying that also help people manage calorie intake and stay on track with their health and nutrition goals.

Source: Hull, S., R. Re, L. Chambers, A. Echaniz, M.S.J. Wickham. 2014. A mid-morning snack of almonds generates satiety and appropriate adjustment of subsequent food intake in healthy women. *Eur. J. Nutr.* DOI 10.1007/s00394-014-0759-z.



GLOBAL MARKETING

Around the world, Almond Board of California's marketing programs include a mix of advertising, public relations and social media. However, market research is the foundation of our marketing programs, and we apply a disciplined approach to uncovering insights in each market to identify our key marketing strategies. Additionally, we ensure ongoing research is in place to track and optimize our marketing efforts.

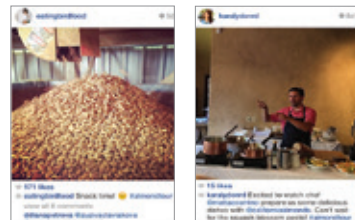
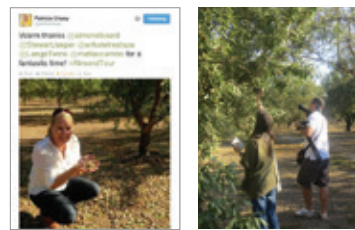
While ABC's first strategic priority is to invest in programs and research that make almonds a Crop of Choice for California, our second strategic priority is to invest in programs and research that build market demand for almonds, making them a Nut of Choice.

This means that sometimes, we're communicating to external audiences (consumers, health professionals, food professionals) about the important work conducted as part of the first strategic priority, like advances in production research that make water use more efficient or advances in bee research to help hive health—topics that are top of mind with the industry as well as with our target audiences who are faced daily with decisions about the foods they purchase.

It also means we communicate about the ever-growing body of research on almonds' nutrition and health benefits. In the past year we learned and shared even more about how almonds benefit our bodies. See Nutrition Research on pages 32–33 for more information.

And we conduct market research of our own to define our best target audiences and communicate to them in the way that's most compelling and beneficial to them. Across the globe, we use a mix of advertising, public relations and social media to convey the benefits of almonds.

To that end, Almond Board has a unique perspective on each market. Our communications play up different benefits or attributes about almonds so consumers worldwide can have the most complete information about and inspiration with almonds.



Examples of Harvest Week posts and images from Harvest Week activities.



GLOBAL HARVEST WEEK ACTIVITIES

It's a small world after all, especially when information is shared openly and freely through the Internet and social media platforms. As of 2014, all markets where Almond Board has social media platforms are fully engaged with fans and followers, ensuring they are current and well stocked with California Almond information to further the discussion and sharing beyond Almond Board's own spaces. For example, in September 2014 global "Harvest Week" activities were conducted to inform our fans about what happens in the orchards in order to get their beloved almonds from the farm to their hands. Consumers responded positively with their comments and likes. This convergence of agricultural practices and consumer interest shows how important it is to spread the word about how almonds are grown sustainably and the contribution they can make to the local and global food supply.



Sample Harvest Week social media activity.

NORTH AMERICA

In North America, consumers like almonds and believe they are nutritious and a smart choice. However, many snack occasions are fun and include foods that are indulgent and big on flavor (salty and sweet). That's the opportunity for almonds to show their versatility and other unique characteristics, like their satisfying crunch!



The Crunch On campaign features high-energy, vibrant situations that demonstrate how snacking on almonds helps consumers get the most out of every day. The media campaign included television, print and online advertising in targeted, lifestyle content. An exciting, high-impact integration was featured on *The Ellen DeGeneres Show*. California Almonds were included in a "live commercial" to communicate the Crunch On message in a fun and comedic way, leveraging Ellen DeGeneres's likability and dedicated following.

GLOBAL MARKETING continued

EUROPE

In Europe, consumers are looking for natural, convenient snacks, and almonds naturally fit the bill. Almonds are in their pantries, but they don't often think of them as a snack. That's why the emphasis in Europe is getting almonds out of the baking cupboards and into daily snacking scenarios.



United Kingdom



France



Germany

ASIA

In Asia, there are centuries-old traditions with food and how food impacts health and vitality. From Chinese traditional medicine to Ayurvedic texts, there is a place for almonds. And it's not all about serious health concerns; food is an integral part of socializing, celebrating, indulging, the beauty regime, and fun as well. An almond snack fits conveniently into this culture.



China



India



South Korea

Snapshot of Global Consumer Advertising

REGION	MEDIA	CREATIVE
North America	Print, Television, Digital, Social	POWER ROLLERS, CALM-TO, HEART HEALTH, THE SPINCH
China	Print, Digital, Social	Cartoon characters
India	Print, Television	People socializing
UK	Print, Digital, Social	Almonds in various contexts
France	Print, Digital, Social	Almonds in various contexts

Print
 Television
 Digital
 Social
 Billboard (out of home)

Snapshot of Global Social Media Activity

NORTH AMERICA	UK	FRANCE	CHINA	SOUTH KOREA	GLOBAL

TRADE STEWARDSHIP

Trade stewardship at Almond Board of California supports global market development efforts in established and emerging markets around the globe. Targeting food professionals in research and development, procurement, marketing, product development and, of course, chefs. Trade stewardship programs educate these target audiences about the many forms and benefits of almonds both in new product development and new menu items.

The importance of getting noticed by these core groups of individuals is crucial. Communication with these groups provides us the opportunity to share consumer research, educate about technical information and share published reports about almond nutrition. Activities such as; trade shows, seminars, advertising and outreach through social media, public relations and face-to-face conversations are employed to keep these stakeholders informed.

Participation in Strategic Seminars + Trade Shows

Attending strategic seminars and trade shows, such as the National Confectioners Association (NCA) and An International Association of Confectioners (PMCA), allows the Almond Board to interact with companies we specifically target. Trade stewardship's participation, whether hosting a session or engaging our guests who visit our booth, is invaluable in understanding and solving company product development needs and allows for the forging of new relationships.

Continued Growth in Global New Almond Product Introductions

Innova Market Insights is a research partner with Almond Board of California. In 2013/14, Innova published its annual new products report with a key measure for the level of new product development being conducted with almonds globally. In 2013, the report highlighted that product developers continued to innovate with this essential ingredient, as almonds were the number one nut in new product introductions for the eighth year in a row. Almond snack introductions continued to grow; the number of almond snack products increased by 52% in 2013 versus 2012.

2013 Almond Introductions within Each Region – Distribution by Category

	Europe	North America	Asia-Pacific	Middle East & Africa	Latin America	Total % of Almond Intros by Category
Confectionery	36%	19%	24%	43%	32%	30%
Bakery	24%	10%	33%	11%	13%	22%
Cereals	6%	8%	6%	9%	11%	7%
Snacks	20%	47%	26%	26%	26%	27%
Desserts & Ice Cream	5%	3%	5%	6%	5%	5%
Others	9%	13%	6%	5%	13%	9%
Total Number of Introductions	3,425	2,016	1,470	493	489	7,893

Highlighted cells show the largest category of almond introductions within each region.

Source: 2013 Innova Global New Products Report.



National Confectioners Association logo



An International Association of Confectioners



2013 Innova Global New Products Report



Almonds continue to be the number one ingredient included in respondents' ideal chocolate product.



Expanding Almond Usage in Global Chocolate

Trade stewardship champions the use of almonds in any type or form of chocolate on a global basis. Research studies about global chocolate to understand consumer chocolate and snacking occasions. During 2013/14, Trade Stewardship fielded a second global chocolate study; this online study conducted among 5,400 consumers in 10 markets informs the program.

- Globally, chocolate is eaten about 11 times per month.
- Globally, nearly two-thirds of respondents (65%) prefer nuts in chocolate and believe that nuts make chocolate products crunchier, more nutritious and more filling.
- Similar to the perceptions of nuts in chocolate, most respondents believed that almonds in particular make chocolate products crunchier, more nutritious, more filling and more satisfying.
- Globally, almonds continue to be the number one ingredient included in respondents' ideal chocolate product.
- Almonds are also the top ingredient included across milk, dark and white chocolate.
- Almonds are in the top five ingredients selected across nine out of 10 countries and are the number one ingredient selected in India, Japan and South Korea.



Chocolate Spotlight

Advertising, both print and online, is used by Trade Stewardship to support our global chocolate program. Our strategic publications showcase almonds as a key ingredient. Another way trade stewardship supports global chocolate is through the quarterly Chocolate Spotlight, which showcases new and interesting chocolate-with-almonds products developed and introduced globally.

Source: Almond Board of California, Global Chocolate Study 2014.



TECHNICAL ISSUES + INTERNATIONAL TRADE

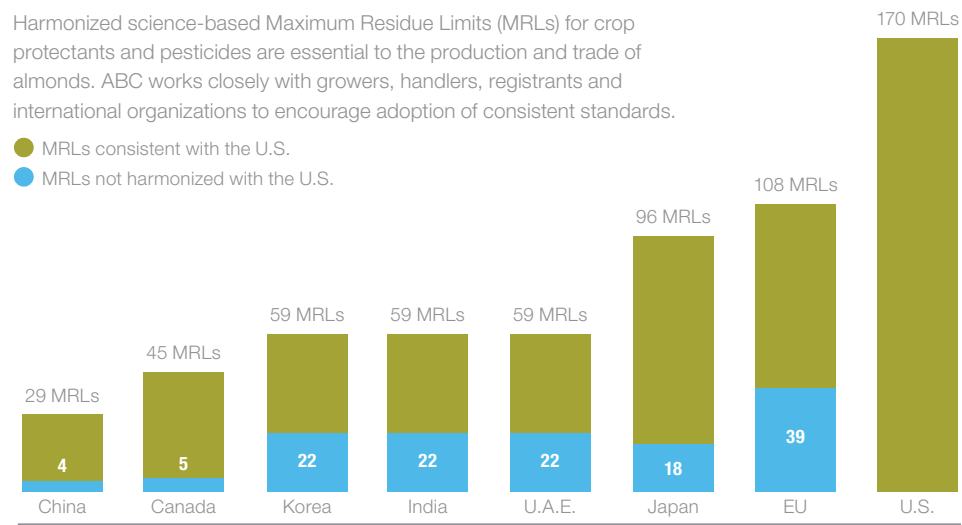
The challenges of regulatory requirements and global trade continue to grow more complex. Ensuring unimpeded movement of almonds worldwide requires not only addressing but also finding solutions to a number of issues, including the following:

- Trade barriers – tariffs and duties, labeling requirements and even an unexpected name change
- Food safety – PPO acceptance and new food legislation
- Crop protectants – reregistration, approval and harmonization of residue levels

MRLs AROUND THE WORLD

Harmonized science-based Maximum Residue Limits (MRLs) for crop protectants and pesticides are essential to the production and trade of almonds. ABC works closely with growers, handlers, registrants and international organizations to encourage adoption of consistent standards.

- MRLs consistent with the U.S.
- MRLs not harmonized with the U.S.



A New Voice for the Almond Industry

Almond Board of California is a recognized resource for information on almond production and trade, providing factual, science-based information to regulatory and legislative contacts. But sometimes the implications of that information have to be delivered more directly and specifically. ABC and the Almond Hullers & Processors Association (AHPA) entered a Memorandum of Agreement (MOA) whereby Almond Board staff expertise can be leveraged by AHPA on specific areas of mutual concern, which provides the almond industry with an advocacy capability on key issues. AHPA has utilized ABC staff expertise on proposed rule comments to the FDA on new food safety regulations, to prepare talking points regarding the proposed Water Bond and to provide testimony for a Congressional hearing on bee health. The MOA will continue to be a vehicle for ensuring a unified voice for the almond industry on critical issues.



Almond Leadership Program: 2014 Almond Leadership Program participants learning about the honey bee extraction process.



The Almond Conference: With more than 200 exhibitors at The Almond Conference, the trade show offers everything from nurseries to harvest equipment, software to crop production inputs and everything in between.

CALIFORNIA ALMOND INDUSTRY RELATIONS

New Web sites: In August, ABC launched two new Web sites for California Almond growers and processors. The new Web sites offer a fresh look and improved functionality to provide a more user-friendly experience. Both sites feature new and improved databases, including an Industry Resource Map and Newsletter Database, which allow users to easily search and find information. To view the new Web sites, visit Almonds.com/Growers or Almonds.com/Processors.

New Collateral: To strive for continual improvement of the California Almond industry, ABC has added two new resources to aid growers and processors: a Stockpile Management Best Practices guide and Honey Bee Best Management Practices (BMPs) for California Almonds. The Stockpile Management guide was developed to promote awareness of best stockpiling practices to ensure safety and quality. The goal of the Honey Bee BMPs is to give the wide range of almond pollination stakeholders the best tools to ensure both pollinators safety and successful pollination.

Almond Leadership Program: In its sixth year, the Almond Leadership Program continues to offer young industry members an opportunity to come together, engage and become leaders for the future of the California Almond industry. The year-long program seeks to educate participants through connecting with industry professionals and through educational seminars focused on almond production, marketing and industry issues.

Ag in the Classroom: Agricultural awareness is more important than ever. As a result, ABC is dedicated to educating students throughout California about the lifecycle and end-use of almonds by participating in the Ag in the Classroom program. ABC readily provides resources, such as *An Almond Story* activity books and *An Almond Story* video, to grade-school teachers and industry members who partake in Ag in the Classroom.

The Almond Conference: With more than 2,500 attendees and greater representation from all growing regions, research updates and time to interact with industry experts are at the top of the list of priorities when planning this exciting event. The Almond Conference offers industry members a unique opportunity to visit the country's only trade show dedicated to the business of almonds. Visit AlmondConference.com for more information.



New Web sites: New and improved Industry Resource Map found on Almonds.com/Processors.



New Collateral: Stockpile Management Practices Guide.



New Collateral: Honey Bee Best Management Practices for California Almonds.



An Almond Story DVD.



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