Recent Trends in Certified Organic Tree Fruit in Washington State: 2018

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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
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 12/26/2018.

Organic agriculture continues to be consumer driven. Globally, retail sales of organic food were $97.0 billion in 2017, up 8%. The U.S. was the largest single country market ($45.2 billion), followed by Germany ($11.3 billion), France ($8.9 billion), and China ($8.6 billion). Switzerland 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 4).

Consumer Demand for Organic Food

Market Share of Sales by Region (%)

	North Amer.	Europe	Other
2003	46	52	2
2005	45	51	4
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)

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

Source: World of Organic Agriculture

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.

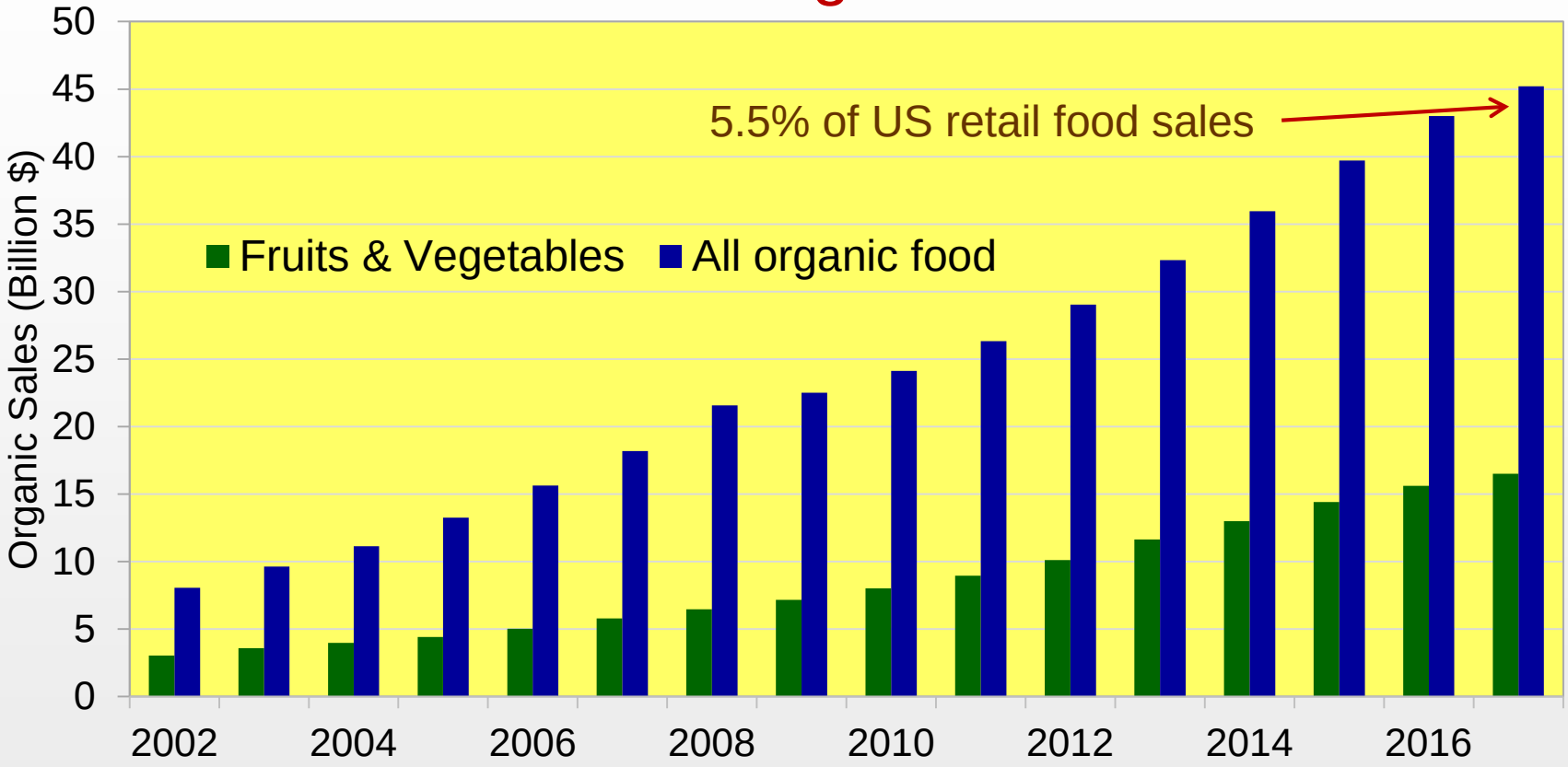
More data on the organic food sector are becoming available (slides 8 to 10). Organic fruit sales grew faster than organic vegetables since 2011. Both volume and sales $ of organic fruit in the U.S. increased faster than overall organic food in 2017. The top 3 organic fruits account for 70% of all organic fruit sales, compared with 43% for the top 3 conventional fruits. Berries, apples, and bananas have been the top 3 selling organic fruits.

Total U.S. fresh apple consumption is slowly rising with population. In 2016, WA organic apples accounted for over 8% of all U.S. fresh apple consumption (slide 11). 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.

Center for Sustaining Agriculture & Natural Resources

Consumer Demand

Growth of US Organic Food Sales



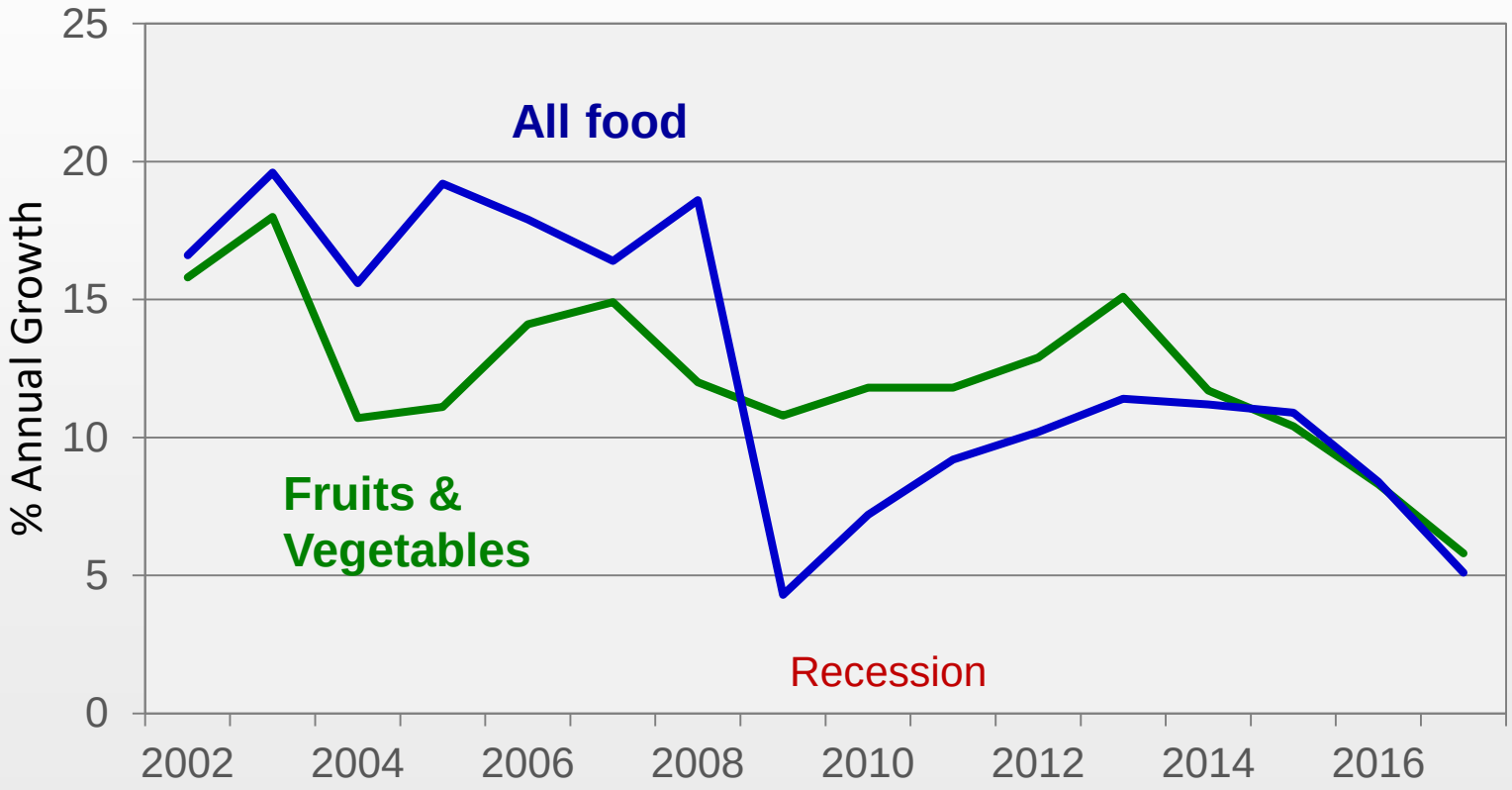
Retail organic food sales increased 5.1% in 2017.

Organic fruits and vegetable sales increased 5.8% and were 36% of all organic food sales; over 90% were sales of fresh produce.

Source: OTA, Nutrition Business Journal

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 weeks ending 12/29/18

Fresh Fruit Sales

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

	Organic Fruit		Share of Dollars (%)
1	Berries	70%	36.9
2	Apples		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

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 all 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 (2017) 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 30% of all organic tree fruit area (slide 12). Tropical/ subtropical tree fruits are the largest category of organic tree fruit. All temperate tree fruits except apricot expanded their area in 2017 (slide 13). Banana had the largest area for a specific fruit, followed by apple and avocado.

Area trends over time (slides 14 and 16) show a consistent growth, except for the downturn in apple driven largely by Poland (slide 15) and erratic pear data. Europe accounts for about 44% organic temperate tree fruit area (Italy 24,825 ha; France 16,707 ha; Poland 10,574 ha). Turkey has the largest area for a country (26,073 ha), with China (22,400 ha) and the U.S. (15,670 ha) as other important producers. Europe accounted for 66% of the organic apple area (slide 17).

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Global Organic Tree Fruit Area

Organic tree fruit crops 671,780 ha
~0.9% of organic agriculture land

	Hectares* 2017	% of organic tree fruit	% change from 2016	% of all global
Temperate	204,382	30	-20	1.6
Citrus	87,810	13	-3	0.9
Tropical/ Subtropical	379,699	57	+7	1.5

*certified + transition

1 hectare (ha) = 2.47 acres

Center for Sustaining Agriculture & Natural Resources

Source: World of Organic Agriculture; FAO

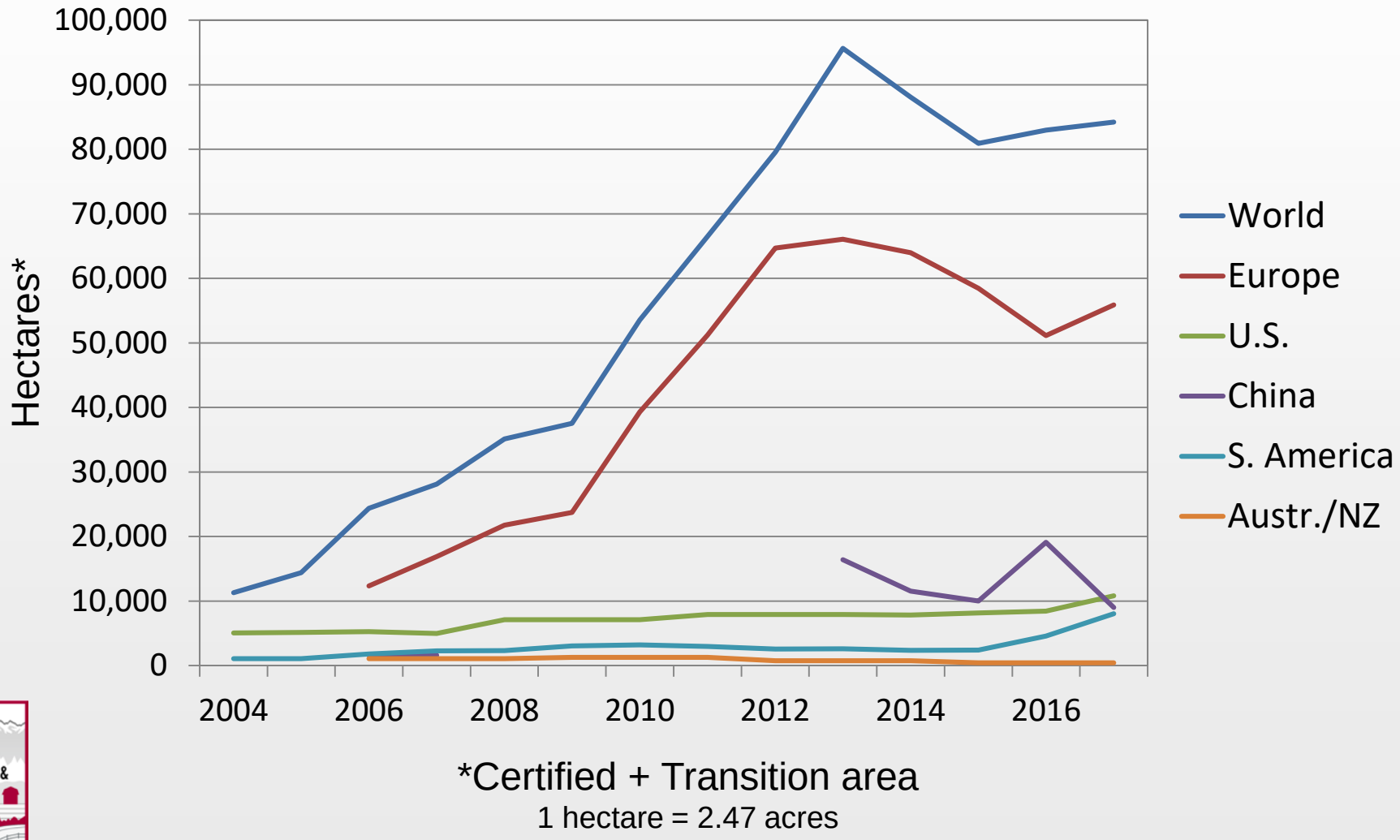
Global Organic Tree Fruit Area

	Hectares* 2017	% change from 2016	% of organic category	% of all global#
Apple	81,837	-1.4	40	1.5
Apricot	14,792	-35.5	7	2.6
Cherry	16,793	+5.4	8	2.6
Peach/Nect.	12,385	+13.4	6	0.7
Pear	20,664	+34.4	10	1.3
Plum	16,371	+3.2	8	0.6
Other, no details	90,629		20	
Banana	88,581	+51.7	23	0.9
Orange	42,448	+20.9	48	1.1

*certified + transition; # using 2016 FAO global data

Source: World of Organic Agriculture; FAO

Organic Apple Trends
Expansion of Global Area

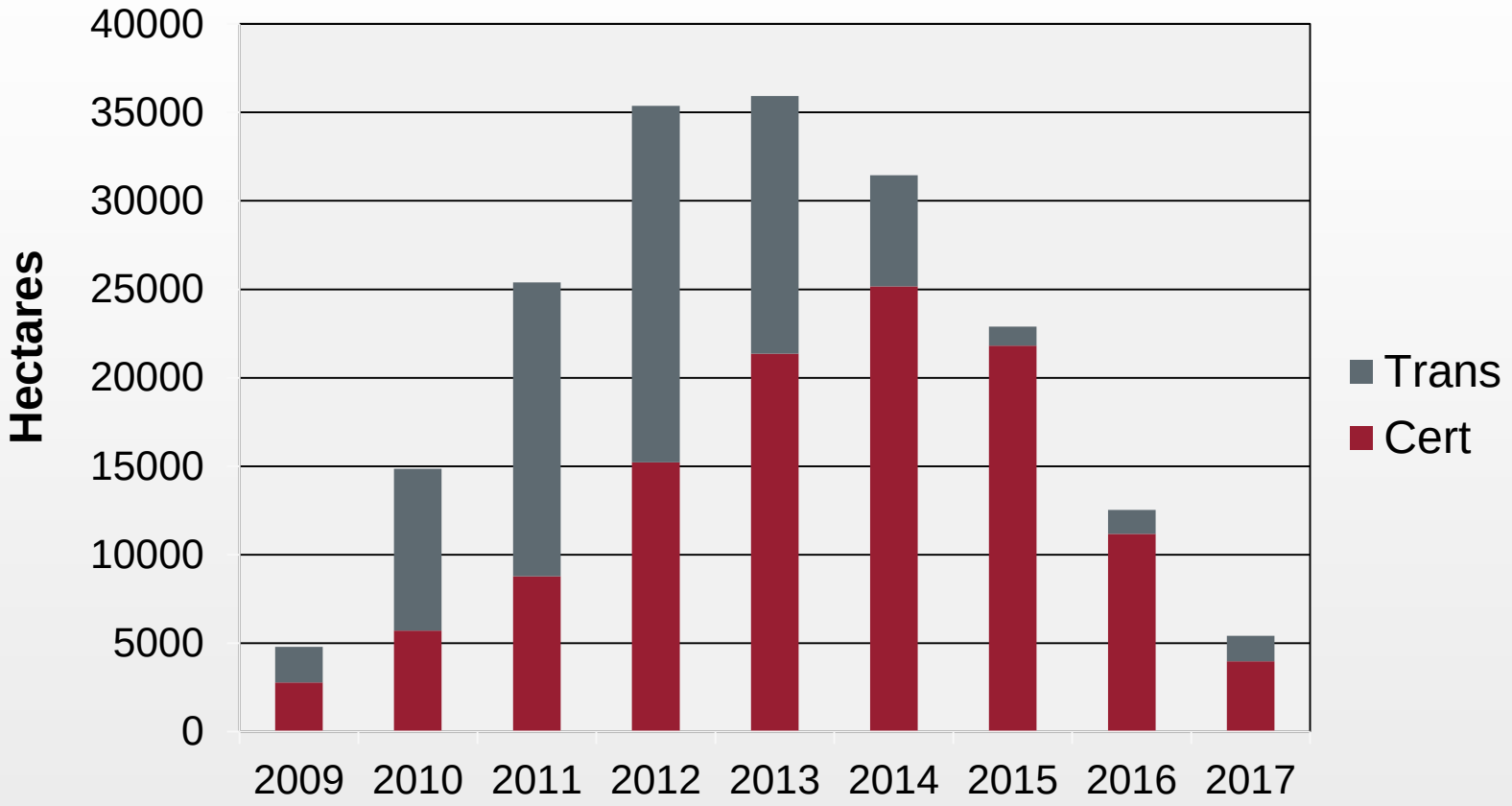


*Certified + Transition area

1 hectare = 2.47 acres

Data courtesy of H. Willer, FiBL

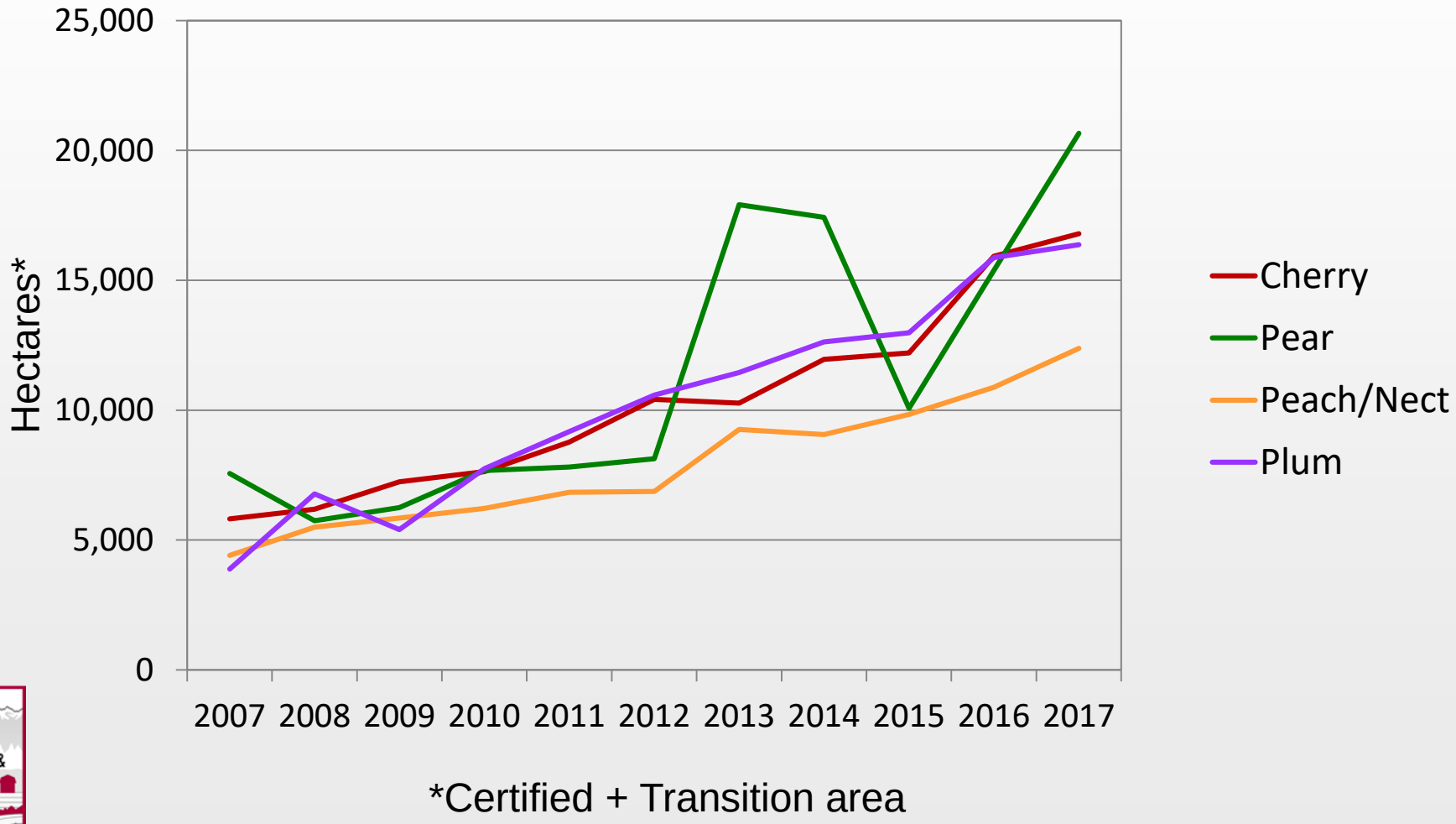
Organic Apple Area in Poland



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

Data courtesy of H. Willer, FiBL

Organic Tree Fruit Trends
Expansion of Global Area



*Certified + Transition area

Center for Sustaining Agriculture & Natural Resources

Data courtesy of H. Willer, FiBL

World Organic Apple Area

	2017 Ha (C+T)	% change from 2015
World	84,231*	+4
US	10,842	+28
Europe	55,893	+9
Poland	5,411	-57
Germany	6,092	+16
Italy	6,201	+20
France	10,401	+30
Turkey	10,510	+180
China	9,000	-53
Argentina	5,940	+190
Chile	2,106	+63
New Zealand	450?	?

1 hectare (ha) = 2.47 acres

Europe is the leading region for producing organic tree fruits.

- 66% of world organic apple area

WA organic <u>apples, 2017</u>

- 8,954 ha cert.
- ~80% of US area
- >10% of world certified area, but higher % of production

**includes US estimate from D. Granatstein; Global data courtesy of H. Willer, FiBL*

Data on the area of organic tree fruit production in the U.S. are not collected regularly and are not segregated by the fruit type, except for apple. No new data for 2017 or 2018 are available. The results in the following tables through 2016 (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 2015 Organic Production Survey, Washington State is the major producer of organic apples, pears, and cherries. It has 71% of the reported organic apple acres, producing 93% of the reported fresh fruit volume in the country. It also has 57% of the organic pear acres and 79% of the volume, and 75% of the sweet cherry acreage and 93% of the volume. A similar situation exists for peaches/nectarines and plums/prunes in California.

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

	2015 (acres)			2016 (acres)	
	WA	CA	US estimate	WA	CA
Apple	14,283	3,460	20,156	16,191	3,186
Pear	2,050	761	3,167	2,243	682
Apricot	260	449	?	251	442
Cherry	2,056	470	3,291	2,078	433
Nectarine	395	990	?	379	1,047
Peach	553	1,675	3,112	553	1,761

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** USDA-NASS 2017: 2016 Certified Organic Survey*

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

US Organic Apple Area
(acres, estimated)

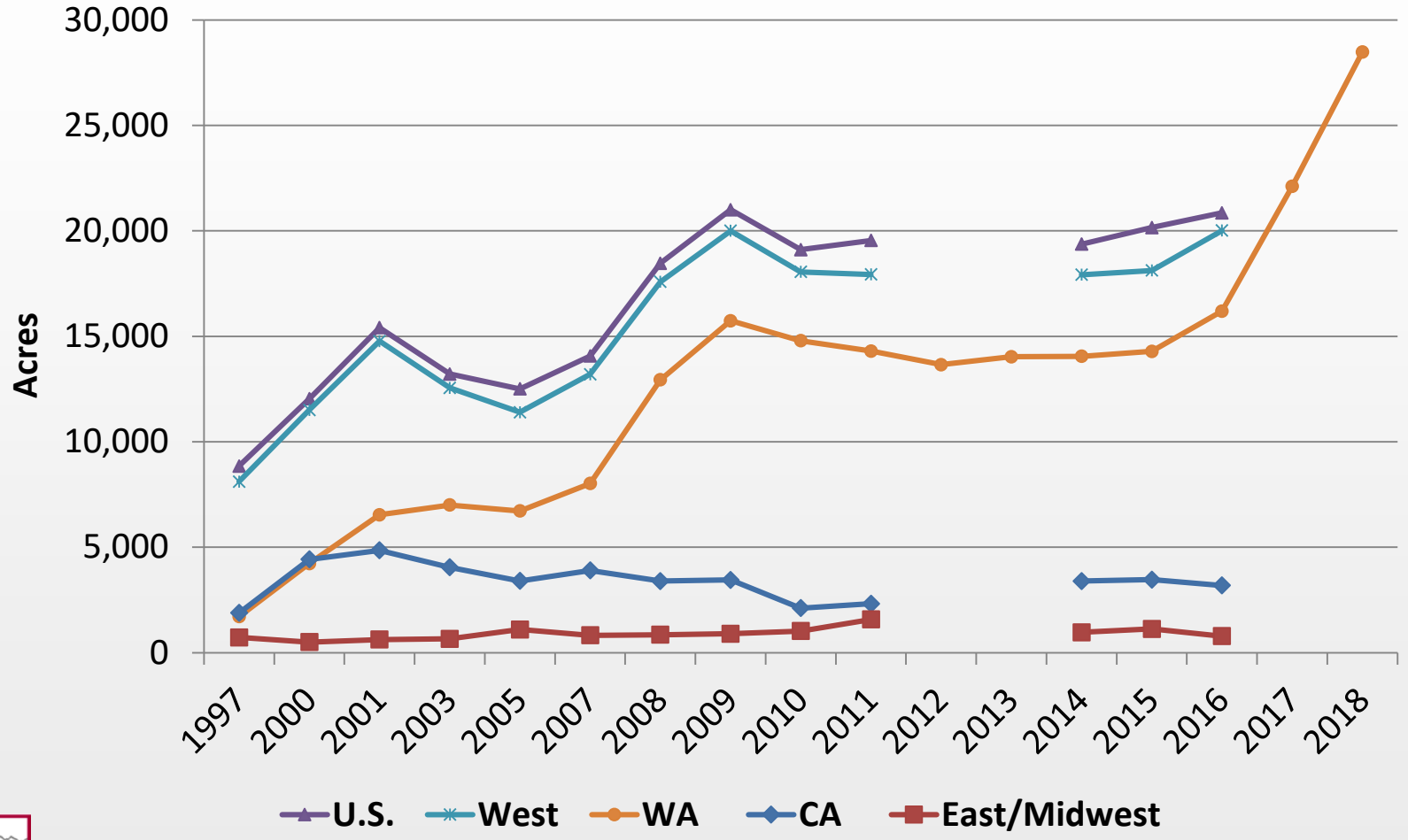
State	2000	2001	2003	2005	2007	2008	2011	2014	2015
WA*	4,228	6,540	7,003	6,721	8,018	12,936	14,296	14,052	14,283
CA*	4,423	4,853	4,045	3,402	3,900	3,393	2,322	3,392	3460
AZ	1,795	1,715	835	865	816	816	354	?	?
CO	431	635	235	202	209	164	509	194	176
OR	350	350	265	123	106	136	234	262	143
Other West	281	677	171	83	147	139	96	17	59
West total	11,508	14,770	12,554	11,396	13,196	17,584	17,934	17,917	18,121
Midwest	419	567	650	708	612	655	1,207	319	563
NY & NE	83	52	5	392	212	193	361	645	555
S & SE	28	15	1	8	47	33	40	11	10
US Total	12,038	15,404	13,210	12,504	14,067	18,465	19,542	19,370	20,156

*WA and CA values are from WSDA, OTCO, CCOF, 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; updated 2011 to ERS values.

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

The acreages of different organic tree fruits in Washington over time are shown in slide 23. While accounting for about 30% 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 $100 million of value each year. Estimates for the value of organic tree fruit that is processed could not be determined, but demand for these products is growing (e.g., juice, puree, sliced apples). Organic apples dominate the organic tree fruit sector for area, production, and value, and sales value has been rapidly increasing (slide 25). Organic apples and cherries set record sales values ($) with the 2017 crop.

Organic Tree Fruit Acres
Washington State

	--- Certified acres ---								Trans acres†
	2010	2012	2013	2014	2015	2016	2017	2018	2018
Apple	14,790	13,657	14,030	14,052	14,283	16,191	22,116	28,473	3,541
Pear	2,033	1,900	1,820	1,843	2,050	2,243	2,763	3,261	179
Cherry	2,147	1,792	1,850	1,939	2,056	2,078	2,546	3,014	238
Apricot*	299	266	285	299	260	251	216	271	16
Nectarine	550	488	464	440	395	379	357	470	13
Peach	701	618	594	580	553	553	580	580	43
Plum/Prune*	125	89	64	58	56	76	45	49	0
Mixed stone	13	45	22	17	32	--	1	4	14
Total*	20,658	18,855	19,129	19,228	19,685	21,771	28,624	36,122	4,045

*apricot includes aprium; plum includes prune, pluot and plumcot; totals do not include mixed tree fruit;
†only those acres registered with a certifier; 2018 certified value includes a small number of acres pending certification

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

Combined certifier data

Value of WA Fresh Organic Tree Fruits

	Sales Year Farmgate Value			Crop Year Packed Value					
	2009	2010	2011	2011	2012	2014	2015	2016	2017
Apple	77.85	96.28	121.04	198.55	277.40	391.9	398.1	471.6	532.6
Pear	8.87	8.66	11.87	22.71	27.04	37.6	38.2	44.1	43.5
Cherry	9.92	10.05	17.09	15.31	16.15	25.4	27.3	25.4	37.3
Other	5.05	7.49	10.95	>11.0	?	?	?	?	?
Total	101.69	122.48	160.95	>248	>320	>455	>464	>541	>613

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.

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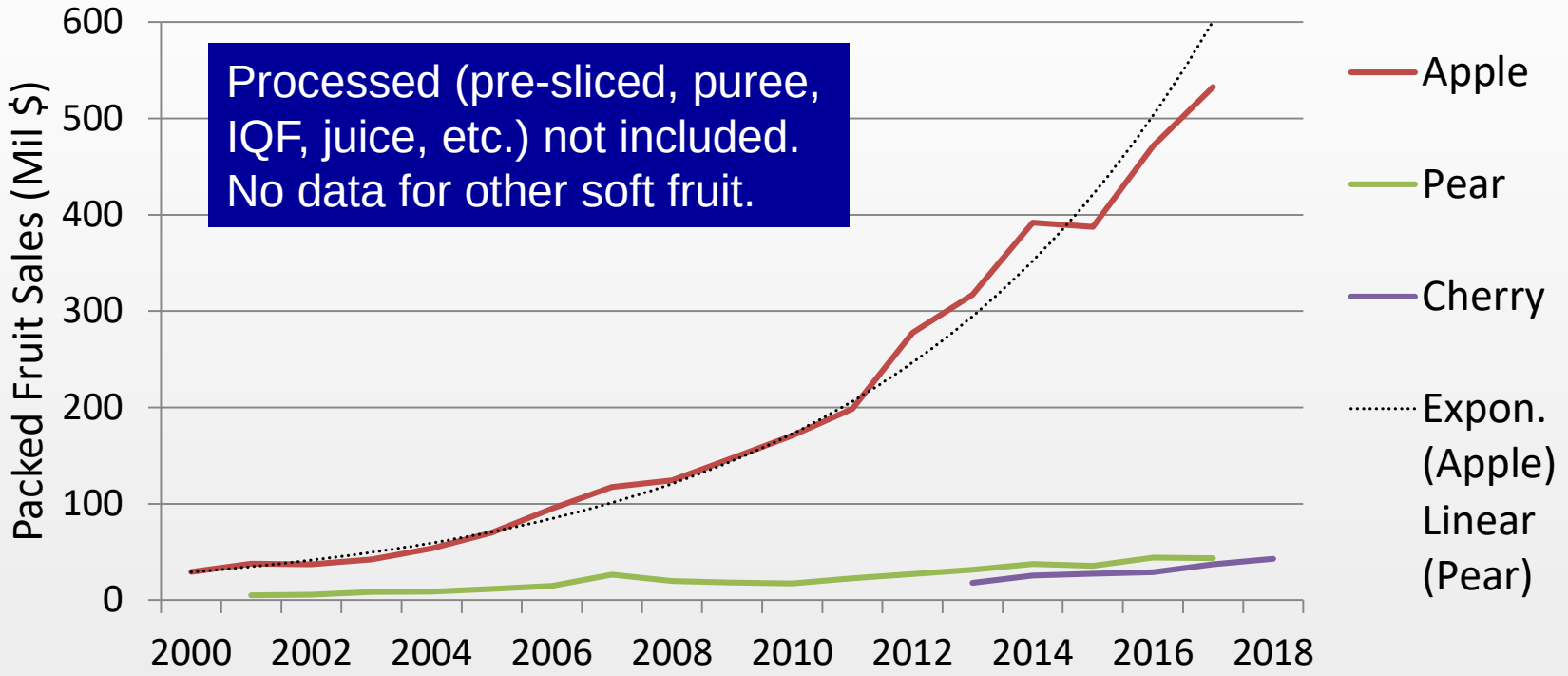
Data: WSDA, WGCH, WVTA

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 27. 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.

'Gala' and 'Fuji' dominate organic apple plantings, with 'Honeycrisp' increasing rapidly in area (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.

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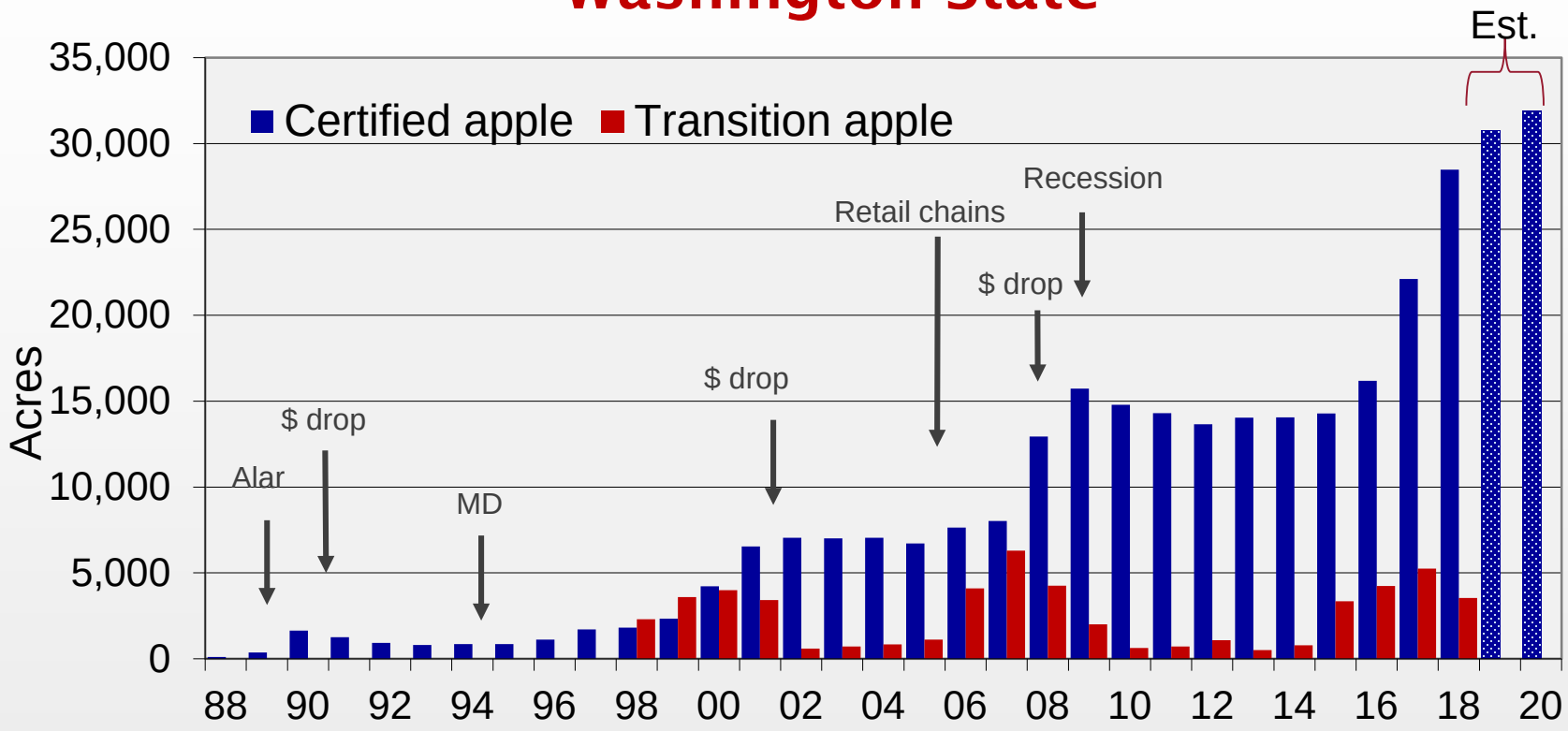
Photo: F. Peryea

Organic Apple Acreage
Washington State



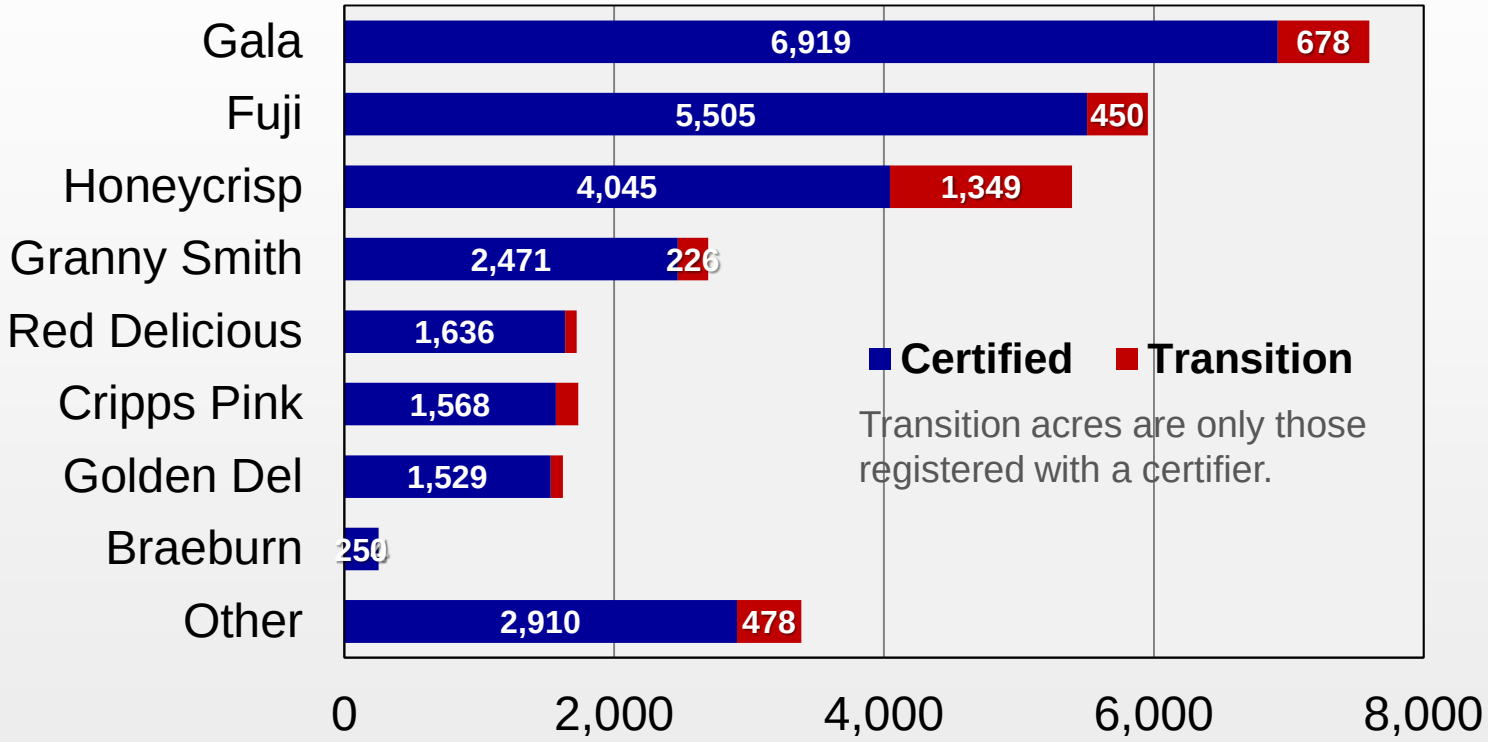
Cert. organic apples = 16% of WA apple acreage

(based on 2017 NASS value of 179,146 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).

Combined certifier data

Organic Apple Variety Acres
Washington 2018



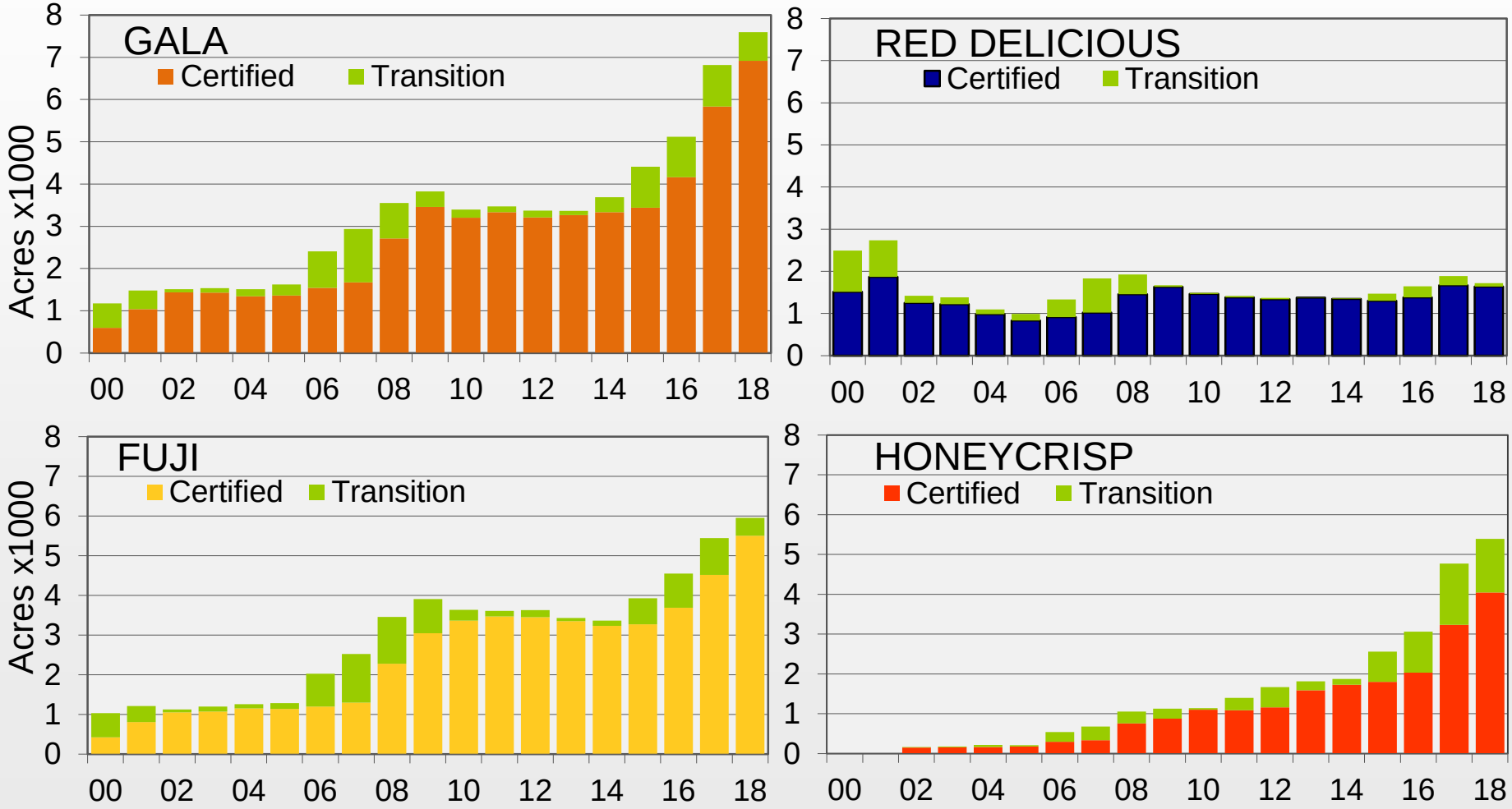

WA Fuji; ARS Photo

- Fuji and Gala = 44% of certified apple acres
- Honeycrisp tops Red and Granny since 2013

WSDA and CCOF data. Cripps Pink includes Pink Lady.

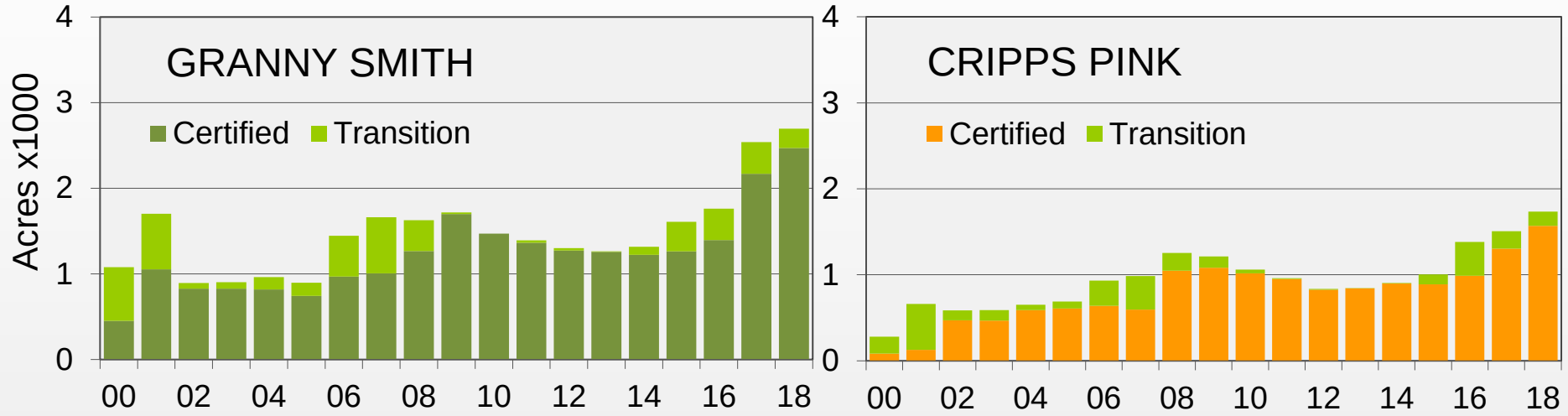
Organic Apple Varieties

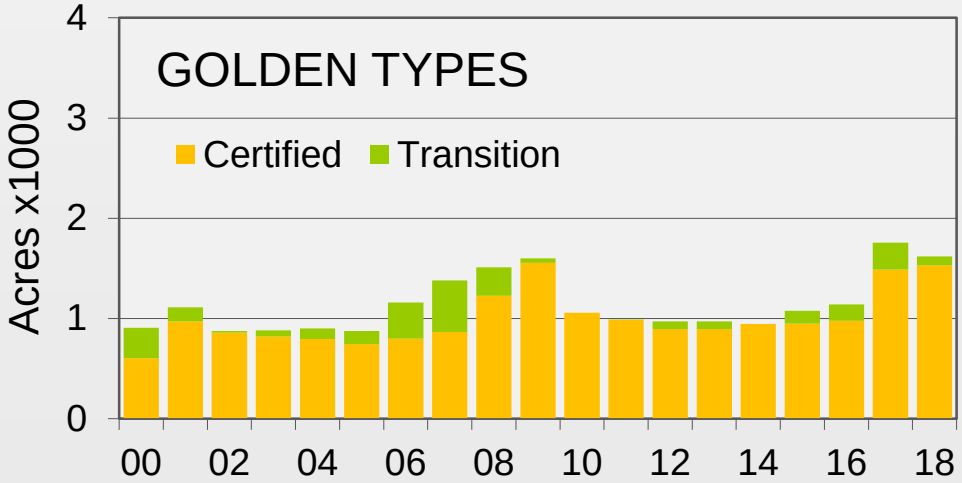
Washington State Acres Trend



Combined certifier data

Organic Apple Varieties
Washington State Acres Trend





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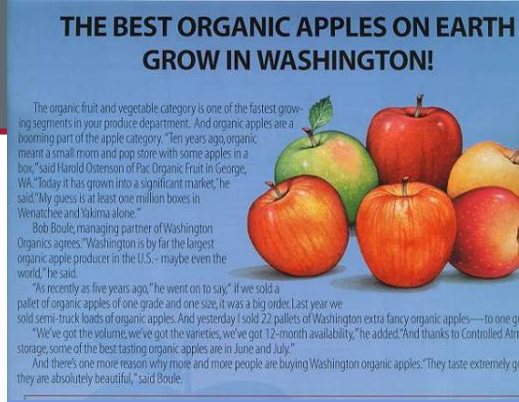
Combined certifier data

Organic Specialty Apples
Washington State 2018


THE BEST ORGANIC APPLES ON EARTH GROW IN WASHINGTON!

The organic fruit and vegetable category is one of the fastest growing segments in your produce department. And organic apples are a booming part of the apple category. "Ten years ago, organic meant a small mom and pop store with some apples in a box," said Harold Ostenson of Pac Organic Fruit in George, WA. "Today it has grown into a significant market," he said. "My guess is at least one million boxes in Wenatchee and Yakima alone."

Bob Boule, managing partner of Washington Organics agrees. "Washington is by far the largest organic apple producer in the U.S. – maybe even the world," he said.

"As recently as five years ago," he went on to say, "if we sold a pallet of organic apples of one grade and one size, it was a big order. Last year we sold semi-truck loads of organic apples. And yesterday I sold 22 pallets of Washington extra fancy organic apples—to one g

"We've got the volume, we've got the varieties, we've got 12-month availability," he added. "And thanks to Controlled Atm storage, some of the best tasting organic apples are in June and July."

And there's one more reason why more and more people are buying Washington organic apples. "They taste extremely g they are absolutely beautiful," said Boule.

WA Apple Commission

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

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

Varieties listed in WSDA producer directory:
http://agr.wa.gov/FoodAnimal/Organic/docs/wsda_cert_org_producers.pdf

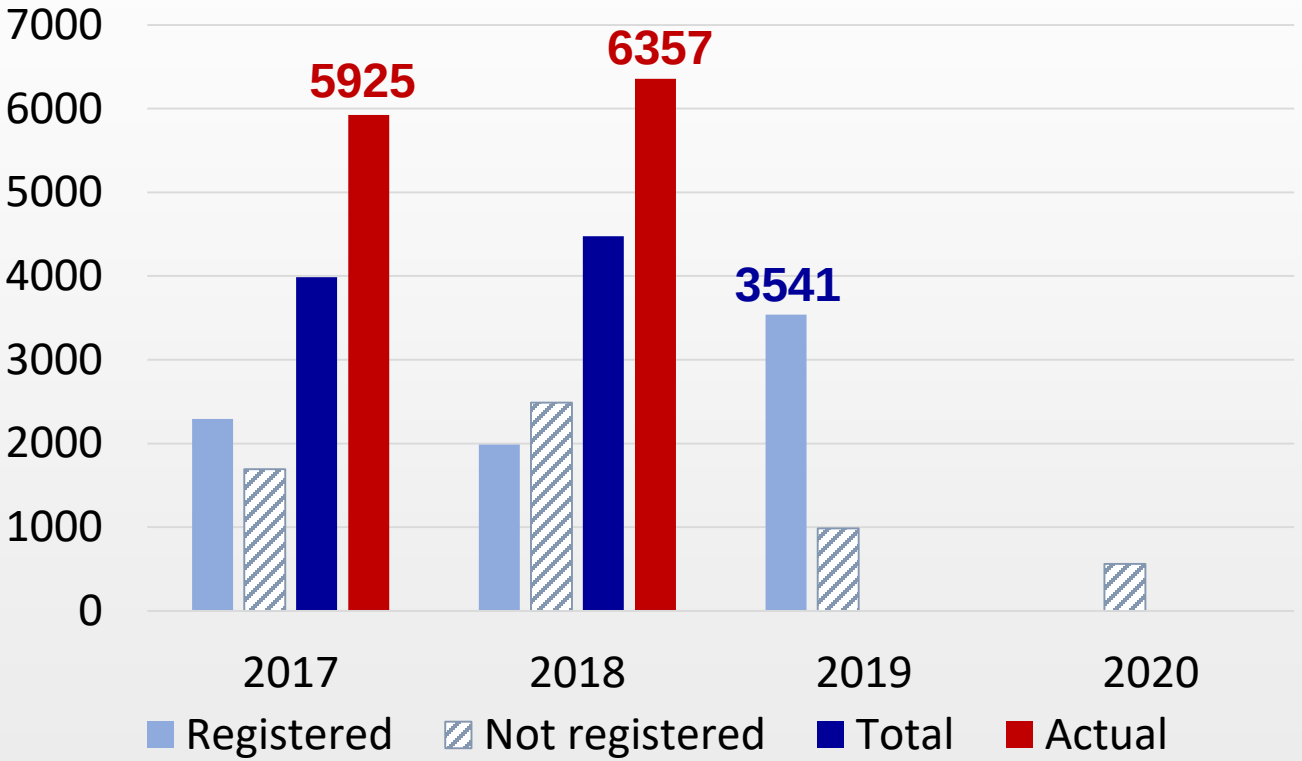
Combined certifier data

A large number of apple acres transitioned to organic in 2017 and 2018. Estimates made in advance of this tended to be low (slide 33). 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 is expected in 2019 and for the next several years as the market 'digests' all the recently added production.

Along with expanded acres, organic apple yields appear to be increasing, with the transition of many acres of modern, high-density plantings (slide 34). 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 estimate if they were.

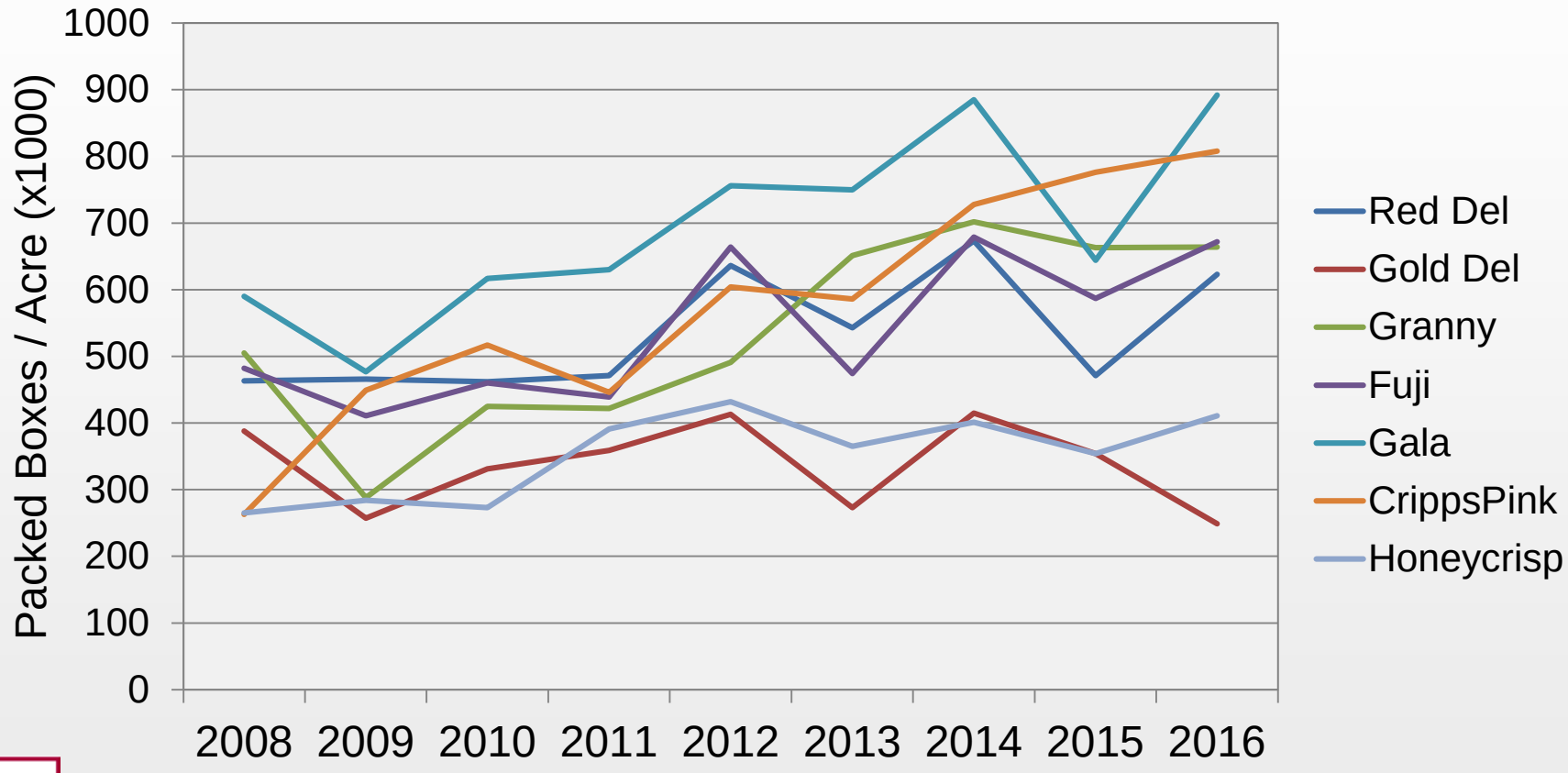
There are fewer transition acres for pears and cherries, and these increases are not expected to result in a large new pulse of fruit.

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 2018, certified organic apples represented about 16% of all apple acres in the state. This has translated to about 10-12% of the state crop (slides 36 and 37). 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 38), 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’ and ‘Fuji’ shipments, which set new records with the 2017 crop (slides 39, 40). The rise of organic ‘Honeycrisp’ production is also evident. Despite the rapid rise in supply, prices generally rose during this period until 2016 (slide 38).

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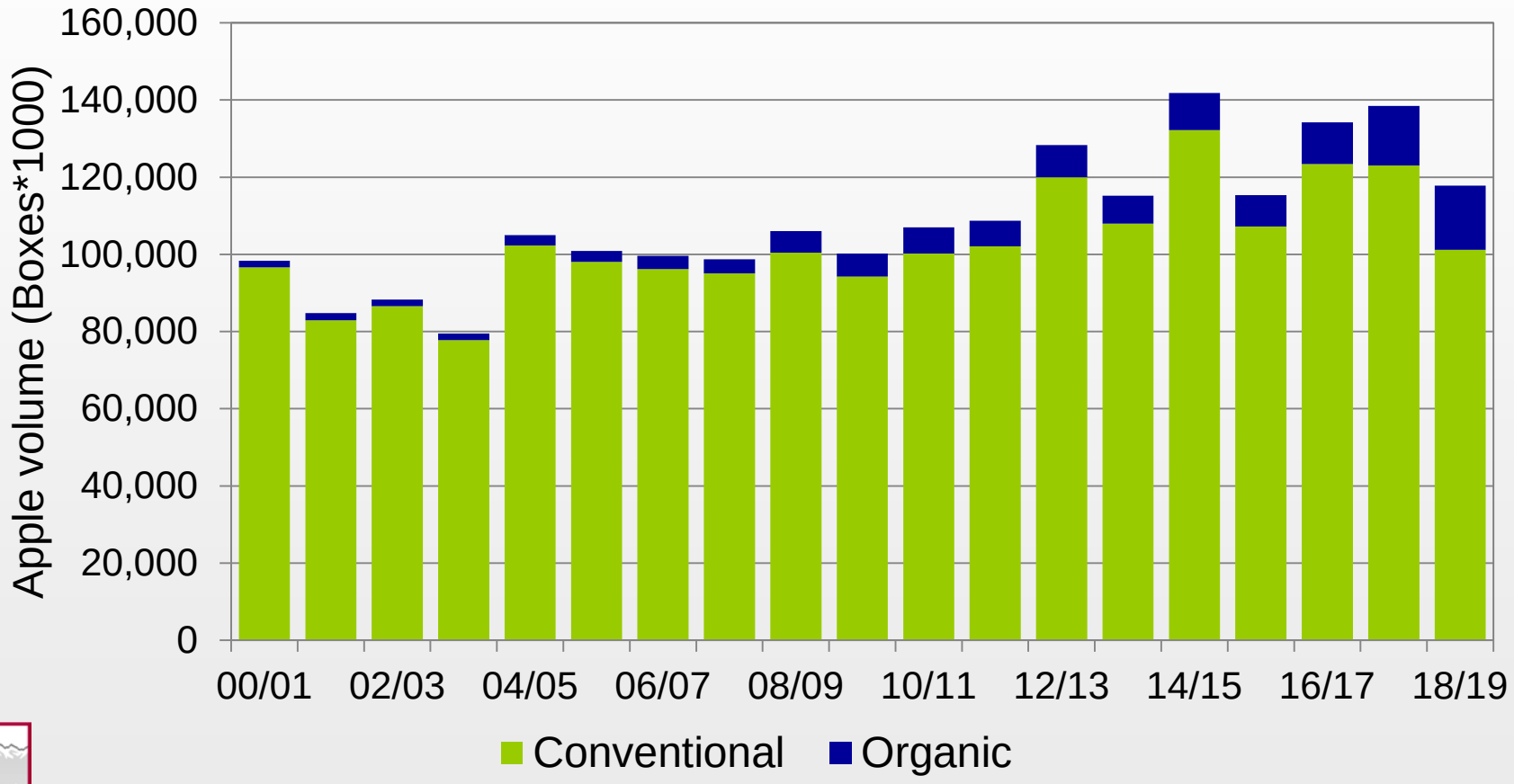
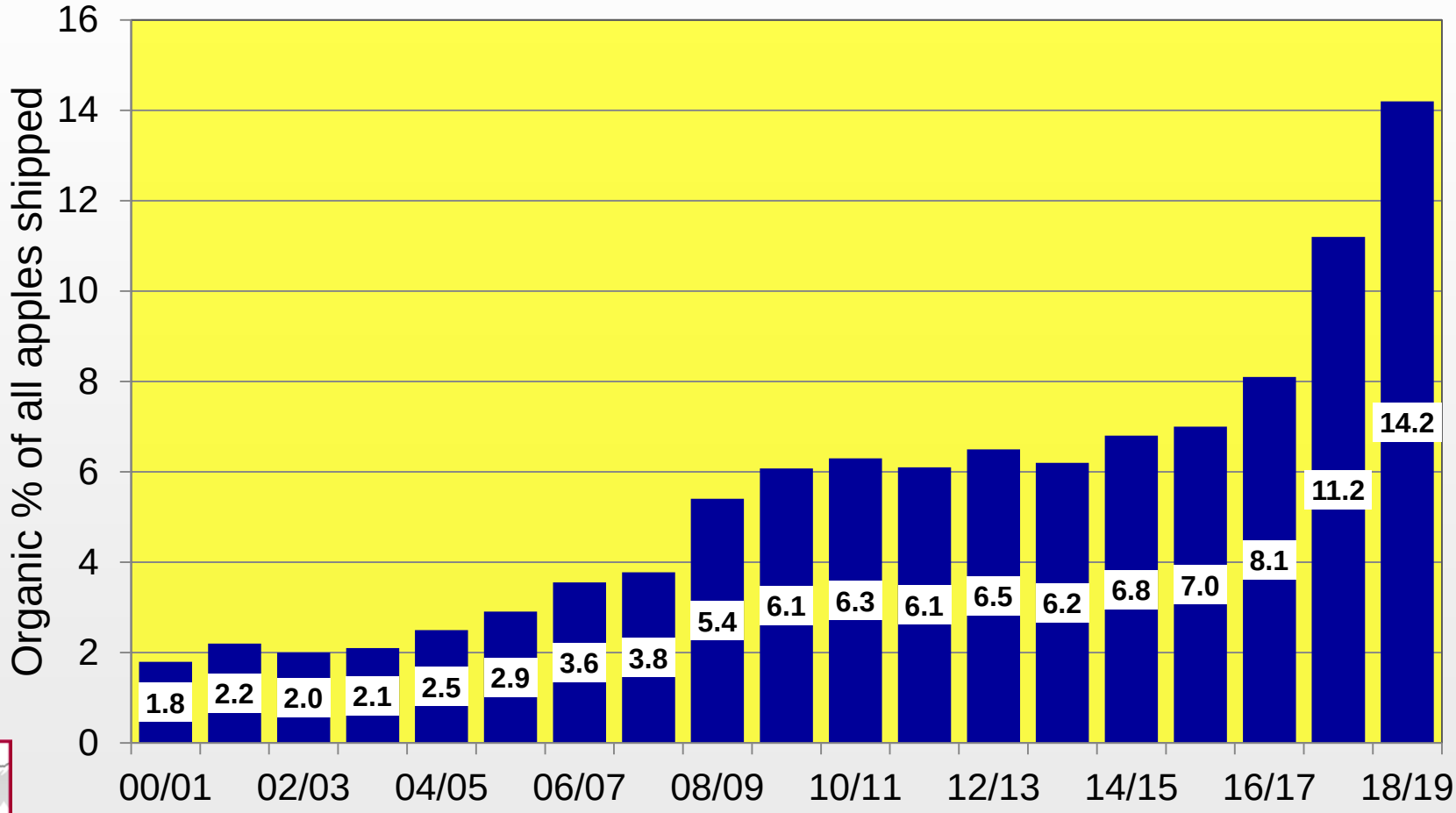
Washington Apple Volume
Conventional and Organic



Data: WSTFA, WVTA, WGCH

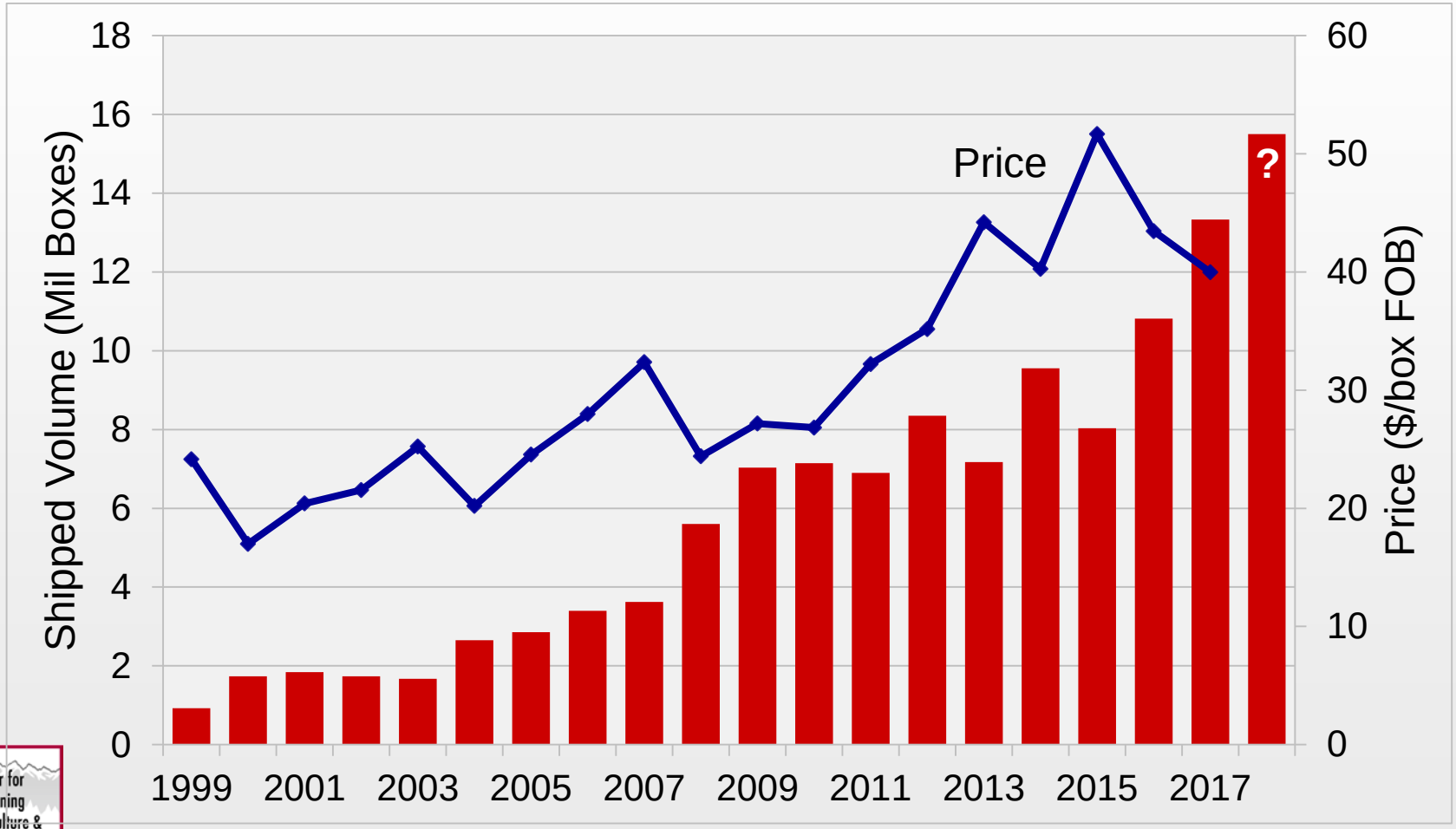
Organic Share of Apple Shipments
Washington State



Data: WSTFA, WVTA, WGCH

Organic Apple Sales

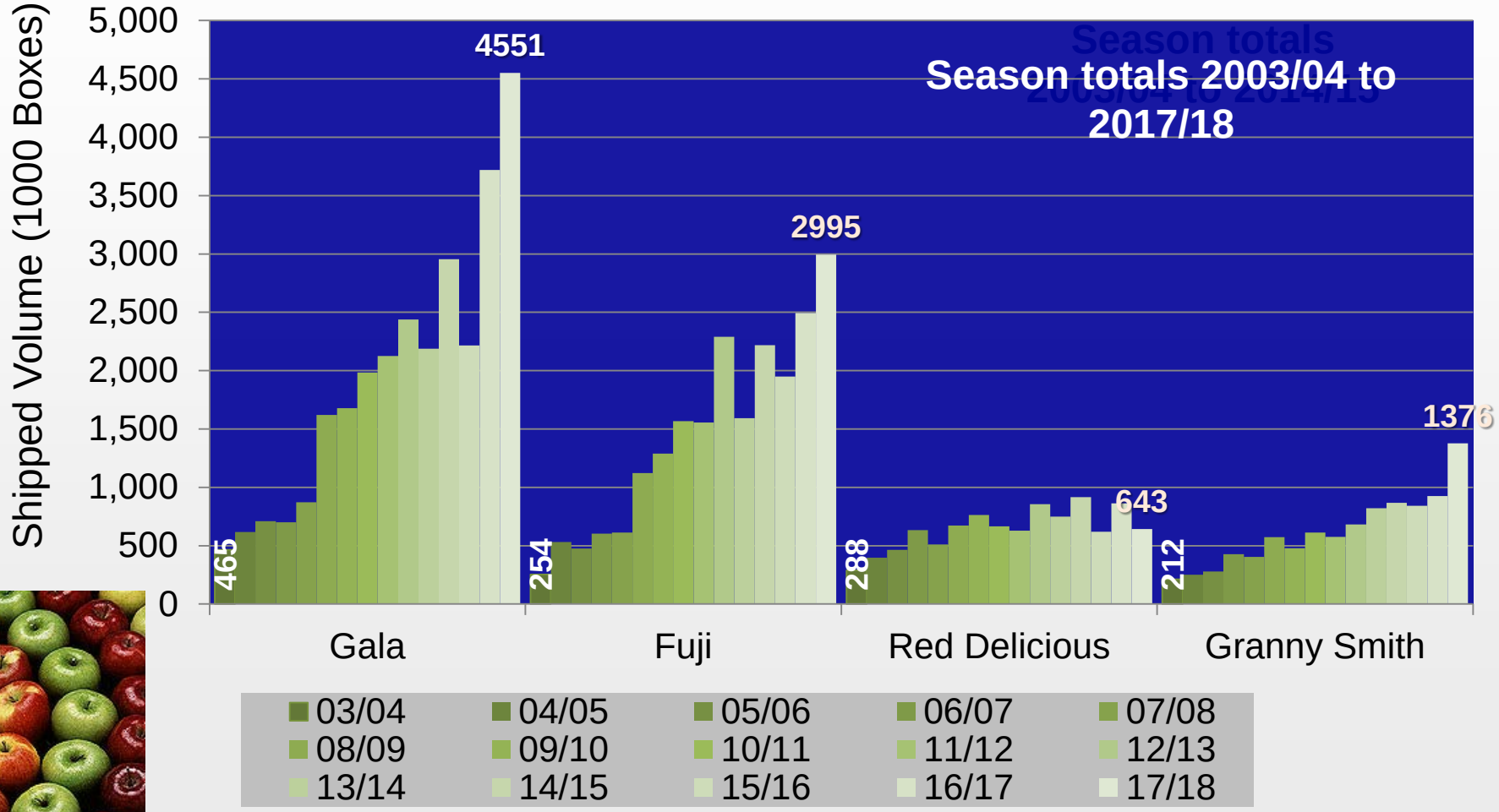
Volume and Price Trends - WA



40 lb box. Data: WSTFA, WVTA, WGCH; organic season average FOB history; priced boxes all grades ,sizes, storage

Total Shipped Organic Volume

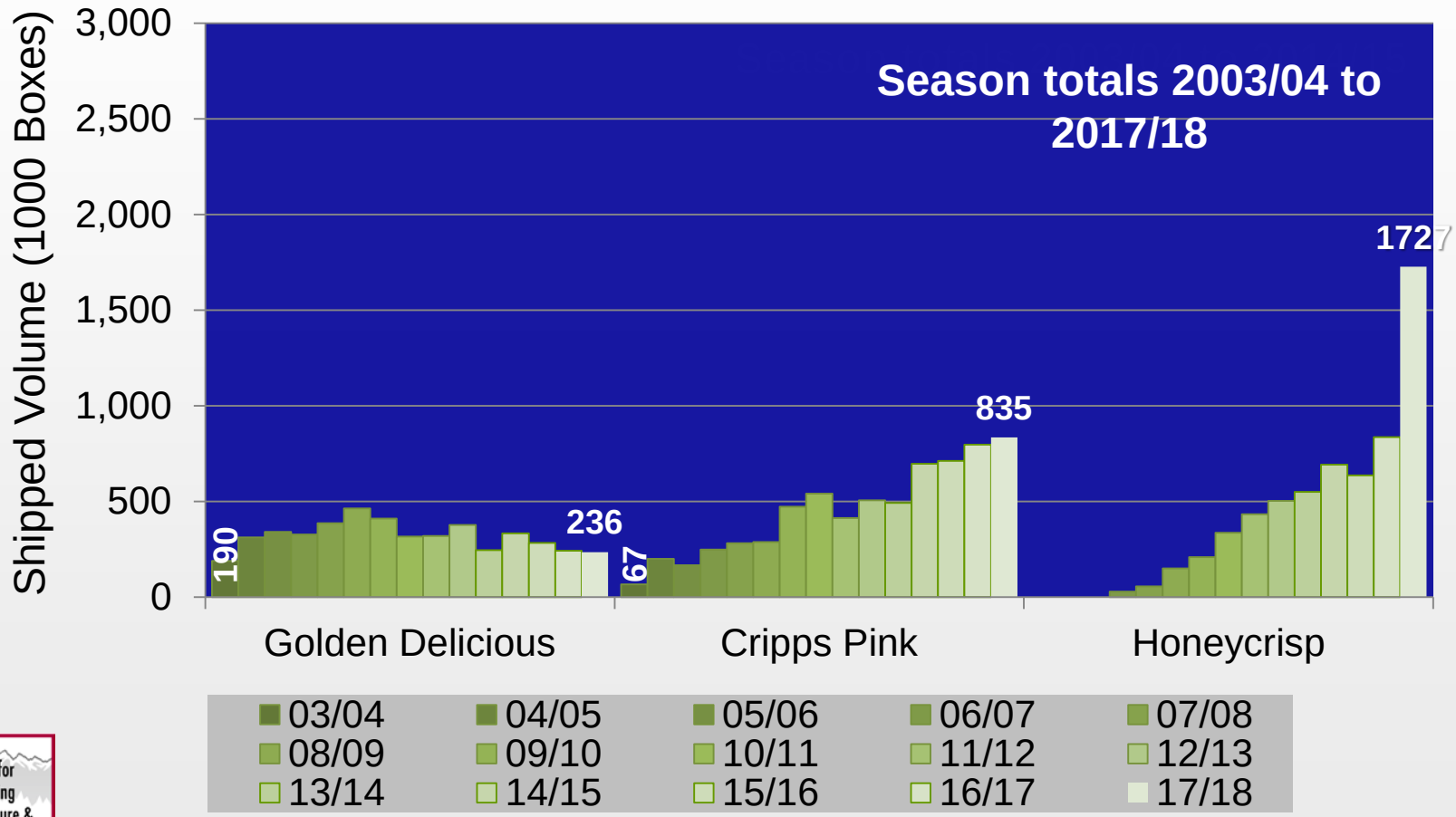
by year and variety, Washington State



ARS Photo

Data: WSTFA, WGCH, WVTA

Total Shipped Organic Volume
by year and variety, Washington State



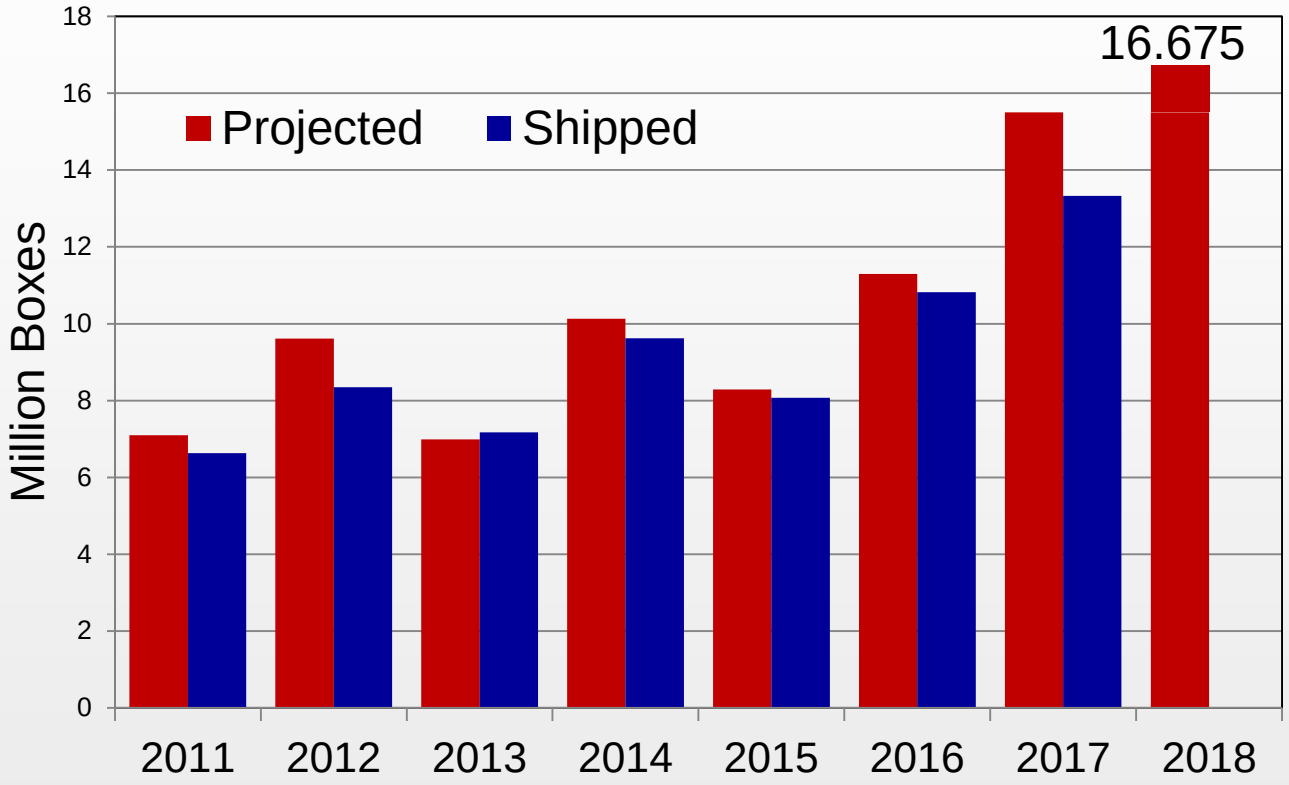
Center for Sustaining Agriculture & Natural Resources

Data: WSTFA, WGCH, WVTA

The 2018 crop set another record after 2017, with an estimated 16.6 million boxes as of Jan. 1, 2019 (slide 42). This is a 7% increase over the 2017 crop. The 2017 crop experienced a 2.2 million box disappearance from the Dec. 1 storage report to the season final totals. No details are available, but this is likely 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 43).

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

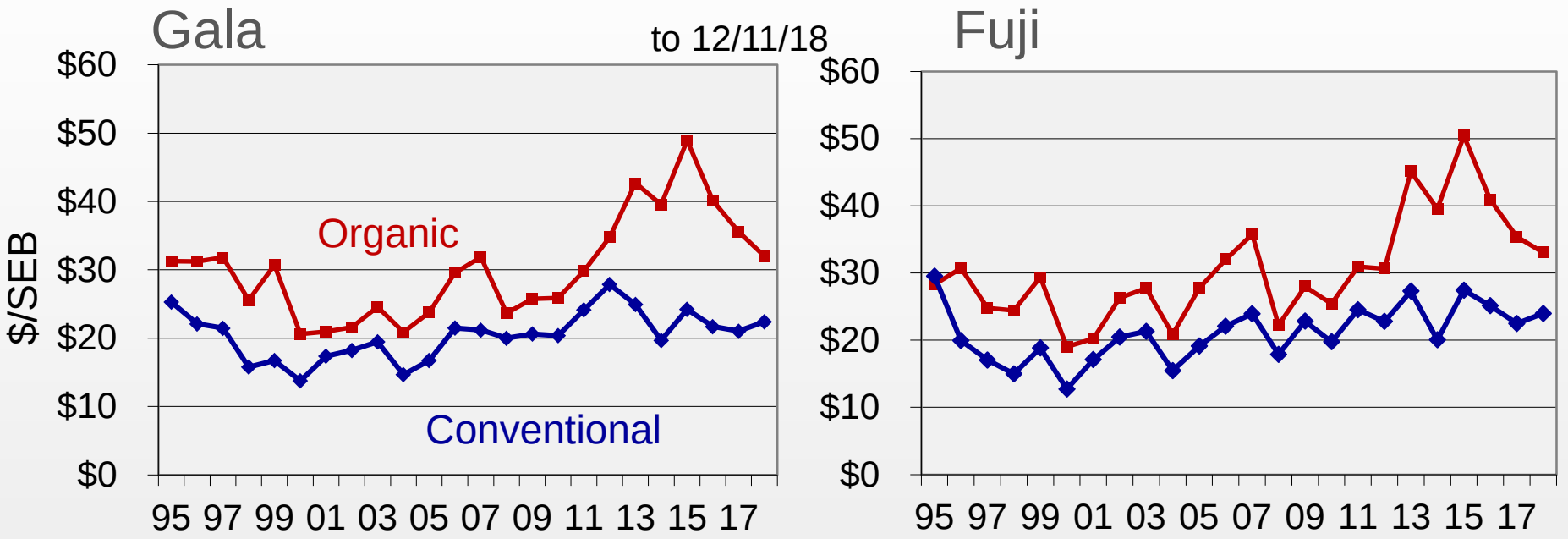
	Red D	Gala	Fuji	Brae	Pink	Zestar!®
Baltimore	WA					
Boston	ARG	WA	ARG	NZ	ARG	
Chicago	ARG	NZ	NZ	ARG	ARG	
San Fran.		CA, WA	CL, NZ		CL	OR

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 49. 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 has been at record levels in recent years, but is now declining with the substantially larger harvests.

Price Trends
Washington Apples



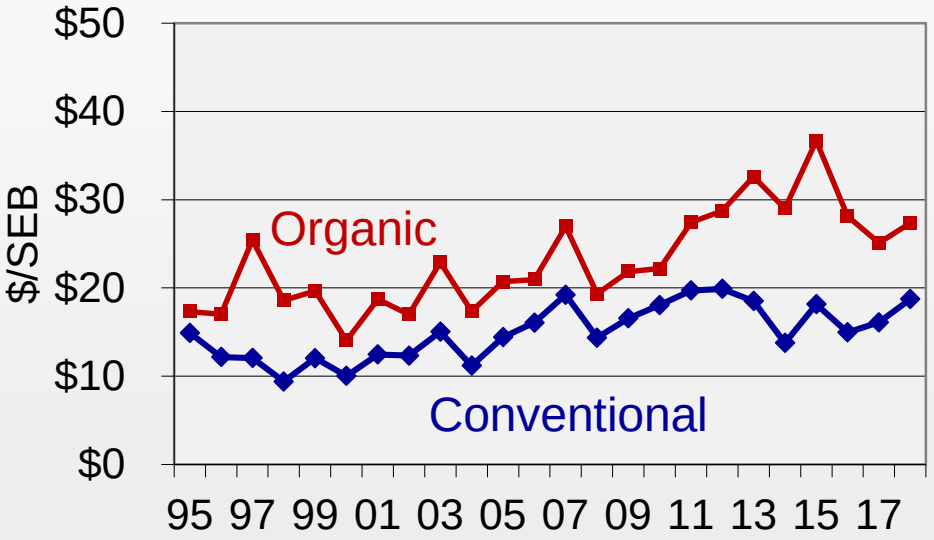
SEB=standard equivalent box of 40 lb. *Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.*

Center for Sustaining Agriculture & Natural Resources

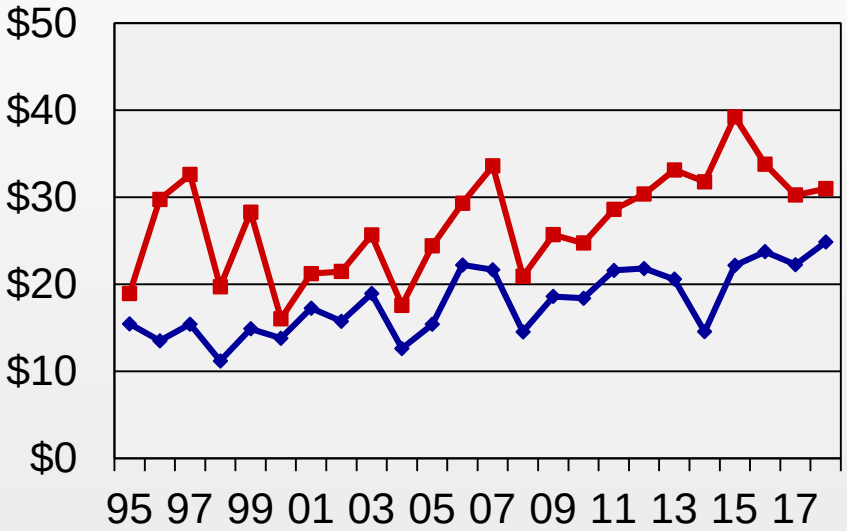
Price Trends
Washington Apples

Red Delicious

to 12/11/18



Golden Delicious



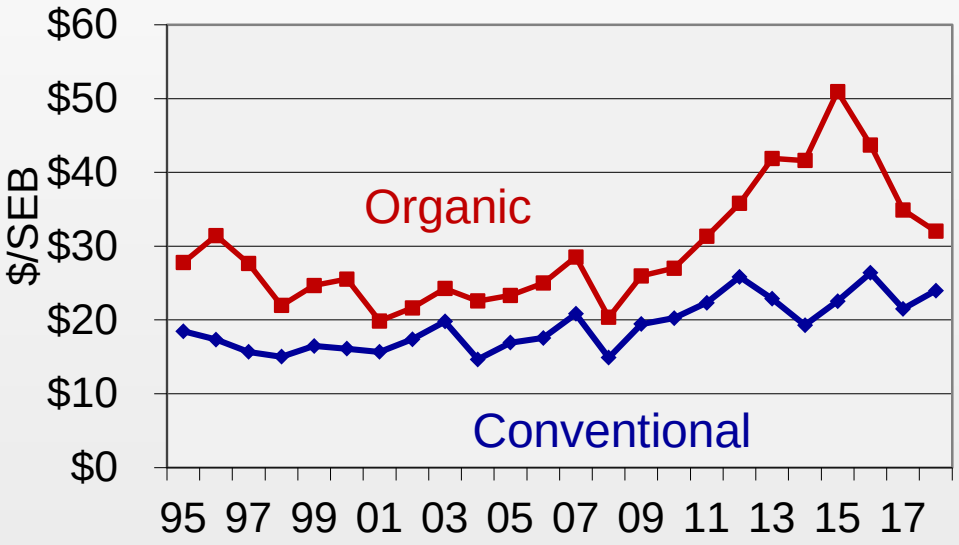

NY Apple Assoc.

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

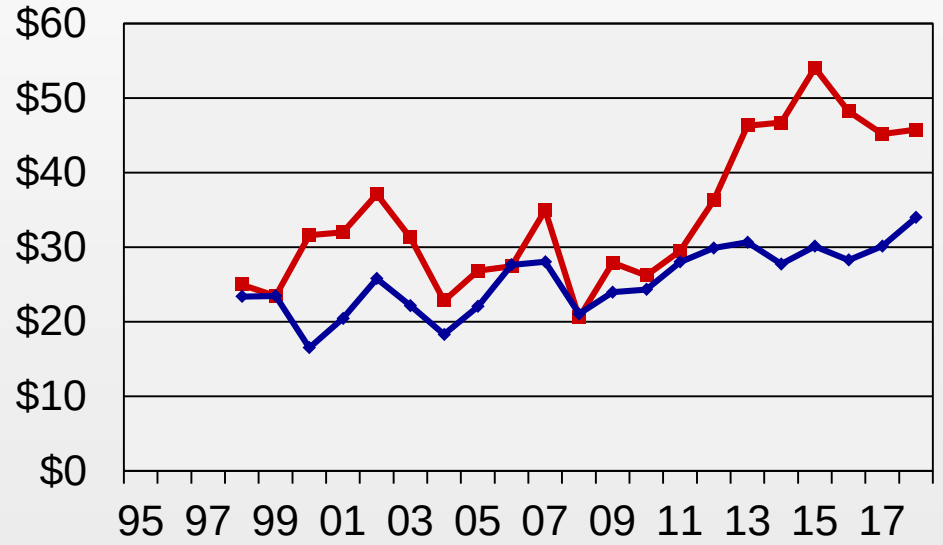
Price Trends Washington Apples

Granny Smith

to 12/11/18



Cripps Pink



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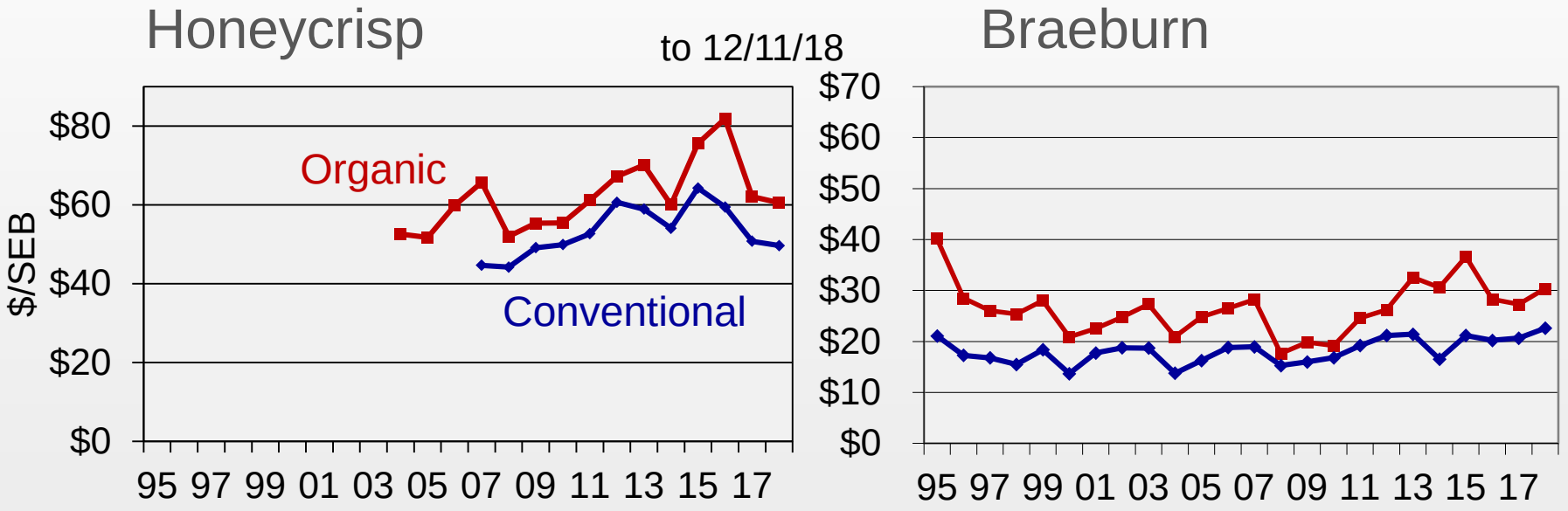
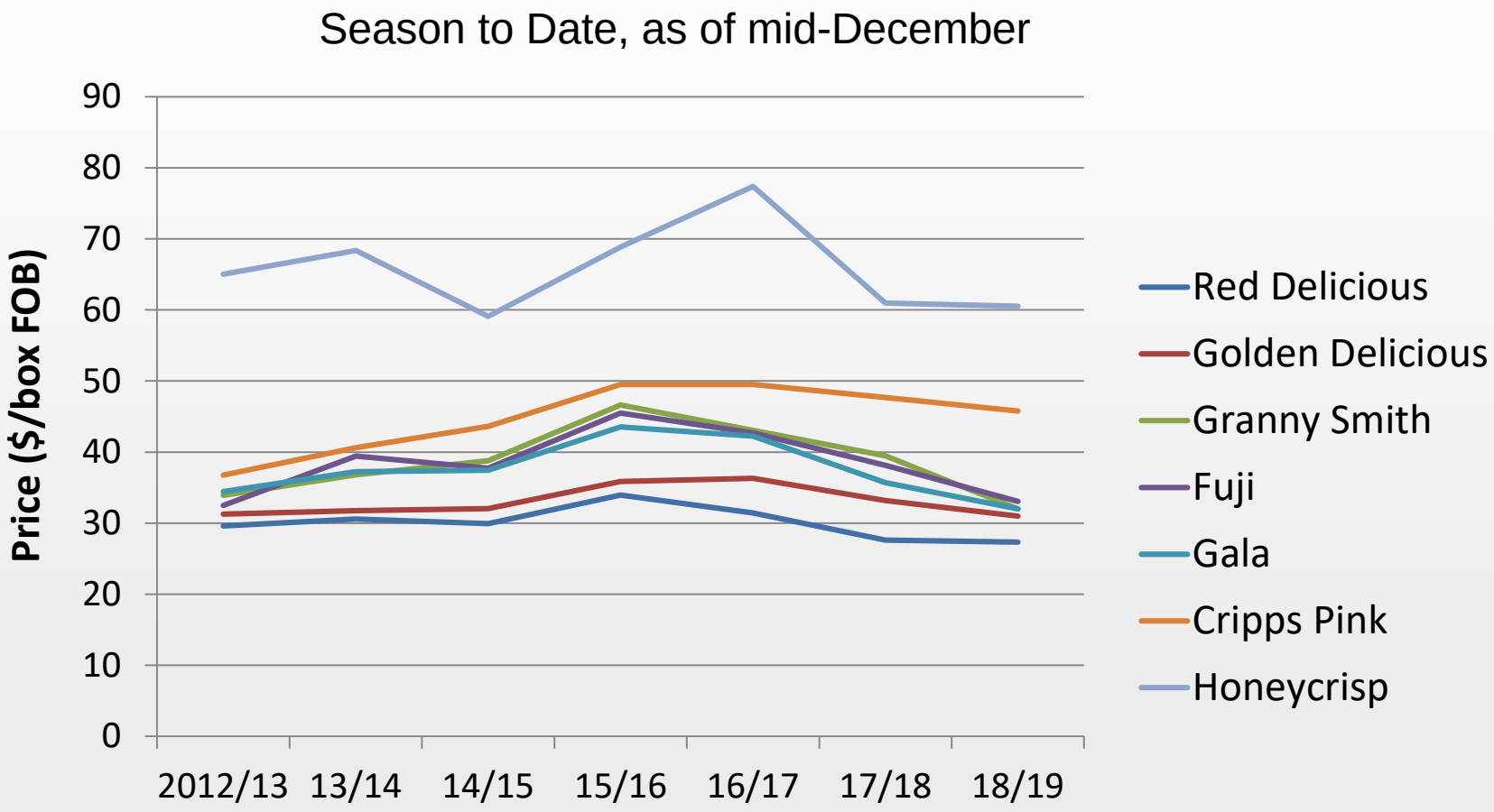
Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.

Price Trends
Washington Apples



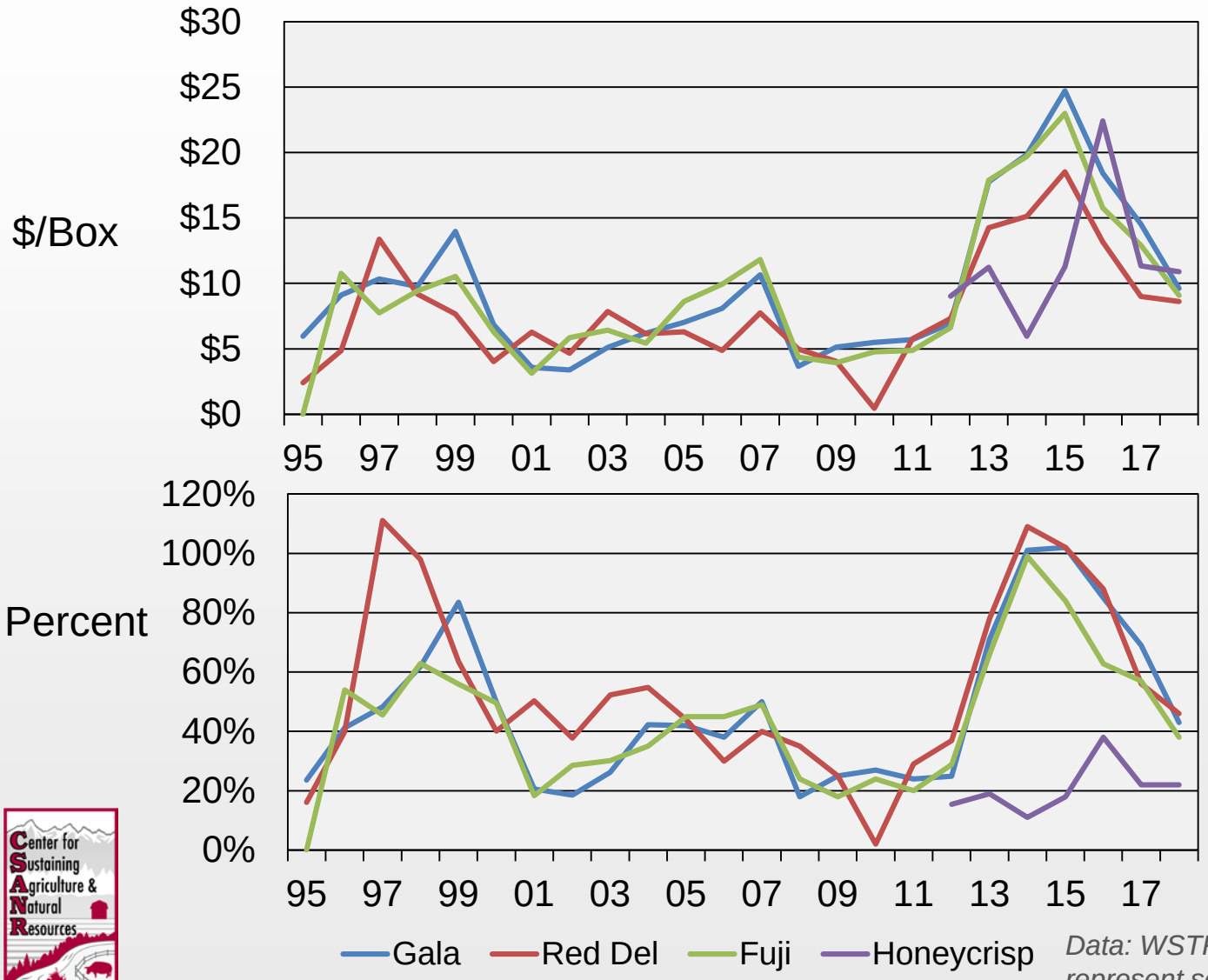
Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.

Price Trends
Washington Organic Apples



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

Organic WA Apple Premiums



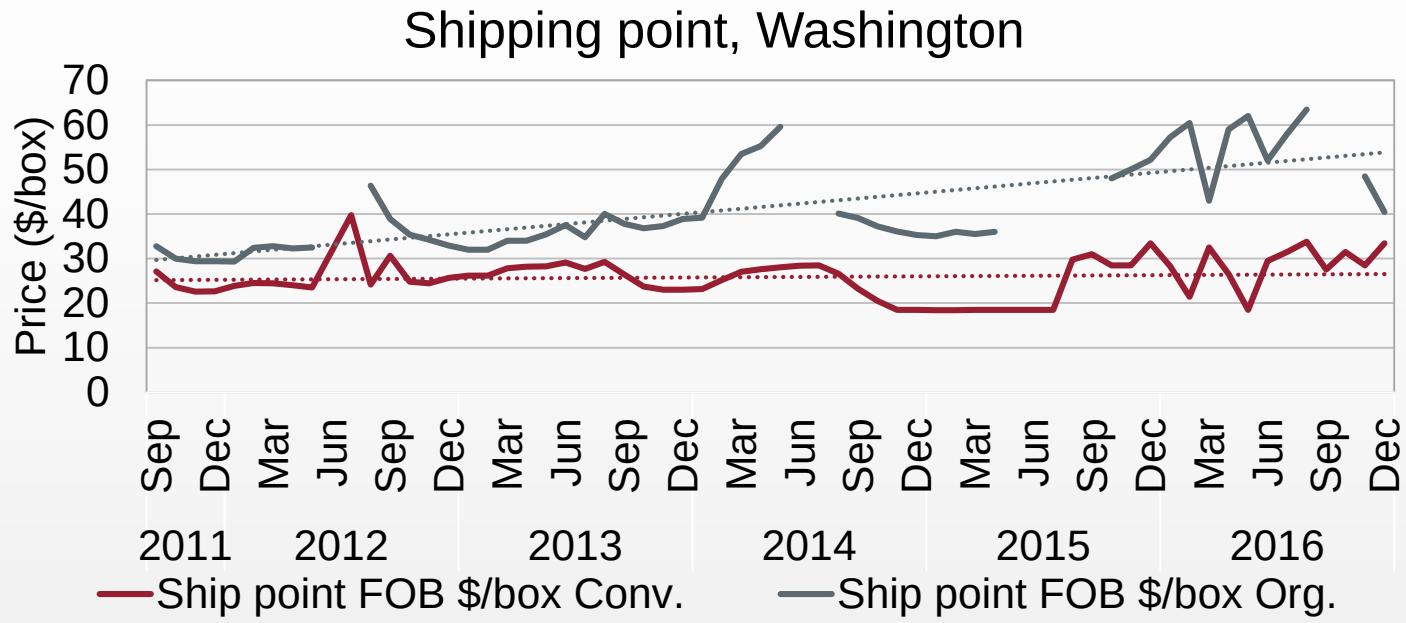
Premiums are expressed as the price difference between organic and conventional, as $ per box, or as a percent.

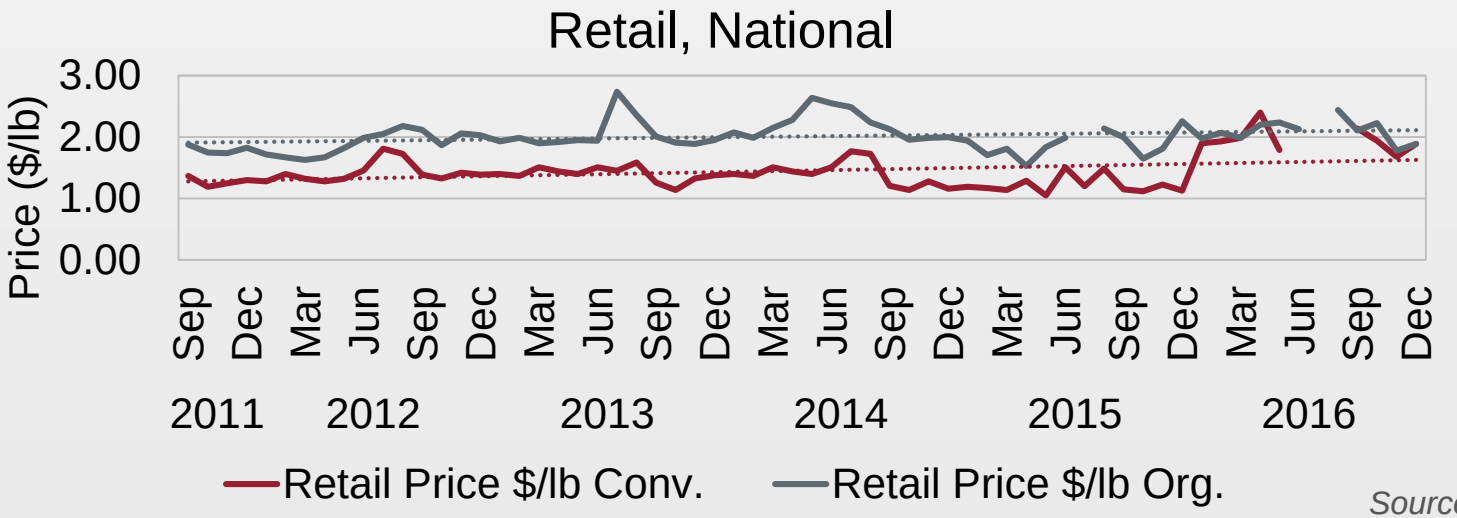
Data: WSTFA, WGCH. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.

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 52 and 53, 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. Given that the cost of production is generally trending upwards, the implication for conventional growers is that prices will no longer cover costs at some point, while organic growers should be able to cover increasing costs. Gaps in the shipping point data point out where the WA supply of organic apples has been sold out.

Center for Sustaining Agriculture & Natural Resources

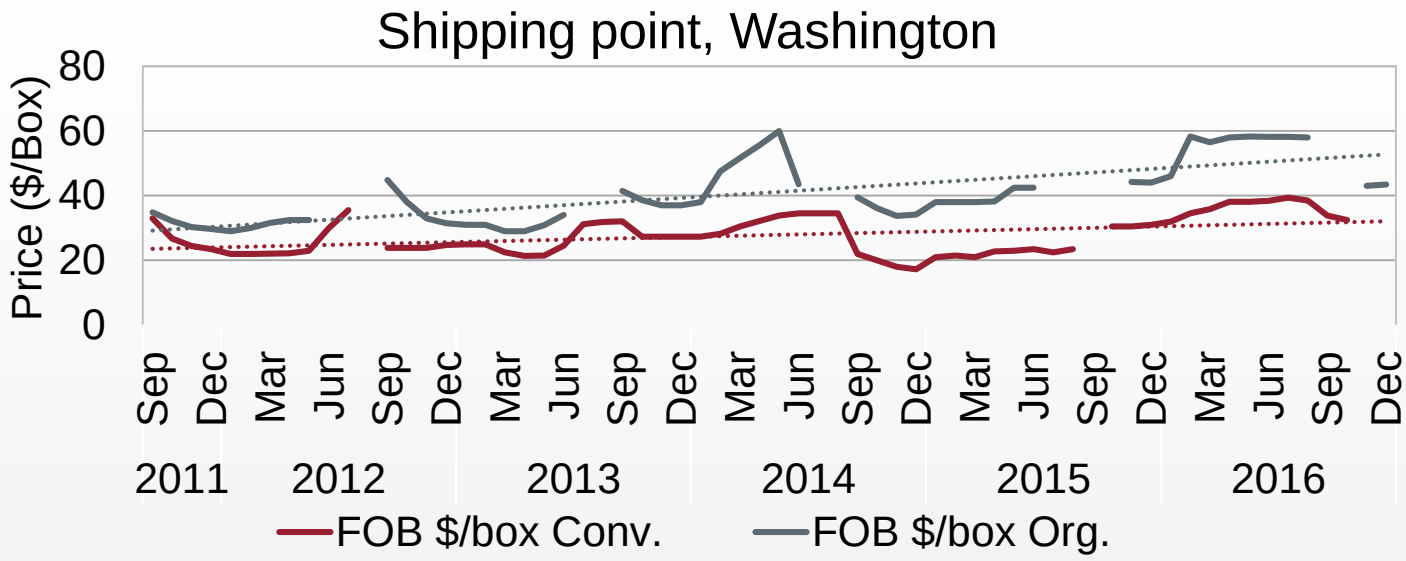
Organic Gala Apples

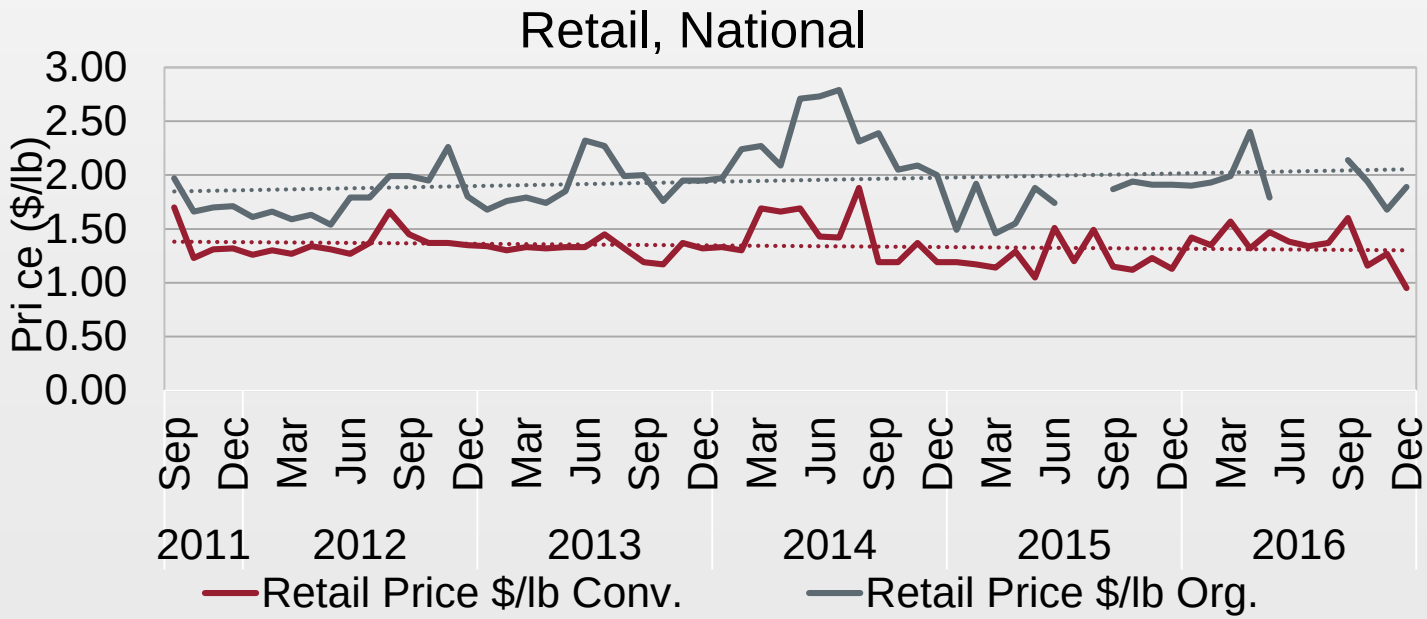




Source: USDA-AMS

Organic Fuji Apples

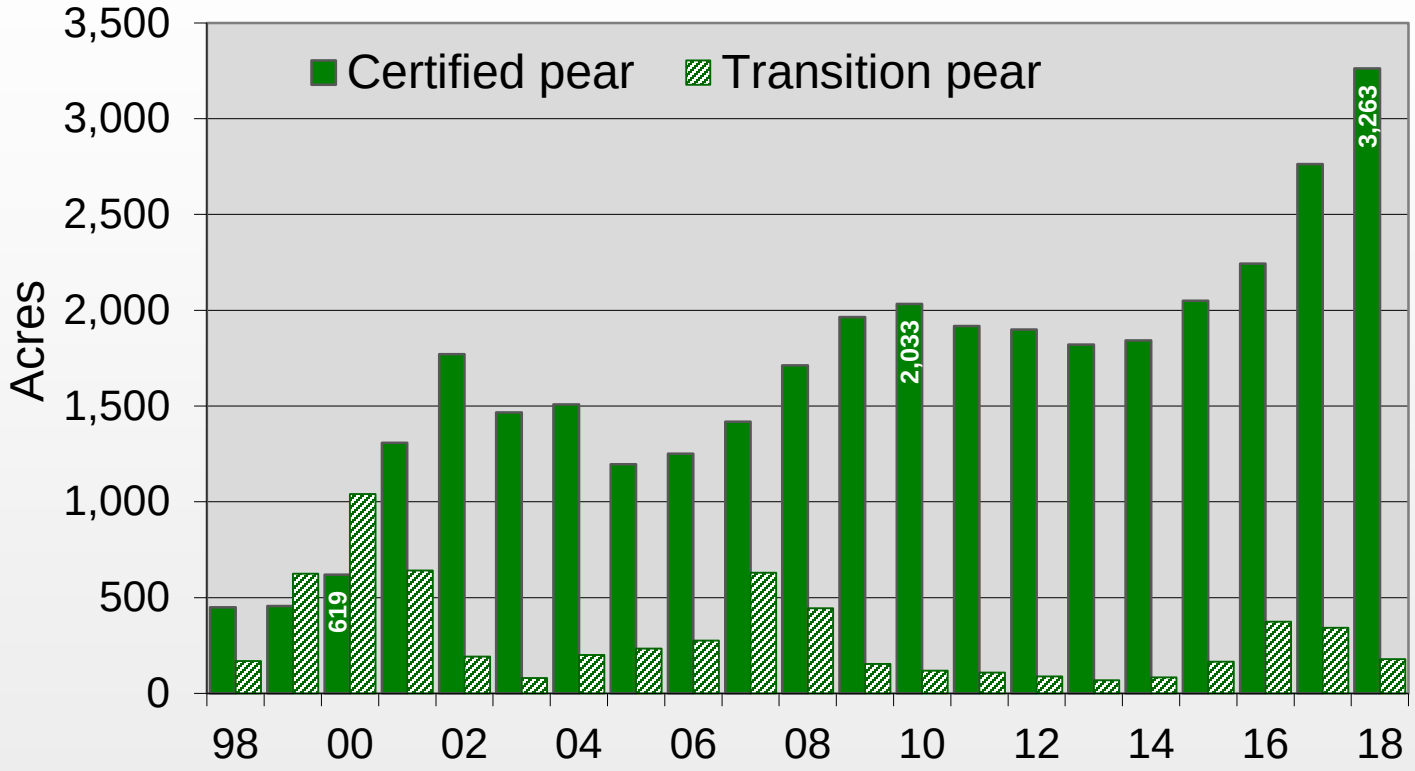




Source: USDA-AMS

Similar data as for apple are presented for organic pear in Washington in the next slides (55 to 64). 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 industry is predicting nearly a 40% increase in the organic pear crop for 2018.

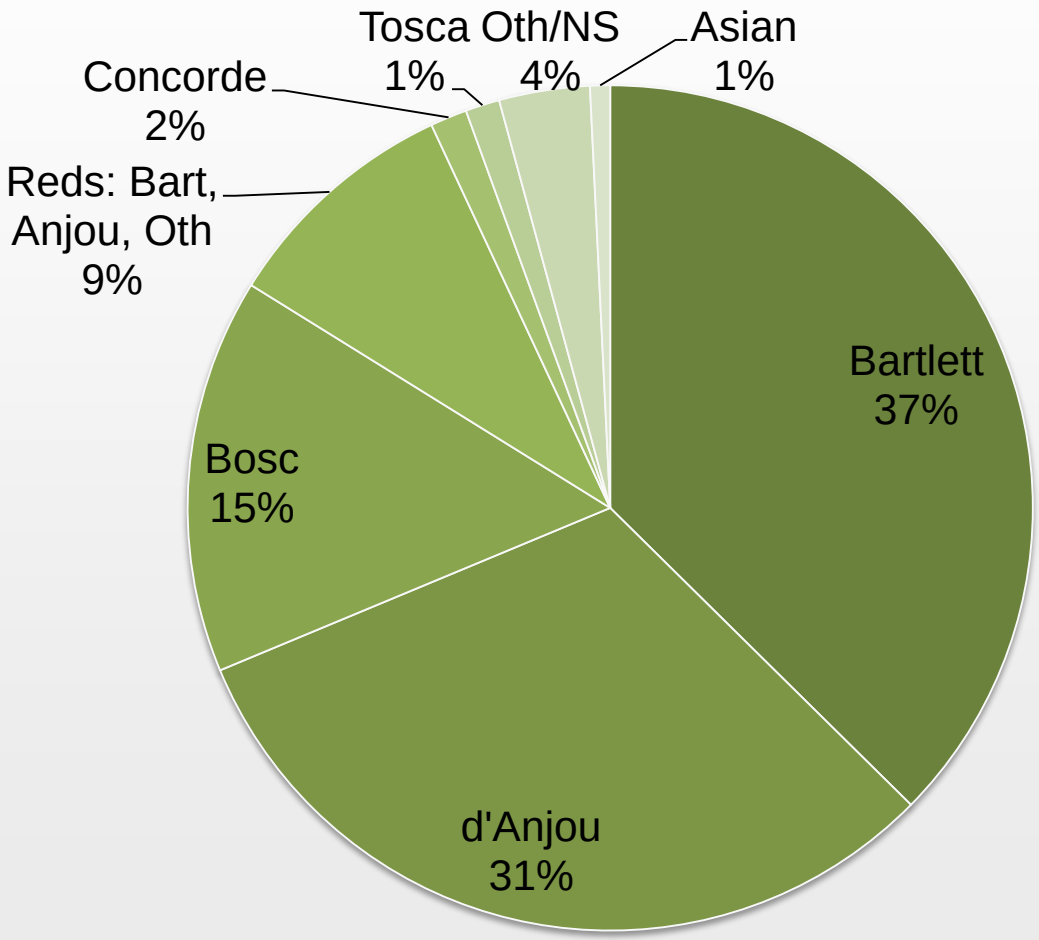
Organic Pear Acreage
Washington State



2018 organic = 16% of total WA pear acreage
(based on WA-NASS 2017 value of 20,965 pear acres)

Combined certifier data

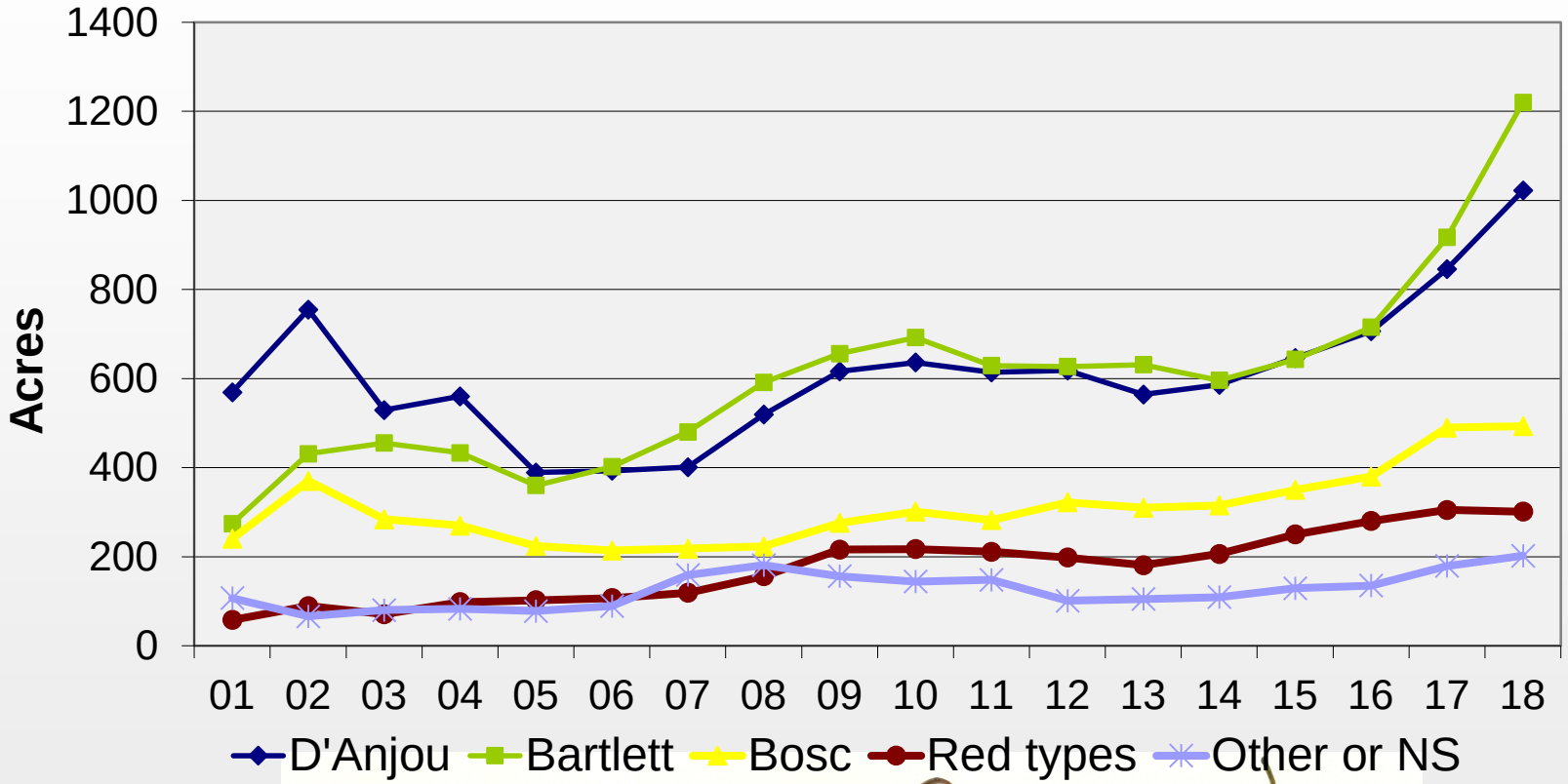
Organic Pear Acres by Variety
Washington, 2018



Combined certifier data; NS = not specified

Organic Pear Variety Trend

Washington State



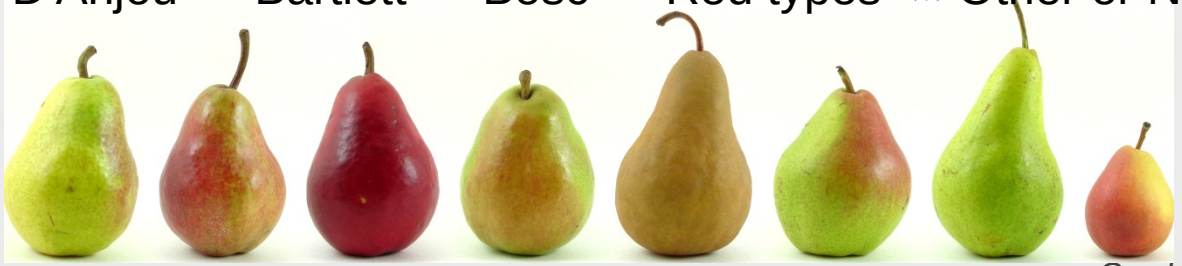


Photo: Agyle

Combined certifier data

Organic Specialty Pears
Washington State 2018

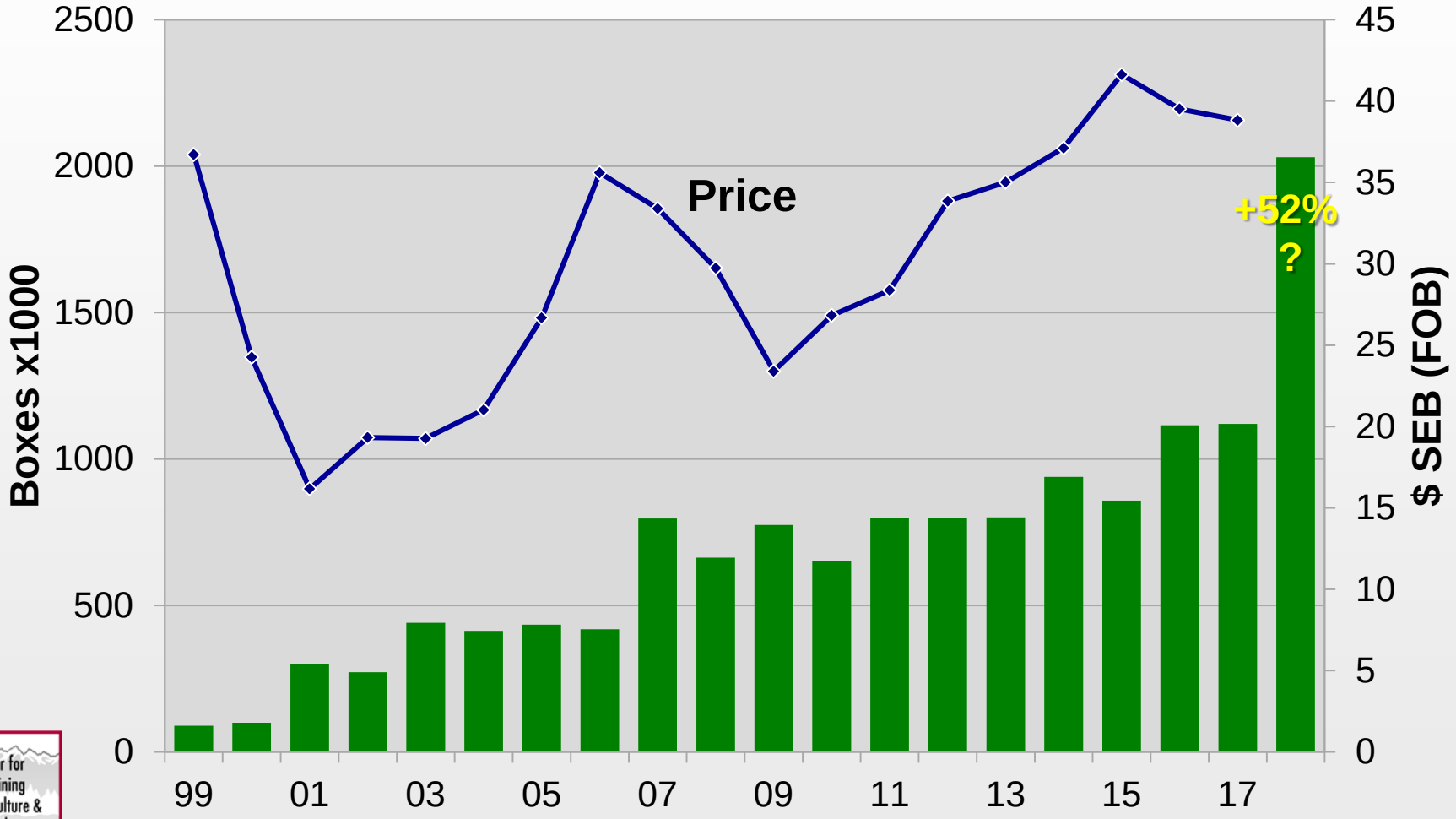
- Over 25 varieties of organic pears and Asian pears grown in WA, from small to larger quantities.
- >25 ac: Concorde, Starkrimson, Tosca, Asian
- Small areas: Comice, Forelle, Red Clapp, Seckel, Conference, Perry varieties, others
- **Varieties are listed on the WSDA producer list:**

http://agr.wa.gov/FoodAnimal/Organic/docs/wsda_cert_org_producers.pdf

WSDA data

Organic Pear Sales

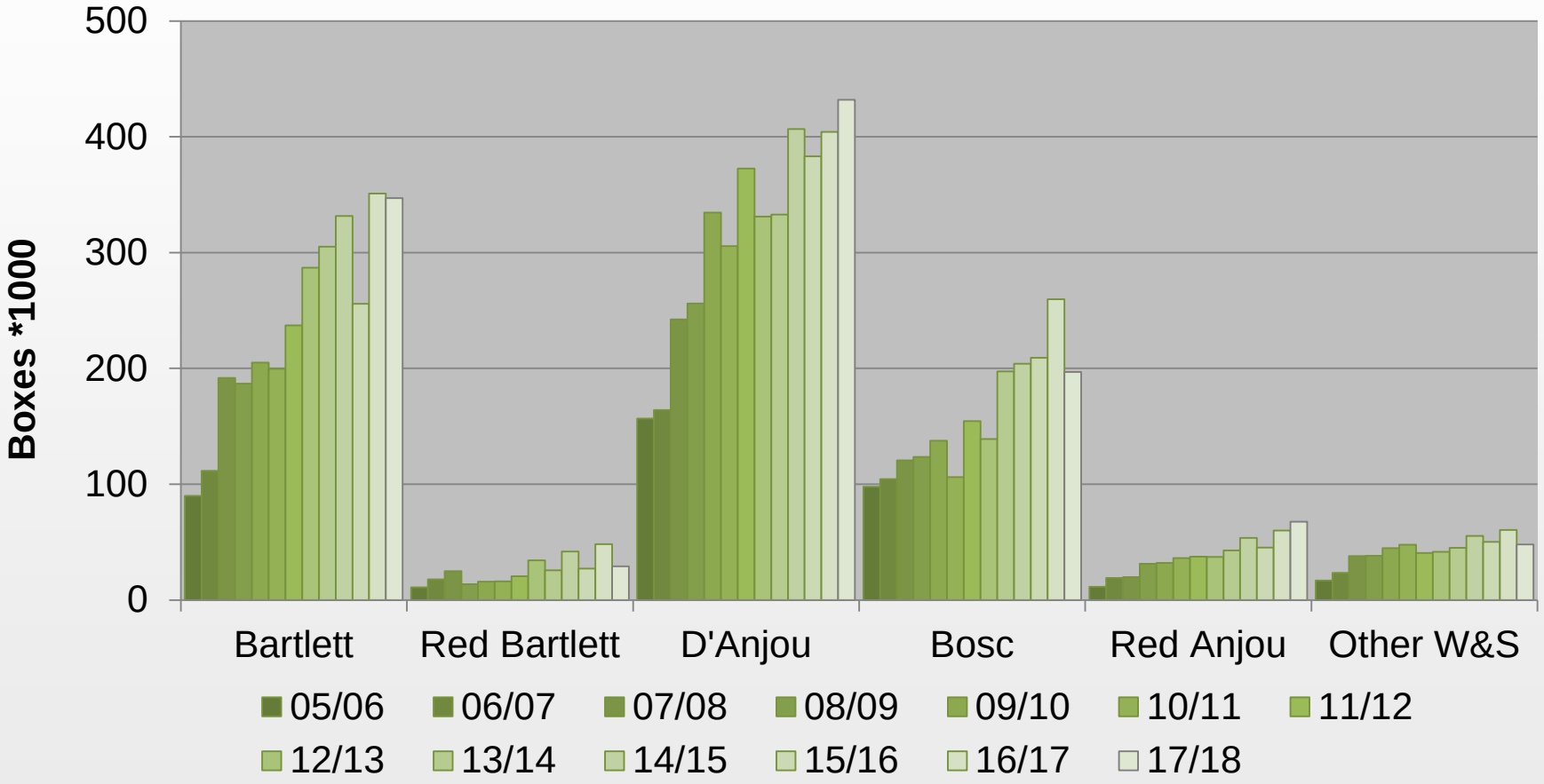
Volume and Price Trends



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

Center for Sustaining Agriculture & Natural Resources

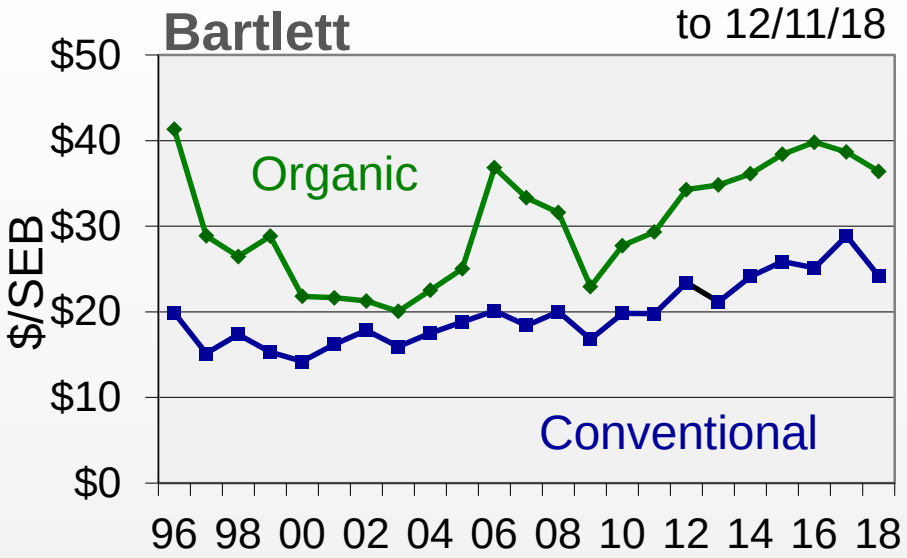
Shipped Organic Pear Volume
by year and variety, WA and OR

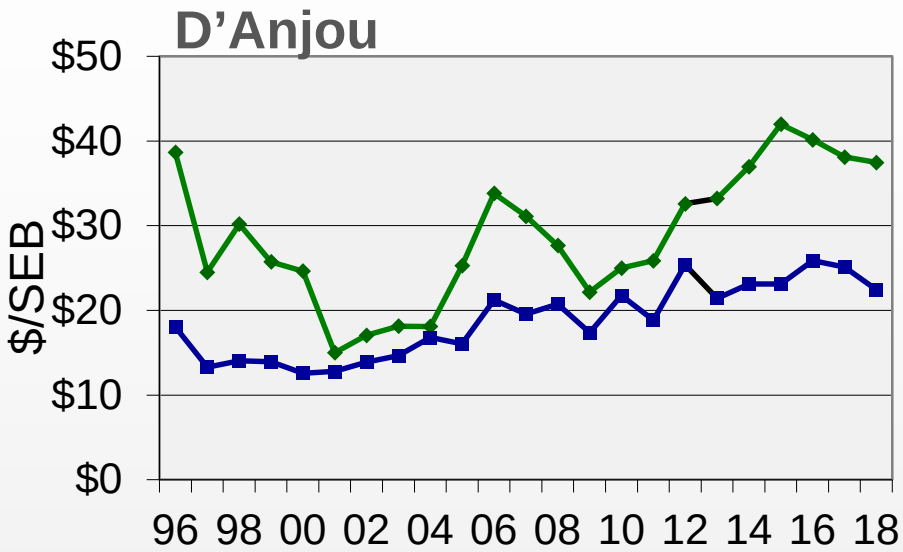


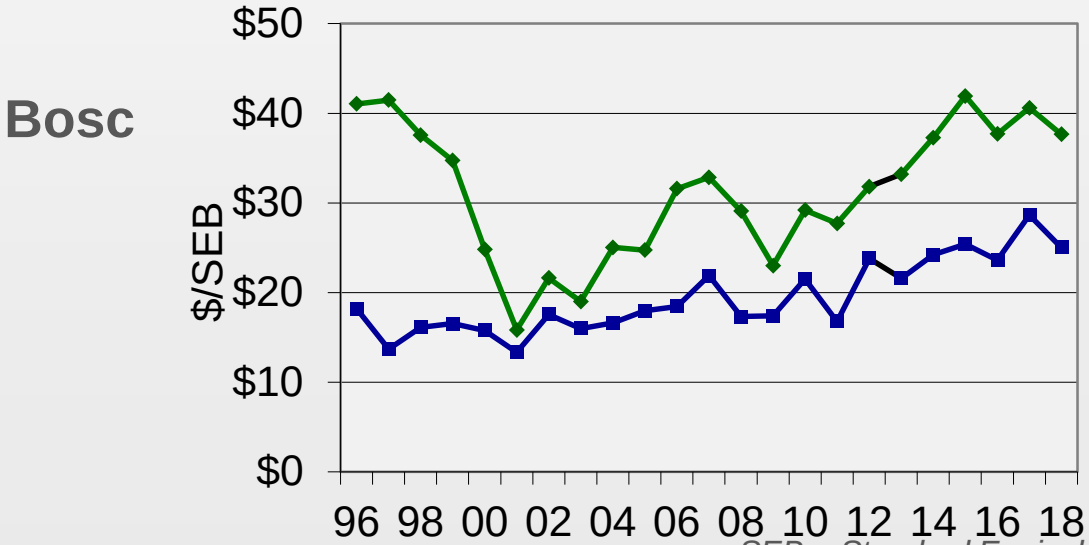
Organic volume ~7% of total NW pear volume; OR organic volume ~ 2% of total organic

Standard Equivalent Box = 44 lb. Data Sources: WSTFA, PBNW, WGCH, WVTA (11/12-13/14)

Price Trends Washington Pears



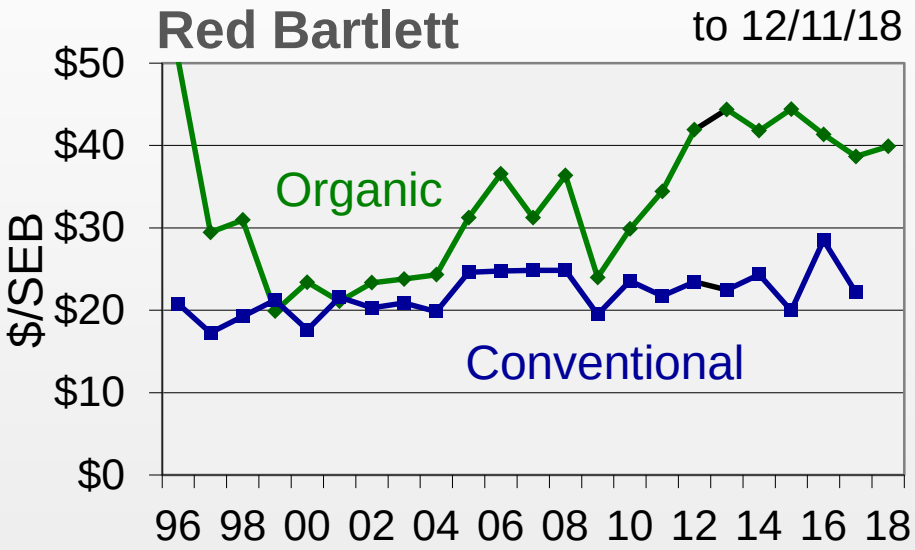


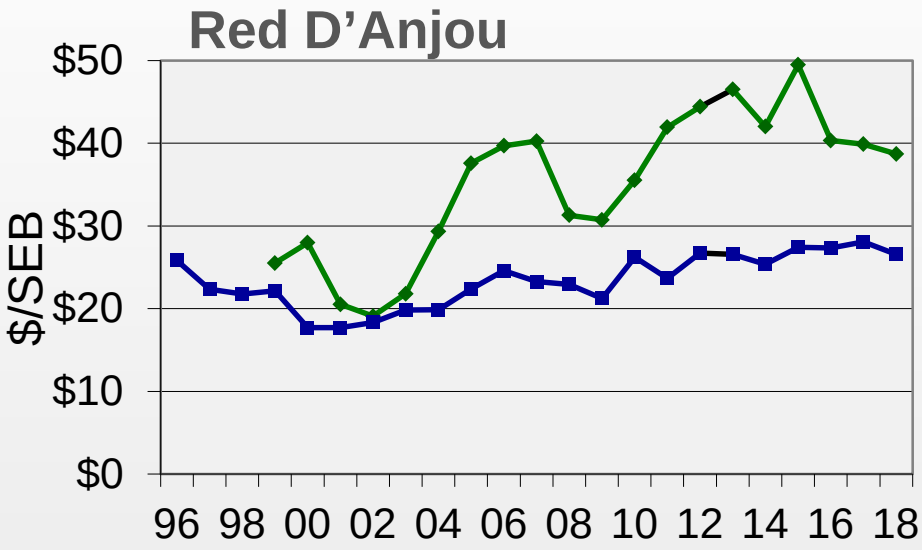


Bosc photo: US Pear

SEB = Standard Equivalent Box; Data: WSTFA, WGCH.
Annual data points represent FOB season price averages.

Price Trends
Washington Pears

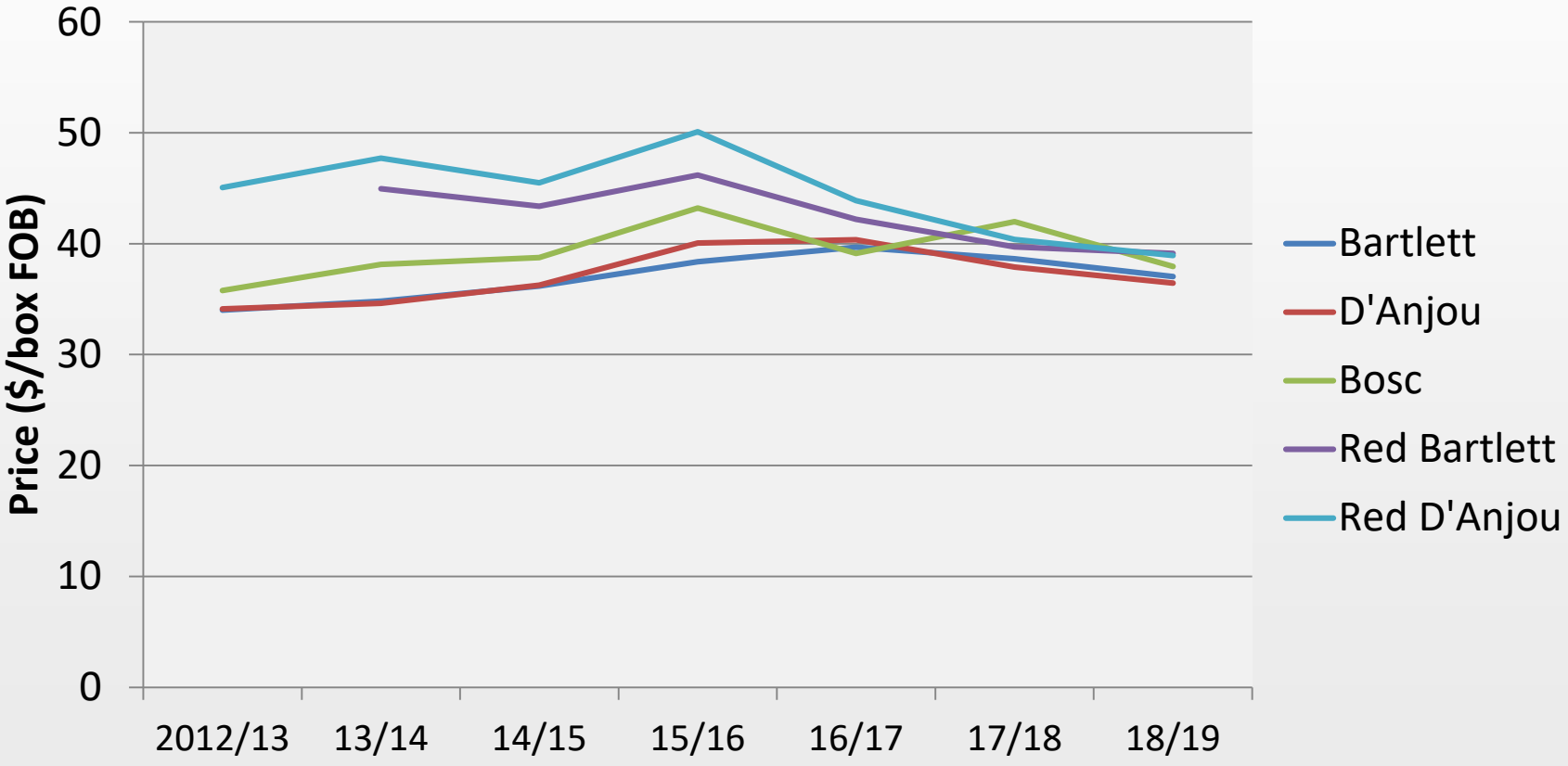




SEB = Standard Equivalent Box; Data: WSTFA, WGCH.
Annual data points represent FOB season price averages.

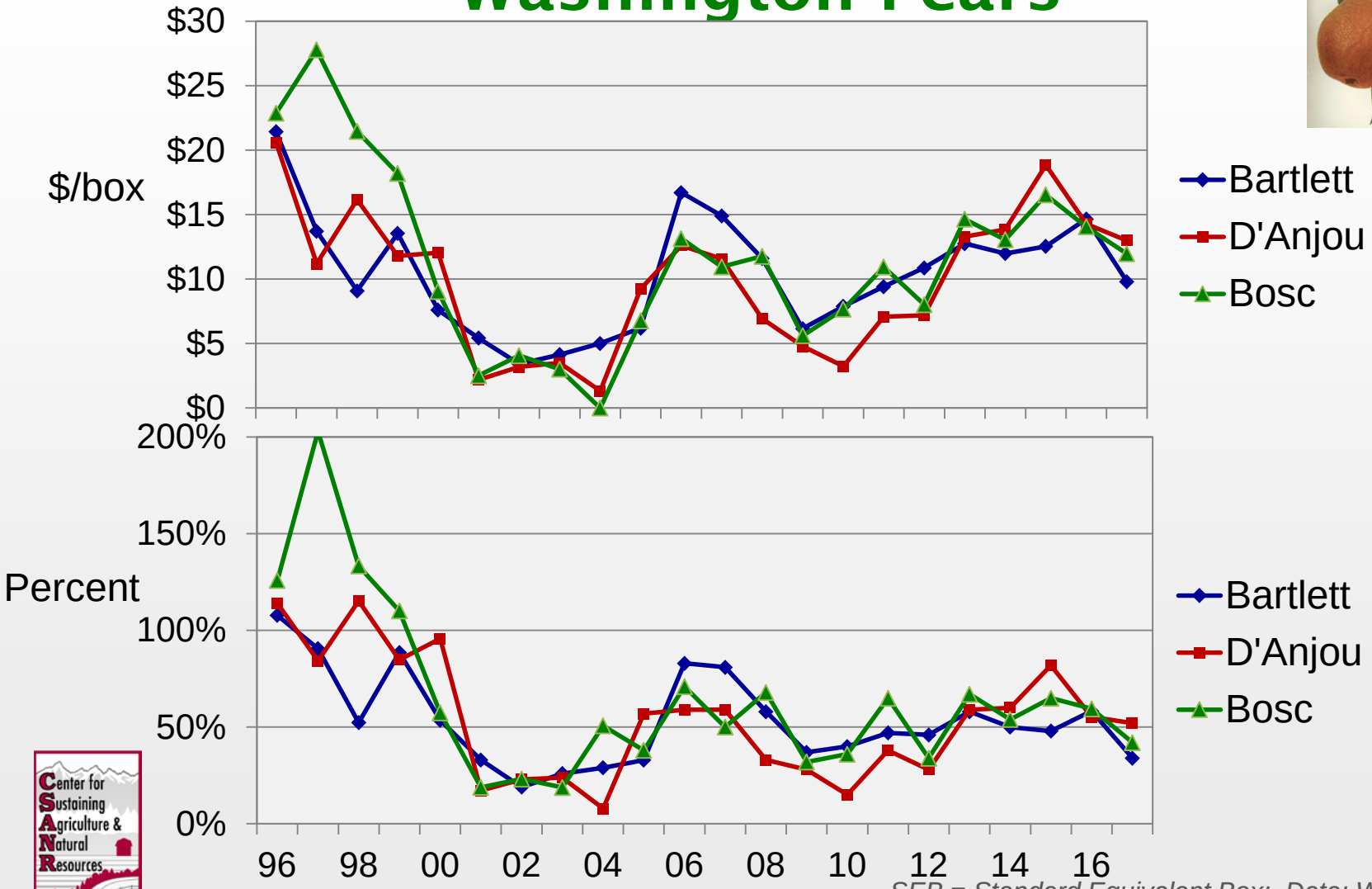
Price Trends
Washington Organic Pears

Season to Date, as of mid-December



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

Organic Premiums
Washington Pears



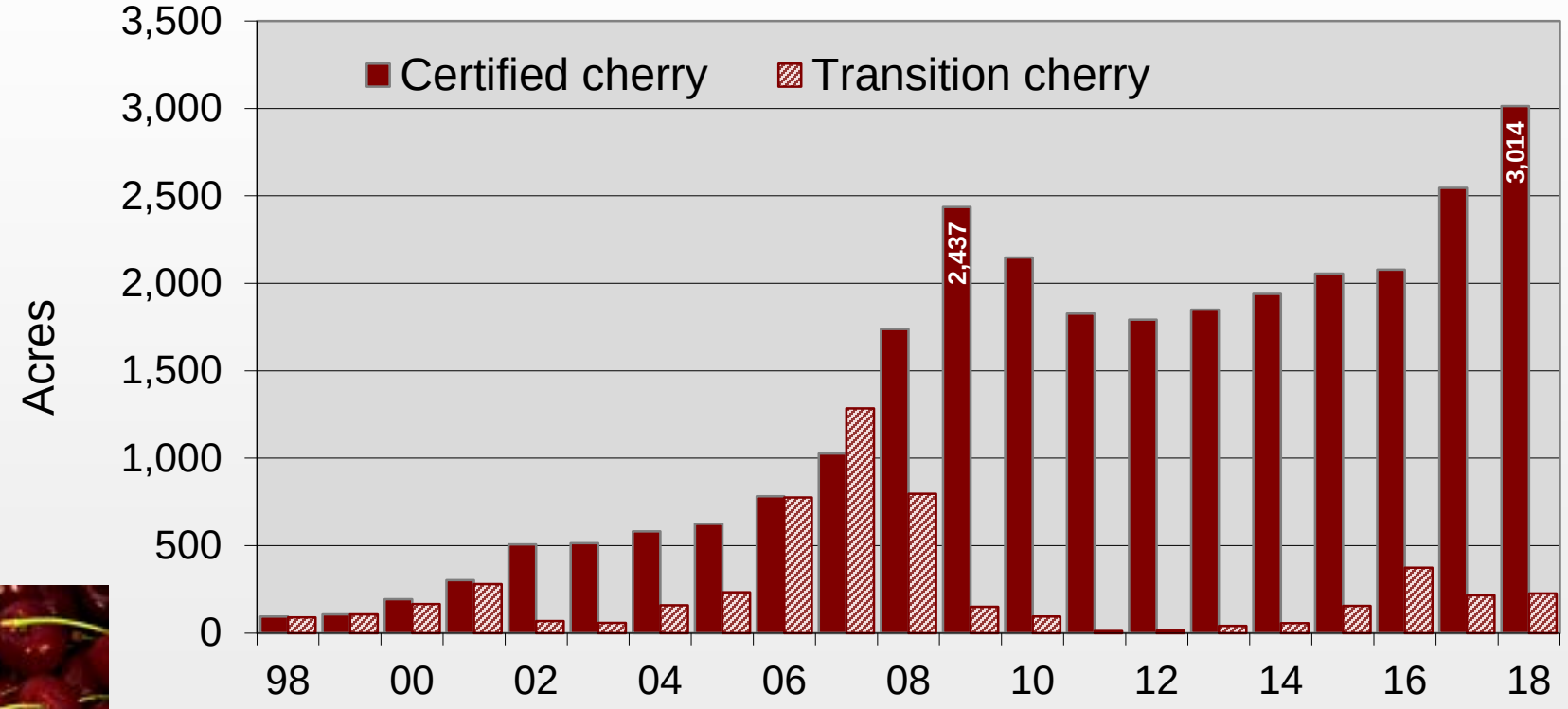
SEB = Standard Equivalent Box; Data: WSTFA, WGCH.
Annual data points represent FOB season price averages.

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.

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.

Center for Sustaining Agriculture & Natural Resources

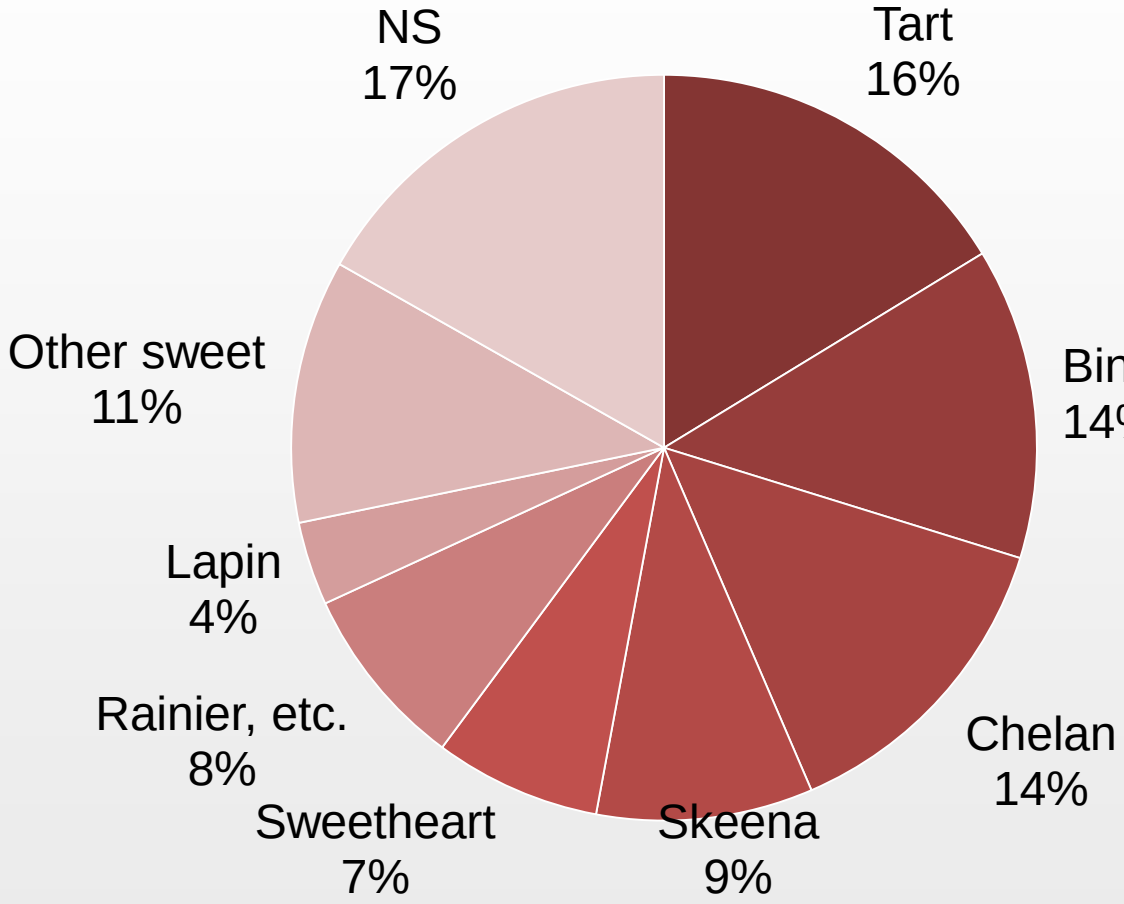
Organic Cherry Acreage
Washington State (sweet + tart)



2018 organic = **6.7%** of total WA cherry area
(based on 2017 WA-NASS estimate of 44,707 acres)

Combined certifier data

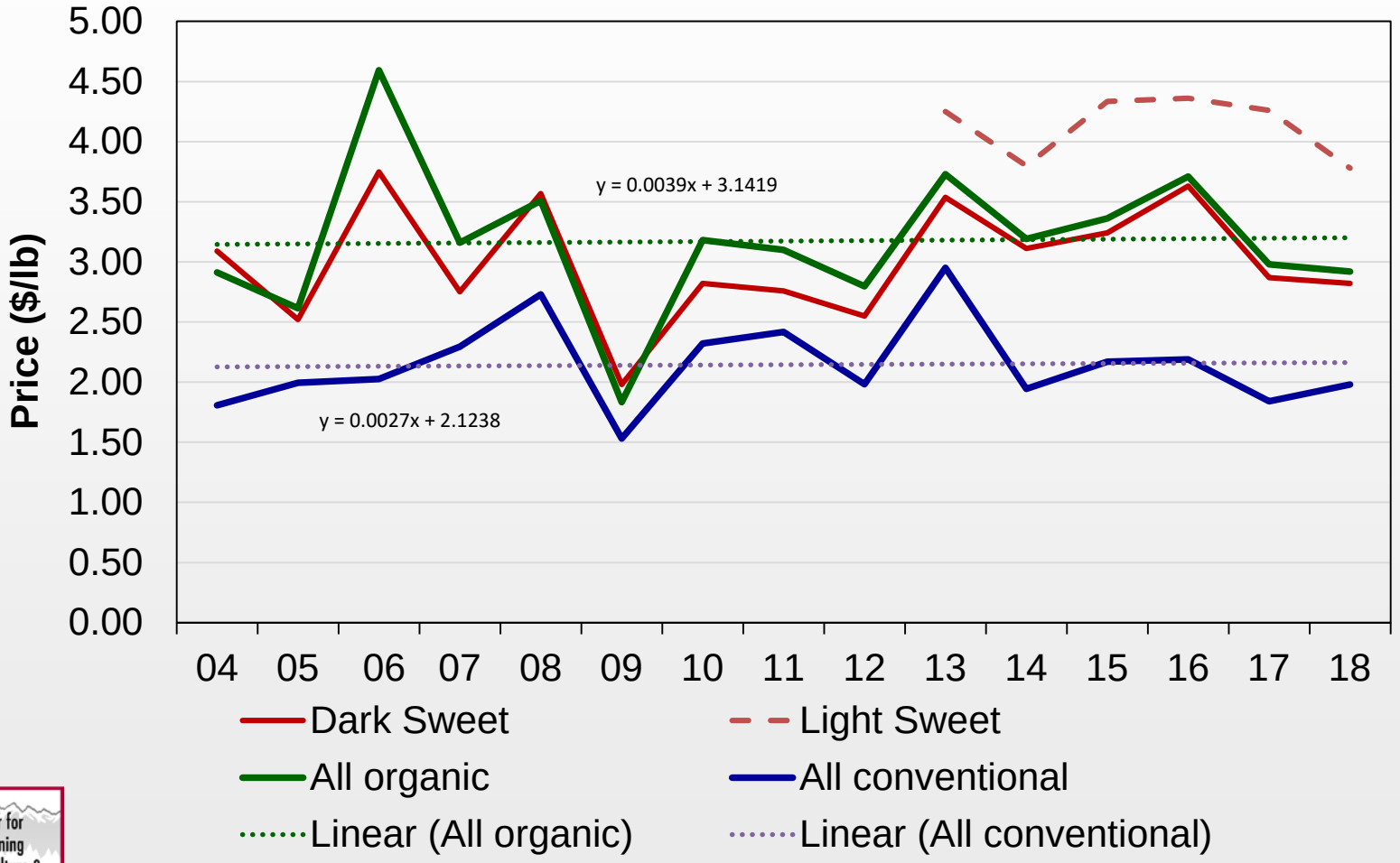
Organic Cherry Variety Acres
Washington State, 2018



17% of cherries not reported by variety in 2018
compared to 57% in 2008

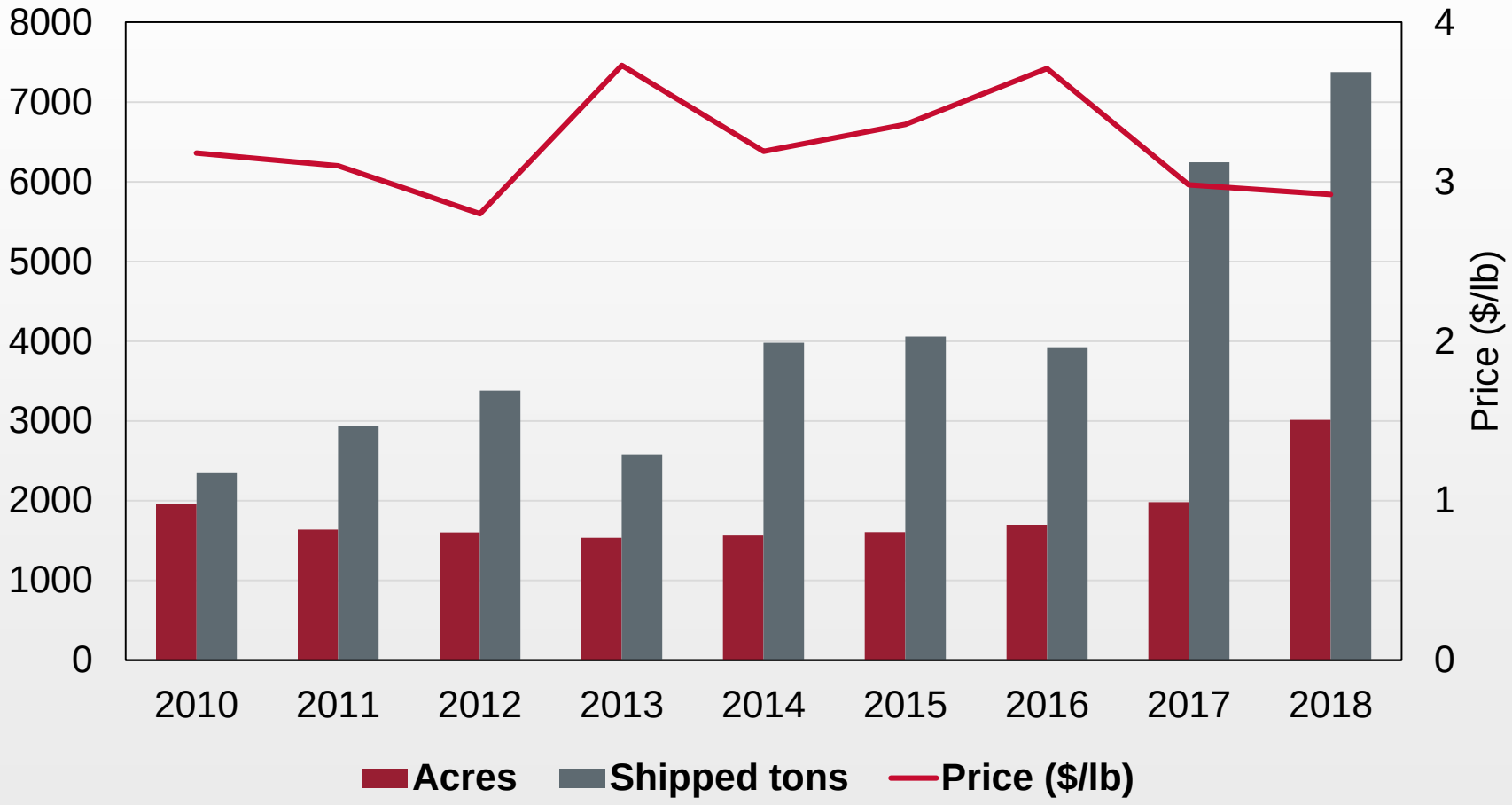
Combined certifier data;
NS = not specified

WA Organic Sweet Cherry Prices



Data: WSTFA, WGCH. Annual data points represent FOB season price averages.

WA Organic Sweet Cherries



Data: WSTFA

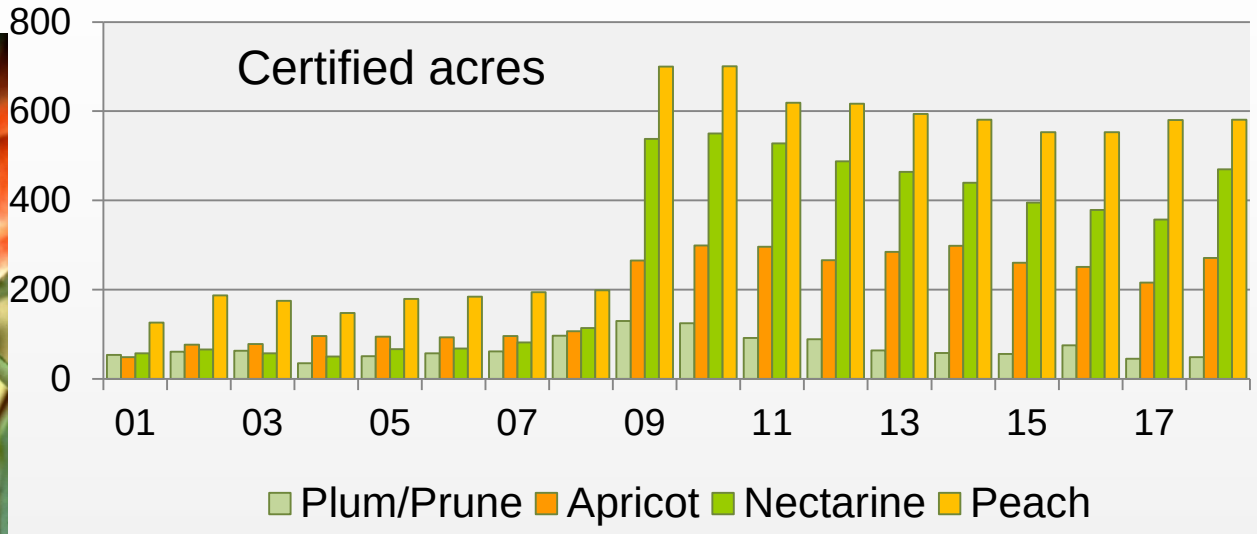
WA Organic Cherries

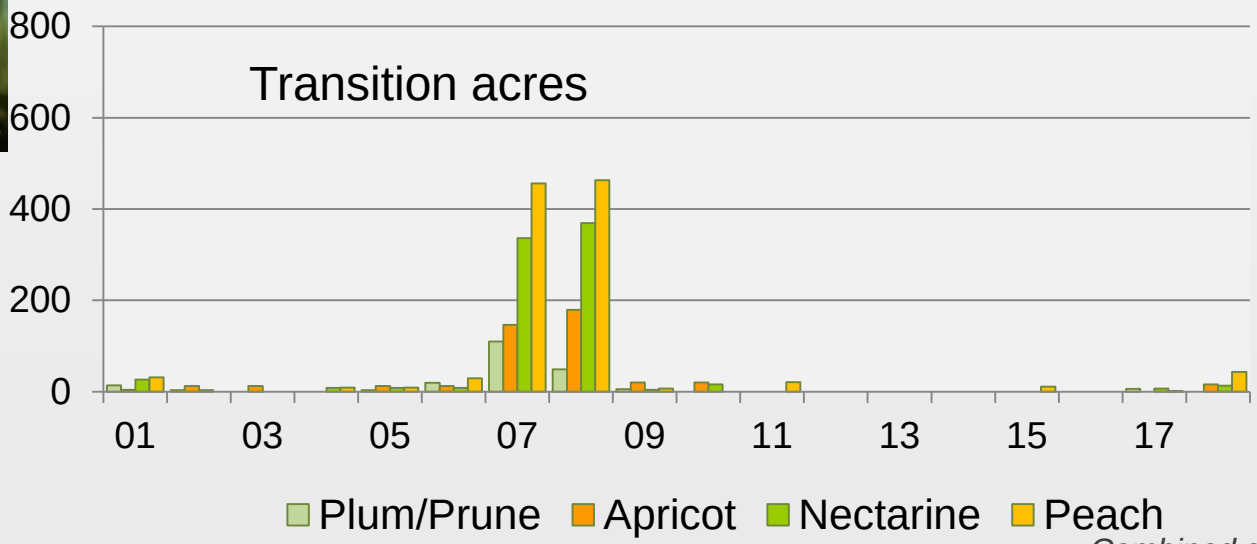
	2015		2016		2017		2018	
	ORG	CONV	ORG	CONV	ORG	CONV	ORG	CONV
Dark Sweet								
Volume (1000 box*)	361	16,646	349	14,795	574	22,407	665	20,954
% of crop	89	94	86	94	90	92	87	91
Light Sweet								
Volume (1000 box*)	60	1,517	58	1,289	67	1,863	97	2,201
% of crop	11	6	14	6	10	8	13	9
Organic Share of all, %	2.3		2.5		2.6		3.2	
Calculated Yield (packed tons/ac)	2.53		2.31		3.15		2.95	

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

Data: WSTFA

Other Stone Fruit Trends
Washington State





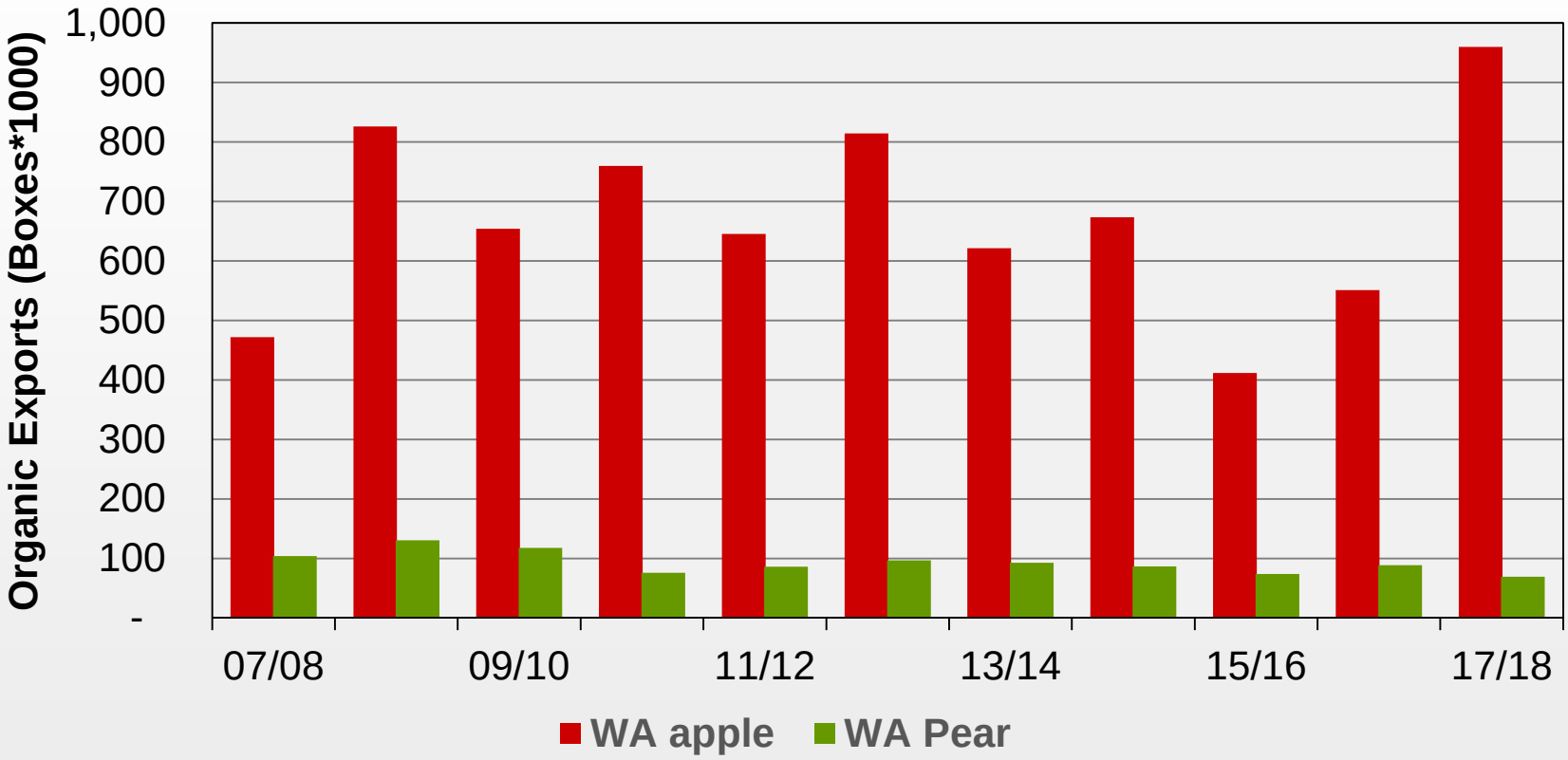
Center for Sustaining Agriculture & Natural Resources

Combined certifier data

Exports

Exports of organic tree fruit from Washington have occurred for years and increased for the 2017 crop (slide 73), which included resumption of organic apple exports to the UK after several years with none (slide 74). This may be due to a small crop in Europe and a large one in Washington. Canada is by far the largest export destination (slide 75). ‘Gala’ apple and ‘d’Anjou’ pear are the leading organic tree fruit exports by volume (slides 76, 77). 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



2017 exports: 7.2% of the organic apple and 6% of organic pear volume; Canada, largest export destination, 62% of apples and 86% of pears

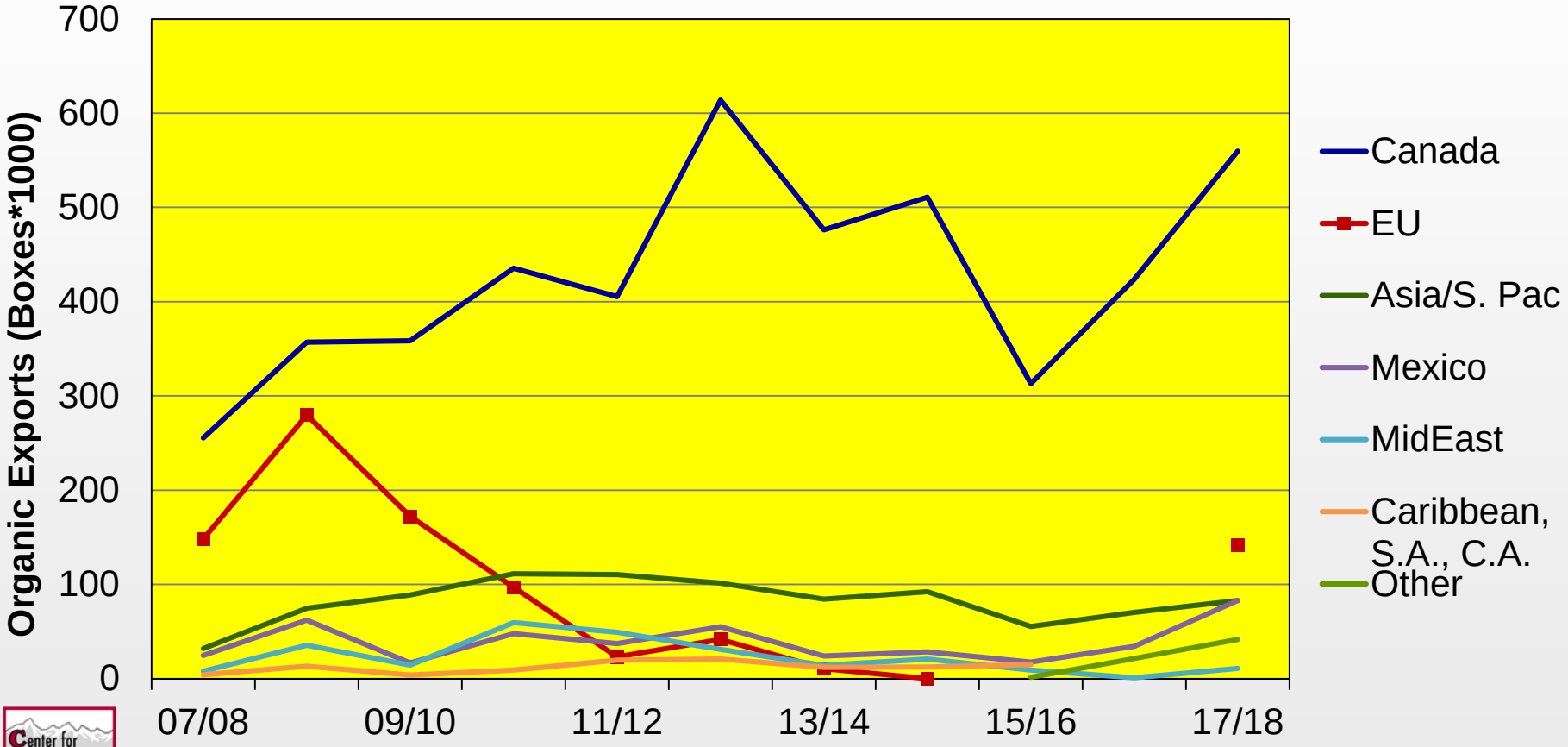
Data: WSTFA, WGCH. Export includes Canada.

Exports

- ‘Gala’ apple and ‘Anjou’ pear were leading export varieties
- 2017: renewed apple shipments to UK; started 1 ctnr/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

Ctnr=shipping container=1000 boxes

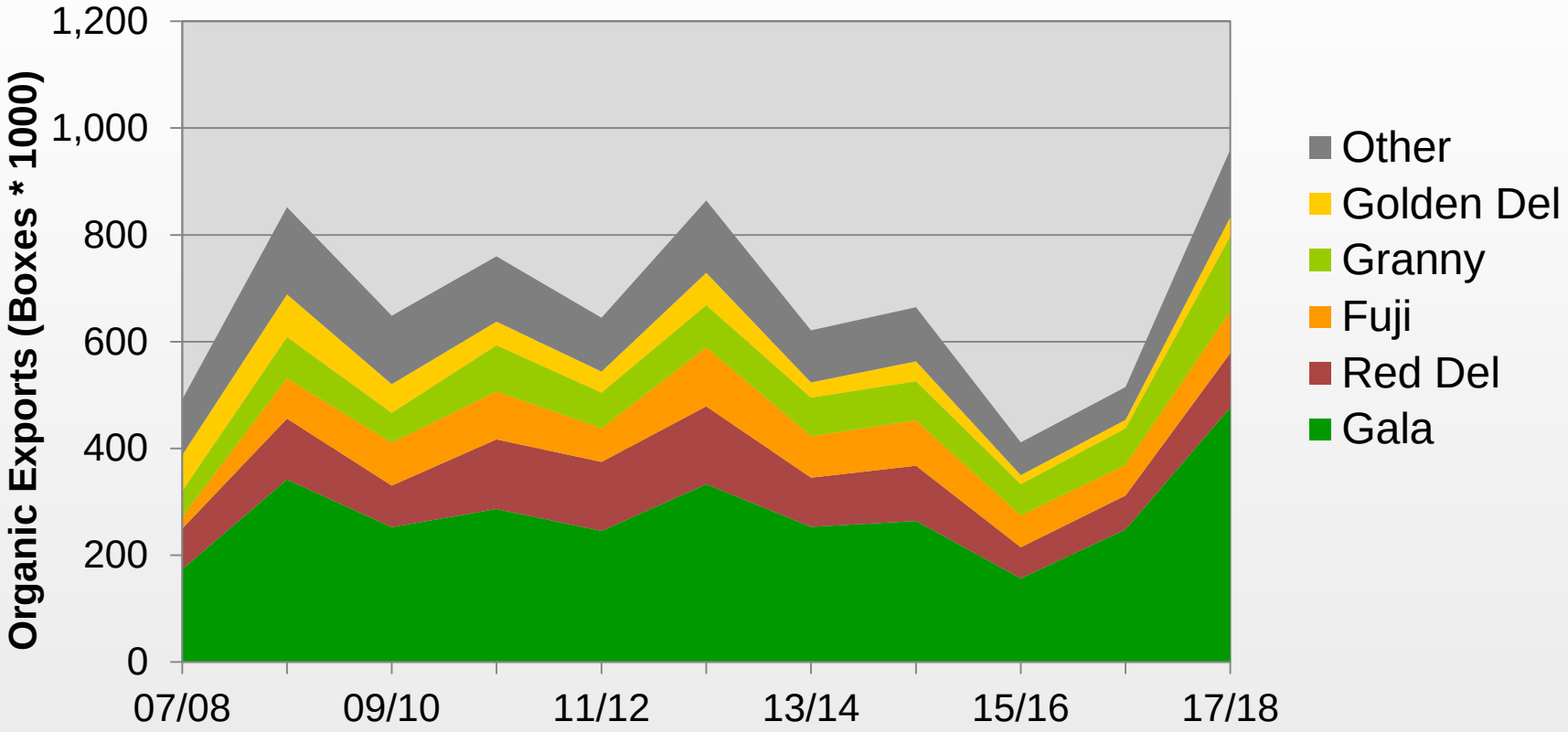
Washington Organic Apple Top Export Destinations



Center for Sustaining Agriculture & Natural Resources

Data: WSTFA, WVTA

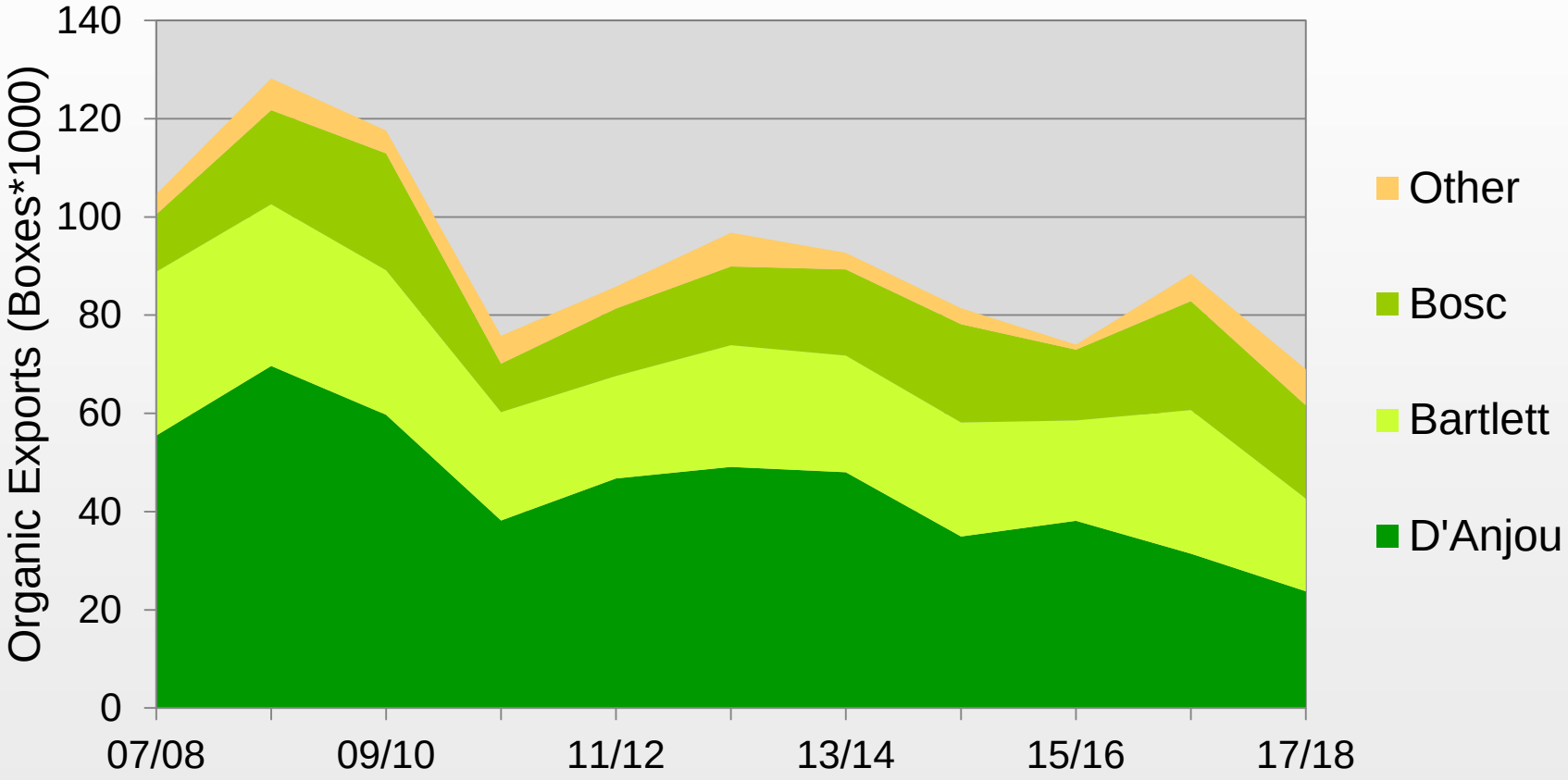
WA Organic Apple Exports by Variety



Top 2018 varieties for export: Gala 50%, Granny Smith 15%

Data: WSTFA, WVTA

WA Organic Pear Exports by Variety



Center for Sustaining Agriculture & Natural Resources

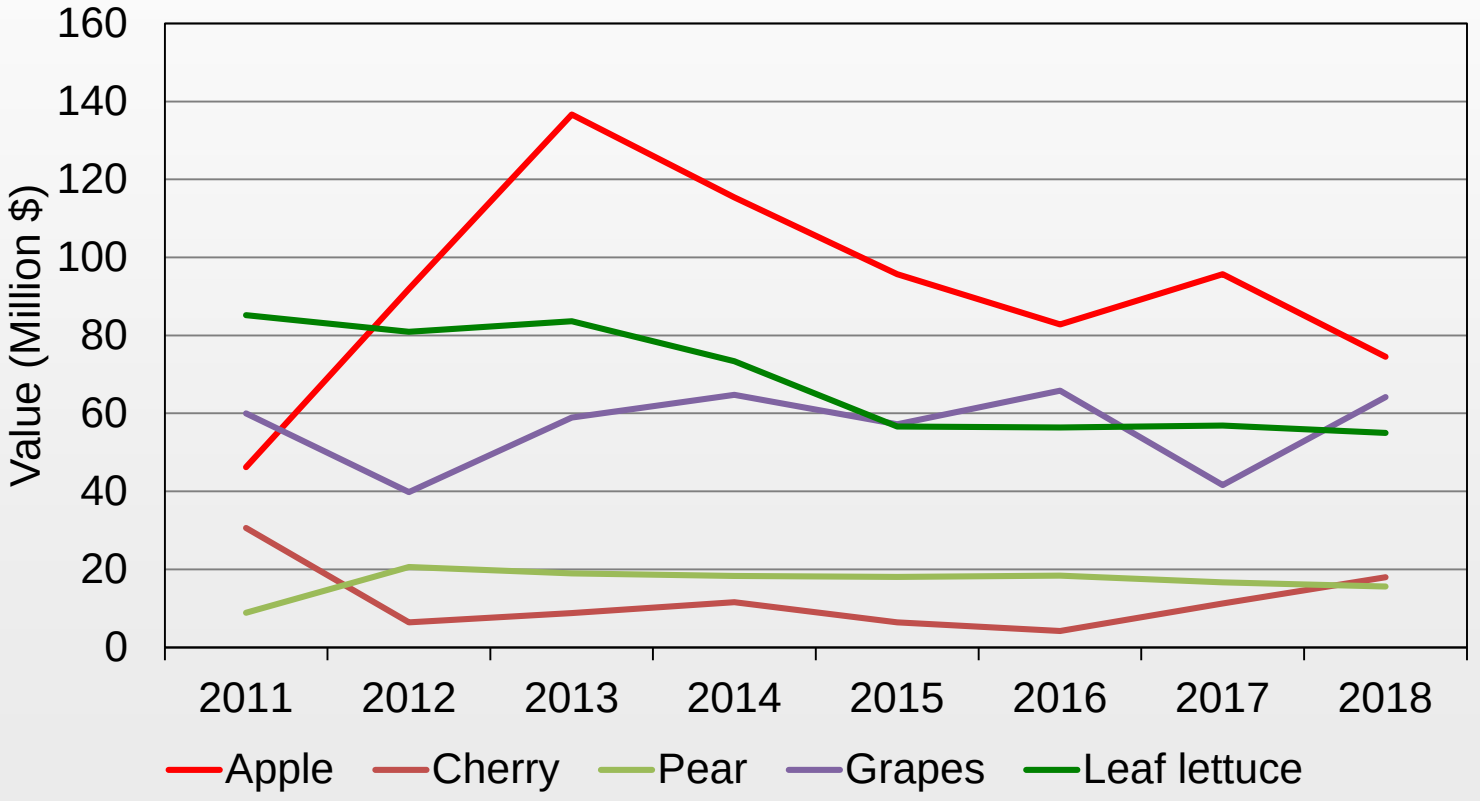
Data: WSTFA, WVTA

Exports

Apples have been the leading U.S. organic produce export by value for several years. In 2018, apples, grapes, and leaf lettuce were the top 3 organic produce exports by value (slide 79). While the value of organic apple exports continues to exceed the value of imports, the import value has been increasing while exports are decreasing (slide 80). 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.

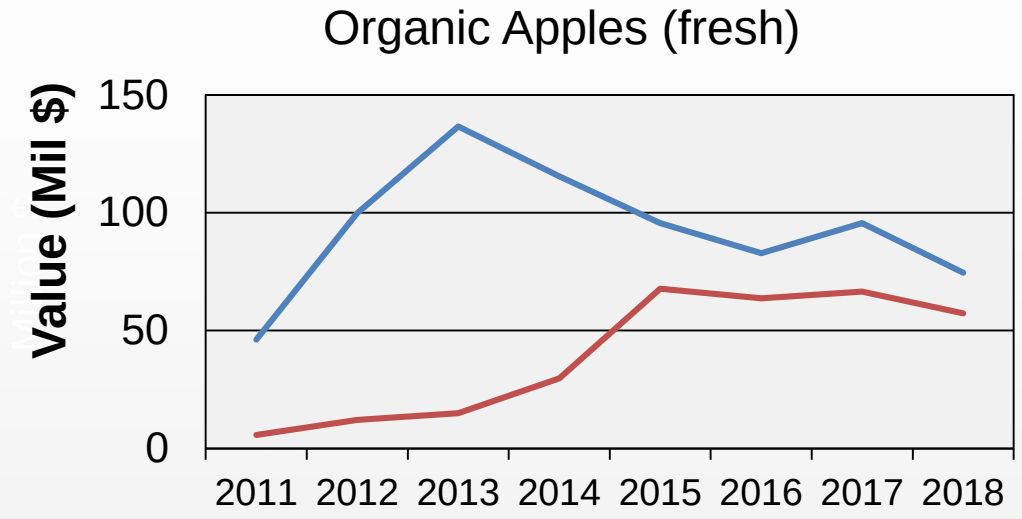
U.S. Organic Exports

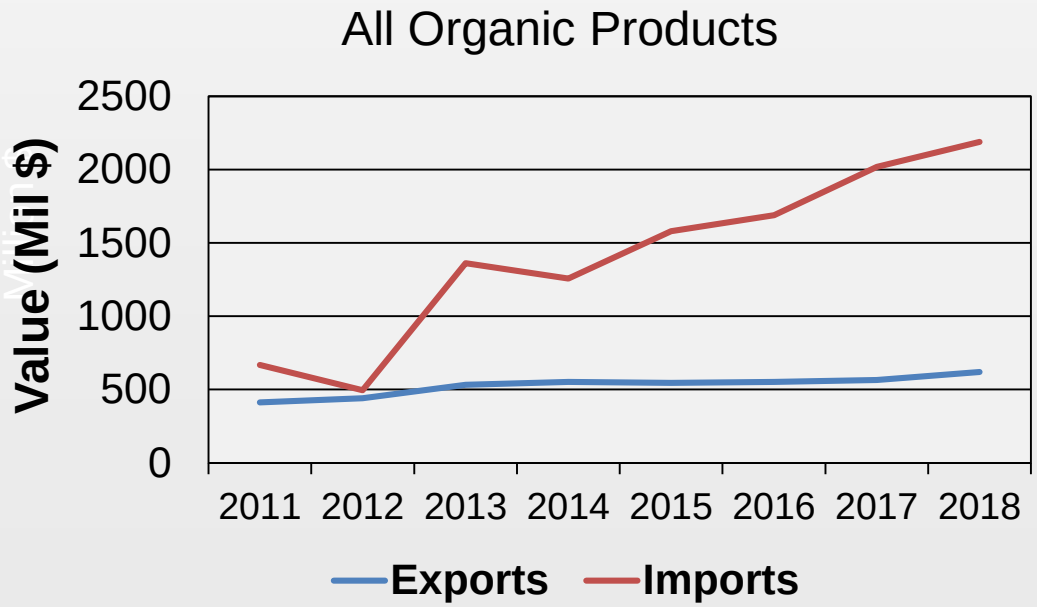
Fresh fruits are an important U.S. organic export. Apple is the leading fresh fruit product, but exports have declined in recent years.



Source: USDA-FAS GATS

U.S. Organic Trade



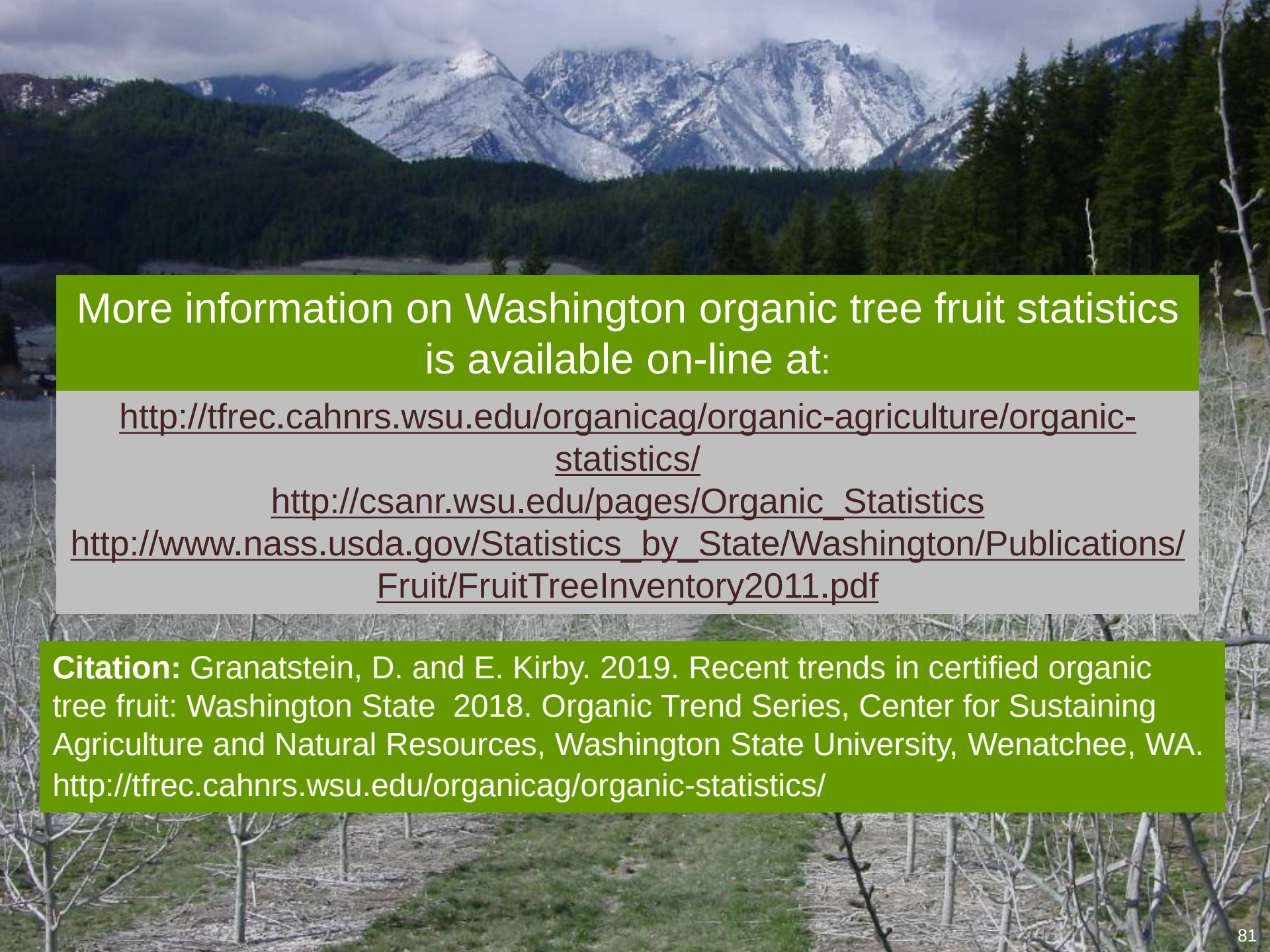


2018

- Apples were 12% of export $, 3% of import $
- Apples, largest organic export value of any produce
- Lettuce #2,Grapes, #3, Strawberries #4
- Since 2013, apple exports declining,

Annual Change (12/31/18)	
Org Apple exp	-22%
Org Apple imp	-14%
All Org exp	+ 8%
All Org imp	+ 9%

Data: USDA-FAS



More information on Washington organic tree fruit statistics is available on-line at:

http://tfrec.cahnrs.wsu.edu/organicag/organic-agriculture/organic-statistics/
http://csanr.wsu.edu/pages/Organic_Statistics
http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Fruit/FruitTreeInventory2011.pdf

Citation: Granatstein, D. and E. Kirby. 2019. Recent trends in certified organic tree fruit: Washington State 2018. Organic Trend Series, Center for Sustaining Agriculture and Natural Resources, Washington State University, Wenatchee, WA. http://tfrec.cahnrs.wsu.edu/organicag/organic-statistics/