Recent Trends in Organic Tree Fruit Production

Washington State 2011
Based on data as of Nov. 2011
Version Feb.17, 2012

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WSU-CSANR
in cooperation with
Washington State Department of Agriculture Organic Food Program
Organic fruits & vegetables sales increased 11.8% in 2010 = 39.7% of organic food sales and 12% of all national produce sales.

Source: OTA, Nutrition Business Journal
# Organic Tree Fruit Acres

## Washington State

<table>
<thead>
<tr>
<th>--- Certified acres ---</th>
<th>% Change</th>
<th>--- Transition acres ---</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>15,735</td>
<td>14,790</td>
</tr>
<tr>
<td>Pear</td>
<td>1,964</td>
<td>2,033</td>
</tr>
<tr>
<td>Cherry</td>
<td>2,437</td>
<td>2,147</td>
</tr>
<tr>
<td>Apricot</td>
<td>265</td>
<td>299</td>
</tr>
<tr>
<td>Peach &amp; Nectarine</td>
<td>1,238</td>
<td>1,251</td>
</tr>
<tr>
<td>Plum &amp; Prune</td>
<td>130</td>
<td>125</td>
</tr>
<tr>
<td>Mixed stone</td>
<td>30</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>21,799</td>
<td>20,639</td>
</tr>
</tbody>
</table>

Tree fruit has a 20% share of all organic acreage in Washington State.
### US Organic Apple Production (acres, estimated)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>1,707</td>
<td>4,228</td>
<td>6,540</td>
<td>7,003</td>
<td>6,721</td>
<td>8,018</td>
<td>12,936</td>
<td>15,735</td>
<td>14,296</td>
</tr>
<tr>
<td>CA</td>
<td>1,883</td>
<td>4,423</td>
<td>4,853</td>
<td>4,045</td>
<td>3,402</td>
<td>3,900</td>
<td>3,393</td>
<td>3,450</td>
<td></td>
</tr>
<tr>
<td>AZ</td>
<td>3,178</td>
<td>1,795</td>
<td>1,715</td>
<td>835</td>
<td>865</td>
<td>816</td>
<td>816</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>1,270</td>
<td>431</td>
<td>635</td>
<td>235</td>
<td>202</td>
<td>209</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>9</td>
<td>350</td>
<td>350</td>
<td>265</td>
<td>123</td>
<td>106</td>
<td>136</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>Other West</td>
<td>59</td>
<td>281</td>
<td>677</td>
<td>171</td>
<td>83</td>
<td>147</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West total</td>
<td>8,106</td>
<td>11,508</td>
<td>14,770</td>
<td>12,554</td>
<td>11,396</td>
<td>13,196</td>
<td>17,584</td>
<td>&gt;20,000</td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>522</td>
<td>419</td>
<td>567</td>
<td>650</td>
<td>708</td>
<td>612</td>
<td>655</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NY &amp; NE</td>
<td>201</td>
<td>83</td>
<td>52</td>
<td>5</td>
<td>392</td>
<td>212</td>
<td>193</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S &amp; SE</td>
<td>17</td>
<td>28</td>
<td>15</td>
<td>1</td>
<td>8</td>
<td>47</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US Total</td>
<td>8,846</td>
<td>12,038</td>
<td>15,404</td>
<td>13,210</td>
<td>12,504</td>
<td>14,067</td>
<td>18,465</td>
<td>&gt;21,000</td>
<td></td>
</tr>
</tbody>
</table>

**>95 % in arid west**

Combined data sets from WSU-CSANR and USDA-ERS; Other West states include ID, MT, NM, NV, UT
Estimated U.S. Organic Apple Trend

West = >95% of area

Based on combined data from WSDA, ERS, CDFA, AZ Apple Growers Assoc., QAI and OTCO; * same data for 2008 and 2009, except WA, OR and CA
Some historical events that have influenced organic apple production include the Alar incident, price volatility ($ drop), the introduction of mating disruption (MD) for codling moth control, and market entry by national chain supermarkets (Retail chains).
Organic Apple Variety Acres Washington 2011

Fuji 24%, Gala 23% of all certified acres

Combined certifiers' data; NS includes apples not reported by variety
Organic Varieties
Washington State Acres Trend

GALA

FUJI

REDS

Combined certifiers’ data; Photo by B. Barritt
Organic Apple Variety Trends
Washington State – Major Varieties

Combined certifiers’ data; 2013 based on 2011 C + T
Organic Specialty Apple Trends
Washington State

Potential 30% increase of Honeycrisp

Projected

Honeycrisp  Cripps Pink  Braeburn  Cameo

Combined certifiers’ data; 2013 based on 2011 C +T
Annual prices are typically reported for a proportion of total boxes shipped rather than total volume of boxes shipped. Data: Washington Growers Clearing House; organic season average FOB history; priced boxes all grades, sizes, storage.

est. additional 20% of org apples sold as conv.
Organic Share of Apple Shipments
Washington State

Organic % of all apples shipped

Data Sources: Washington Growers Clearing House and Wenatchee Valley Traffic Association
Total Shipped Organic Volume by year and variety, Washington State

Season averages 2003/04 to 2010/11

Boxes *1000

0 500 1,000 1,500 2,000 2,500

Gala Fuji Red Delicious Granny Smith Golden Delicious

03/04 04/05 05/06 06/07 07/08 08/09 09/10 10/11

Nearly 2 million boxes of organic ‘Gala’ sold for 2010 crop

Price Trends
Washington Apples

Data: Washington Growers Clearing House; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.
Price Trends
Washington Apples

Red Delicious

Golden Delicious

Data: Washington Growers Clearing House; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.
Price Trends
Washington Apples

Data: Washington Growers Clearing House; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.
Average Monthly Prices for WA apples 2010/11

Data: Washington Growers Clearing House; FOB averages, all storage, grades, sizes.
Ave. Monthly Organic Prices & Storage Volume: WA 2010/11

Data Sources: WGCHA & WVTA; FOB averages, all storage, grades, sizes.
Monthly Price Range for WA Organic Apples 2010/11

Data: Washington Growers Clearing House; FOB averages, all storage, grades, sizes.
Recent Price Fluctuation
Washington State Apples

<table>
<thead>
<tr>
<th></th>
<th>Conventional</th>
<th>Organic</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>08/09 ↓</td>
<td>09/10 ↑</td>
<td>10/11</td>
<td>08/09 ↓</td>
<td>09/10 ↑</td>
</tr>
<tr>
<td>Gala</td>
<td>(1.19)</td>
<td>0.62</td>
<td>(0.24)</td>
<td>(8.19)</td>
<td>2.08</td>
</tr>
<tr>
<td>Fuji</td>
<td>(6.06)</td>
<td>4.08</td>
<td>(2.24)</td>
<td>(13.51)</td>
<td>3.68</td>
</tr>
<tr>
<td>Reds</td>
<td>(4.86)</td>
<td>1.96</td>
<td>1.69</td>
<td>(7.62)</td>
<td>1.01</td>
</tr>
<tr>
<td>Goldens</td>
<td>(7.12)</td>
<td>4.06</td>
<td>(0.21)</td>
<td>(12.69)</td>
<td>4.78</td>
</tr>
<tr>
<td>Cripps Pink</td>
<td>(6.99)</td>
<td>2.30</td>
<td>0.73</td>
<td>(14.40)</td>
<td>5.40</td>
</tr>
<tr>
<td>All apples average</td>
<td>(4.47)</td>
<td>2.39</td>
<td>0.70</td>
<td>(10.27)</td>
<td>2.85</td>
</tr>
</tbody>
</table>

*Standard Equivalent Box*

“Organic growers are offering newer apple varieties, such as the spicy-sweet Pinova, to attract shoppers' attention in store bins.”
Judith Blake / The Seattle Times 2004 /Photo: Betty Udesen /

Data: WGCHA; FOB season averages, all storage, grades, sizes
Recent Organic Apple Prices
Washington State

SEB = Standard Equivalent Box. Data: Washington Growers Clearing House; FOB averages, all storage, grades, sizes.
Organic Premiums
Washington Apples

Premiums are expressed as the price difference between organic and conventional, as $ per box, or as a %

## Modeled Prices of WA Organic Apples with increasing sales volume

<table>
<thead>
<tr>
<th>Organic Shipments as % of All WA Apple Shipments</th>
<th>6%</th>
<th>8%</th>
<th>10%</th>
<th>12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Price, All Apples</td>
<td>$20.00</td>
<td>$17.00</td>
<td>$14.00</td>
<td>- - - - - Organic Price ($/box FOB) - - - - -</td>
</tr>
<tr>
<td>$20.00</td>
<td>$ 26.77</td>
<td>$ 24.45</td>
<td>$ 22.13</td>
<td>$ 19.82</td>
</tr>
<tr>
<td>$17.00</td>
<td>$ 22.75</td>
<td>$ 20.78</td>
<td>$ 18.81</td>
<td>$ 16.85</td>
</tr>
<tr>
<td>$14.00</td>
<td>$ 18.74</td>
<td>$ 17.11</td>
<td>$ 15.49</td>
<td>$ 13.87</td>
</tr>
</tbody>
</table>

Source: D. O’Rourke, 2008

### 2010/11 Season; Actual Organic Share of Sales Volume = 6.3%

<table>
<thead>
<tr>
<th>Avg. Box Price (FOB)</th>
<th>All Apples</th>
<th>Organic Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Box Price (FOB)</td>
<td>$19.79</td>
<td>$23.55</td>
</tr>
</tbody>
</table>

Refer to slide 11 for trend of actual organic apple share of all WA apple sales volume.

Data: Washington Growers Clearing House
County Distribution of organic tree fruit
Washington State 2010

Combined certifiers’ data; Photo by C. Donovan
County Organic Apple Acres

Washington State

Combined certifiers’ data

County values are estimated
Organic Pear Acreage
Washington State

2011 = 8.5% of total WA pear acreage
(based on 2011 WA-NASS estimate of 22,008 pear acres)
Organic Pear Acres by Variety
Washington 2011

- Bartlett: 33%
- D'Anjou: 32%
- Bosc: 14%
- Red Types: 11%
- Other & NS: 8%
- Asian: 2%

Combined certifiers' data; NS = not specified
Organic Pear Variety Trend
Washington State

D'Anjou  Bartlett  Bosc  Red types  Other or NS

Photo: Agyle

Combined certifiers’ data
Organic Pear Sales
Volume and Price Trends

SEB = Standard Equivalent Box. Data Sources: WGCHA & WVTA. Annual organic prices are typically reported for only a proportion of total shipped volume.
Price Trends
Washington Pears

Bartlett

D’Anjou

Bosc

SEB = Standard Equivalent Box; Data: Washington Growers Clearing House. Annual data points represent FOB season price averages.
Organic vs. Conventional Price Trends

**Washington Pears**

- **Red Bartlett**
- **Red D’Anjou**

SEB = Standard Equivalent Box; Data: Washington Growers Clearing House. Annual data points represent FOB season price averages.
Organic Premiums
Washington Pears

$/SEB

SEB = Standard Equivalent Box; Data: Washington Growers Clearing House. Annual data points represent FOB season price averages.
Recent Organic Pear Prices
Washington State

SEB = Standard Equivalent Box. Data: Washington Growers Clearing House; FOB averages, all storage, organic grades and sizes.
Organic Apple and Pear Exports
Washington State

Data source: Wenatchee Valley Traffic Association
Washington Organic Apple Top Export Destinations

Data source: Wenatchee Valley Traffic Association
WA Organic Apple Exports by Variety

Boxes Exported

Data source: Wenatchee Valley Traffic Association
WA Organic Pear Exports by Variety

Data source: Wenatchee Valley Traffic Association
Organic Cherry Acreage
Washington State

2011 = 4.8% of total WA cherry area
(based on 2010 WA-NASS estimate of 38,115 acres)

Combined certifiers’ data
Organic Cherry Variety Acres
Washington State 2011

30% of cherries not reported by variety in 2011 compared to 57% in 2008

Variety NS 29%
Bing 17%
Chelan 11%
Other Dark Sweet 11%
Sweetheart 5%
Skeena 7%
Rainier 8%
Tart 10%
Other Sweet 2%
Sweetheart 5%

Combined certifiers’ data; NS = not specified
Cherry Price Trends
Washington State

SEB = Standard Equivalent Box. Data: WGCHA; Conventional prices are from season FOB avg. price histories; may include organic 2008-2010. Organic prices are from season FOB histories, all grades and sizes.
Washington State
Other Stone Fruit Trend

Certified acres

Transition acres

Combined certifiers’ data
‘Gala’ apple prices, $/box FOB, WA

Price trend is flat. Input costs are up 70% since 1995.

Different estimates of cost of production

USDA Index of farm production costs (1992=100)
‘Gala’ Apple

Graphs portray a rough estimate of profitability under organic and conventional management, using an annual cost inflation of 3% per year (L) versus the USDA index of input costs (R). Results are similar, with organic being consistently profitable and conventional being less so.