Economic Update: Financial Modeling Workshop

Richard Waycott
President & CEO
Almond Board of California
THANK YOU

FARM CREDIT

[Image of almonds and pistachios]

Growing Advantage
The Almond Conference
Workshop Agenda

• Dr. Karen Klonsky – Grower Costs
• John Talbot – Driving Demand means Better Grower Returns
• Bill Harp – Industry Profitability for a Sustainable Future
Cost of Production Increases in Almond Production

Dr. Karen Klonsky

Specialist in Cooperative Extension
Dept. of Agricultural and Resource Economics
University of California - Davis
CA Almond Production Costs and US Agriculture Cost Trends

Various cost and return studies from UCCE
http://coststudies.ucdavis.edu

National Agricultural Statistic Service, USDA. *Agricultural Prices*
CA Chapter of the American Society of Farm Managers and Rural Appraisers. *Trends in Land and Lease Values*
“The trend of almond production in California has been upward due to increased plantings. Imports of almonds and competition of other nuts are factors which influence CA almond prices. Present acreage appears to be sufficient to fulfill market needs. Therefore, caution should be exercised in making new plantings.”

Guess the year?
Market Outlook 1950

“The trend of almond production in California has been upward due to increased plantings. Imports of almonds and competition of other nuts are factors which influence CA almond prices. Present acreage appears to be sufficient to fulfill market needs. Therefore, caution should be exercised in making new plantings.”
# Historic Cost and Return Studies
## San Joaquin Valley North

<table>
<thead>
<tr>
<th></th>
<th>1938</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield range (lbs./acre)</td>
<td>200 – 2,000</td>
<td>1,100 – 2,000</td>
</tr>
<tr>
<td>Expected yield</td>
<td>1,400</td>
<td>1,500</td>
</tr>
<tr>
<td>Labor rate ($/hour)</td>
<td>$.30</td>
<td>$.85</td>
</tr>
<tr>
<td>Labor cost ($/acre)</td>
<td>$54</td>
<td>$139</td>
</tr>
<tr>
<td>Water</td>
<td>$4.50 (18 inches)</td>
<td>$4.00 (30 inches)</td>
</tr>
<tr>
<td>Materials</td>
<td>$23</td>
<td>$34</td>
</tr>
<tr>
<td>Cash overhead</td>
<td>$9</td>
<td>$21</td>
</tr>
<tr>
<td>Depreciation and interest @5%</td>
<td>$39</td>
<td>$54</td>
</tr>
<tr>
<td>Total cost per acre</td>
<td>$127</td>
<td>$247</td>
</tr>
<tr>
<td>Land value per acre</td>
<td>$200</td>
<td>$350</td>
</tr>
<tr>
<td>Trees per acre value (30 yr. life)</td>
<td>$300</td>
<td>$150</td>
</tr>
</tbody>
</table>
Costs per Acre to Produce Almonds
San Joaquin Valley 2013- $4,195

- Non-Cash Overhead: 7%
- Trees: 9%
- Harvest: 8%
- Land: 17%
- Custom: 5%
- Other: 35%
- Cash Overhead: 10%
- Harvest: 8%
- Labor: 9%
- Fuel: 3%
- Water: 3%
- Materials: 21%
- Pollination: 8%
- Other: 35%
Cost per Acre to Produce Almonds

- Custom Pollination: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Pollination: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Materials: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Fuel: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Labor: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Harvest: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Water: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Cash Overhead: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Trees: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Land: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195
- Non-Cash Overhead: 2,164, 2,091, 2,189, 2,894, 2,865, 3,717, 3,975, 4,195

Pollination Per Acre

$ per Acre


24 60 60 100 113 250 280 340
## Quantity of Hives/Cost

<table>
<thead>
<tr>
<th>YEAR</th>
<th># Of Hives</th>
<th>COST PER HIVE</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>2</td>
<td>170</td>
<td>340</td>
</tr>
<tr>
<td>2011</td>
<td>2</td>
<td>140</td>
<td>280</td>
</tr>
<tr>
<td>2006</td>
<td>2</td>
<td>125</td>
<td>250</td>
</tr>
<tr>
<td>2002</td>
<td>2.5</td>
<td>45.2</td>
<td>113</td>
</tr>
<tr>
<td>1998</td>
<td>2.5</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>1992</td>
<td>2</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>1989</td>
<td>2</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>1986</td>
<td>2</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td>12</td>
<td>24</td>
</tr>
</tbody>
</table>
Water Cost Per Acre

$ per Acre

$22, $75, $149, $92, $101, $205, $151, $151

Fuel Cost per Acre

Labor Cost per Acre
Harvest Cost per Acre

$ per Acre

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>220</td>
</tr>
<tr>
<td>1986</td>
<td>223</td>
</tr>
<tr>
<td>1992</td>
<td>335</td>
</tr>
<tr>
<td>1998</td>
<td>286</td>
</tr>
<tr>
<td>2002</td>
<td>332</td>
</tr>
<tr>
<td>2006</td>
<td>284</td>
</tr>
<tr>
<td>2011</td>
<td>345</td>
</tr>
<tr>
<td>2013</td>
<td>345</td>
</tr>
</tbody>
</table>

Almond Board of California
Almond Price per Pound

Price per Pound

Source: NASS 2012 California Acreage Report
Price & Cost per Pound

- $0.00
- $0.50
- $1.00
- $1.50
- $2.00
- $2.50
- $3.00
- $3.50


price
total cost
operating cost
Prices Paid by US Farmers

(various time periods)
Prime Interest Rate

Source: Federal Reserve Board
Diesel Prices CA and US

Indexes of prices paid by US farmers
1990-1992 = 100

Source: http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1002
Indexes of prices paid by US farmers
1990-1992 = 100

Source: National Agricultural Statistical Service, USDA
Indexes of prices paid by US farmers
1990-1992 = 100

Source: National Agricultural Statistical Service, USDA
Workman’s Compensation Rate
Fruit Orchards

$/Per $100 in Payroll


Source: State Fund Base Rate January 1
Almond Orchard Values - Merced

Source: “Trends in Agricultural Land & Lease Values” CA Chapter, American Society of Farm Managers & Rural Appraisers
Almond Orchard Values - Stanislaus MID & TID

Source: “Trends in Agricultural Land & Lease Values” CA Chapter, American Society of Farm Managers & Rural Appraisers
Costs per Acre to Produce Almonds
San Joaquin Valley 2013- $4,540

- Non-Cash Overhead: 6%
- Land: 16%
- Trees: 8%
- Cash Overhead: 9%
- Harvest: 8%
- Labor: 9%
- Custom: 12%
- Non-Cash: 19%
- Fuel: 3%
- Water: 3%
- Materials: 19%
- Pollination: 7%
- Other: 32%
Cost and return studies for California commodities are available for downloading at:

http://coststudies.ucdavis.edu
Economic Update: Financial Modeling Workshop

John Talbot
Vice President, Global Market Development (ABC)
Factors That Influence Demand

- Historical Perspective
- Measuring Success
- Changing Market Dynamics
How Do We Measure Demand?

• Demand is not simply a function of shipments, or even consumption. Demand is a consumer’s willingness and desire to pay a price for a specific product.

• For our purposes, the best way to look at demand is as a function of selling a certain volume at a certain price.

• Therefore:

\[
\text{Demand} = \text{Shipments} \times \text{Farm Price} = \text{Grower Revenue}
\]

Note: This is more accurately a reflection of trade demand.
With Advent of Health Positioning Demand Growth Accelerates

- With awareness of health benefits, almond use as a snack grows
- As a snack, almonds have greater upside growth potential in volume and price

![Graph showing shipment growth over years]
Rising Price Indicates Strong Demand

- Demand pulls us through short crop correction cycles
- Past 10 years are evidence of strong demand growth

![Graph showing shipments and farm price trends over time.](chart.png)
1. Equilibrium growth where supply, demand and pricing all gradually increase
2. One or more years of short crop
3. Market reacts (sometimes over-reacts) and price goes up
4. Profit goes up
5. Growers invest in additional planting
6. As crop rebounds price begins to decline
7. Supply increases further as new plantings mature
8. Ongoing demand growth enables price to begin rising
Rising Price + Increased Supply = Optimal Growth

- Demand pulls us through short crop correction cycles
- Past 10 years are evidence of strong demand growth

Graph showing rising shipments and farm price over time.
Grower Revenue Quadruples in Last 10 Years

- Increased supply + rising price = strong demand = record grower revenue

* Grower Revenue = Shipments X Farm Price
Measuring Success
Several significant econometric studies have been conducted on the Almond Industry in the past that have shown strong returns on grower investment:

• ROI Analysis, Department of Agricultural Economics, Crespi and Sexton - 2001
  ▪ **Objective:** Evaluation of the economic impact of advertising and promotion spending in the US market
  ▪ **Results:** Promoting almonds has returned growers a 7:1 ratio for every dollar spent

• ROI Analysis, Naval Postgraduate School, Gates – June 2004
  ▪ **Objective:** Analyze links between marketing investments by ABC to Attitude, Awareness and Usage measurements and eventually to almond shipping and pricing data.
  ▪ **Results:** The AAU factors of awareness, liking and health perceptions have a statistically significant relationship to almond usage
US Marketing Metrics

Index

- ABC Marketing $
- Almond Liking

Per Capita Consumption
Health Perceptions
Shipments
Purchases Per Month
Awareness

Baseline ABC Spending $8M
US Marketing Metrics

Index

- ABC Marketing $
- Almond Liking

Per Capita Consumption
Health Perceptions
Shipments
Purchases Per Month
Awareness

Year: 2001 to 2013
US Marketing Metrics

Index

- ABC Marketing $
- Almond Liking
- Per Capita Consumption
- Shipments
- Awareness
- Health Perceptions
- Purchases Per Month

Year


Graph showing trends in various marketing metrics from 2001 to 2013.
US Marketing Metrics

Index


ABC Marketing $

Per Capita Consumption

Shipments

Almond Liking

Health Perceptions

Purchases Per Month

Awareness
ABC Uses Rigorous Program Analysis Approach

ABC uses a **variety of analytical tools** to assess opportunities and barriers, measure program success, market performance, and consumer demand.

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<thead>
<tr>
<th></th>
<th>North America</th>
<th>EU3</th>
<th>China</th>
<th>India</th>
<th>S. Korea</th>
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<tr>
<td>Opportunity Assessment</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Positioning/Segmentation analysis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Shipment and trans-shipment analysis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Per capita consumption</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Attitudes, Awareness and Usage</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Advertising Effectiveness</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>n/a</td>
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<tr>
<td>Retail Sales Volume and Value</td>
<td>X</td>
<td>X</td>
<td>Unavailable</td>
<td>Unavailable</td>
<td><strong>In Consideration</strong></td>
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<tr>
<td>New CPG Product Introductions</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>US menu trends</td>
<td>X</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Future Growth

- 80% expected to come from US, China and India
- 70% expected to be in Snacking category

* 2010 to 2013 compound average growth
New Market Dynamics – What is Changing?
With snacking comes tremendous competition as consumers have more choices in a broader competitive set.
Lots of Interest in Healthy Snacking

THE WALL STREET JOURNAL.
More Snacks Made From Brown Rice, Vegetables, Legumes Aim to Satisfy the Craving for 'Permissible Indulgence'
Triscuits, Green Giant Join Niche Brands Like Snapea Crisps and Annie Chun's

Unilever Launched Seductive Nutrition Approach to Menus
Unilever Food Solutions' latest World Menu Report titled "Seductive Nutrition" finds that U.S. restaurant guests' choice of eating healthier when dining out, but good intentions do not always translate into action.

Snack foods drive PepsiCo earnings in 3d quarter
Products With Healthy Positioning on the Rise

Global Product Launches with Healthy Positioning

- Protein Snacks
- Veggie Snacks
- Gluten Free Snacks
- Yogurt Snacks
- Fruit Snacks
The healthy snacking category is **highly competitive with heavy advertising spending** by large CPG brands.

<table>
<thead>
<tr>
<th>AdViews estimated advertising spend by brand/product</th>
<th>Total 2012 $USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chobani Yogurt and Chobani champions</td>
<td>$44 million</td>
</tr>
<tr>
<td>Sun Chips</td>
<td>$20 million</td>
</tr>
<tr>
<td>Chex Mix Snacks</td>
<td>$15 million</td>
</tr>
<tr>
<td>Kashi TLC granola bars</td>
<td>$27 million</td>
</tr>
<tr>
<td>Nature Valley bars – oat and dark chocolate</td>
<td>$20 million</td>
</tr>
</tbody>
</table>

Notes: Almond Board of California reported as Nielsen reported estimated spending for 2012.  
Source: Nielsen AdViews 2012.
The humble chickpea is having a heyday as demand for hummus sky rockets

- **Background:** Long a staple of Middle Eastern cuisine, hummus is earning a growing following among Americans seeking more-healthful snacks. The chickpea dip is low in fat and high in protein.

- **Investment:** Sabra who has increased revenue from $16 million to $800 million in just six years invests heavily in advertising, PR and innovation.

- **Results:** IRI Sales show "refrigerated flavored spreads"—a segment dominated by hummus—totaled $530 million at U.S. food retailers last year, up 11% from a year earlier and a 25% jump over 2010.

- **Return to grower:** Growing demand for hummus has pushed up prices for chickpeas, spurring farmers in the heart of tobacco country to increase production. The average price that farmers received for chickpeas was 35 cents a pound last year, a 40% increase in the last 5 years.
Almonds are **developing a strong global presence** in an increasingly dynamic global marketplace with extensive cultural, trade and regulatory differences.
Conclusions – The Approach is Working

- ABC’s health positioning and consumer marketing efforts have had a significant impact on growing almond demand

- Not every detail of every market can be measured but overall there is a positive ROI for our marketing investment

- We have a model and approach to growing demand that is working

HOWEREVER,

- Our market is becoming more competitive and the challenges more complex
Economic Update: Economics of Growing Almonds

Bill Harp
Almond Grower
### Grower Return for Entire State

<table>
<thead>
<tr>
<th></th>
<th>CY 2010</th>
<th>CY 2011</th>
<th>CY 2012</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield Per Acre</td>
<td>2,200</td>
<td>2,658</td>
<td>2,385</td>
<td>2,414</td>
</tr>
<tr>
<td>Bearing Acres</td>
<td>740,000</td>
<td>760,000</td>
<td>790,000</td>
<td>763,333</td>
</tr>
<tr>
<td>Total Reported Production</td>
<td>1,628,192,255</td>
<td>2,020,387,592</td>
<td>1,884,028,757</td>
<td>1,844,202,868</td>
</tr>
<tr>
<td>Total Paid Weight</td>
<td>1,610,062,409</td>
<td>1,979,975,964</td>
<td>1,847,507,894</td>
<td>1,812,515,422</td>
</tr>
<tr>
<td>Total Paid Weight/Acre:</td>
<td>2,176</td>
<td>2,605</td>
<td>2,339</td>
<td>2,373</td>
</tr>
<tr>
<td>Grower Price/Lb</td>
<td>$1.79</td>
<td>$1.99</td>
<td>$2.58</td>
<td>$2.12</td>
</tr>
<tr>
<td>Paid Grower Revenue/Acre:</td>
<td>$3,895</td>
<td>$5,184</td>
<td>$6,035</td>
<td>$5,038</td>
</tr>
<tr>
<td>Growing Costs/Acre per UC Davis Studies:</td>
<td>$2,543</td>
<td>$2,675</td>
<td>$3,021</td>
<td>$2,746</td>
</tr>
<tr>
<td>Net Estimated Grower Cost:</td>
<td>$2,543</td>
<td>$2,675</td>
<td>$3,021</td>
<td>$2,746</td>
</tr>
<tr>
<td>Net Grower Return/Acre:</td>
<td>$1,352</td>
<td>$2,509</td>
<td>$3,014</td>
<td>$2,291</td>
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</tbody>
</table>
Costs per Acre to Produce Almonds
San Joaquin Valley 2012- $3,975

- Non-Cash Overhead: 6%
- Land: 16%
- Trees: 8%
- Harvest: 8%
- Cash Overhead: 9%
- Labor: 9%
- Fuel: 3%
- Materials: 22%
- Pollination: 7%
- Custom: 12%
- Other: 44%

Standard Cultural Costs at 76% of $3,975 = $3,021

From Dr. Karen Klonsky’s (of UC Davis) presentation on almond costs trends
Cost per Acre to Produce Almonds

From Dr. Karen Klonsky’s (of UC Davis) presentation on almond costs trends
Almond Grower ROA Definition

- The yearly return of one bearing acre divided by the market value of one bearing acre

\[
\text{Grower Return} \div \text{Market Value} = \frac{\$2,291}{\$23,000} = 9.96\%
\]

Grower Return = Revenue - Cost
Almond Grower ROA Target Range

- Almond Grower ROA Target Range
  - 10-20% Yearly Return on Assets (excluding asset appreciation)
  - Only 5-10% ROA after taxes, so reasonable
  - Supported by the expectations of other growers’ knowledge of the risks associated with Almonds Orchards based on at least a 20-25 year life

1. Grower’s Perspective: As an independent California Almond Grower and Investor, my opinion of an acceptable (“fair and reasonable”) Almond Grower ROA is as follows.
## Projection of Bearing Acreage Increase based Known & Estimated Plantings and Removals

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td><strong>Actual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Forecasted Bearing Acres</strong></td>
<td>760,000</td>
<td>780,000</td>
<td>794,797</td>
<td>803,733</td>
<td>844,733</td>
<td>885,733</td>
<td>926,733</td>
</tr>
<tr>
<td><strong>Acres Planted 3 years prior: (as originally Reported)</strong></td>
<td>22,832</td>
<td>18,623</td>
<td>14,960</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
<td></td>
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<tr>
<td><strong>Adj. Planted Acreage: 60% more than Orig. Reported</strong></td>
<td>36,696</td>
<td>29,797</td>
<td>23,936</td>
<td>56,000</td>
<td>56,000</td>
<td>56,000</td>
<td></td>
</tr>
<tr>
<td><strong>Expected Removals (average of 2004-2011)</strong></td>
<td>16,696</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td><strong>Net Increase in Bearing Acres (estimated) vs prior year:</strong></td>
<td>20,000</td>
<td>14,797</td>
<td>8,936</td>
<td>41,000</td>
<td>41,000</td>
<td>41,000</td>
<td></td>
</tr>
</tbody>
</table>

- Acres Planted and are Standing as of 2011 that are more than 20 years old (1990 or earlier planting): 110,337
- Acres Planted and are Standing as of 2011 that are more than 17 to 20 years old (1991-1993 plantings): 38,584

Average Net Increase in Bearing Acres 2004-2012: 26,250 acres
Largest Net Increase in Bearing Acres from one crop year to the next: 40,000 acres (in 2008 & 2009 Crop Years).
Almond Bearing Acreage Projections
CY 2013/2014 – 2016/2017 - Almond Board Staff

Comparison to previous Projections

BEARING ACREAGE PROJECTIONS

- Opinion I
- Opinion II
- Opinion III
- ABC PROJECTION
- AVG PROJECTION

Compared to 926,733
## California Almond Demand History

<table>
<thead>
<tr>
<th></th>
<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
<th>15 Year</th>
<th>Achieved</th>
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<tbody>
<tr>
<td>'09-'11</td>
<td>'07-'11</td>
<td>'02 - '11</td>
<td>'97 - '11</td>
<td>'04 - '07</td>
<td></td>
</tr>
<tr>
<td><strong>Actual Demand Growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td>10.2%</td>
<td>8.4%</td>
<td>9.0%</td>
<td>10.0%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Export</td>
<td>12.1%</td>
<td>14.7%</td>
<td>9.5%</td>
<td>9.2%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Total</td>
<td>11.5%</td>
<td>12.7%</td>
<td>9.3%</td>
<td>9.3%</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

**Recent Crop Year Demand Growth Averages**

- Actual 2012 Crop Year Shipment Growth = -1.7%
- Actual 2011 Crop Year Demand Growth = 13.9%
It Appears Future Demand/Shipment Growth will be Restricted by Acreage Growth

2012 - 2017 Demand Growth based on Projected Bearing Acres

<table>
<thead>
<tr>
<th>Projected Demand Growth</th>
<th>Restricted Growth Based on Projected Bearing Acres @ Random Yield/Acre Averages 2012 - 2017</th>
<th>Unrestricted Demand Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,400</td>
<td>2,500</td>
</tr>
<tr>
<td>Domestic</td>
<td>1.8%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Export</td>
<td>2.5%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Total</td>
<td>2.0%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

= Demand Growth Forecast based on Research & Recent History
= Actual Avg. 2008 - 2010
= Deloitte 2011 Study
= Assumes Industry must carry-out 13% of Total Supply each year.
Acreage Restricted Supply (Available to Ship) vs. Conservative Unrestricted Demand Growth @ 6.3% CAGR

Available Supply at Yield/Acre Scenario

- Demand
- @ 2,400
- @ 2,500
- @ 2,600
- @ 2,700

Crop Year


Pounds (in 000's)

2012 Shipments
1.87 Billion pounds

Acreage Restricted Supply = Net Edible Production + carry-in supply – (less: required carryout supply)
Required carryout = 13% of Total Supply for a given CY.
Almond Production Projections
(millions of net pounds)
CY 2013/2014 – 2019/2020

Compared to 1,898 MM #s in previous graph
Almond Production Projections with Drought Implications
(millions of net pounds) CY 2013/2014 – 2016/2017

<table>
<thead>
<tr>
<th>FY 13/14</th>
<th>FY 14/15</th>
<th>FY 15/16</th>
<th>FY 16/17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,813</td>
<td>1,925</td>
<td>1,925</td>
<td>1,987</td>
</tr>
</tbody>
</table>

ABC PROJECTION
AVG PROJECTION
Opinion I
Opinion II
Opinion III
Almond Price per Pound

Price per Pound

Source: NASS 2010 California Acreage Report
Outlook for 2013-2017

• Optimism for Grower Returns for 2013-2017¹:
  – 10-20% Grower ROAs are possible with projected almond supply and demand fundamentals, but costs are higher and “break-even” price per pound is higher
  – Growers need to stay informed, aware, and involved to support our capable Almond Handlers and they need to know their costs
  – Growers should review monthly information and reports from the Almond Board, they should understand how the Almond Board staff/marketing committee programs operate to build the type of demand that contributes to higher prices levels which are needed to achieve adequate ROA
  – Growers should research and study Almond Market Dynamics and apply principles to practice on a regular basis
  – Supply Management is the new “Reserve” as long as demand is strong

¹ Grower’s Perspective: As an independent California Almond Grower and Investor,