Recent Trends in Certified Organic Tree Fruit
Washington State 2013

Data as of Nov.15, 2013
Document date: Jan 20, 2014

Elizabeth Kirby and David Granatstein
WSU-Center for Sustaining Agriculture and Natural Resources
In cooperation with
Washington State Department of Agriculture Organic Food Program
and Oregon Tilth Certified Organic
Retail organic food sales increased 10.2% in 2012. Fruits and vegetables increased 12.9% and accounted for 34.8% of organic food sales.
Organic Tree Fruit Acres
Washington State

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>15,735</td>
<td>14,296</td>
<td>13,655</td>
<td>13,978</td>
<td>2.4</td>
<td>4,256</td>
<td>725</td>
<td>1,064</td>
<td>504</td>
</tr>
<tr>
<td>Pear</td>
<td>1,964</td>
<td>1,917</td>
<td>1,900</td>
<td>1,820</td>
<td>-4.2</td>
<td>444</td>
<td>108</td>
<td>88</td>
<td>69</td>
</tr>
<tr>
<td>Cherry</td>
<td>2,437</td>
<td>1,826</td>
<td>1,792</td>
<td>1,837</td>
<td>2.5</td>
<td>797</td>
<td>12</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>Apricot*</td>
<td>265</td>
<td>296</td>
<td>266</td>
<td>285</td>
<td>7.1</td>
<td>479</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Peach&amp;Nectarine</td>
<td>1,238</td>
<td>1,146</td>
<td>1,105</td>
<td>1,058</td>
<td>-4.3</td>
<td>832</td>
<td>21</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Plum&amp;Prune*</td>
<td>130</td>
<td>92</td>
<td>89</td>
<td>64</td>
<td>-28</td>
<td>49</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Mixed stone</td>
<td>30</td>
<td>17</td>
<td>44</td>
<td>7</td>
<td>--</td>
<td>164</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
| **Total**           | **21,799** | **19,590** | **18,851** | **18,941** | **6,721** | **866** | **1,166** | **604** |}

*Apricot includes aprium; plum includes pluot and plumcot

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

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WA*</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>
<td>13,978</td>
</tr>
<tr>
<td>CA*</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>
<td>3,334</td>
</tr>
<tr>
<td>AZ</td>
<td>1,795</td>
<td>1,715</td>
<td>835</td>
<td>865</td>
<td>816</td>
<td>816</td>
<td>--</td>
<td>354</td>
<td>--</td>
</tr>
<tr>
<td>CO</td>
<td>431</td>
<td>635</td>
<td>235</td>
<td>202</td>
<td>209</td>
<td>164</td>
<td>--</td>
<td>509</td>
<td>--</td>
</tr>
<tr>
<td>OR</td>
<td>350</td>
<td>350</td>
<td>265</td>
<td>123</td>
<td>106</td>
<td>136</td>
<td>201</td>
<td>234</td>
<td>--</td>
</tr>
<tr>
<td>Other West</td>
<td>281</td>
<td>677</td>
<td>171</td>
<td>83</td>
<td>147</td>
<td>139</td>
<td>--</td>
<td>96</td>
<td>--</td>
</tr>
<tr>
<td>Hawaii</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>123</td>
<td>--</td>
</tr>
<tr>
<td>West total</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>18,946</td>
<td>--</td>
</tr>
<tr>
<td>Midwest</td>
<td>419</td>
<td>567</td>
<td>650</td>
<td>708</td>
<td>612</td>
<td>655</td>
<td>--</td>
<td>1,207</td>
<td>--</td>
</tr>
<tr>
<td>NY &amp; NE</td>
<td>83</td>
<td>52</td>
<td>5</td>
<td>392</td>
<td>212</td>
<td>193</td>
<td>--</td>
<td>361</td>
<td>--</td>
</tr>
<tr>
<td>S &amp; SE</td>
<td>28</td>
<td>15</td>
<td>1</td>
<td>8</td>
<td>47</td>
<td>33</td>
<td>--</td>
<td>39</td>
<td>--</td>
</tr>
<tr>
<td>US Total</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>20,553</td>
<td>--</td>
</tr>
</tbody>
</table>

*WA and CA values are from WSDA and CDFA

>90% in arid west

Combined data sets from WSU-CSANR, USDA-ERS, USDA-NASS; Other West states include ID, MT, NM, NV, UT
13,978 ac = 9.6% of WA apple bearing acreage
(based on 2012 WA-NASS estimate of 146,000 acres)

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 2013

Fuji and Gala = 47% of certified apple acres; Honeycrisp tops Red and Granny

2013 WSDA data; NS includes apples not reported by variety
Organic Varieties
Washington State Acres Trend

GALA

FUJI

REDS

HONEYCRISP

2013 WSDA data

Photo: B. Barritt
Organic Varieties
Washington State Acres Trend

GRANNY SMITH

CRIPPS PINK

GOLDEN TYPES

2013 WSDA data
Over 100 varieties of organic apples grown in WA, from small to larger quantities

- **50-100 ac**: Ambrosia®, Jonagold
- **11-50 ac**: Autumn Glory®, Cortland, Empire, Galaxy, Ginger Gold®, Golden Supreme®, Jazz™, Jubilee, Junami ™, Lady Alice®, McIntosh, Minneiska (SweeTango®), Opal®, Pacific Rose™, RosaLynn
- **<10 ac**: Earligold, Envy™, Liberty, Rome, Spitzenberg, Sonya™, Tsugaru, Winesap, Zestar!®

Varieties listed in WSDA producer directory:
Additional organic apples are sold as conventional.
Organic Share of Apple Shipments
Washington State

Data Source: Wenatchee Valley Traffic Association
Total Shipped Organic Volume by year and variety, Washington State

Season totals 2003/04 to 2012/13

Over 2.4 million boxes of organic ‘Gala’ sold for 2012 crop

Total Shipped Organic Volume by year and variety, Washington State

<table>
<thead>
<tr>
<th>Variety</th>
<th>03/04</th>
<th>04/05</th>
<th>05/06</th>
<th>06/07</th>
<th>07/08</th>
<th>08/09</th>
<th>09/10</th>
<th>10/11</th>
<th>11/12</th>
<th>12/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden Delicious</td>
<td>190</td>
<td>376</td>
<td>67</td>
<td>506</td>
<td>504</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cripps Pink</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honeycrisp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Price Trends
Washington Apples

Gala

Organic

Conventional

Fuji

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. SEB=standard equivalent box of 40 lb.
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.
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.
Recent Organic Apple Prices
Washington State

$/SEB

<table>
<thead>
<tr>
<th></th>
<th>Red Delicious</th>
<th>Golden Delicious</th>
<th>Granny Smith</th>
<th>Fuji</th>
<th>Gala</th>
<th>Honeycrisp</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13 to 11/15/12</td>
<td>$30</td>
<td>$30</td>
<td>$30</td>
<td>$30</td>
<td>$30</td>
<td>$70</td>
</tr>
<tr>
<td>2013/13 to 11/15/13</td>
<td>$60</td>
<td>$60</td>
<td>$60</td>
<td>$60</td>
<td>$60</td>
<td>$60</td>
</tr>
</tbody>
</table>

SEB = Standard Equivalent Box of 40 lb. 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>Box Price, All Apples</th>
<th>Organic Shipments as % of All WA Apple Shipments</th>
<th>Organic Price ($/box FOB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>$26.00*</td>
<td>$34.80</td>
<td>$31.79</td>
</tr>
<tr>
<td>$23.00*</td>
<td>$30.79</td>
<td>$28.12</td>
</tr>
<tr>
<td>$20.00</td>
<td>$26.77</td>
<td>$24.45</td>
</tr>
<tr>
<td>$17.00</td>
<td>$22.75</td>
<td>$20.78</td>
</tr>
</tbody>
</table>

*Extrapolated prices

Source: D. O’Rourke, 2008

## 2012/13 Season; Actual Organic Share of Sales Volume = 6.7%

<table>
<thead>
<tr>
<th>Avg. Box Price (FOB)</th>
<th>All Apples</th>
<th>Organic Apples</th>
<th>Predicted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$24.41</td>
<td>$33.26</td>
<td>$31.94</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
Organic Fire Blight Control

- US organic growers have been allowed to use antibiotics to control fire blight on apple and pear.
- NOSB voted to phase out this use in Oct. 2014.
- Industry petitioned NOSB for an extension to allow on-going research project on alternatives to be completed.
- Consumer groups actively opposed this, and posted misinformation regarding organic apples and pears and antibiotic use and residues.
- Next slide shows that there was little effect of the negative media on sales of organic apples.
Effect of NOSB Media on Organic Apple Sales

Did negative media on antibiotics and organic tree fruit impact sales?

- NOSB meeting, Apr. 10, 2013
- Sales for week ending Apr. 29
- ‘Gala’ and ‘Pink Lady’ were targeted by consumer group negative media
- No discernable effect

<table>
<thead>
<tr>
<th>Week ending 4/29</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total WA</td>
<td>196,000</td>
<td>121,000</td>
<td>157,000</td>
</tr>
<tr>
<td>Cripps Pink</td>
<td>18,000</td>
<td>6,000</td>
<td>19,000</td>
</tr>
<tr>
<td>Gala</td>
<td>49,000</td>
<td>34,000</td>
<td>41,000</td>
</tr>
<tr>
<td>Fuji</td>
<td>74,000</td>
<td>43,000</td>
<td>39,000</td>
</tr>
<tr>
<td>Red Del.</td>
<td>22,000</td>
<td>18,000</td>
<td>22,000</td>
</tr>
</tbody>
</table>

Data Source: Wenatchee Valley Traffic Association
By April, supplies of organic apples in storage are starting to run out and shipments typically fall off at this point.

*Data source: Wenatchee Valley Traffic Association*
The pattern for spring 2013 was similar to other years and no clear impacts from negative media were apparent on specific varieties.

Data source: Wenatchee Valley Traffic Association
## World Organic Apple Area

<table>
<thead>
<tr>
<th>Region</th>
<th>2011 Acres</th>
<th>% change from 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>165,344</td>
<td>24</td>
</tr>
<tr>
<td>US</td>
<td>19,540</td>
<td>2</td>
</tr>
<tr>
<td>Canada</td>
<td>319</td>
<td>--</td>
</tr>
<tr>
<td>Europe</td>
<td>114,786</td>
<td>33</td>
</tr>
<tr>
<td>Poland</td>
<td>(62,731)</td>
<td>(71)</td>
</tr>
<tr>
<td>France</td>
<td>(12,234)</td>
<td>(66)</td>
</tr>
<tr>
<td>Turkey</td>
<td>7,422</td>
<td>2</td>
</tr>
<tr>
<td>China</td>
<td>3,952</td>
<td>--</td>
</tr>
<tr>
<td>Argentina</td>
<td>4,201</td>
<td>-13</td>
</tr>
<tr>
<td>Chile</td>
<td>3,132</td>
<td>--</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2,339</td>
<td>--</td>
</tr>
<tr>
<td>Australia</td>
<td>818</td>
<td>--</td>
</tr>
<tr>
<td>South Africa</td>
<td>314</td>
<td>-52</td>
</tr>
</tbody>
</table>

### WA organic apples, 2011
- 14,296 ac cert.
- 73% of US
- 8-9% of world

Europe is the leading region for producing organic tree fruits.
- ~70% of world organic apple area

*(Willer, 2013)*
Organic Apple Trends
Expansion of Global Area

(Courtesy: H. Willer, FiBL)
Video presentation of international data can be viewed at:
http://www.youtube.com/watch?v=XVDWPqCMnMY&list=PLE816E610DF986E58&index=36&feature=plpp_video
Organic Pear Acreage
Washington State

2013 = 8.5% of total WA pear acreage
(based on 2012 WA-NASS estimate of 21,500 pear acres)
Organic Pear Acres by Variety
Washington 2013

- Bartlett: 35%
- D'Anjou: 31%
- Bosc: 17%
- Red Types: 10%
- Other & NS: 6%
- Asian: 1%

2013 WSDA data; NS = not specified
Organic Pear Variety Trend
Washington State

Combined certifiers’ data; 2013 WSDA data
Organic Specialty Pears
Washington State 2012

• Over 25 varieties of organic pears and Asian pears grown in WA, from small to larger quantities.

• >25 ac – Concorde, Comice, Tosca, Asian

• Acreage unknown - Belle Pickard, Flemish Beauty, Forelle, Maxine, Moonglow, Seckel, others

• Varieties show on WSDA producer list: http://agr.wa.gov/FoodAnimal/Organic/docs/wsdacert_org_producers.pdf
Organic Pear Sales
Volume and Price Trends

2012/13 Organic share of WA pears shipped = 6.7%

Priced Boxes  Total Shipped Boxes  US$ per Box

SEB = Standard Equivalent Box of 44 lb. 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.
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 = Standard Equivalent Box;  Data: Washington Growers Clearing House. Annual data points represent FOB season price averages.
Organic Cherry Acreage
Washington State

2013 = 5.7% of total WA cherry area
(based on 2012 WA-NASS estimate of 34,000 acres)

Combined certifiers’ data; 2013 WSDA data
Organic Cherry Variety Acres
Washington State 2013

25% of cherries not reported by variety in 2013 compared to 57% in 2008

- Variety NS: 25%
- Tart: 16%
- Bing: 16%
- Chelan: 12%
- Rainier: 8%
- Skeena: 8%
- Sweetheart: 4%
- Other Sweet: 11%
- Other: 11%
Cherry Price Trends
Washington State

$/SEB


SEB = Standard Equivalent Box of 18 lb. 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

Combined certifiers’ data, 2013 WSDA data
Export Value of U.S. Organic Foods

- Canada, Mexico are main markets
- Apple exports tripled, cherry exports dropped

Source: USDA-FAS GATS
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 Pear Exports by Variety

Data source: Wenatchee Valley Traffic Association
More information on Washington organic tree fruit statistics is available on-line at:

http://csanr.wsu.edu/pages/Organic_Statistics