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 EVER

1.9 BILLION POUNDS OF ALMONDS SHIPPED

SHIPMENTS CROP YEARS 2006/07–2013/14

06/07 07/08 08/09 09/10 10/11 11/12 12/13 13/14

1,000 1,250 1,500 1,750 2,000

EATING NUTS LINKED TO LOWER DEATH RATE

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.

ALMONDS ARE AMERICA’S #1 SNACK NUT

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

ADVANCES 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.

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.

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.

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.

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.

FOOD QUALITY + SAFETY LEADERSHIP CONTINUES

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.
**Position Report of California Almonds**

<table>
<thead>
<tr>
<th>Crop Year</th>
<th>Redetermined Marketable</th>
<th>Carry-in</th>
<th>Reserve</th>
<th>Total Salable Supply</th>
<th>Domestic Shipment</th>
<th>Export Shipments</th>
<th>Total Shipments</th>
<th>Soluble Carryover</th>
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<tbody>
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<td>1995/96</td>
<td>352.3</td>
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<td>467.9</td>
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<td>137.5</td>
<td>395.8</td>
<td>533.3</td>
<td>48.3</td>
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<td>48.3</td>
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<td>452.4</td>
<td>612.1</td>
<td>172.0</td>
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<td>172.0</td>
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<td>167.0</td>
<td>405.5</td>
<td>572.5</td>
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<td>690.6</td>
<td>962.4</td>
<td>162.0</td>
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<td>312.2</td>
<td>712.1</td>
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<td>2004/05</td>
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<td>148.9</td>
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<td>331.6</td>
<td>652.5</td>
<td>964.1</td>
<td>137.7</td>
</tr>
<tr>
<td>2005/06</td>
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<td>137.7</td>
<td>N/A</td>
<td>1,026.4</td>
<td>303.9</td>
<td>610.4</td>
<td>914.2</td>
<td>112.2</td>
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<td>2006/07</td>
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<td>112.2</td>
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<td>1,200.0</td>
<td>368.3</td>
<td>697.8</td>
<td>1,066.1</td>
<td>133.9</td>
</tr>
<tr>
<td>2007/08</td>
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<td>394.8</td>
<td>866.4</td>
<td>1,261.2</td>
<td>231.2</td>
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<tr>
<td>2008/09</td>
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<td>231.2</td>
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<td>1,803.1</td>
<td>411.0</td>
<td>978.4</td>
<td>1,389.4</td>
<td>413.7</td>
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<td>449.5</td>
<td>1,022.0</td>
<td>1,471.5</td>
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<td>2010/11</td>
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<td>321.3</td>
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<td>489.7</td>
<td>1,177.9</td>
<td>1,667.6</td>
<td>254.0</td>
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<tr>
<td>2011/12</td>
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<td>254.0</td>
<td>N/A</td>
<td>2,233.9</td>
<td>546.7</td>
<td>1,351.9</td>
<td>1,896.6</td>
<td>335.2</td>
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<tr>
<td>2012/13</td>
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<td>335.2</td>
<td>N/A</td>
<td>2,183.6</td>
<td>588.4</td>
<td>1,278.0</td>
<td>1,866.5</td>
<td>317.2</td>
</tr>
<tr>
<td>2013/14</td>
<td>1,794.5</td>
<td>317.2</td>
<td>N/A</td>
<td>2,111.7</td>
<td>641.8</td>
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<td>1,947.4</td>
<td>350.6</td>
</tr>
<tr>
<td>2014/15*</td>
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<td>693.0</td>
<td>1,407.0</td>
<td>2,100.0</td>
<td>267.6</td>
</tr>
</tbody>
</table>

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

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.

**Carr-y-in as a Percentage of Prior Year Shipments 2004/05-2014/15**

<table>
<thead>
<tr>
<th>Year</th>
<th>Carry-in as % of Prior Year Shipments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05</td>
<td>9%</td>
</tr>
<tr>
<td>2005/06</td>
<td>14%</td>
</tr>
<tr>
<td>2006/07</td>
<td>16%</td>
</tr>
<tr>
<td>2007/08</td>
<td>14%</td>
</tr>
<tr>
<td>2008/09</td>
<td>12%</td>
</tr>
<tr>
<td>2009/10</td>
<td>18%</td>
</tr>
<tr>
<td>2010/11</td>
<td>17%</td>
</tr>
<tr>
<td>2011/12</td>
<td>16%</td>
</tr>
<tr>
<td>2012/13</td>
<td>17%</td>
</tr>
<tr>
<td>2013/14</td>
<td>18%</td>
</tr>
<tr>
<td>2014/15</td>
<td>18%</td>
</tr>
</tbody>
</table>

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

**World Almond Production**

- 83% USA
- 7% Australia
- 5% EU-28
- 2% All others
- 1% Turkey
- 1% Tunisia

**Sources:** Almond Board of California and INC (International Nut and Dried Fruit Council), The Cracker 2014
### California Almond Acreage + Farm Value

**Crop Years 2004/05 – 2013/14**

<table>
<thead>
<tr>
<th>Crop Year</th>
<th>Acreage</th>
<th>Yield</th>
<th>Value in Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bearing</td>
<td>Non-Bearing</td>
<td>Total</td>
</tr>
<tr>
<td>2003/04</td>
<td>550,000</td>
<td>60,000</td>
<td>610,000</td>
</tr>
<tr>
<td>2004/05</td>
<td>570,000</td>
<td>70,000</td>
<td>640,000</td>
</tr>
<tr>
<td>2005/06</td>
<td>590,000</td>
<td>110,000</td>
<td>700,000</td>
</tr>
<tr>
<td>2006/07</td>
<td>610,000</td>
<td>145,000</td>
<td>755,000</td>
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<tr>
<td>2007/08</td>
<td>640,000</td>
<td>125,000</td>
<td>765,000</td>
</tr>
<tr>
<td>2008/09</td>
<td>710,000</td>
<td>110,000</td>
<td>820,000</td>
</tr>
<tr>
<td>2009/10</td>
<td>750,000</td>
<td>90,000</td>
<td>840,000</td>
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<tr>
<td>2010/11</td>
<td>770,000</td>
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<td>800,000</td>
<td>75,000</td>
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<td>2012/13</td>
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<td>2013/14</td>
<td>840,000</td>
<td>100,000</td>
<td>940,000</td>
</tr>
<tr>
<td>2014/15†</td>
<td>860,000</td>
<td>†</td>
<td>†</td>
</tr>
</tbody>
</table>

*Source: USDA National Agricultural Statistics Service, Pacific Region Field Office (NASS/PRFS). 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’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.
### California Almond Production by County

#### Crop Year 2013/14

<table>
<thead>
<tr>
<th>County</th>
<th>Northern California Valley Counties</th>
<th>Southern California Valley Counties</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colusa</td>
<td>55.0</td>
<td>42.3</td>
<td>97.3</td>
</tr>
<tr>
<td>Glenn</td>
<td>38.0</td>
<td>32.7</td>
<td>70.7</td>
</tr>
<tr>
<td>Butte</td>
<td>40.3</td>
<td>42.6</td>
<td>82.9</td>
</tr>
<tr>
<td>Yolo</td>
<td>50.8</td>
<td>38.4</td>
<td>89.2</td>
</tr>
<tr>
<td>Kern</td>
<td>21.7</td>
<td>34.2</td>
<td>55.9</td>
</tr>
<tr>
<td>San Benancio</td>
<td>21.7</td>
<td>24.3</td>
<td>46.0</td>
</tr>
<tr>
<td>Mariposa</td>
<td>21.7</td>
<td>19.3</td>
<td>41.0</td>
</tr>
<tr>
<td>Madera</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tehama</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresno</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kings</td>
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<td></td>
</tr>
<tr>
<td>Madera</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mendocino</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shasta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tulare</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14% Northern Counts</td>
<td>86% Southern Counties</td>
<td></td>
</tr>
</tbody>
</table>

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

### California Almond Receipts by County + Variety

#### Crop Year 2013/14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Butte</td>
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<td>217,273</td>
<td>317,954</td>
<td>274,773</td>
<td>916,290</td>
<td>12,544</td>
<td>1,067,555</td>
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<tr>
<td>Sutter</td>
<td>2,083,953</td>
<td>316,109</td>
<td>1,057,726</td>
<td>571,044</td>
<td>753,533</td>
<td>4,612</td>
<td>2,507,992</td>
</tr>
<tr>
<td>Tehama</td>
<td>6,524,336</td>
<td>299,648</td>
<td>1,879,846</td>
<td>2,043,325</td>
<td>39,577</td>
<td>3,017,138</td>
<td>14,682,212</td>
</tr>
<tr>
<td>Yolo</td>
<td>9,794,346</td>
<td>2,176,137</td>
<td>540,767</td>
<td>1,296,348</td>
<td>659,733</td>
<td>5,042,458</td>
<td>22,499,625</td>
</tr>
<tr>
<td>Butte</td>
<td>3,579,320</td>
<td>274,773</td>
<td>916,290</td>
<td>12,544</td>
<td>1,067,555</td>
<td>2,507,992</td>
<td>14,682,212</td>
</tr>
<tr>
<td>Sutter</td>
<td>2,083,953</td>
<td>571,044</td>
<td>753,533</td>
<td>4,612</td>
<td>2,507,992</td>
<td>14,682,212</td>
<td>22,499,625</td>
</tr>
<tr>
<td>Tehama</td>
<td>6,524,336</td>
<td>1,879,846</td>
<td>2,043,325</td>
<td>39,577</td>
<td>3,017,138</td>
<td>14,682,212</td>
<td>22,499,625</td>
</tr>
<tr>
<td>Yolo</td>
<td>9,794,346</td>
<td>540,767</td>
<td>1,296,348</td>
<td>659,733</td>
<td>5,042,458</td>
<td>22,499,625</td>
<td>22,499,625</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14,682,212</td>
<td>2,507,992</td>
<td>14,682,212</td>
<td>3,017,138</td>
<td>14,682,212</td>
<td>22,499,625</td>
<td>22,499,625</td>
</tr>
</tbody>
</table>

Source: USDA Form FV193, Report of Inedible Content of Almond Receipts.
### California Almond Crop Estimates vs. Actual Receipts

**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 | 577.0 | 24.6 | 592.4 | 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 | 1,098.0 | 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 | 1,378.0 | 19.6
2010/11 | 1,650.0 | 1,638.2 | 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 | *

**Subjective Forecast:** 310.0, 366.7, 14.4, 352.3, 10.4

**Objective Forecast:** 530.0, 507.5, 18.2, 489.3, 13.0

**Actual Production:** 830.0, 829.9, 34.4, 795.5, 9.3

Source: Almond Board of California. Objective forecast provided by USDA, NASS/PRO. *Not available at time of publication. Estimate.

### California Almond Receipts Variance from Objective Forecast

**Crop Year** | **Percentage Variance**
--- | ---
2005/06 | -8%
2006/07 | -15%
2007/08 | 0%
2008/09 | 4%
2009/10 | 4%
2010/11 | 4%
2011/12 | -1%
2012/13 | 10%
2013/14 | 9%

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

Top California Exports by Value 2012,* in millions

<table>
<thead>
<tr>
<th>Product</th>
<th>Value 2012, * in millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almonds</td>
<td>$3,387</td>
</tr>
<tr>
<td>Grapes and Products</td>
<td>$2,085</td>
</tr>
<tr>
<td>Walnuts</td>
<td>$1,313</td>
</tr>
<tr>
<td>Pistachios</td>
<td>$1,112</td>
</tr>
<tr>
<td>Rice</td>
<td>$654</td>
</tr>
<tr>
<td>Oranges and Products</td>
<td>$654</td>
</tr>
<tr>
<td>Tomatoes, Processed</td>
<td>$674</td>
</tr>
<tr>
<td>Cotton</td>
<td>$483</td>
</tr>
</tbody>
</table>

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

Top California Exports by Volume 2012,* million pound units

<table>
<thead>
<tr>
<th>Product</th>
<th>Volume 2012,* million pound units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almonds</td>
<td>9,593</td>
</tr>
<tr>
<td>Grapes and Products</td>
<td>9,583</td>
</tr>
<tr>
<td>Walnuts</td>
<td>5,824</td>
</tr>
<tr>
<td>Pistachios</td>
<td>3,612</td>
</tr>
<tr>
<td>Rice</td>
<td>2,036</td>
</tr>
<tr>
<td>Oranges and Products</td>
<td>1,782</td>
</tr>
<tr>
<td>Tomatoes, Processed</td>
<td>1,345</td>
</tr>
<tr>
<td>Cotton</td>
<td>542</td>
</tr>
<tr>
<td>Pistachios</td>
<td>406</td>
</tr>
</tbody>
</table>

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

TOP TEN CALIFORNIA CROP ACREAGE

2013 Acreage in thousands

<table>
<thead>
<tr>
<th>Crop</th>
<th>2013 Acreage in thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hay</td>
<td>1,444</td>
</tr>
<tr>
<td>Almonds Bearing</td>
<td>840</td>
</tr>
<tr>
<td>Grapes Bearing</td>
<td>820</td>
</tr>
<tr>
<td>Wheat</td>
<td>690</td>
</tr>
<tr>
<td>Corn</td>
<td>600</td>
</tr>
<tr>
<td>Rice</td>
<td>566</td>
</tr>
<tr>
<td>Walnuts bearing</td>
<td>280</td>
</tr>
<tr>
<td>Cotton</td>
<td>260</td>
</tr>
<tr>
<td>Tomatoes, Processed</td>
<td>280</td>
</tr>
<tr>
<td>Pistachios Bearing</td>
<td>280</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Crop</th>
<th>Value 2013,* in millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almonds</td>
<td>$1,587</td>
</tr>
<tr>
<td>Wine and Wine Products</td>
<td>$1,380</td>
</tr>
<tr>
<td>Walnuts</td>
<td>$1,244</td>
</tr>
<tr>
<td>Pistachios</td>
<td>$1,107</td>
</tr>
<tr>
<td>Fresh Apples</td>
<td>$939</td>
</tr>
<tr>
<td>Frozen Potato Fries</td>
<td>$912</td>
</tr>
<tr>
<td>Fresh Grapes</td>
<td>$542</td>
</tr>
<tr>
<td>Oranges and Tangerines</td>
<td>$500</td>
</tr>
<tr>
<td>Lettuce</td>
<td>$412</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Shelled Types</th>
<th>Insshell Types</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nonpareil</td>
<td>California</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carmel Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mission Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other Types</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inshell Hard</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inshell Soft</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short and Pump</td>
<td></td>
</tr>
</tbody>
</table>

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 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, §51.2196 (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.

CAINIFORNIA 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.

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 thick brown 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 atolson@almondboard.com or 209.343.3224.
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)

<table>
<thead>
<tr>
<th>CROP YEAR</th>
<th>ALMONDS</th>
<th>PEANUTS</th>
<th>WALNUTS</th>
<th>HAZELNUTS</th>
<th>PECANS</th>
<th>PISTACHIOS</th>
<th>OTHER NUTS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/03</td>
<td>1,063.5</td>
<td>1.9</td>
<td>240.5</td>
<td>0.2</td>
<td>15.3</td>
<td>16.4</td>
<td>78.4</td>
</tr>
<tr>
<td>2003/04</td>
<td>1,011.1</td>
<td>2.8</td>
<td>291.5</td>
<td>0.4</td>
<td>29.5</td>
<td>10.9</td>
<td>117.0</td>
</tr>
<tr>
<td>2004/05</td>
<td>972.8</td>
<td>5.7</td>
<td>288.4</td>
<td>0.8</td>
<td>27.2</td>
<td>12.8</td>
<td>82.6</td>
</tr>
<tr>
<td>2005/06</td>
<td>886.7</td>
<td>9.2</td>
<td>288.2</td>
<td>1.1</td>
<td>20.0</td>
<td>12.1</td>
<td>125.3</td>
</tr>
<tr>
<td>2006/07</td>
<td>1,007.8</td>
<td>8.1</td>
<td>294.6</td>
<td>2.3</td>
<td>36.4</td>
<td>13.5</td>
<td>91.4</td>
</tr>
<tr>
<td>2007/08</td>
<td>1,358.3</td>
<td>7.1</td>
<td>295.0</td>
<td>9.0</td>
<td>28.6</td>
<td>13.4</td>
<td>180.3</td>
</tr>
<tr>
<td>2008/09</td>
<td>1,571.9</td>
<td>4.2</td>
<td>395.5</td>
<td>2.0</td>
<td>26.2</td>
<td>10.0</td>
<td>94.3</td>
</tr>
<tr>
<td>2009/10</td>
<td>1,379.0</td>
<td>5.6</td>
<td>381.5</td>
<td>3.2</td>
<td>37.4</td>
<td>8.0</td>
<td>127.5</td>
</tr>
<tr>
<td>2010/11</td>
<td>1,600.3</td>
<td>8.1</td>
<td>436.8</td>
<td>0.5</td>
<td>21.3</td>
<td>11.0</td>
<td>140.4</td>
</tr>
<tr>
<td>2011/12</td>
<td>1,979.9</td>
<td>15.9</td>
<td>399.8</td>
<td>4.9</td>
<td>29.1</td>
<td>9.7</td>
<td>124.6</td>
</tr>
<tr>
<td>2012/13</td>
<td>1,848.4</td>
<td>39.4</td>
<td>440.4</td>
<td>8.0</td>
<td>29.1</td>
<td>15.3</td>
<td>141.0</td>
</tr>
</tbody>
</table>

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

- Almonds
- Peanuts
- Walnuts
- Pecans
- Pistachios
- Hazelnuts

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

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 (e.g., 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.

**ALMOND QUALITY + FOOD SAFETY PROGRAM**

**RESEARCH**

- Food Safety: 58 projects
- Almond Quality: 21 projects

**EDUCATION**

- Annual AQFS Symposia: 14
- Ongoing Industry Workshops and Seminars
- Educational Programs: GAPs, GMPs, HACCP, PEM, SSOPs, Tools and Factsheets

**SURVEY + MONITOR**

- Pathogen: >16,000 samples
- Pesticide Residues: 3420 samples
- Aflatoxin: 1443 samples, >10,000 VASP analyses per year
- Heavy metals: 140 samples

**PROGRAM DEVELOPMENT + COMPLIANCE**

- Inedible Disposal
- Pasteurization
- Voluntary Aflatoxin Sampling Plan (VASP)

---

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

Water Usage Strengths

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

- Integrated fertilization and irrigation: 73%
- Demand-based irrigation: 83%
- Optimized irrigation infrastructure: 80%

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):

- Real-time crop evapotranspiration (ETC): 43%
- Managed deficit irrigation: 35%
- Cover cropping: 35%

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 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.

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 lands.

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.
- 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 THERE

- 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.²

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage Total Colony Winter Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/07</td>
<td>15%</td>
</tr>
<tr>
<td>07/08</td>
<td>10%</td>
</tr>
<tr>
<td>08/09</td>
<td>20%</td>
</tr>
<tr>
<td>09/10</td>
<td>15%</td>
</tr>
<tr>
<td>10/11</td>
<td>15%</td>
</tr>
<tr>
<td>11/12</td>
<td>15%</td>
</tr>
<tr>
<td>12/13</td>
<td>10%</td>
</tr>
<tr>
<td>13/14</td>
<td>10%</td>
</tr>
</tbody>
</table>

Number of U.S. Honey Bee Colonies.⁴

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Colonies</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>4,000,000</td>
</tr>
<tr>
<td>91</td>
<td>3,500,000</td>
</tr>
<tr>
<td>92</td>
<td>3,000,000</td>
</tr>
<tr>
<td>93</td>
<td>2,500,000</td>
</tr>
<tr>
<td>94</td>
<td>2,000,000</td>
</tr>
<tr>
<td>95</td>
<td>1,500,000</td>
</tr>
<tr>
<td>96</td>
<td>1,000,000</td>
</tr>
<tr>
<td>97</td>
<td>500,000</td>
</tr>
<tr>
<td>98</td>
<td>0</td>
</tr>
<tr>
<td>99</td>
<td>90</td>
</tr>
<tr>
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<td>01</td>
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<td>90</td>
</tr>
<tr>
<td>11</td>
<td>90</td>
</tr>
<tr>
<td>12</td>
<td>90</td>
</tr>
</tbody>
</table>

HONEY BEES ARE VITAL TO AGRICULTURE

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.

ALMOND BOARD OF CALIFORNIA IS COMMITTED TO IMPROVING HONEY BEE HEALTH

Based on the research, ABC develops best practices for honey bee health and educates all pollination partners.

BEEKEEPER

BEE BROKER

OWNER-LEASEE

FARM MANAGER

PEST CONTROL ADVISER (PCA)

APPLICATOR

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

**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.

**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.

**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.

- 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**
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 adds to existing research showing that almonds are a nutritious, whole-food snack option.

**IMPACT OF HEALTH CONDITION**

<table>
<thead>
<tr>
<th>Health Concern for Future</th>
<th>Personal/Family Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>64%</td>
<td>22%</td>
</tr>
<tr>
<td>26%</td>
<td>42%</td>
</tr>
<tr>
<td>52%</td>
<td>31%</td>
</tr>
<tr>
<td>50%</td>
<td>21%</td>
</tr>
<tr>
<td>50%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Overweight, High Cholesterol, Heart Disease, Obesity, Diabetes

**How Hungry Are You?**

A Mid-Morning Snack of Almonds Generates Satiety

<table>
<thead>
<tr>
<th>0 grams of almonds</th>
<th>28 grams of almonds</th>
<th>42 grams of almonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunger Ratings</td>
<td>Hunger Ratings</td>
<td>Hunger Ratings</td>
</tr>
<tr>
<td>50</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>40</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>10</td>
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<tr>
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<td>-20</td>
</tr>
<tr>
<td>10</td>
<td>-10</td>
<td>-30</td>
</tr>
<tr>
<td>0</td>
<td>-20</td>
<td>-40</td>
</tr>
</tbody>
</table>

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


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

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.

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.

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 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.

Snapshot of Global Consumer Advertising

<table>
<thead>
<tr>
<th>REGION</th>
<th>MEDIA</th>
<th>CREATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Snapshot of Global Social Media Activity

<table>
<thead>
<tr>
<th>NORTH AMERICA</th>
<th>UK</th>
<th>FRANCE</th>
<th>CHINA</th>
<th>SOUTH KOREA</th>
<th>GLOBAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Region</th>
<th>Confectionary</th>
<th>Bakery</th>
<th>Cereals</th>
<th>Snacks</th>
<th>Desserts &amp; Ice Cream</th>
<th>Others</th>
<th>Total Number of Introductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confectionary</td>
<td>36%</td>
<td>19%</td>
<td>24%</td>
<td>43%</td>
<td>32%</td>
<td>30%</td>
<td>4,325</td>
</tr>
<tr>
<td>North America</td>
<td>24%</td>
<td>10%</td>
<td>33%</td>
<td>26%</td>
<td>5%</td>
<td>7%</td>
<td>2,016</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>6%</td>
<td>8%</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
<td>9%</td>
<td>1,470</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>5%</td>
<td>11%</td>
<td>9%</td>
<td>26%</td>
<td>5%</td>
<td>5%</td>
<td>489</td>
</tr>
<tr>
<td>Latin America</td>
<td>20%</td>
<td>13%</td>
<td>13%</td>
<td>26%</td>
<td>13%</td>
<td>9%</td>
<td>7,893</td>
</tr>
</tbody>
</table>

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

#1

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.

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 extraction process.

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.