Growing Markets for U.S. Tree Nuts

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U.S. Tree Nut Exports

• Current Situation
• Recent History
• Future Outlook
Tree Nut Exports…An Amazing Growth Story

• 3 of the top 4 U.S. specialty crop exports are tree nuts
  – The top four specialty crops are largely California crops
• U.S. export value of tree nuts exceeds $6 billion
  – Grown 70% since 2010
• In recent years, global demand has kept tree nut prices rising despite growing supplies
• Key drivers
  – Health and nutrition
  – Increased snacking
  – Growth of the middle class outside of the US and Europe
Top Ten U.S. Specialty Crop Exports by Value

For almonds, farm value has quadrupled since 2003 while volume has doubled.

Source: USDA, ERS
US Tree Nut Exports – Revenue Share

Source: USDA, ERS

- Almonds: 61%
- Walnuts: 19%
- Pistachios: 13%
- Pecans: 6%
- Other: 1%

Source: USDA, ERS
## Overview of U.S. Tree Nut Production, Trade and Competition

<table>
<thead>
<tr>
<th></th>
<th>Almonds</th>
<th>Walnuts</th>
<th>Pistachios</th>
<th>Pecans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crop Size</strong> (2012 – thousand tonnes)</td>
<td>834.4(^1)</td>
<td>183.3(^1)</td>
<td>449.8(^2)</td>
<td>251.9(^2)</td>
</tr>
<tr>
<td><strong>Production Growth</strong> (CAGR 2008-2012)</td>
<td>3.3(^1)</td>
<td>2(^1)</td>
<td>3.4(^2)</td>
<td>19.2(^2)</td>
</tr>
<tr>
<td><strong>Share of Crop Exported</strong> (2011)</td>
<td>71(^1)</td>
<td>58%</td>
<td>61%</td>
<td>30(^4,5)</td>
</tr>
<tr>
<td><strong>Top Export Markets</strong> (2012)</td>
<td>China, India, EU</td>
<td>China, S. Korea, EU</td>
<td>China, EU, Canada</td>
<td>China, Canada, EU(^5)</td>
</tr>
<tr>
<td><strong>Key Competitors</strong></td>
<td>Australia, Spain</td>
<td>Chile, China</td>
<td>Iran</td>
<td>South Africa</td>
</tr>
<tr>
<td><strong>Share of Global Market</strong> (2012)</td>
<td>73(^1)</td>
<td>48(^1)</td>
<td>44(^2)</td>
<td>34(^2)</td>
</tr>
</tbody>
</table>

\(^1\)kernel basis; \(^2\)in-shell basis; \(^3\)in-shell equivalent basis; \(^4\)best industry estimate available; \(^5\)excludes exports to Mexico since majority of trade reflects U.S. pecans processed in Mexico and re-exported to the U.S.; \(^6\)2009 is latest data available

Source: Rabobank - Riding the Growth Curve – Can U.S. Tree Nut Exports Continue to Defy Gravity?
Growth Trends

- Bearing acres for almonds, walnuts & pistachios has expanded steadily in the past decade
- U.S. consumption has actually grown faster than exports
  - Branded advertising by Blue Diamond for almonds & category advertising by the ABC have contributed to growth
- U.S. shipments of almonds have increased 105% in 10 years
- Exports have increased 82% over the same span
Bearing Acreage for Almonds, Walnuts & Pistachios

Total Acreage Growth

- Almonds +110,000 Acres
- Pistachios +94,890 Acres
- Walnuts +50,000 Acres
**U.S. Per Capita Consumption**

- Almond Consumption Up 47% Since 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Almonds</th>
<th>Walnuts</th>
<th>Pecans</th>
<th>Pistachios</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 / 2009</td>
<td>1.36</td>
<td>0.47</td>
<td>0.09</td>
<td>0.00</td>
</tr>
<tr>
<td>2009 / 2010</td>
<td>1.48</td>
<td>0.55</td>
<td>0.17</td>
<td>0.00</td>
</tr>
<tr>
<td>2010 / 2011</td>
<td>1.60</td>
<td>0.45</td>
<td>0.18</td>
<td>0.00</td>
</tr>
<tr>
<td>2011 / 2012</td>
<td>1.80</td>
<td>0.42</td>
<td>0.36</td>
<td>0.25</td>
</tr>
<tr>
<td>2012 / 2013</td>
<td>2.00</td>
<td>0.47</td>
<td>0.44</td>
<td>0.29</td>
</tr>
</tbody>
</table>

- U.S. snacking & ingredients drives largest growth
- Branded & ABC advertising combine to deliver health message

Source: California Almond Board, Almond Almanac 2014
Looking Forward

• Production
• Water concerns
• Competing California agricultural crops
• Tree Nut Industry Perspective
California Almond Crop Prospective Forecasts

Billions / lbs.

Year                  | Low Range | High Range |
-----------------------|-----------|------------|
2014                  | 1.85      | 1.85       |
2015                  | 1.7       | 1.8        |
2016                  | 1.85      | 1.87       |
2017                  | 2.1       | 2.26       |
2018                  | 2.3       | 2.68       |
2019                  | 2.4       | 2.83       |
Water Issues in California

- California’s ability to return to normal snowpack levels will impact future tree nut supplies
- Recent storms in California had little impact on Sierra snowpack
  - Statewide average at 21% of normal

Source: https://twitter.com/Weather_West/status/565218310841585664
"It takes years to get into a drought of this severity, and it will likely take many more big storms, and years, to crawl out of it,” said Jay Famiglietti, a researcher at the Jet Propulsion Laboratory.

A study of satellite data released by NASA's Jet Propulsion Laboratory earlier this week (December 2014) found that at the peak of the drought earlier this year, water storage in the Sacramento and San Joaquin river basins, was 11 trillion gallons below normal seasonal levels.
Tree Nut Industry Perspective

- Long-term outlook, supply demand equilibrium will return
  - Larger supplies will once again be reflected in softening prices
  - Short-term supply growth is slowed by water issues
- Water concerns in California continue to impact tree nut outlook
- Understanding where supply and demand will level is critical
  - Water is the unknown
  - Usage decisions made today will impact demand in the next two years for food manufacturers