



Recent Trends in Certified Organic Tree Fruit in Washington State: 2020

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In cooperation with Washington State Department of Agriculture, Oregon Tilth, and CCOF



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Abbreviations used:

CSANR	WSU Center for Sustaining Agriculture & Natural Resources
CSA	Community Supported Agriculture operation
AMS	USDA Agricultural Marketing Service
ERS	USDA Economic Research Service
NOP	USDA National Organic Program
NASS	USDA National Agricultural Statistics Service
WSDA	Washington State Dept. of Agriculture



The following set of slides presents the current data on organic tree fruit area and production for Washington State, with some associated global and national data. Data come from various sources including certifiers [e.g., Washington St. Dept. of Agriculture (WSDA) Organic Program; Oregon Tilth Certified Organic (OTCO), California Certified Organic Farmers (CCOF)], The World of Organic Agriculture annual publication http://www.organic-world.net/index.html, USDA, Calif. Dept. Food and Agric. (CDFA), and industry sources [Washington State Tree Fruit Association (WSTFA), Wenatchee Valley Traffic Association (WVTA), Washington Growers Clearinghouse (WGCH), Pear Bureau Northwest (PBNW)]. Data from WSDA were extracted on 2/24/2020.

Organic agriculture continues to be consumer driven. Globally, retail sales of organic food were \$112 billion in 2019, up 6.6%. The U.S. was the largest single country market (\$50.1 billion), followed by Germany (\$13.4 billion), France (\$12.7 billion), and China (\$9.5 billion). Denmark was the country with the highest per capita organic expenditure, at about 6% of total food dollars. The global organic market has been divided between North America and Europe for years, but the Asian market is accounting for an increasing share (slide $\underline{4}$).



Consumer Demand for Organic Food

Market Share of Sales by Region (%)

	<u> </u>	ries by itegien (70)			
	North Amer.	Europe	Other		
2003	46	52	2		
2007	43	54	3		
2009	48	48	4		
2011	50	46	4		
2013	49	43	8		
2015	51	39	8 (Asia)		
2016	52	39	9 (Asia)		
2017	50	41	9 (Asia)		
2018	48	43	9 (Asia)		
2019	45	43	12		

Note: % has changed in part due to US\$ vs euro currency fluctuations.



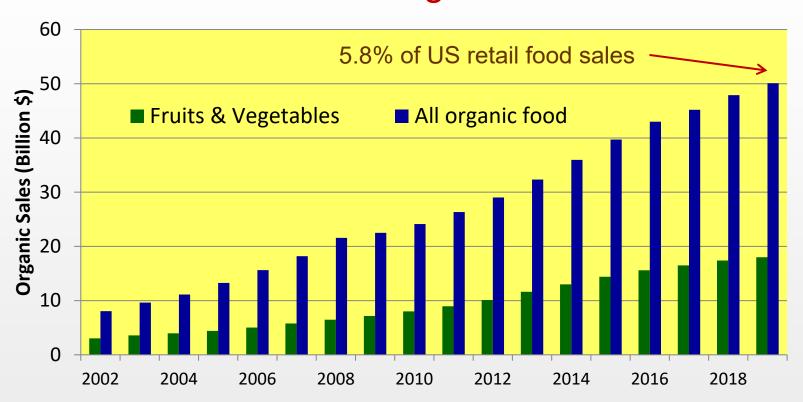
The next slide (6) shows the growth in retail sales of organic food in the U.S. since 2002. Growth dipped during the recession but did not stop. The percent annual growth is declining as total sales increase, but the annual increase in sales dollars is fairly steady. Growth of the fruit and vegetable category was more stable (slide 7), confirming that these products are very core to organic consumers. These consumer data come from the Organic Trade Association (OTA) annual industry survey.

More data on the organic food sector are becoming available (slides 8, 9). Organic fruit sales grew faster than organic vegetables since 2011. Both volume and sales \$ of organic fruit in the U.S. increased faster than overall organic food in 2017. The top 3 organic fruits account for 70% of all organic fruit sales, compared with 43% for the top 3 conventional fruits. Berries, apples, and bananas have been the top 3 selling organic fruits. Retail organic produce sales rose 15% in 2020 due to the pandemic.

Total U.S. fresh apple consumption is slowly rising with population. In 2016, WA organic apples accounted for over 8% of U.S. fresh apple consumption. With the organic crop projected to grow to 18 million boxes by 2020, this would equal some 14% of U.S. fresh apple consumption and would likely be displacing conventional apple sales (slide 10).



Consumer DemandGrowth of US Organic Food Sales

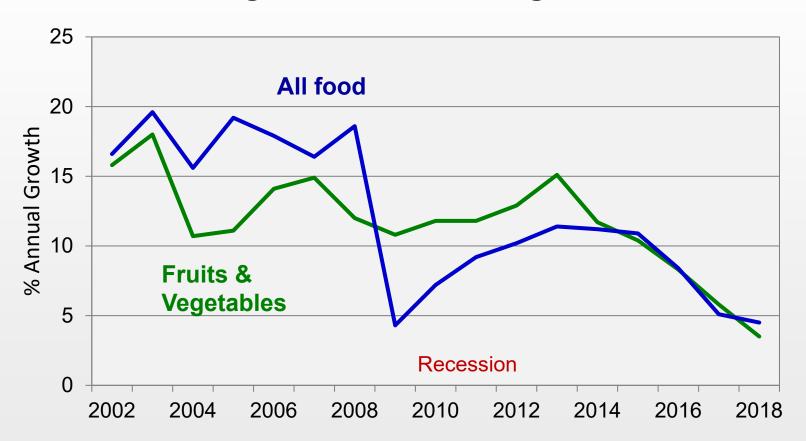


Retail organic food sales increased 4.6% in 2019. Organic fruits and vegetable sales increased 5.0% and were 36% of all organic food sales (and 11% of all US produce sales); over 90% were sales of fresh produce.



Consumer Demand for Organic Food

Annual growth rates for organic foods



Based on supermarket retail sales; does not include direct market, specialty stores

Source: OTA, Nutrition Business Journal



Top 10 Organic Fresh Produce Items by Sales, 2018

Category	2018 Sales (million \$)	% Annual Change
Pre-packaged salads	1,120	5.3
Apples	393	6.4
Carrots	340	3.5
Strawberries	298	1.9
Bananas	290	9.3
Herbs & spices	263	7.8
Blueberries	256	33.3
Lettuce	252	3.5
Tomatoes	204	0.8
Grapes	169	14.9
Source: Nielsen xAOC,	Total Food View, 52 wee	ks ending 12/29/18

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Fresh Fruit Sales

Cor	nventional Fruit	Share of Dollars (%)	Or
1	Berries	17.5	1
2 3	Citrus - 43%	13.8	2
3	Apples	12.1	3
4	Grapes	11.5	4
5	Value-Added Fruit	10.9	5
6	Bananas	10.4	6
7	Avocados	6.7	7
8	Melons	5.0	8
9	Stone Fruits	3.7	9
10	Cherries	3.3	10
11	Specialty Fruits	2.6	11
12	Pears	1.4	12
13	Pineapples	1.2	13
14	Other Fresh Fruits	0.1	Сор

Org	janic Fruit	Share of Dollars (%)
1	Berries	36.9
2	Apples - 70%	18.7
3	Bananas	14.4
4	Citrus	8.5
5	Grapes	7.5
6	Avocados	5.4
7	Stone Fruits	2.1
8	Pears	1.8
9	Cherries	1.5
10	Specialty Fruits	1.5
11	Value-Added Fruit	1.0
12	Melons	0.4
13	Pineapples	0.3

Copyright ©2017, The Nielsen Co.; confidential and proprietary

Source: Nielsen Fresh (FCA universe) – Latest 52 weeks ending 10/28/17



How Big Can This Get?

- Organic produce sales growing ~6% per year
- OTA 2017, organic = 5.5% of food sales; hit 20% ?
- US annual fresh apple consumption = 128.6 mil 40 lb box; is gradually rising
- 2017 WA organic apples = 13.3 mil box shipped; 90+% of US supply; 8.4% of US fresh apple consumption;
 2018 estimate = 16.6.5 mil box; 2020 = 18 mil ?? (14%)
- 2016 WA organic apple price premium = 86% FOB,
 ~60% at retail; if retail price (or premium) drops, demand is likely to increase.



Estimates of global area of organic horticultural crops, including tree fruits, have been made several times in the past by the authors to help track trends. The most recent data (2019) from *The* World of Organic Agriculture were used in the following slides. Not all major producing countries, including the US, provide complete data each year. Organic tree fruit represented about 0.9% of all organic agricultural land globally, with temperate tree fruits having 48% of all organic tree fruit area (slide 12). Temperate tree fruits were the largest category of organic tree fruit in 2019. All temperate tree fruits except pear and peach/nectarine expanded their area in 2019 (slide 13). Apple had the largest area for a specific fruit, followed by banana and dates. Europe and Asia have the largest areas of organic temperate tree fruit by far. Globally, about 25% of the area is in transition to organic.

Area trends over time (slides <u>14</u> and <u>16</u>) show a general growth trend. The downturn in apple was driven largely by Poland (slide <u>15</u>). Missing data from year to year also contribute to variability. Europe accounted for about 48% of 2019 organic temperate tree fruit area (Italy 26,499 ha; France 23,450 ha; Poland 13,326 ha; Turkey 20,244 ha). China had the largest area for one country (116,000 ha). The U.S. had 18,130 ha. Europe and China accounted for 58% and 26% of the organic apple area, respectively (slide <u>17</u>).



Global Organic Tree Fruit Area

Organic tree fruit crops 648,466 ha ~0.9% of organic agriculture land

	Hectares* 2019	% of organic tree fruit	% change from 2015	% of all global
Temperate	308,543	48	+38	2.6
Citrus	102,897	15	+14	0.9
Tropical/ Subtropical	237,026	37	-13	0.8

^{*}certified + transition

1 hectare (ha) = 2.47 acres



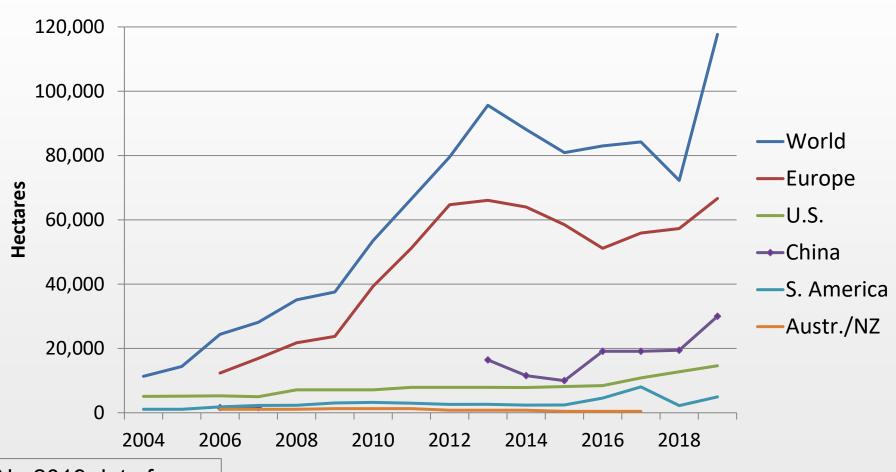
Global Organic Tree Fruit Area

	Hectares* 2019	% change from 2018	% of organic category	% of all global [#]
Apple	114,108	+32.5	37	2.0
Apricot	37,910	+21.4	12	6.0
Cherry	19,119	+11.9	6	2.0
Peach/Nect.	14,046	-26.4	5	0.9
Pear	18,331	-10.3	6	1.0
Plum	19,566	+10.2	6	0.7
Other, no details	69,013		22	
Banana	62,685	-24.2	26	0.7
Orange	20,098	+22.3	20	0.4

^{*}certified + transition; #using 2018 FAO global data



Organic Apple Trends Expansion of Global Area



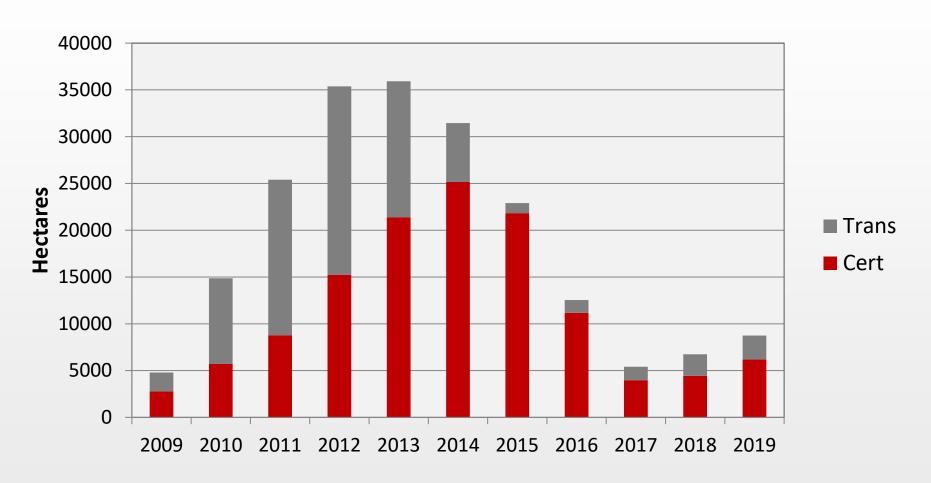
No 2019 data for Australia, NZ

*Certified + Transition area 1 hectare = 2.47 acres

Adjusted for est. US values; Data courtesy of H. Willer, FiBL



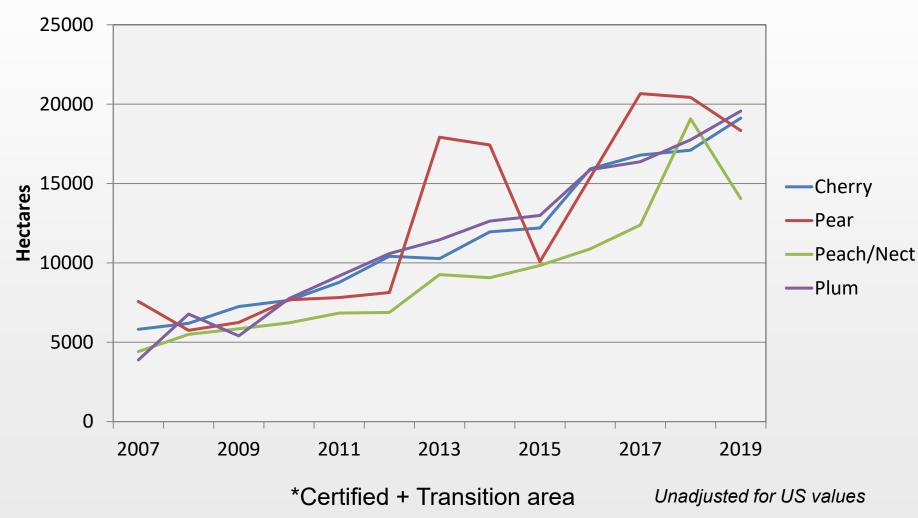
Organic Apple Area in Poland



Decline of organic apple area in Poland explains much of the EU decline.



Organic Tree Fruit Trends Expansion of Global Area





World Organic Apple Area

	2019 Ha (C+T)	% change from 2017
World	117,679*	+40
US	14,628	+33
Europe	66,656	+19
Poland	8,739	+61
Germany	6,700	+10
Italy	8,235	+33
France	14,196	+36
Turkey	5,319	-49
China	30,000	+56
Argentina	2,032	-65
Chile	2,863	+36
New Zealand		?

Europe is the leading region for producing organic tree fruits.

• 58% of world organic apple area

WA organic apples, 2019

- 13,173 ha cert.
- ~90% of US area
- 12% of world certified area, but higher % of production

Data courtesy of H. Willer, FiBL 1 hectare (ha) = 2.47 acres *includes US estimate

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Data on the area of organic tree fruit production in the U.S. are not collected regularly. The 2019 NASS organic survey data are available, but none for 2017 or 2018. The results in the following tables through 2019 (slides 19 to 21) come from USDA ERS reports, certifier data, CDFA, and USDA NASS surveys. In general, >90% of certified organic apple area has been located in the semi-arid regions of the western U.S. where there is little summer rainfall which minimizes many key diseases.

This pattern holds true for other temperate tree fruit as well, such as pears, sweet cherries, peaches/nectarines, plums, and apricots. For example, based on data from the NASS 2019 Organic Production Survey, Washington State is the major producer of organic apples, pears, and cherries. It has 90% of the reported organic apple acres, producing 97% of the reported fresh fruit volume in the country. It also has 78% of the organic pear acres and 80% of the fresh volume, and 76% of the sweet cherry acreage and 92% of the volume. A similar situation exists for peaches/nectarines and plums/prunes in California.



U.S. Organic Temperate Tree Fruit Area (ac)

	2	1016 (acre	s)	2019 (acres)			
	<u>WA</u>	CA	<u>US</u>	<u>WA</u>	<u>CA</u>	<u>US</u>	
Apple	16,191	3,186	20,855	32,537	2,191	36,148	
Pear	2,243	682	2,986	4,201	1,076	5,409	
Apricot	251	442	675	360	547	922	
Cherry	2,546	433	3,284	3,352	225	4,424	
Nectarine	379	1,047	1,437	472	1,055	1,535	
Peach	553	1,761	3,188	602	1,547	3,485	

Data from various certifiers, CDFA, and USDA-NASS.



US Organic Apple Area

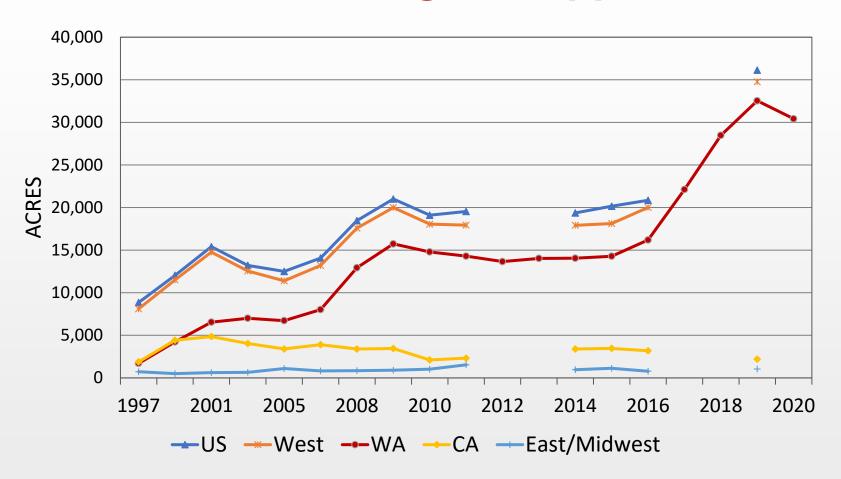
(acres, estimated)

State	2000	2001	2005	2008	2011	2014	2015	2016	2019					
WA*	4,228	6,540	6,721	12,936	14,296	14,052	14,283	16,191	32,537					
CA*	4,423	4,853	3,402	3,393	2,322	3,392	3,460	3,186	2,191					
AZ	1,795	1,715	865	816	354	?	?	?	?					
СО	431	635	202	164	509	194	176	219	150					
OR	350	350	123	136	234	262	143	322	179					
Other West	281	677	83	139	96	17	59	93	52					
West total	11,508	14,770	11,396	17,584	17,934	17,917	18,121	20,061	35,109					
Midwest	419	567	708	655	1,207	319	563	476	818					
NY & NE	83	52	392	193	361	645	555	277	218					
S & SE	28	15	8	33	40	11	10	24	3					
US Total	12,038	15,404	12,504	18,465	19,542	19,370	20,156	20,855	36,148					
*\\\\ and C\\ val	ica ara fran	~ \\\CD^ \	TCO CCC	OF and CE	*WA and CA values are from WSDA OTCO CCOE, and CDEA									

*WA and CA values are from WSDA, OTCO, CCOF, and CDFA



U.S Certified Organic Apple Area



Data are mostly from USDA-ERS and USDA-NASS; except WA is from certifiers and CA is from CDFA and NASS.



The acreages of different organic tree fruits in Washington over time are shown in slide <u>23</u>. While accounting for about 28% of all certified organic acres in the state, organic tree fruit generates over half of the farmgate value of all organic products grown in the state (slide 24). Storage, packing, and marketing add another \$100 million of value each year. Estimates for the value of organic tree fruit that is processed could not be determined, but demand for these products is growing (e.g., juice, puree, sliced apples). Organic apples dominate the organic tree fruit sector for area, production, and value, and sales value has been rapidly increasing (slide <u>25</u>). However, value of the organic apple crop was lower than the previous year as the increase in shipped volume was more than offset by lower prices.

Organic Tree Fruit Acres Washington State

ARS Photo		Certified acres							Trans acres†
	2010	2012	2014	2016	2017	2018	2019	2020	2020
Apple	14,790	13,657	14,052	16,191	22,116	28,473	32,537	30,424	1,122
Pear	2,033	1,900	1,843	2,243	2,763	3,263	4,201	4,256	128
Cherry	2,147	1,792	1,939	2,078	2,546	3,014	3,352	3,180	75
Apricot*	299	266	299	251	216	271	360	268	9
Nectarine	550	488	440	379	357	470	472	318	0
Peach	701	618	580	553	580	580	602	469	0
Plum/Prune*	125	89	58	76	45	49	53	106	1
Mixed stone	13	45	17		1	4	2	0	0
Total*	20,658	18,855	19,228	21,771	28,624	36,122	41,580	39,021	1,335

^{*}apricot includes aprium; plum includes prune, pluot and plumcot; totals do not include mixed tree fruit; †only those acres registered with a certifier

Organic tree fruit accounted for about 14% of all tree fruit acres in Washington State in 2018.



Value of WA Fresh Organic Tree Fruits

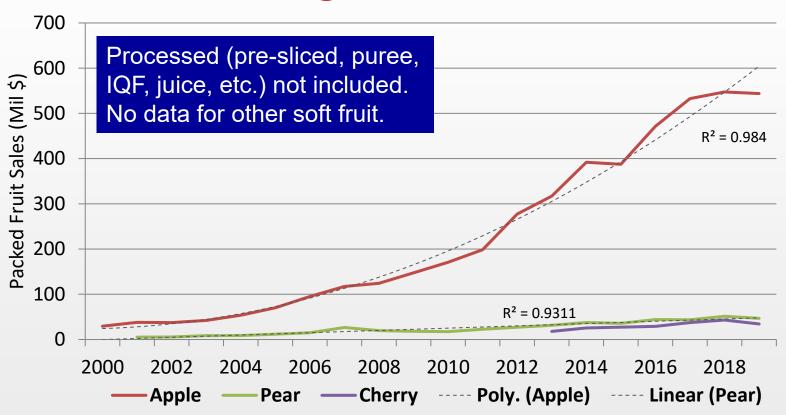
	Sales Year Farmgate Value			Crop Year Packed Value					
	2009	2010	2011	2011	2014	2016	2017	2018	2019
Apple	77.85	96.28	121.04	198.55	391.9	471.6	532.6	547.4	543.8
Pear	8.87	8.66	11.87	22.71	37.6	44.1	43.5	51.3	46.7
Cherry	9.92	10.05	17.09	15.31	25.4	25.4	37.3	43.0	34.3
Other	5.05	7.49	10.95	>11.0	?	?	?	?	?
Total	101.69	122.48	160.95	>248	>455	>541	>613	>642	>624

Sales year = Jan.- Dec., regardless of when the crop was harvested. Crop year = value of the crop harvested in the given year, that may be sold over multiple years; uses Packed Value based on FOB price.

Data: WSDA, WGCH, WVTA



Value of Fresh WA Organic Tree Fruit



Based on shipped volume for the crop (e.g., 2008 harvest was shipped in both 2008 and 2009) and estimated weighted average price per packed box during the same period. Dashed line is polynomial trend line estimate. Does not included processed fruit.

Data: WSTFA, WGCH, WVTA

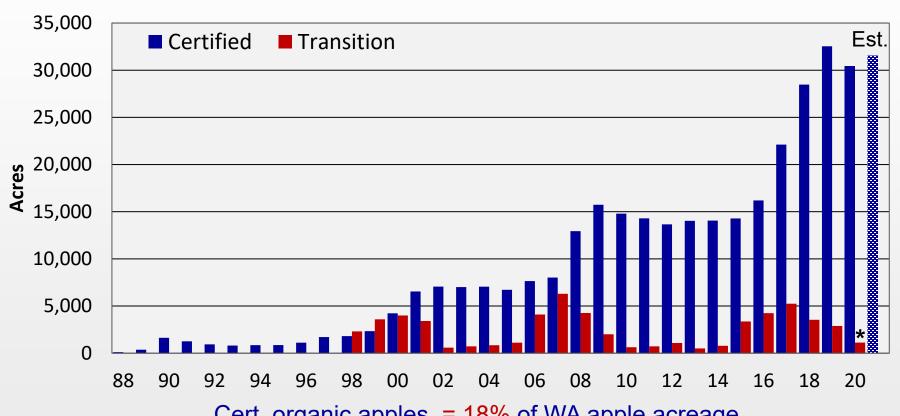


The expansion of organic apple area in the state has proceeded in a stepwise fashion as shown in slide <u>27</u>. Partly this is due to the 3-year transition requirement that creates a lag between a market signal to growers and their ability to enter the market. There is also a lag in exiting, for example when prices fall, since growers have invested in the transition period and in various production practices. Increases in area have been spurred by crisis situations, such as Alar in 1989, and the crash in conventional 'Red Delicious' prices in the late 1990s, as well as steadily increasing demand and periods of high price premiums.

'Gala' and 'Fuji' have dominated organic apple plantings, with 'Honeycrisp' increasing rapidly in area and now surpassing 'Fuji' (slide 28). The change in area of cultivars over time can be seen in slides 29 and 30. In addition, many new and specialty cultivars are being grown organically, including some for hard cider production (slide 31). So far, only a few acres of Cosmic Crisp® are registered with a certifier to be under organic management.



Organic Apple Acreage Washington State



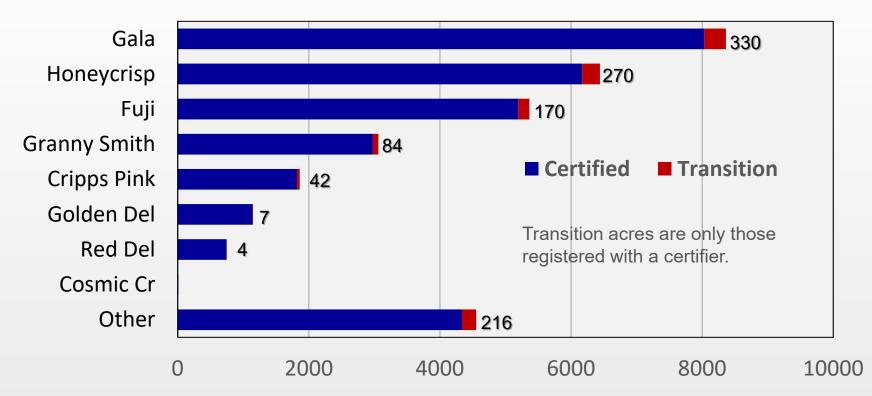
Cert. organic apples = 18% of WA apple acreage (based on 2017 NASS value of 179,146 acres)

^{*}Transition acres from WSDA only





Organic Apple Variety Acres Washington 2020

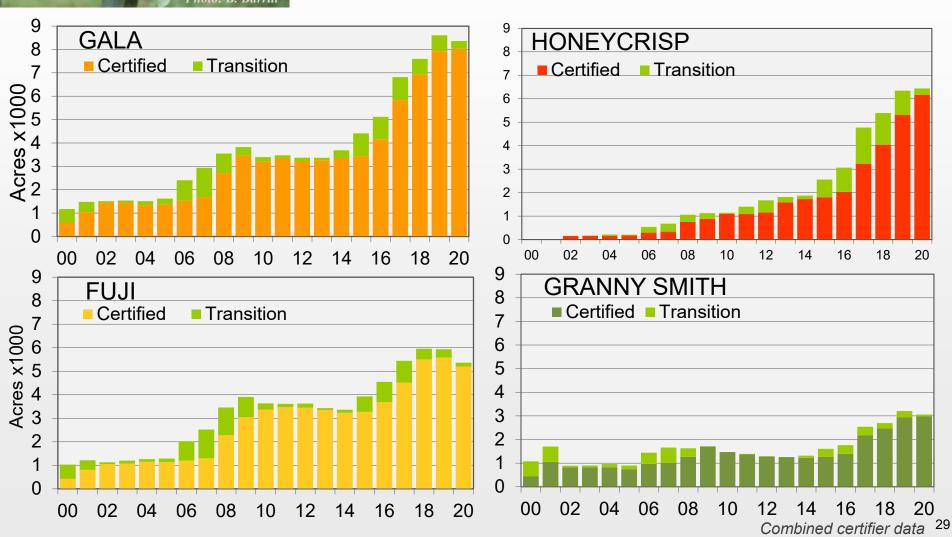




- Gala, Fuji, Honeycrisp = 64% of certified apple acres
- Honeycrisp replaced Fuji as #2

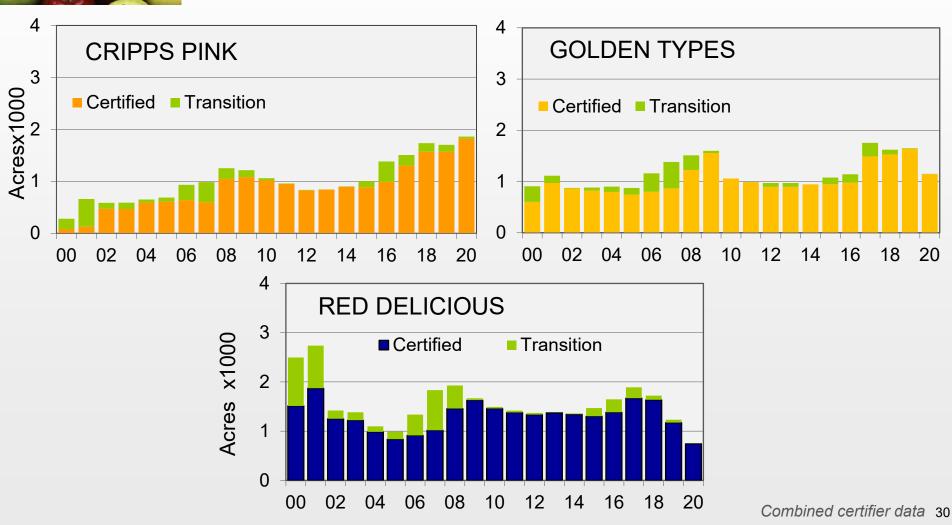


Organic Apple Varieties Washington State Acres Trend





Organic Apple Varieties Washington State Acres Trend





Organic Specialty Apples Washington State 2020

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

- 100-1000 ac: Ambrosia®, Autumn Glory, Braeburn, Envy™, Jazz, Lady Alice®, Opal®, Piñata®
- 50-100 ac: Cameo, Jonagold, Minneiska (SweeTango®)
- 11-50 ac: Cosmic Crisp[®], cider, Jubilee, Rojo, RosaLynn
- 1-10 ac: Arkansas Black, Ashmead's Kernel, Crimson Crisp™, Earligold™, Kanzi®Koru®, Liberty, McIntosh, Tsugaru, Winesap, Winter Banana, Zestar! ™ and more

Varieties listed in WSDA producer directory:

https://agr.wa.gov/departments/organic/about-organic#lists



WA Apple Commission



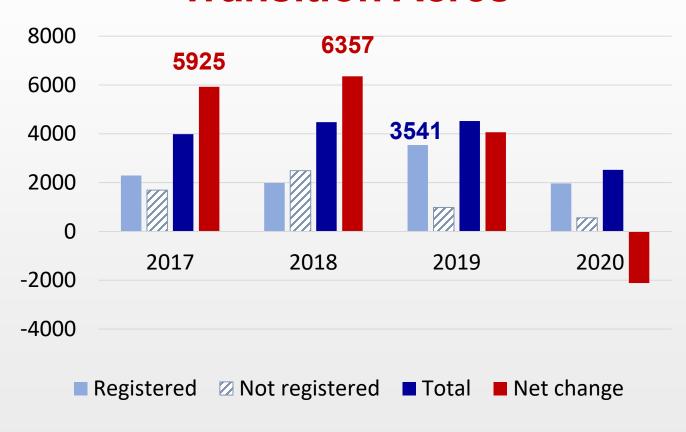
A large number of apple acres transitioned to organic in 2017 and 2018. Estimates made in advance of this tended to be low (slide <u>33</u>). In 2018, there were 3,541 ac of apple registered for transition with certifiers. No breakdown was available for acres in first year versus second year transition. However, a slowing of organic apple expansion was expected in 2019 and for the next several years as the market 'digests' all the recently added production. This has occurred.

Along with expanded acres, organic apple yields were increasing (until 2018), with the transition of many acres of modern, high-density plantings (slide <u>34</u>). These data were calculated by dividing the actual number of packed boxes shipped each year (by variety), by the actual number of certified acres for that variety, both values that are very accurate. Yields went from around 400 packed boxes per acre in 2008 to 600 in 2015. Apples diverted to processing and other uses are not included and would raise the yield estimates if they were. For example, some growers are harvesting Goldens directly for processing to reduce costs.

There are fewer transition acres for pears and cherries, and these increases are not expected to result in a large new pulse of fruit.



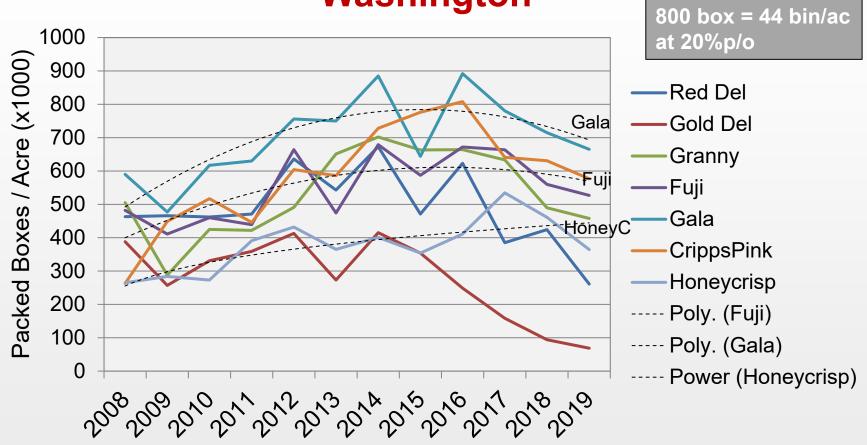
Estimated WA Organic Apple Transition Acres



Based on registered transition acres (January) and data from WA fruit companies (Jan. 2017)



Organic Apple Yield Trend
Washington



- Total shipped organic boxes / total certified acres
- Includes young and non-bearing acres
- Does not account for processor or other diverted fruit



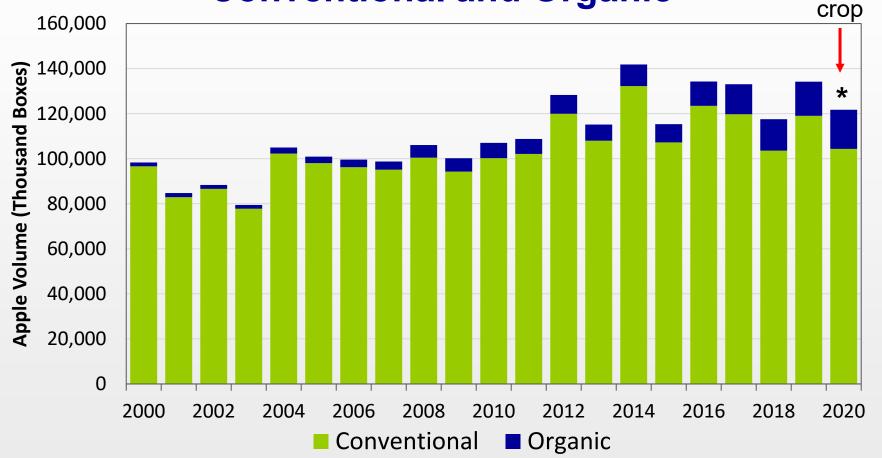
In 2019, certified organic apples represented about 18% of all apple acres in the state. This has translated to about 14% of the state crop (slides <u>36</u> and <u>37</u>). An unknown amount of organic fruit goes to the processor market or is sold as conventional for various reasons.

A general upward trend of shipments has occurred since a big jump in 2008 (slide <u>38</u>), despite slight declines in acreage after 2009. This can be attributed to newer high-yielding plantings coming into production, as well as less fruit being diverted to conventional or other markets. The increase has been driven by dramatic rises in 'Gala', 'Fuji', and 'Honeycrisp' shipments, which set new records with the 2019 crop (slides <u>39</u>, <u>40</u>). Despite the rapid rise in supply, prices generally rose during this period until 2016, then dropped and appear to be levelling out (slide <u>38</u>).



Washington Apple Volume Conventional and Organic

14% of

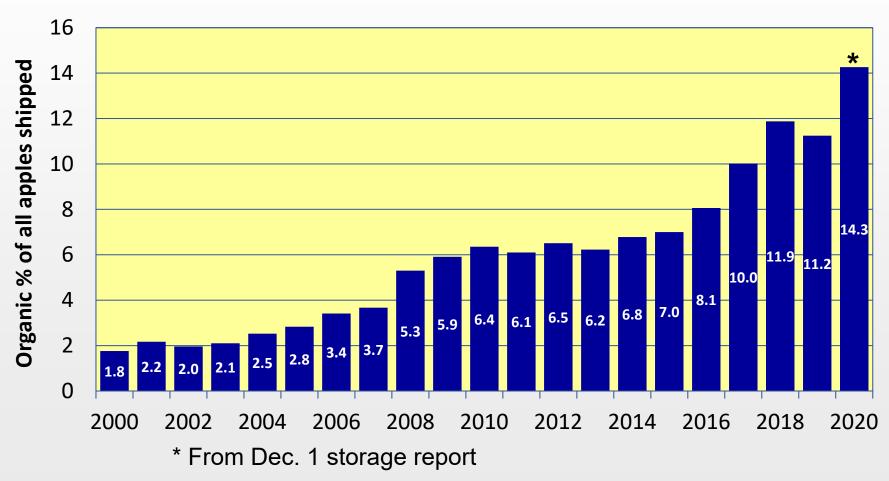


^{*} From Dec. 1 storage report

Data: WSTFA, WVTA, WGCH



Organic Share of Apple Shipments Washington State



Data: WSTFA, WVTA, WGCH

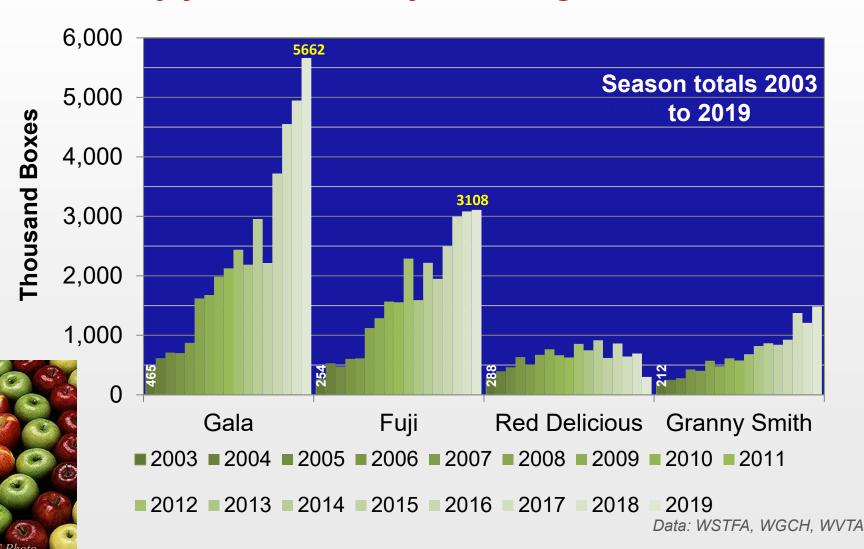


Organic Apple Sales Volume and Price Trends - WA



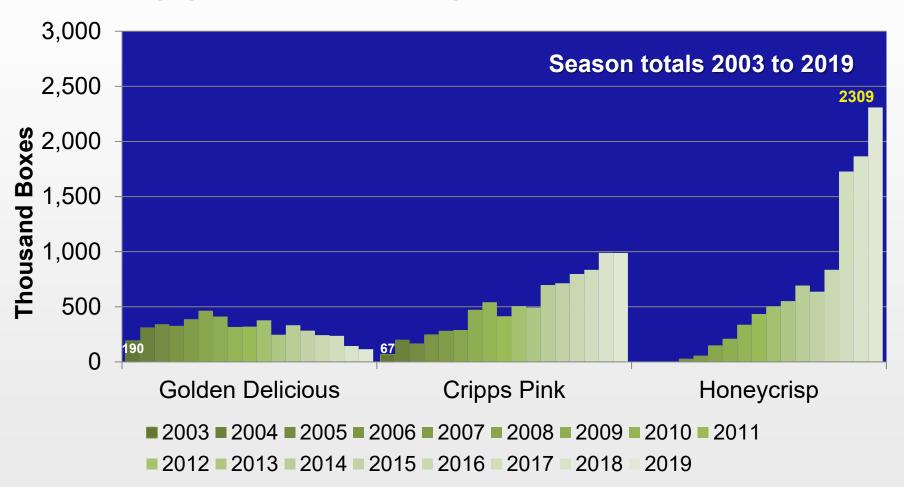


Total Shipped Organic Volume by year and variety, Washington State





Total Shipped Organic Volume by year and variety, Washington State



Data: WSTFA, WGCH, WVTA

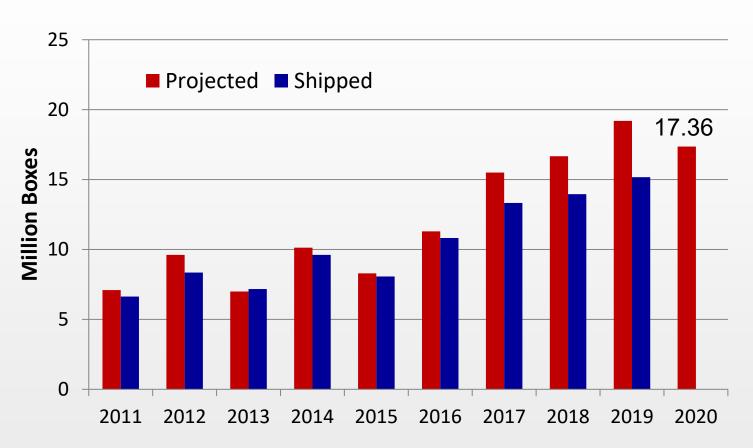


The 2019 crop set another record after 2018, with an estimated 15.2 million boxes shipped for the season (slide <u>42</u>). This is a 40% increase over the 2016 crop. The difference between the Dec. 1 storage report indicated crop and the final amount shipped is expanding, likely from a combination of normal shrink, diversion to organic processing, and diversion to conventional markets (e.g., 'Red Delicious').

Storing organic apples longer will be critical for marketing the larger crop in coming years. New post-harvest technology is continually be tried, some of which is proving quite successful. The opportunity to sell more WA organic apples is illustrated by the sources of organic apples in groceries identified by USDA-AMS in August 2016 (slide <u>43</u>).



Washington Organic Apple Crop Size



Comparison of recent organic apple crop size estimates (December 1) with actual season-end volume shipped.

Data: WSTFA, WVTA, WGCH



Organic Apples in U.S. Market August 2016

	Red D	Gala	Fuji	Brae	Pink	Zestar!®
Baltimore	WA					
Boston	ARG	WA	ARG	NZ	ARG	
Chicago	ARG	NZ	NZ	ARG	ARG	
San Fran.		CA, WA	CL, NZ		CL	OR

WA=Washington; CA=California; OR=Oregon; ARG=Argentina; CL=Chile; NZ=New Zealand

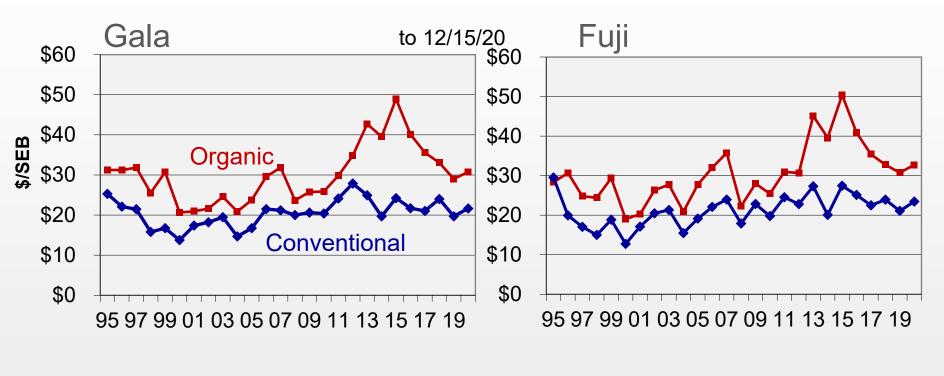
USDA-AMS national specialty crops organic summary, Aug. 11, 2016 https://www.ams.usda.gov/mnreports/fvdorganic.pdf



Prices for organic tree fruit have been collected by the industry starting in the mid-1990s, and now include most of the crop (reporting is voluntary). Organic prices are almost always higher than conventional, but the magnitude of the difference varies from year to year. However, the direction of price change from year to year was generally the same between the two, until after the 2012 crop, indicating that market forces then became less similar. Both organic and conventional experience some alternate bearing which affects supply and price. The prices on the following slides (45 to 48) are for fresh packed apples (40 lb box) for all sizes and grades, domestic and export. The trends for the past few years are shown in slide <u>49</u>. Organic price premiums are plotted in slide 50 as both the absolute dollar amount as well as the percent difference. The dollar premium per box was at record levels for several years but has declined with the substantially larger harvests.



Price Trends Washington Apples

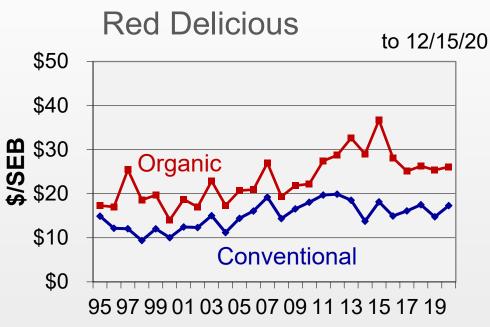




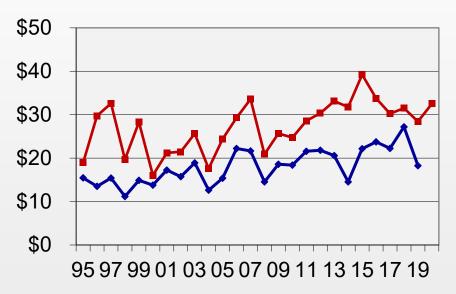
SEB=standard equivalent box of 40 lb. Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.



Price Trends Washington Apples



Golden Delicious





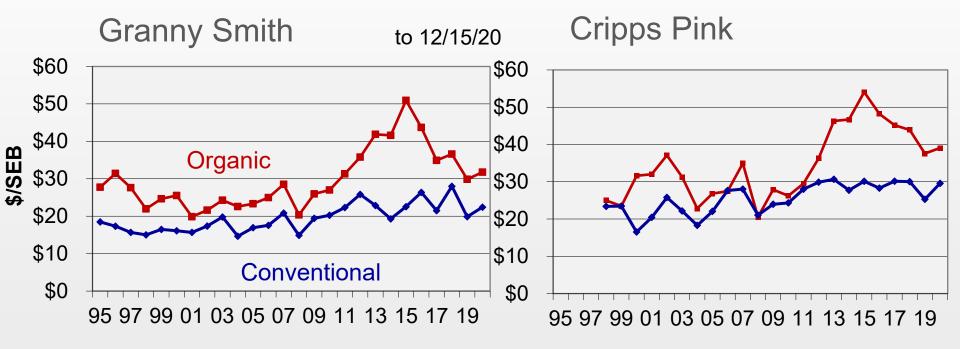
Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.





Price Trends Washington Apples



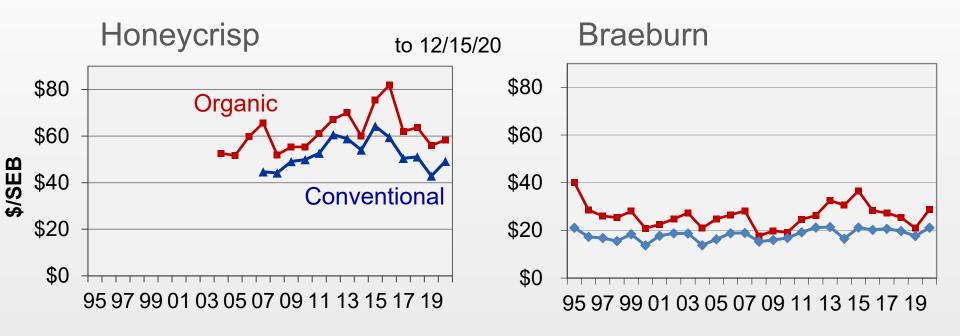


Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.





Price Trends Washington Apples

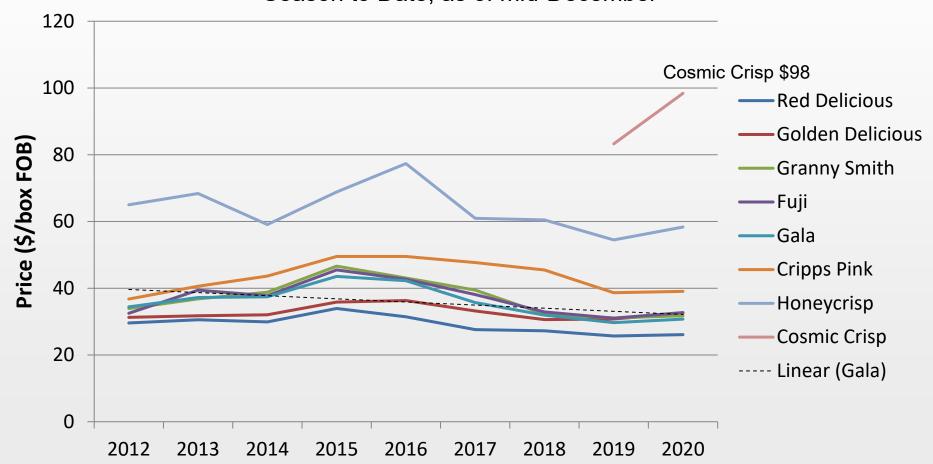


Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.



Price Trends Washington Organic Apples

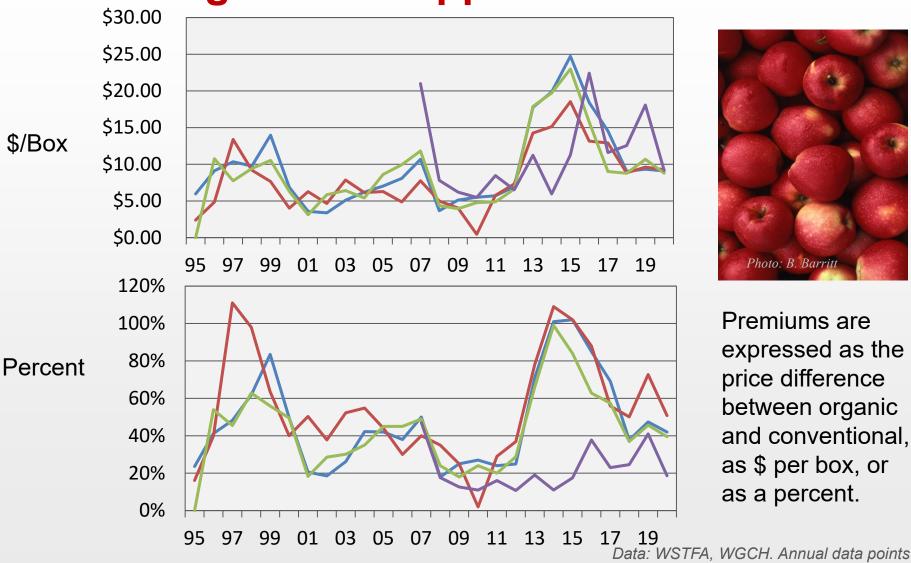
Season to Date, as of mid-December



Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes.



Organic WA Apple Premiums



Gala — Red Del — Fuji — Honeycrisp

Photo: B. Barritt Premiums are expressed as the price difference between organic

Data: WSTFA, WGCH. Annual data points represent season averages: season runs 50 approx. Sept 1 to end of Aug.

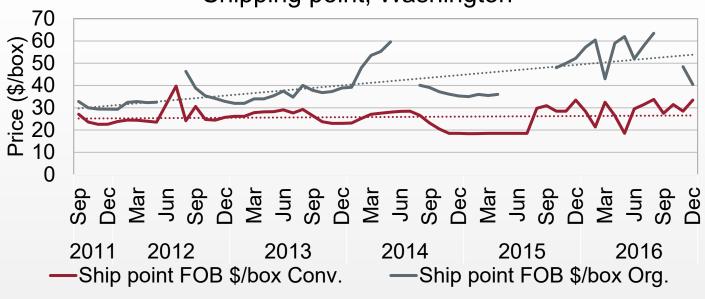


The USDA Agricultural Marketing Service (AMS) tracks data reported to them for various commodity prices at the point of shipment (FOB) and the retail price (based on grocery store advertisements). In slides <u>52</u> and <u>53</u>, monthly price trends over 5 marketing seasons are plotted for 'Gala' and 'Fuji' apple, for both conventional and organic. A dotted trend line is also included to make the general trend more obvious. For 'Gala', organic shipping point prices trended up, while conventional prices were flat. In contrast, retails prices trended up for both types. For 'Fuji', organic shipping point prices trended up considerably more than conventional, while organic retail prices trended up and conventional prices trended down. Organic prices have dropped in subsequent years. Given that the cost of production is generally trending upwards, especially for labor, the implication for growers is that prices will no longer cover costs at some point, which has occurred for some varieties. Gaps in the shipping point data point out where the WA supply of organic apples has been sold out.



Organic Gala Apples

Shipping point, Washington

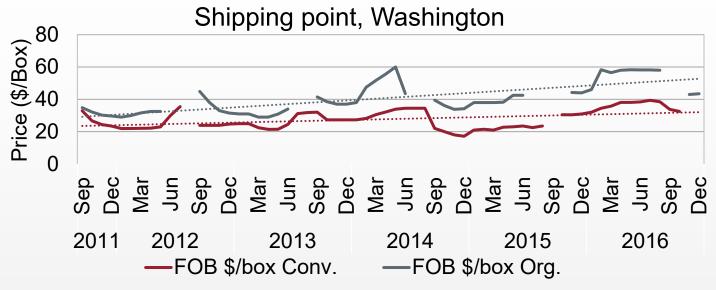


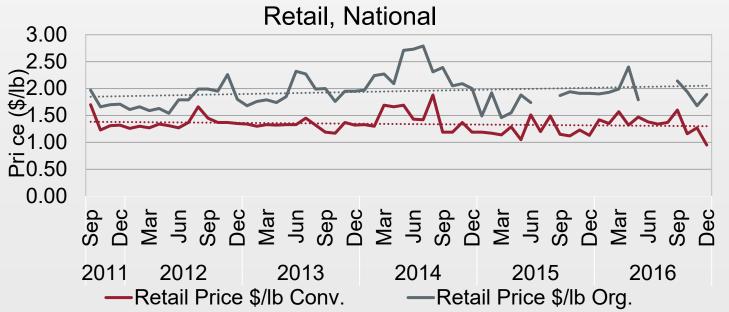


Source: USDA-AMS 52



Organic Fuji Apples



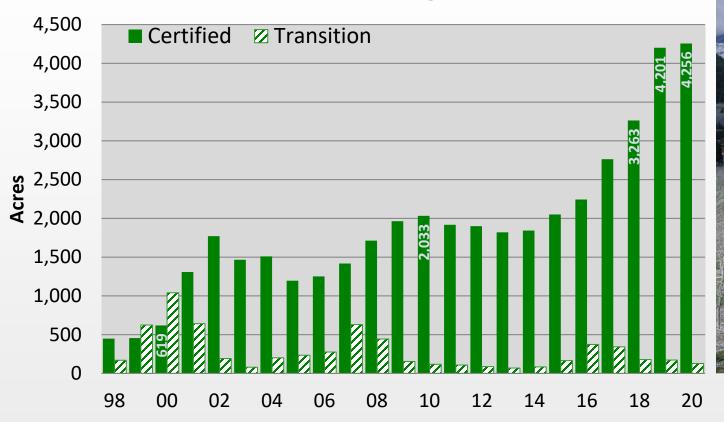




Similar data as for apple are presented for organic pear in Washington in the next slides (<u>55</u> to <u>64</u>). Organic pear area has tended to be more stable over time than apple or cherry. Only a few pear varieties are currently in demand by the market, and pear consumption in general in the U.S. is much lower than apple. Pear orchards tend to be kept in production for many years (50+ years is not uncommon) and renewal to the hottest new variety or planting system is still limited. While fire blight is a serious threat to all pear producers in Washington, it is relatively less so than in most other parts of the country, leading to a large percent of all organic pears being produced here or in California. Washington is the leading producer of conventional and organic pears in the U.S. Organic pear prices and volume have risen since 2009 in a pattern similar to apple. The 2019 crop was lower than the record 2018 crop, but appears larger in 2020.



Organic Pear Acreage Washington State

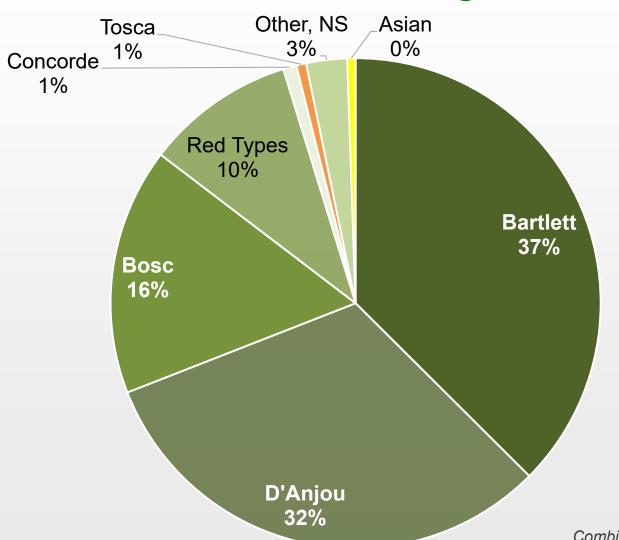




2020 organic = 20% of total WA pear acreage (based on WA-NASS 2017 value of 20,965 pear acres)



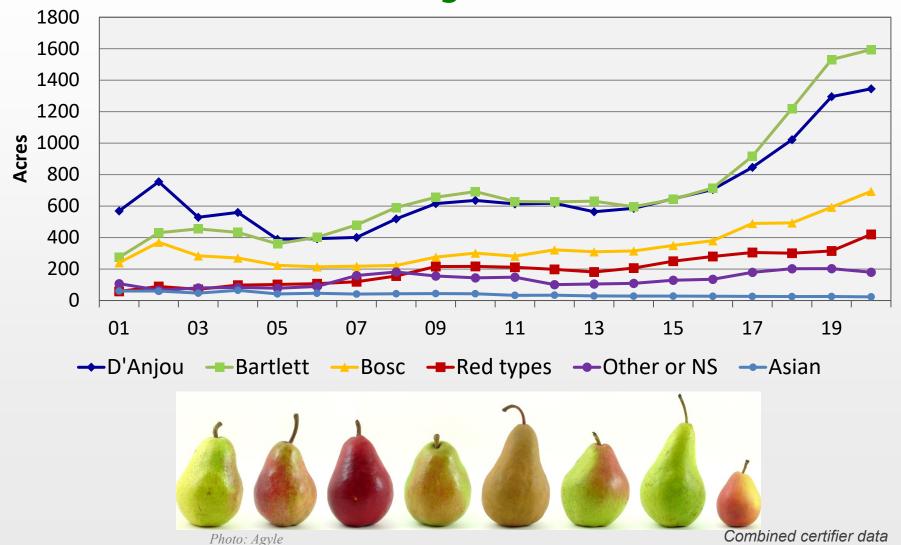
2020 Organic Pear Acres by Variety Washington







Organic Pear Variety Trend Washington State







Organic Specialty Pears Washington State 2020

- Over 10 varieties of organic pears and Asian pears grown in WA, from small to larger quantities.
- >25 ac: Concorde, Starkrimson, Tosca, Asian
- Small areas: Comice, Forelle, Red Clapp, Seckel, Taylors Gold, others
- Varieties are listed on the WSDA producer list:

http://agr.wa.gov/FoodAnimal/Organic/docs/wsda cert org producers.pdf



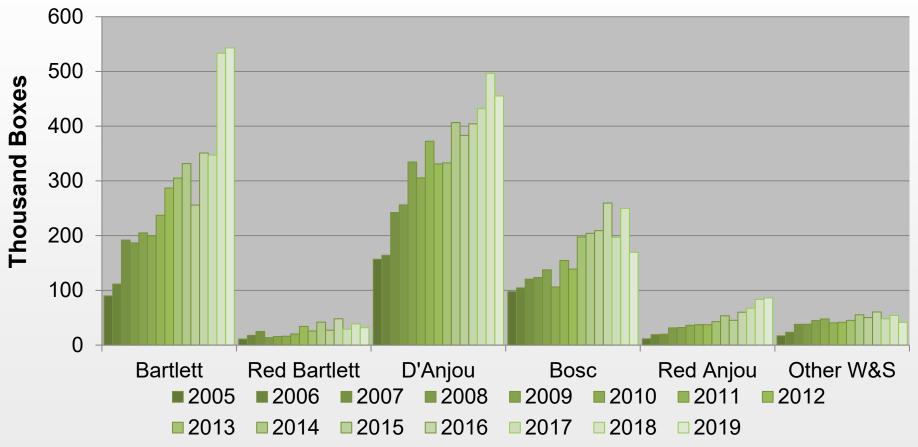
Organic Pear Sales Volume and Price Trends



SEB = Standard Equivalent Box of 44 lb.
Data Sources: WSTFA, WGCHA & WVTA



Shipped Organic Pear Volume by year and variety, WA and OR

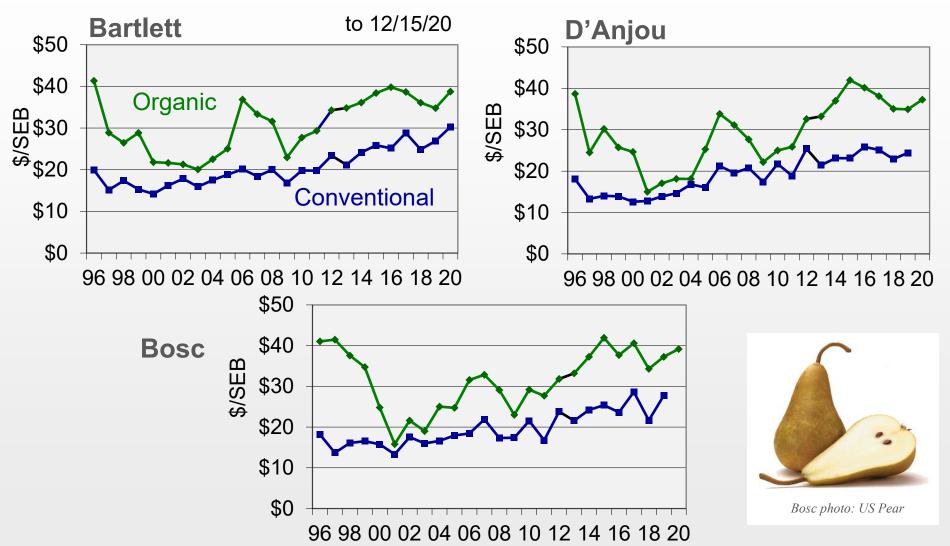


Organic volume ~8% of total WA pear volume;

OR organic volume ~ 15% of total organic Standard Equivalent Box = 44 lb. Data Sources:

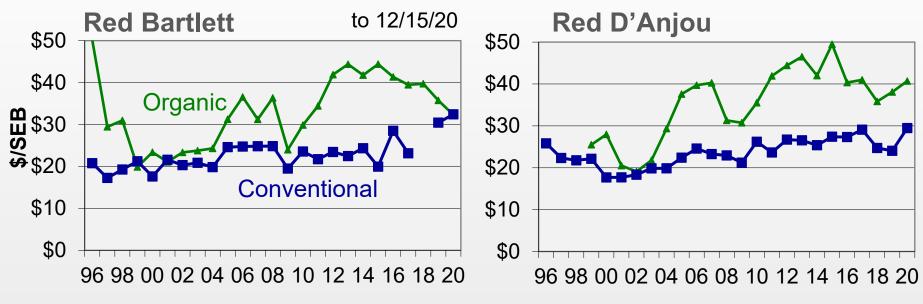


Price Trends Washington Pears



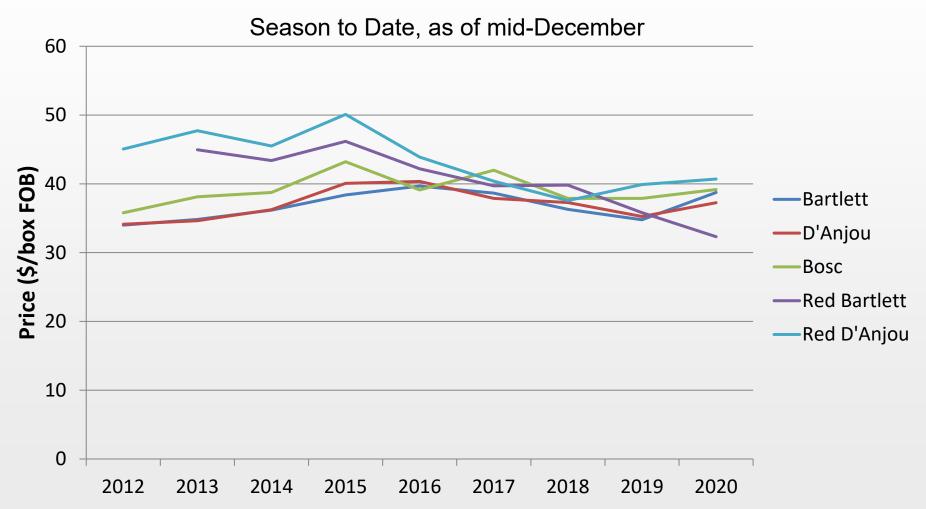


Price Trends Washington Pears



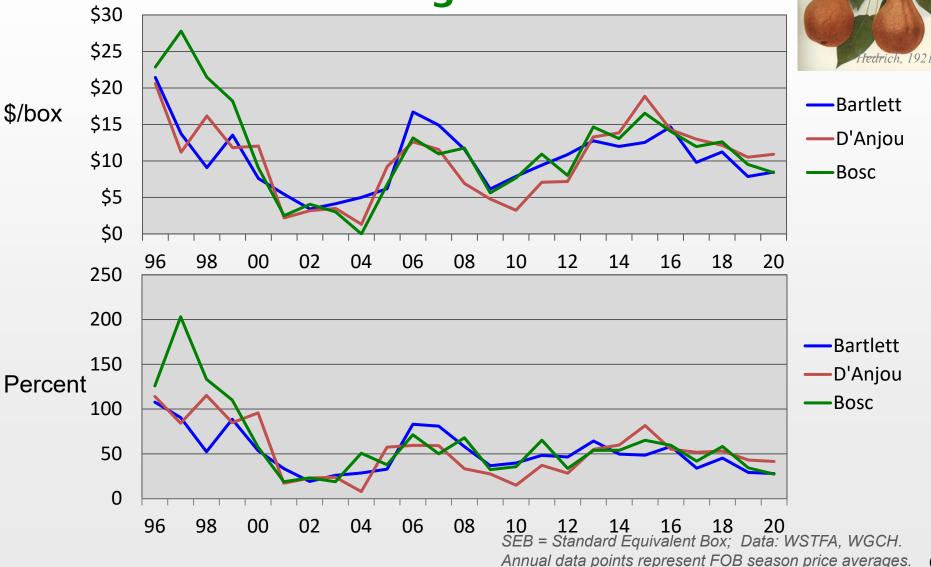


Price Trends Washington Organic Pears





Organic Premiums
Washington Pears



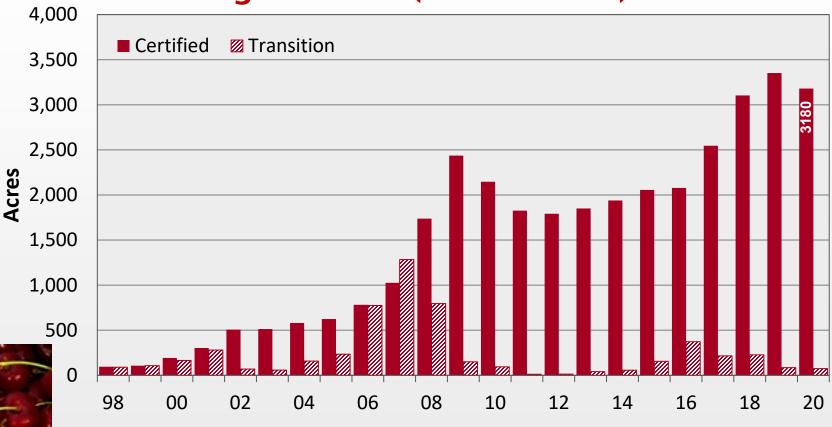


Washington leads the nation in sweet cherry production, both for conventional and organic. A key quarantine pest, the western Cherry Fruit Fly, was a major barrier to organic cherry production for many years. The development of the GF-120 control protocol (a biologically based insecticide) by Tim Smith, WSU Extension, led to major increases in organic cherry area in the mid-2000s. In 2008, the new pest, Spotted Wing Drosophila, was found in the state for the first time and has expanded statewide. This pest was not controlled by GF-120 and thus organic pest management was seriously disrupted. Growers rely on Entrust® insecticide and reliance on this sole product poses risk of resistance. Currently, Little Cherry Virus is threatening both organic and conventional cherry orchards.

Similar data as for apple and pear are presented for organic cherry in Washington in slides (66 to 70). The data include nearly 500 acres of organic tart cherries as well. Slide 71 shows the area trend for other organic soft fruit (peaches, etc.); no other data were available. Washington is second to California in the production of most of these other organic soft fruits.



Organic Cherry Acreage Washington State (sweet + tart)

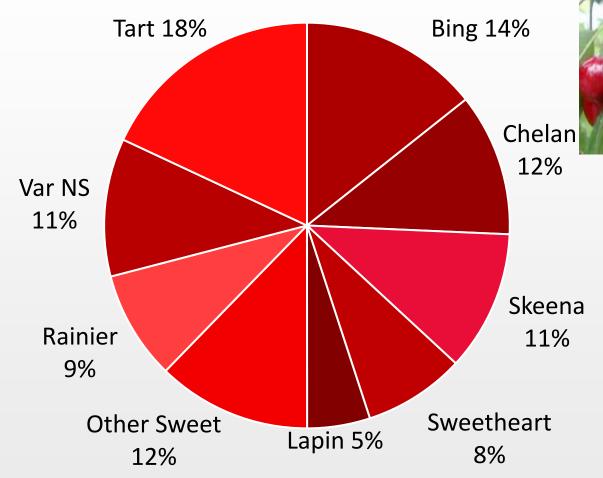


2019 organic = **7%** of total WA cherry area (based on 2017 WA-NASS estimate of 44,707 acres)



2019 Organic Cherry Variety Acres

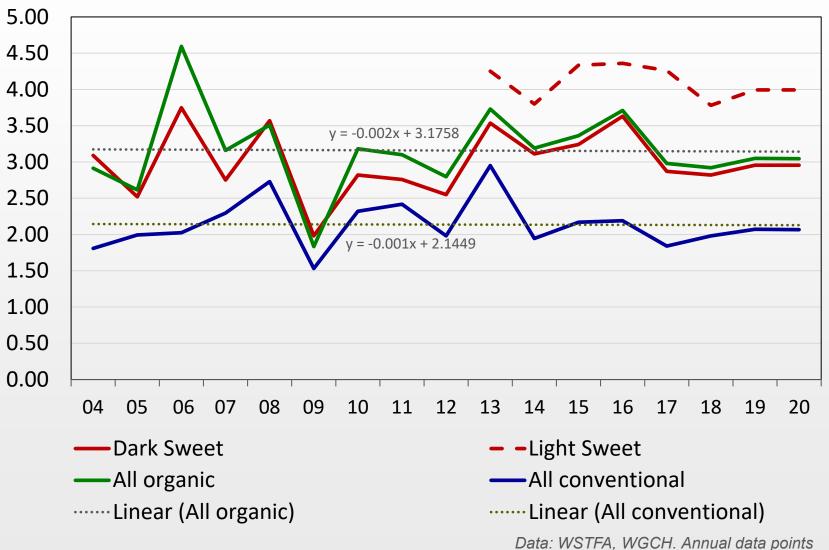
Washington State



11% of cherries not reported by variety in 2019 compared to 57% in 2008



WA Organic Sweet Cherry Prices



represent FOB season price averages.



WA Organic Sweet Cherries



Data: WSTFA



WA Organic Cherries

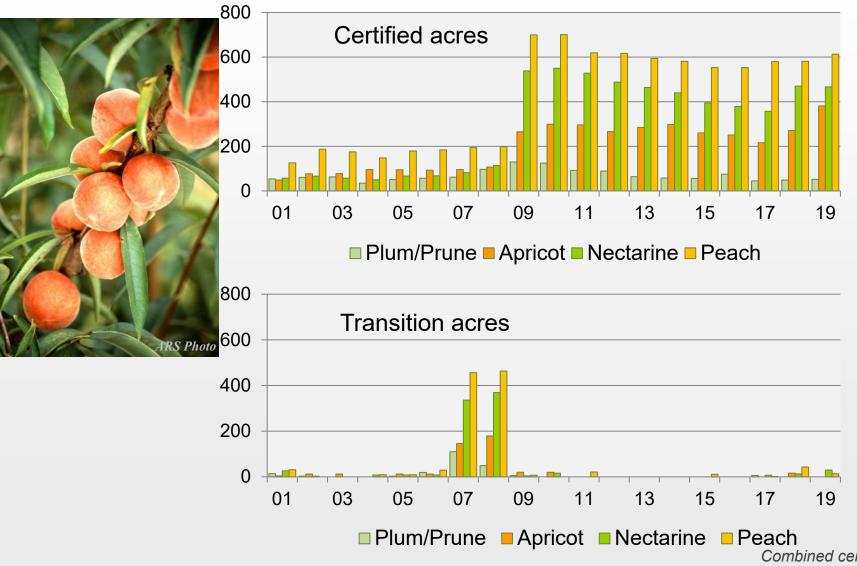
	2017		2018		2019		2020	
	ORG	CONV	ORG	CONV	ORG	CONV	ORG	CONV
Dark Sweet								
Volume (1000 box*)	574	22,407	665	20,954	511	18,739	471	16,579
% of crop	90	92	87	91	88	91	91	93
Light Sweet								
Volume (1000 box*)	67	1,863	97	2,201	68	1,970	59	1,612
% of crop	10	8	13	9	12	9	9	7
Organic Share of all, %	2.6		3.2		2.8		2.8	
Calculated Yield (packed tons/ac)	3.15		2.95		1.97			

^{*}Standard Equivalent Box: Dark Sweet = 20 lb; Light Sweet = 15 lb.

Data: WSTFA



Other Stone Fruit Trends **Washington State**



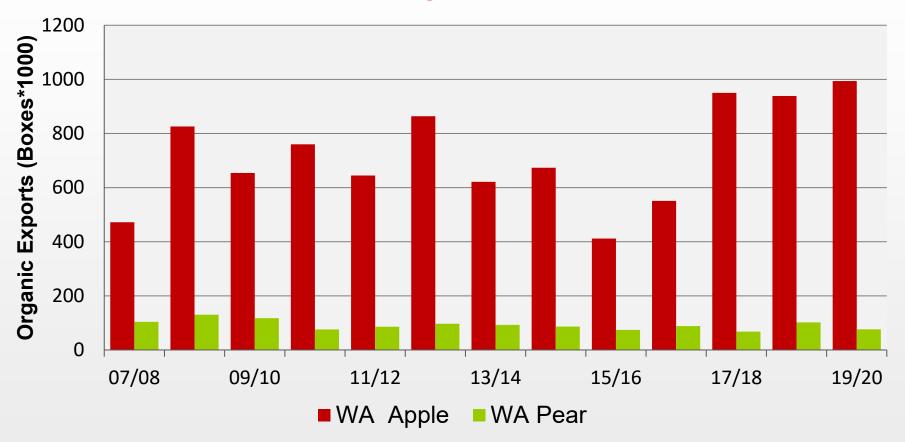


Exports

Exports of organic tree fruit from Washington have occurred for years and reached an all-time high for apples in 2019 (slide <u>73</u>), which included some shipments to the UK after several years with none (slide <u>74</u>). Canada is by far the largest export destination (slide <u>75</u>). 'Gala' apple and 'Bartlett' pear were leading organic tree fruit exports by volume in 2019 (slides <u>76</u>, <u>77</u>), but several other organic apple varieties have seen increased export volumes. With the much larger organic apple crop, there is more interest in exports with opportunities in Asia and the Middle East.



Organic Apple and Pear Exports Washington State



2019 exports: ~6% of the organic apple and pear volume; Canada, largest export destination, 78% of apples and 93% of pears

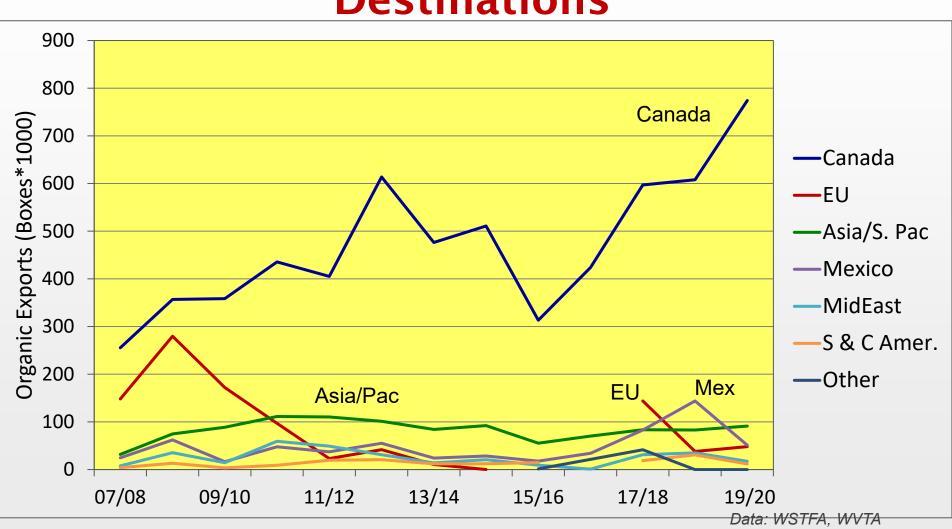


Exports

- 'Gala' apple and 'Bartlett' pear were leading export varieties
- 2017: renewed apple shipments to UK; started 1 cntr/wk, then 10-12 ctnr/wk; totaled 142,000 boxes for season, or 14% of export volume; heavy on small size, <113
- Short crop in EU for 2017 due to frost
- For comparison, in 2007, 360 ctnr to EU; in 2008 zero; in 2019, 48 ctnr (UK)
- Increasing exports of Other varieties –
 Ambrosia, Cripps Pink, Honeycrisp

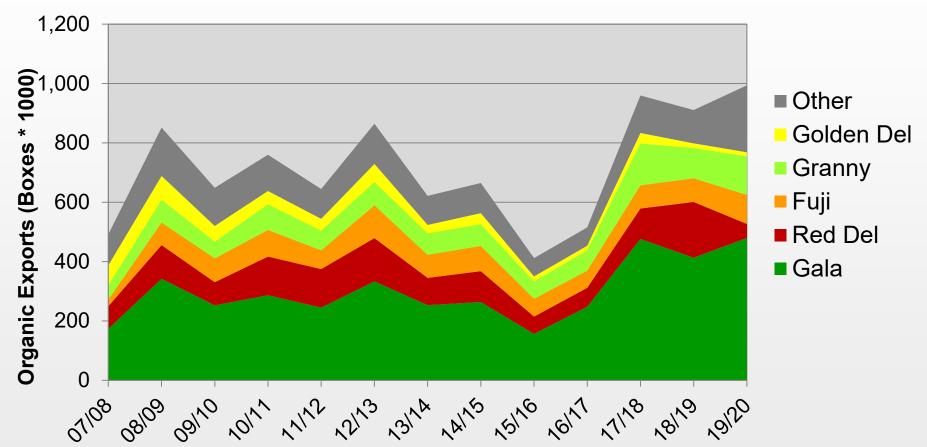


Washington Organic Apple Top Export Destinations





WA Organic Apple Exports by Variety

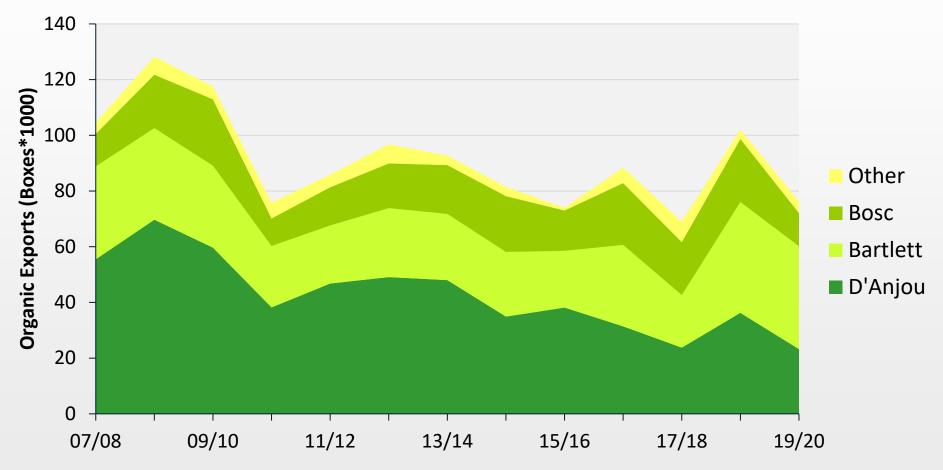


Top 2019 varieties for export: Gala 48%, Other 23%, Granny Smith 13%

Data: WSTFA, WVTA



WA Organic Pear Exports by Variety



2019/20 export volume: Canada 93%, Mexico 5%

Data: WSTFA, WVTA



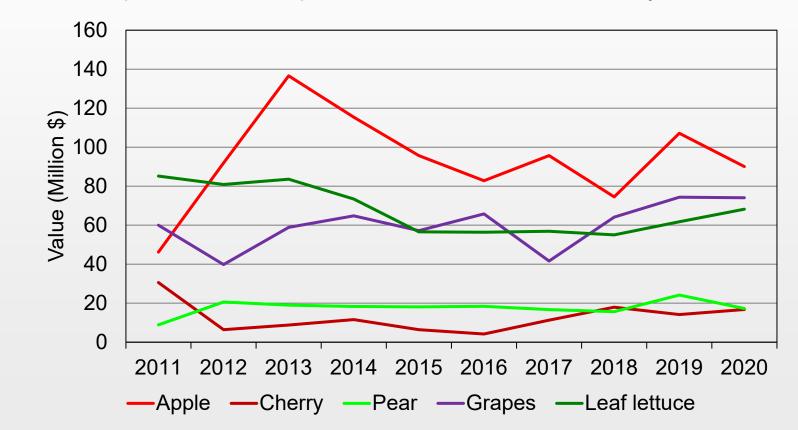
Exports

Apples have been the leading U.S. organic produce export by value for several years. In 2020, apples, grapes, and leaf lettuce were the top 3 organic produce exports by value (slide <u>79</u>). While the value of organic apple exports continues to exceed the value of imports, the import value has been increasing (slide <u>80</u>). This parallels the overall trend for organic imports which far outpace the value of U.S. organic exports, leading to a trade deficit for organic foods. Much of the deficit is due to the import of tropical crops not grown here, but corn and soybean imports have also been substantial.



U.S. Organic Exports

Fresh fruits are an important U.S. organic export. Apple is the leading fresh fruit product, but exports have declined in recent years.

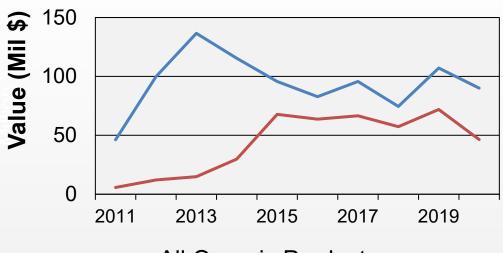


Source: USDA-FAS GATS

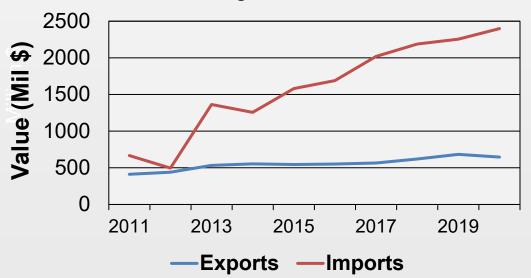


U.S. Organic Trade

Organic Apples (fresh)







2020

- Apples were 14% of export \$, 2% of import \$
- Apples, largest organic export value of any produce
- Grapes, #2, Lettuce #3,
 Spinach #4, Strawberry #5

Annual Change (2020)				
Org Apple exp	-16%			
Org Apple imp	-36%			
All Org exp	- 5%			
All Org imp	+ 6%			

Data: USDA-FAS

