# Recent Trends in Certified Organic Tree Fruit in Washington State: 2019

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*Mulching cherry prunings*

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*WSU-Center for Sustaining Agriculture and Natural Resources, retired*
In cooperation with Washington State Department of Agriculture, Oregon Tilth, and CCOF

# Document Outline

| | Slides |
|---|---|
| • Introduction | 3 |
| • Demand Trends | 3 -10 |
| • Global and National Area | 11-21 |
| • Washington State Trends | 22-25 |
| • Organic Apples | 26-53 |
| • Organic Pears | 54-64 |
| • Organic Cherries | 65-70 |
| • Soft Fruit | 71 |
| • Exports | 72-80 |

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 $105.6 billion in 2018, up 9% from 2017. The U.S. was the largest single country market ($47.9 billion), followed by Germany ($11.9 billion), France ($11.2 billion), and China ($9.1 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) |
| 2018 | 48 | 43 | 9 (Asia) |

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

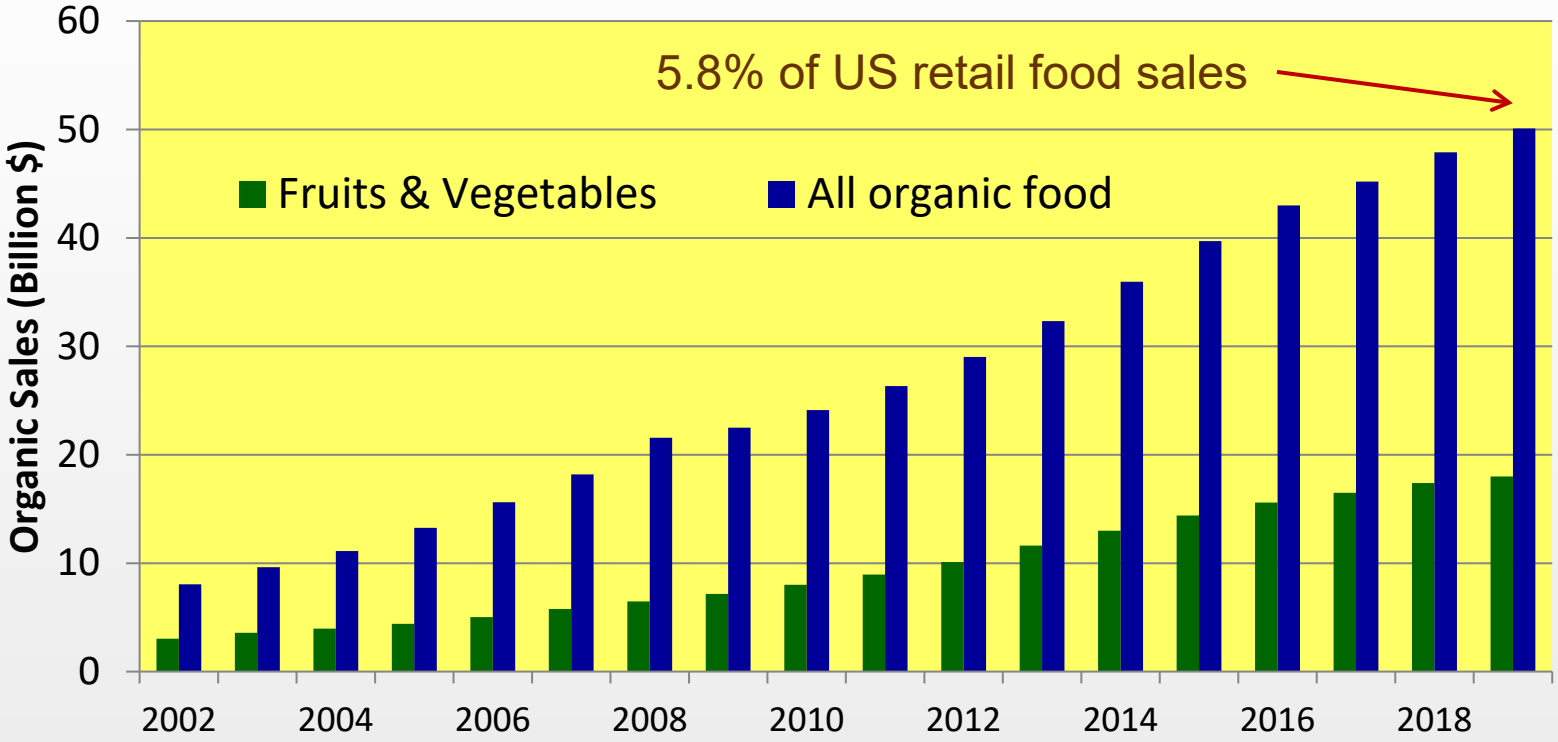
*Source: World of Organic Agriculture*

The next slide (6) shows the growth in retail sales of organic food in the U.S. since 2002. Growth dipped during the 2009 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, with tremendous growth of organic blueberries in recent years.

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 Demand
## Growth of US Organic Food Sales

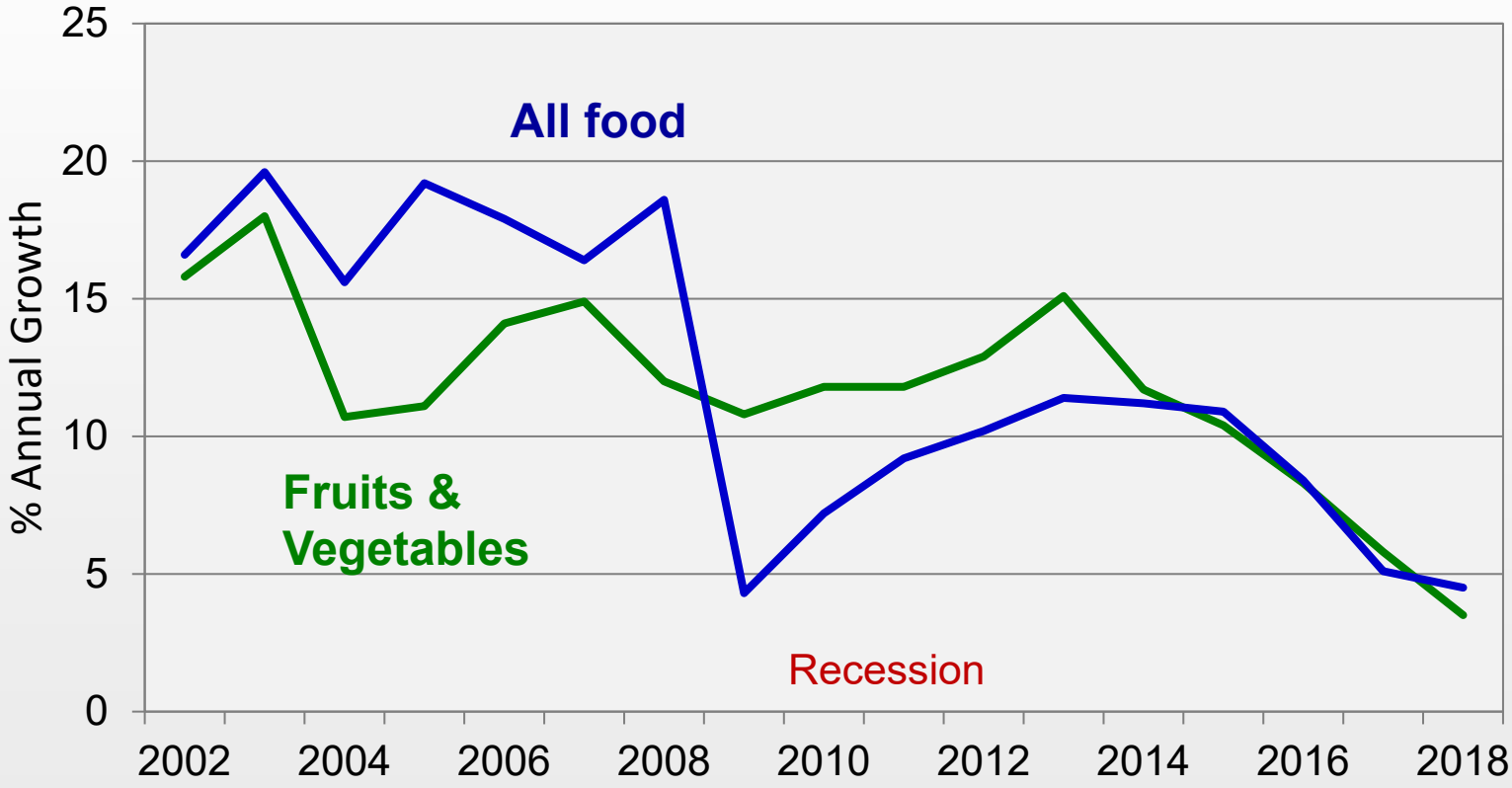



Retail organic food sales increased 4.6% in 2018. Organic fruits and vegetable sales increased 5.0% and were 36% of all organic food sales (and 15% of all US produce sales); over 90% were sales of fresh produce.

*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 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 (2018) 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 35% 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 pear expanded their area in 2018 (slide 13). Apple had the largest area for a specific fruit, followed by banana 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% of 2017 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).

# Global Organic Tree Fruit Area

Organic tree fruit crops 612,329 ha
~0.9% of organic agriculture land

| | Hectares* 2018 | % of organic tree fruit | % change from 2015 | % of all global |
|---|---|---|---|---|
| Temperate | 223,516 | 36 | -9 | 1.7 |
| Citrus | 90,047 | 15 | +3 | 0.8 |
| Tropical/ Subtropical | 274,448 | 45 | -28 | 1.2 |

*certified + transition

1 hectare (ha) = 2.47 acres

*Source: World of Organic Agriculture; FAO*

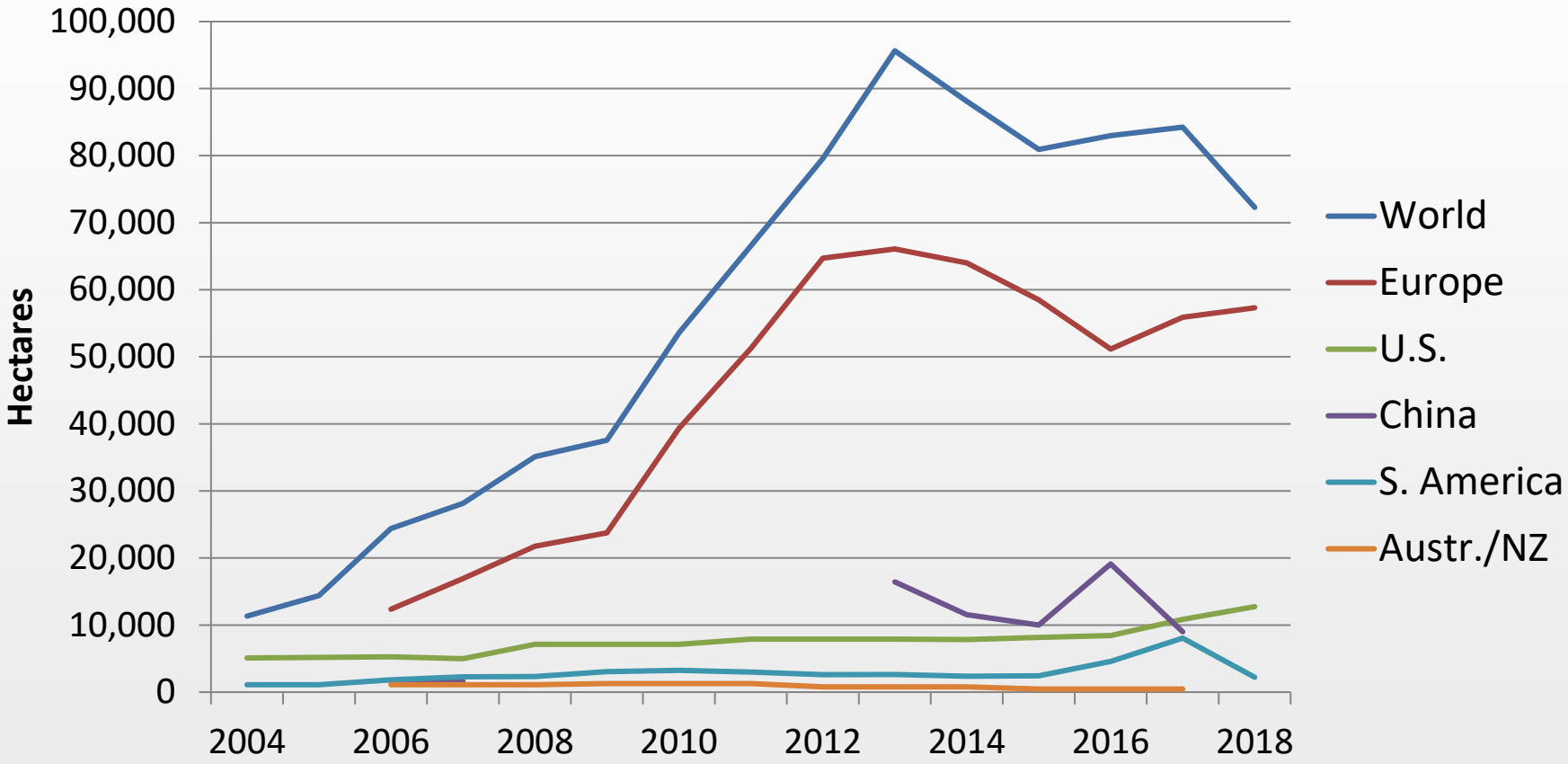
# Global Organic Tree Fruit Area

| | Hectares* 2018 | % change from 2017 | % of organic category | % of all global# |
|---|---|---|---|---|
| Apple | 86,619 | +5.8 | 39 | 1.7 |
| Apricot | 31,240 | +111 | 14 | 5.8 |
| Cherry | 17,098 | +1.8 | 8 | 2.8 |
| Peach/Nect. | 19,082 | +54.1 | 9 | 1.1 |
| Pear | 20,426 | -1.2 | 9 | 1.5 |
| Plum | 17,756 | +8.5 | 8 | 0.7 |
| Other, no details | 31,188 | | 14 | |
| Banana | 82,495 | -6.9 | 30 | 0.7 |
| Orange | 16,433 | -61.3 | 18 | 0.4 |

*certified + transition; # using 2016 FAO global data

*Source: World of Organic Agriculture; FAO*

# Organic Apple Trends
## Expansion of Global Area



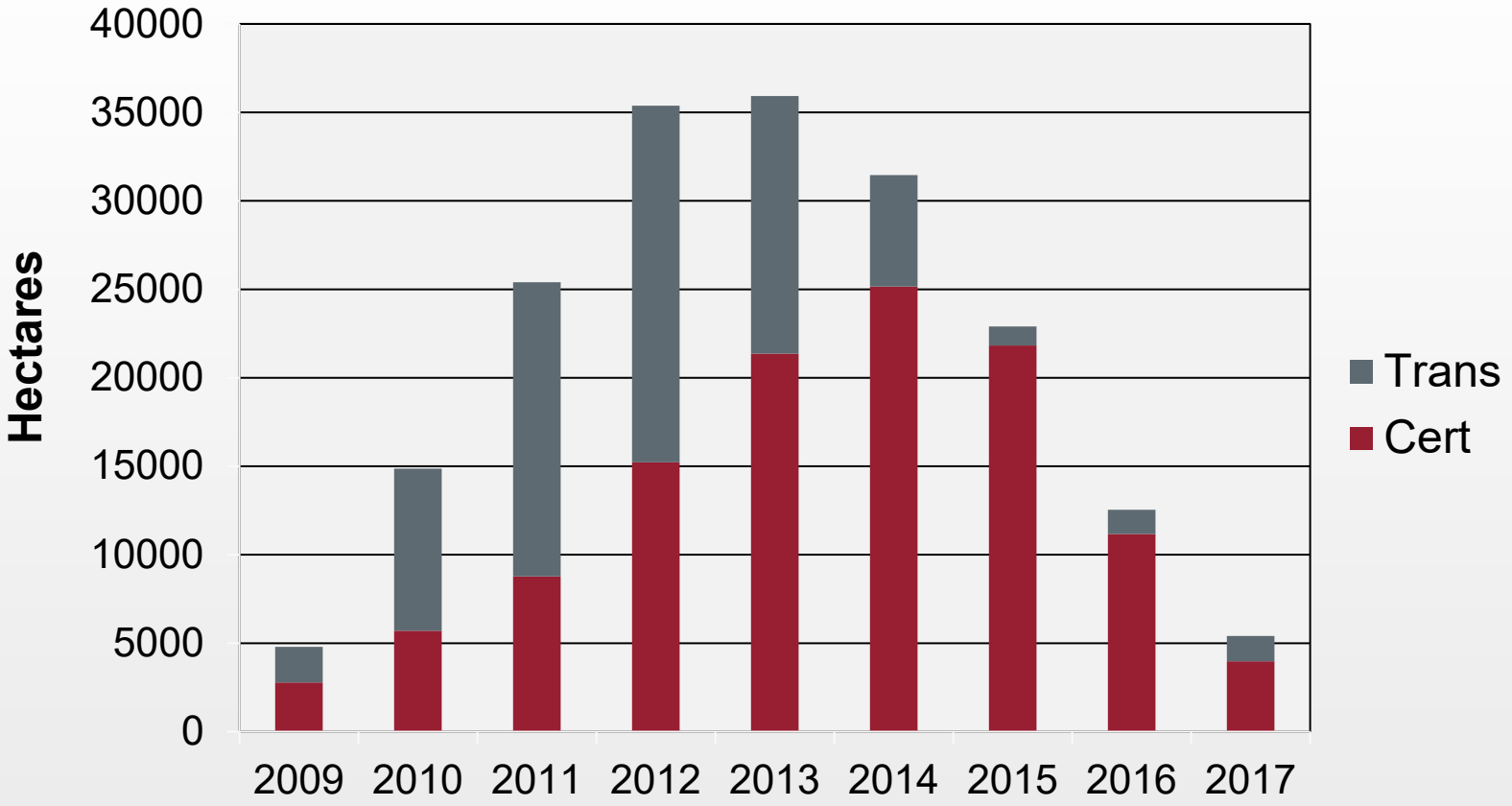

No 2018 data for China, Australia, NZ

*Certified + Transition area

1 hectare = 2.47 acres

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

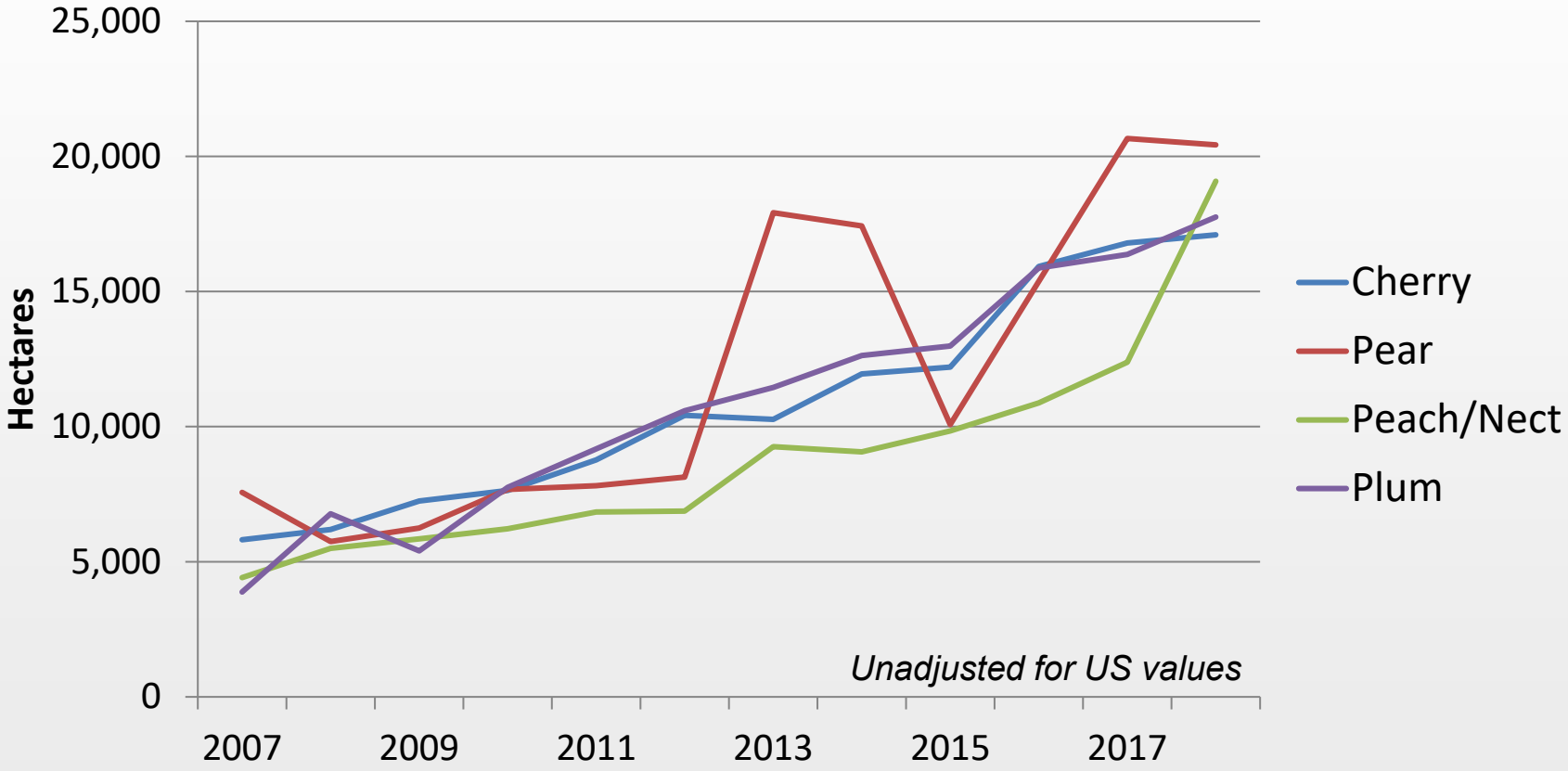
# Organic Apple Area in Poland




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

*Data courtesy of H. Willer, FiBL*

# Organic Tree Fruit Trends
## Expansion of Global Area




*Certified + Transition area

*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? | 0 |

1 hectare (ha) = 2.47 acres *includes US estimate

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

*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. 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 88% of the reported organic apple acres, producing 93% of the reported fresh fruit volume in the country. It also has 77% of the organic pear acres and 74% of the volume, and 86% 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)

| | 2016 (acres) | | | 2019 (acres) | | |
|---|---|---|---|---|---|---|
| | WA | CA | US | WA | CA | US |
| 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)

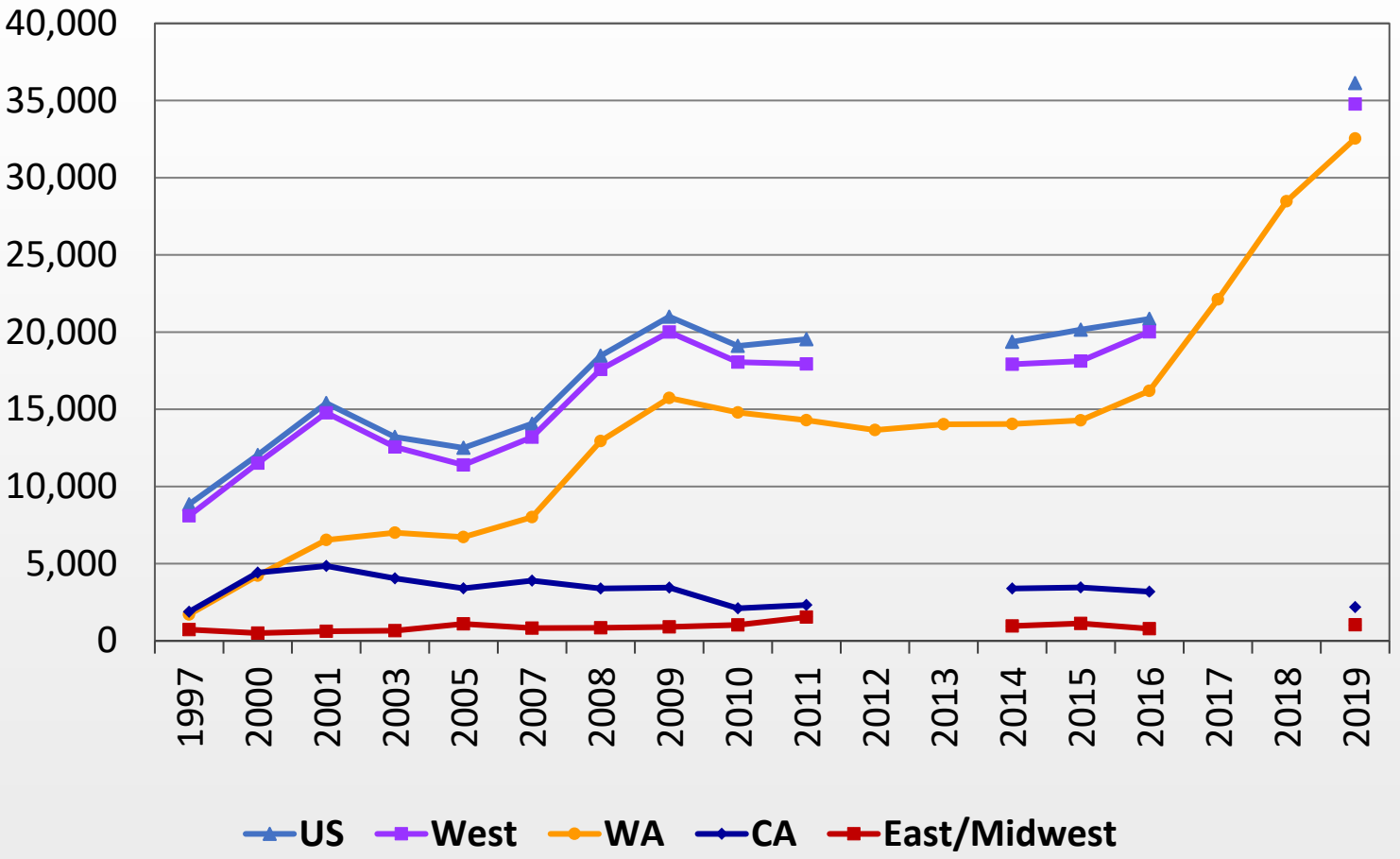
| State | 2000 | 2001 | 2005 | 2008 | 2011 | 2014 | 2015 | 2016 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| WA* | 4,228 | 6,540 | 6,721 | 12,936 | 14,296 | 14,052 | 14,283 | 16,191 | 32,537 |
| CA* | 4,423 | 4,853 | 3,402 | 3,393 | 2,322 | 3,392 | 3,460 | 3,186 | 2,191 |
| AZ | 1,795 | 1,715 | 865 | 816 | 354 | ? | ? | ? | ? |
| CO | 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 |

*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 and NASS.

The acreages of different organic tree fruits in Washington over time are shown in slide 23. 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 25). However, value of the 2019 organic apple crop was lower than the previous year as the increase in shipped volume was more than offset by lower prices and perhaps more diversion from fresh organic sales.


# Organic Tree Fruit Acres
## Washington State

| | --- Certified acres --- | | | | | | | | Trans acres† |
|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2012 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2019 |
| Apple | 14,790 | 13,657 | 14,052 | 14,283 | 16,191 | 22,116 | 28,473 | 32,537 | 2,881 |
| Pear | 2,033 | 1,900 | 1,843 | 2,050 | 2,243 | 2,763 | 3,263 | 4,201 | 172 |
| Cherry | 2,147 | 1,792 | 1,939 | 2,056 | 2,078 | 2,546 | 3,014 | 3,352 | 85 |
| Apricot* | 299 | 266 | 299 | 260 | 251 | 216 | 271 | 360 | 0 |
| Nectarine | 550 | 488 | 440 | 395 | 379 | 357 | 470 | 472 | 33 |
| Peach | 701 | 618 | 580 | 553 | 553 | 580 | 580 | 602 | 14 |
| Plum/Prune* | 125 | 89 | 58 | 56 | 76 | 45 | 49 | 53 | 0 |
| Mixed stone | 13 | 45 | 17 | 32 | -- | 1 | 4 | 2 | 0 |
| Total* | 20,658 | 18,855 | 19,228 | 19,685 | 21,771 | 28,624 | 36,122 | 41,580 | 3,546 |

*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.

*Combined certifier data*

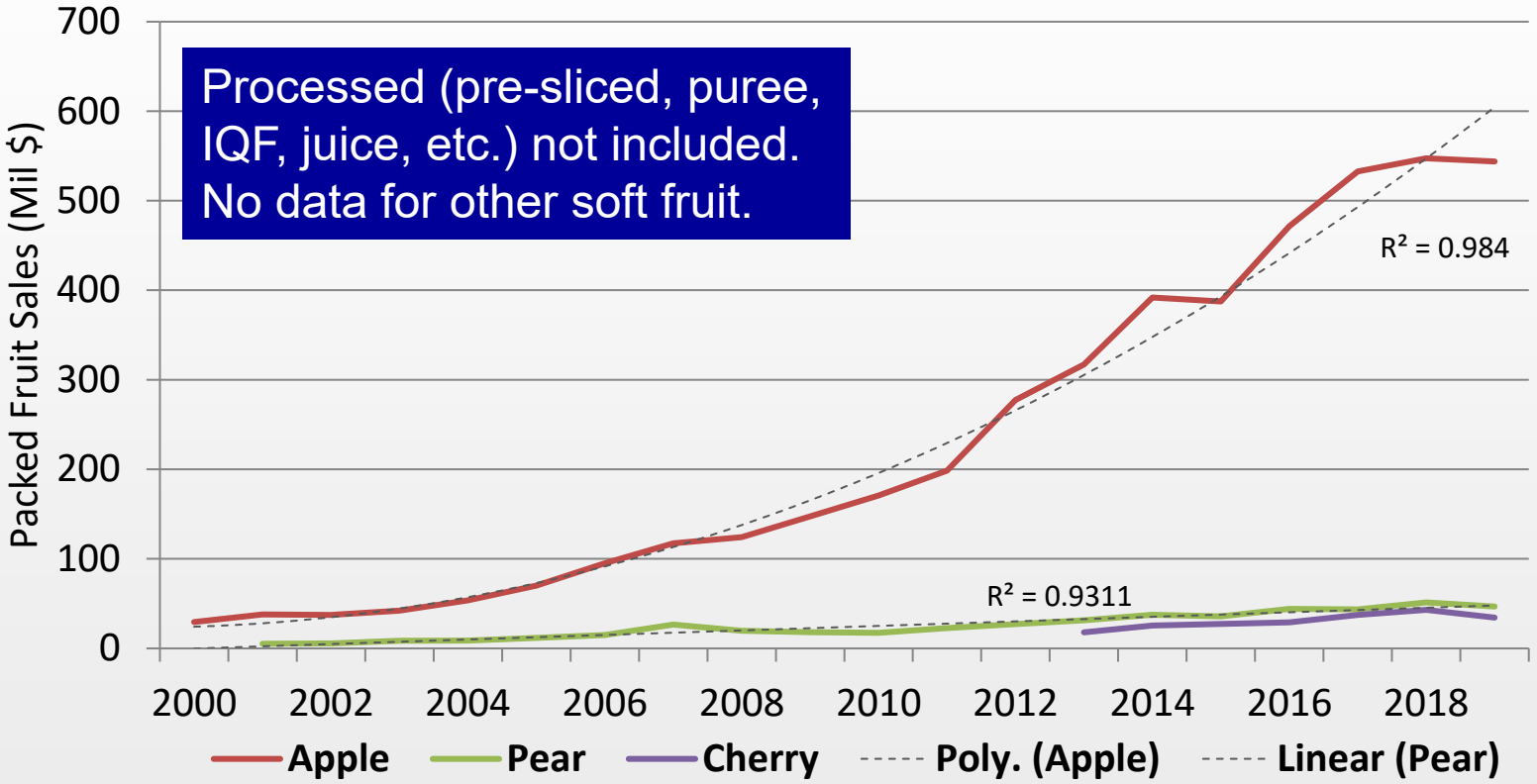
# Value of WA Fresh Organic Tree Fruits

| | 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



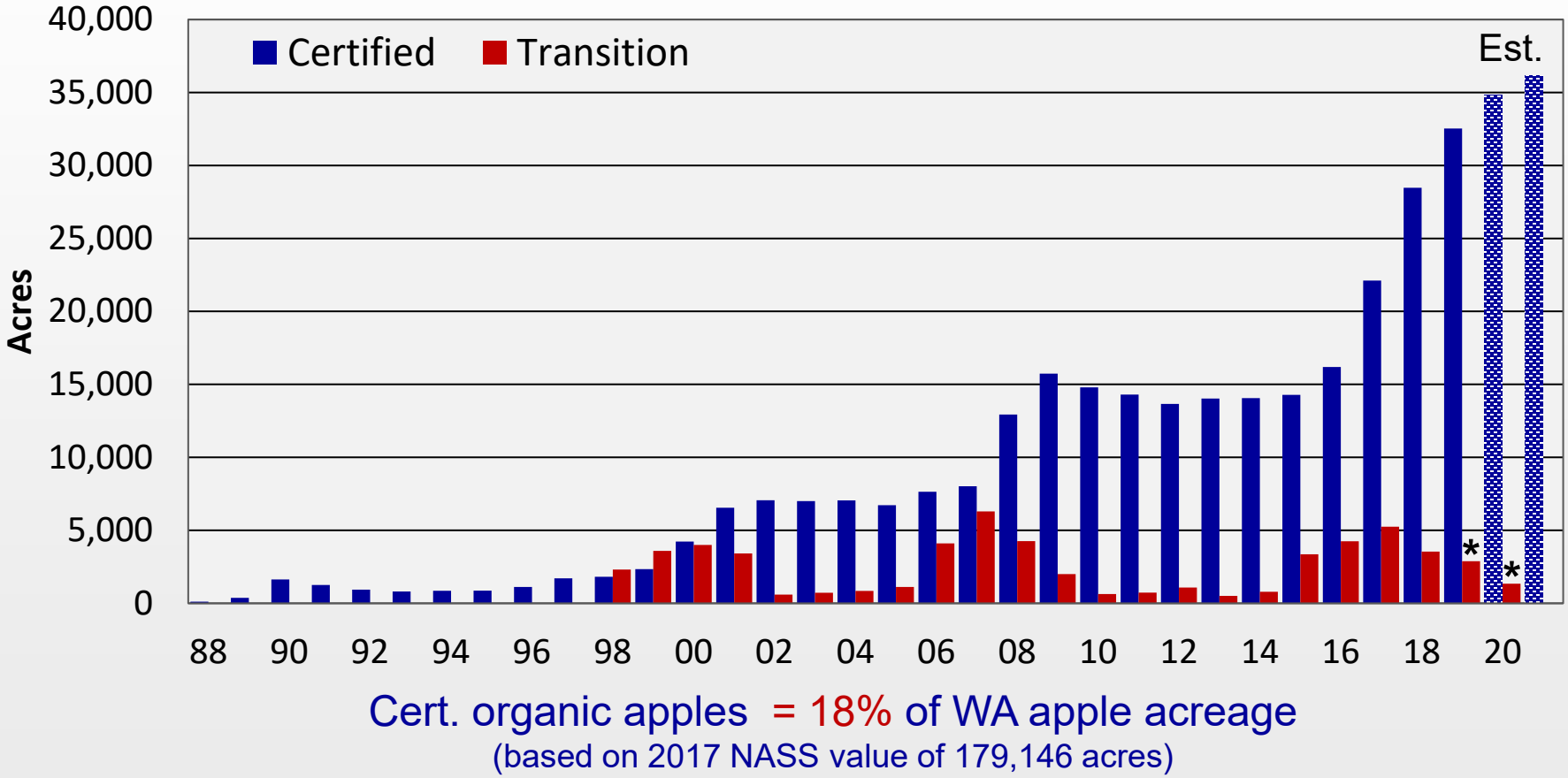

Based on shipped volume for the crop (e.g., 2008 harvest was shipped in both 2008 and 2009) and estimated weighted average price per packed box during the same period. Dashed line is polynomial trend line estimate. Does not included processed fruit.

*Data: WSTFA, WGCH, WVTA*

The expansion of organic apple area in the state has proceeded in a stepwise fashion as shown in slide 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, 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.

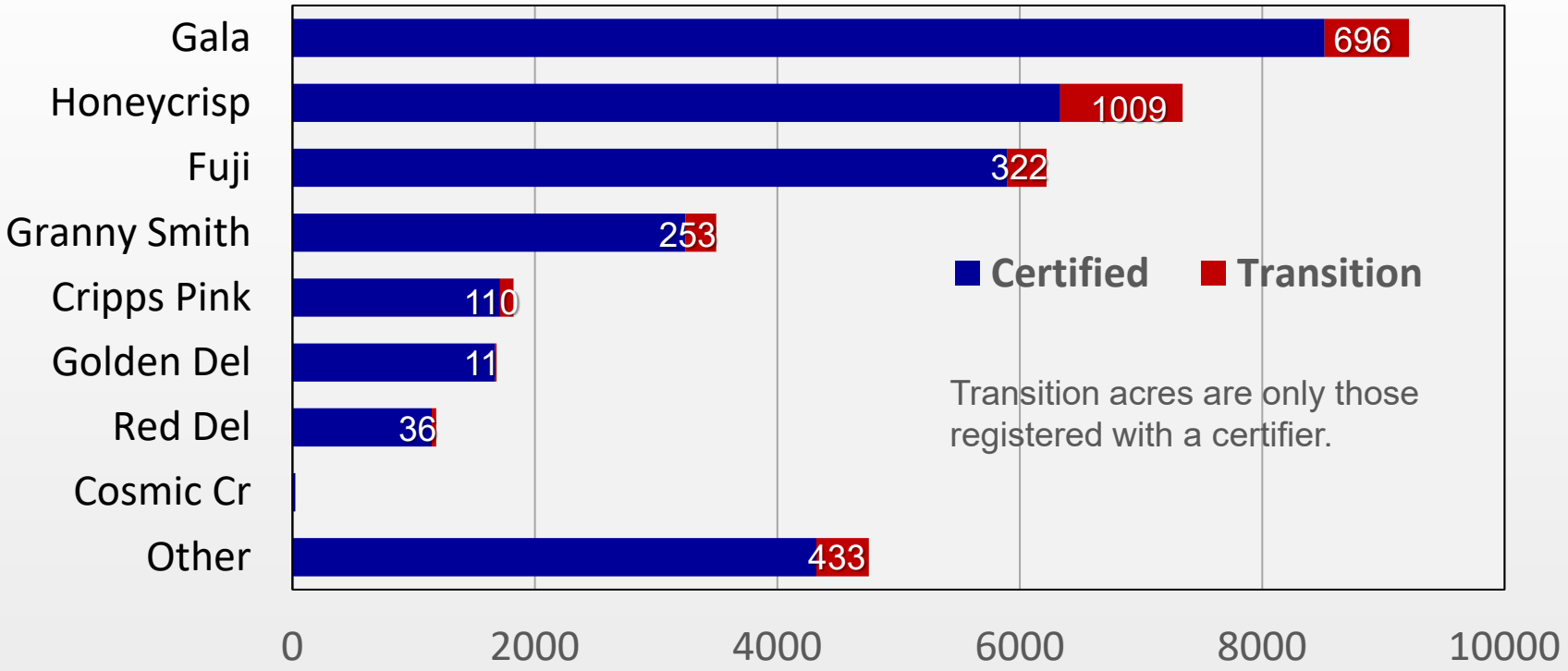

# Organic Apple Acreage
## Washington State




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

*Transition acres from WSDA and CCOF only

# Organic Apple Variety Acres
## Washington 2019



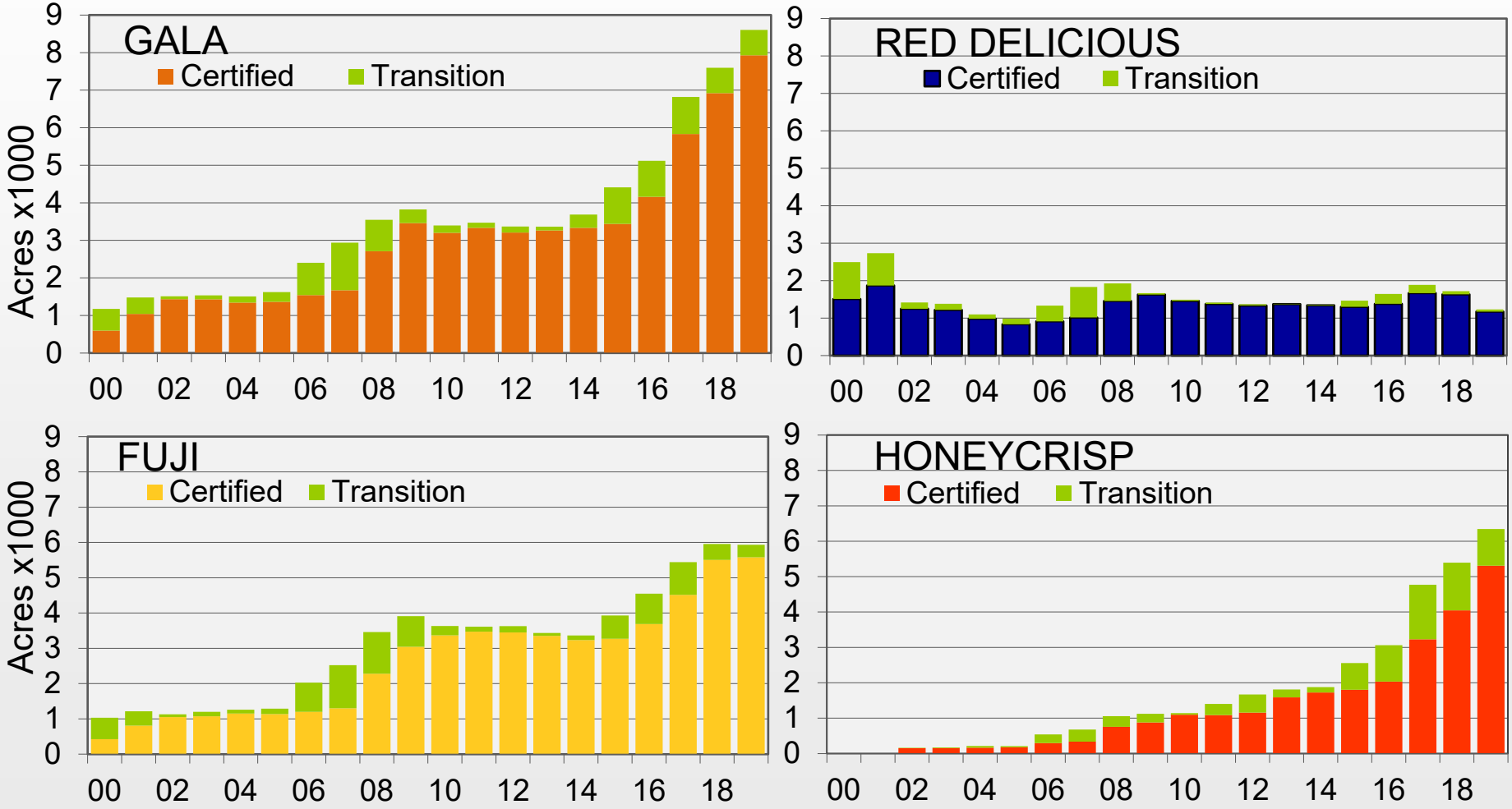

*WA Fuji; ARS Photo*

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

*WSDA and CCOF data. Cripps Pink includes Pink Lady.*

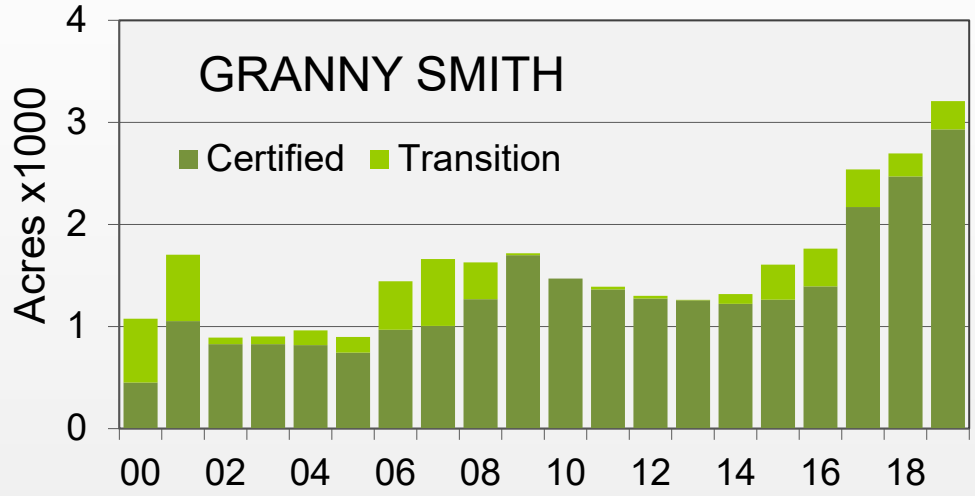

# Organic Apple Varieties

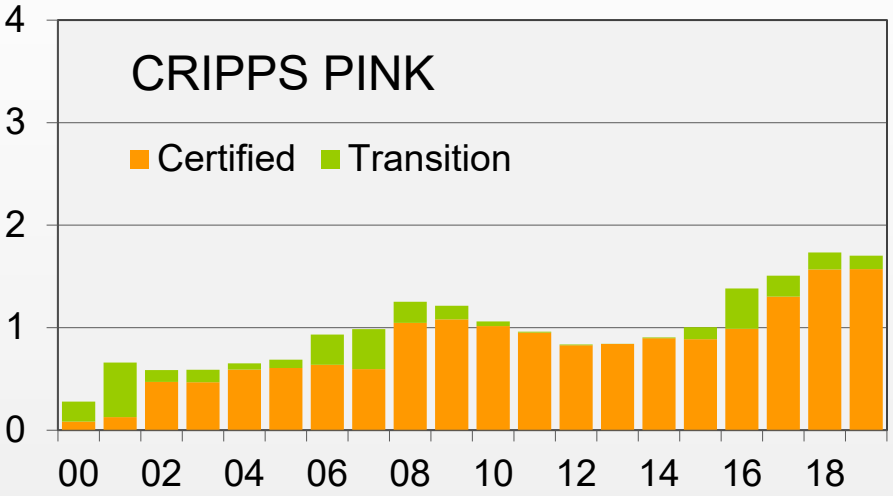
## Washington State Acres Trend

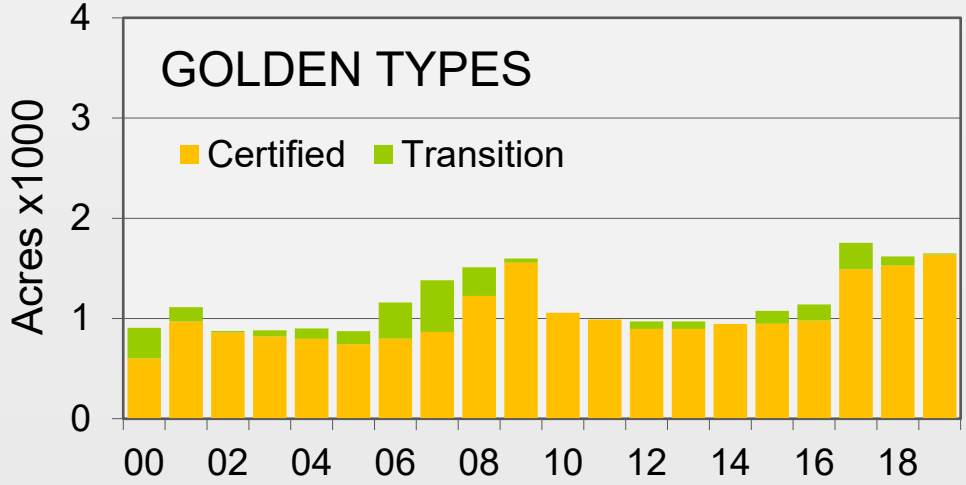



*Combined certifier data*


# Organic Apple Varieties
## Washington State Acres Trend

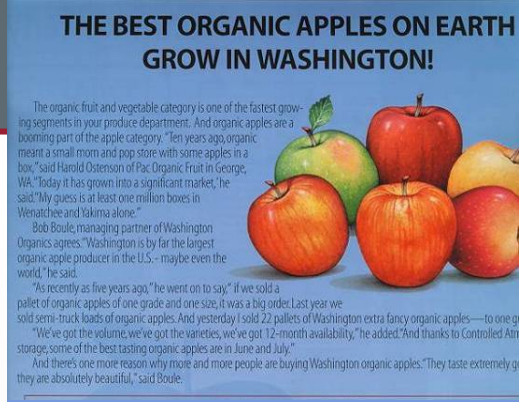



*Combined certifier data*

# 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

<u>Over 100 varieties of organic apples grown in WA, from small to larger quantities</u>

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

**Varieties listed in WSDA producer directory:**

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

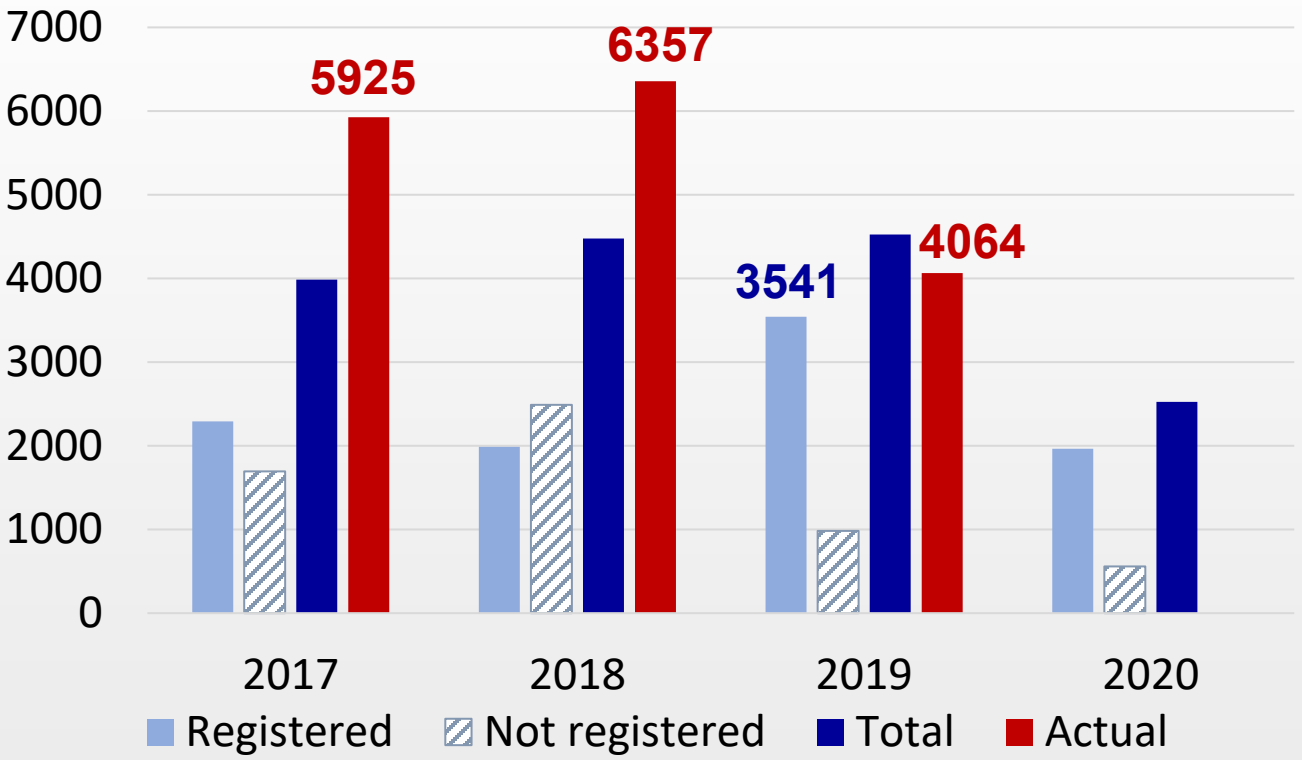
*Combined certifier data*

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 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 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 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.

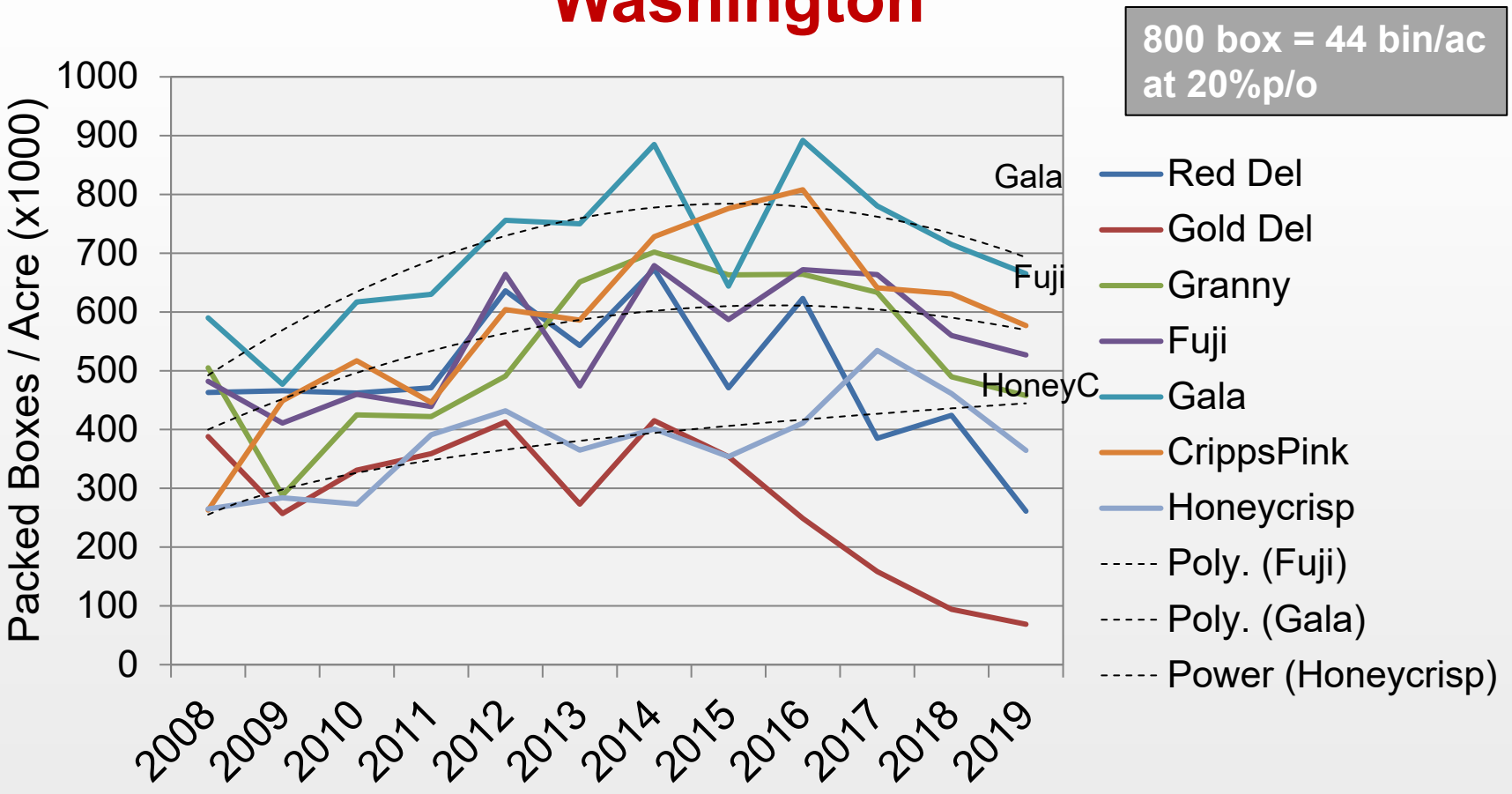
# Estimated WA Organic Apple Transition Acres




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

# Organic Apple Yield Trend

## Washington



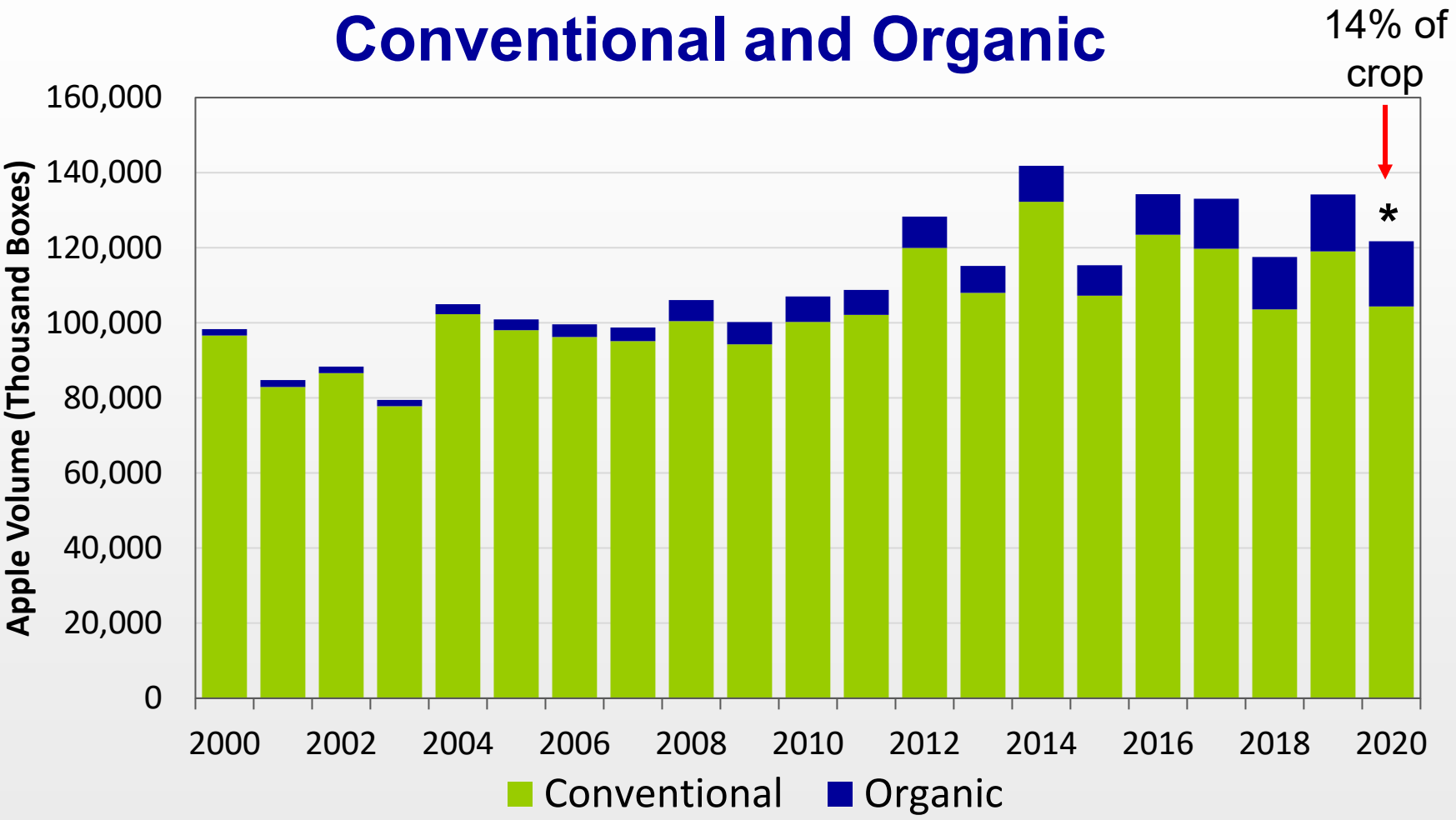

- Total shipped organic boxes / total certified acres
- Includes young and non-bearing acres
- Does not account for processor or other diverted fruit

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 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 a slight decline in acreage from 2009-2015. 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 39, 40). Despite the rapid rise in supply, prices generally rose during this period until 2016, then dropped and appear to be levelling out (slide 38).

# Washington Apple Volume

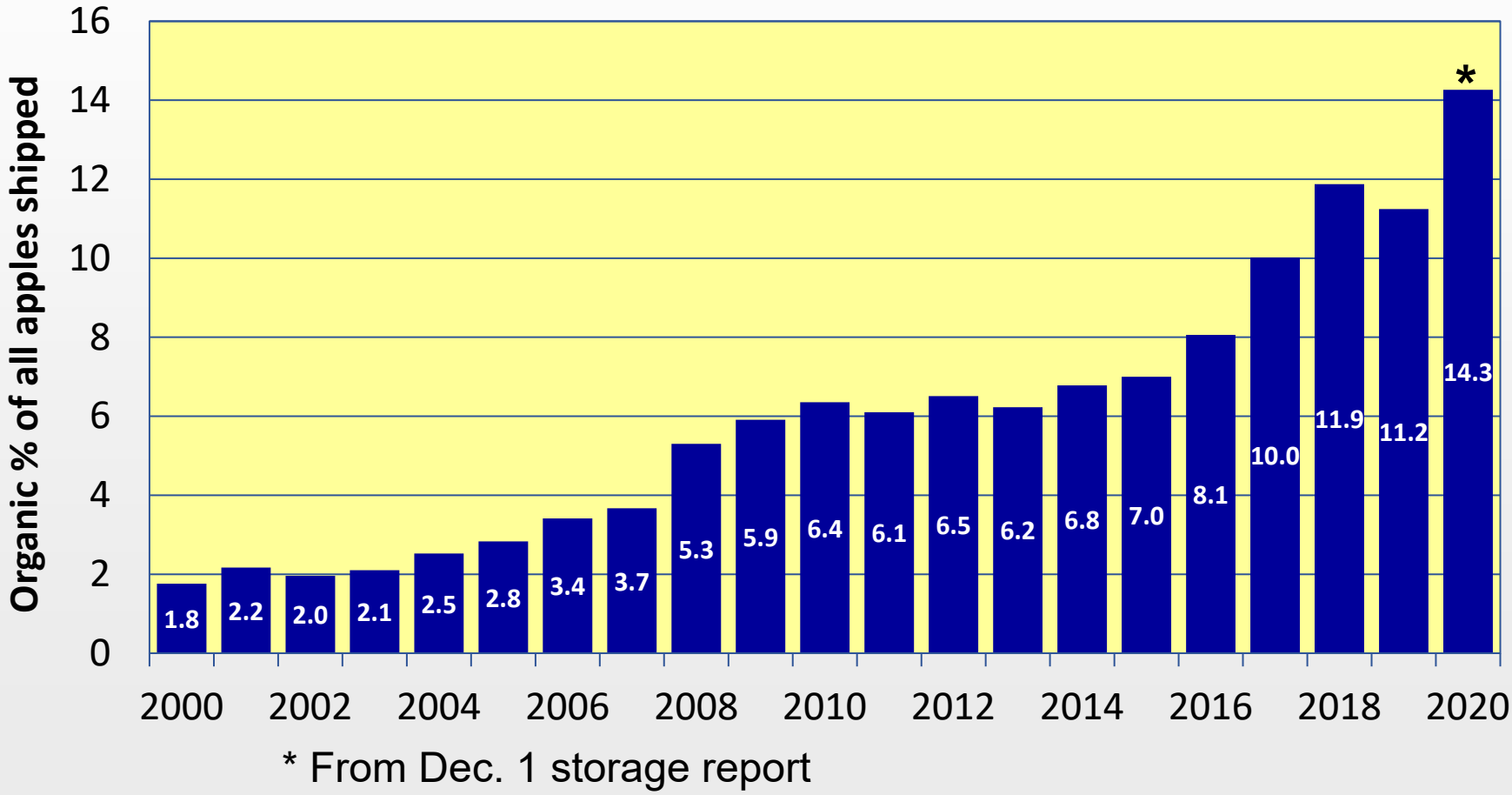
## Conventional and Organic




* From Dec. 1 storage report

*Data: WSTFA, WVTA, WGCH*

# Organic Share of Apple Shipments
## Washington State

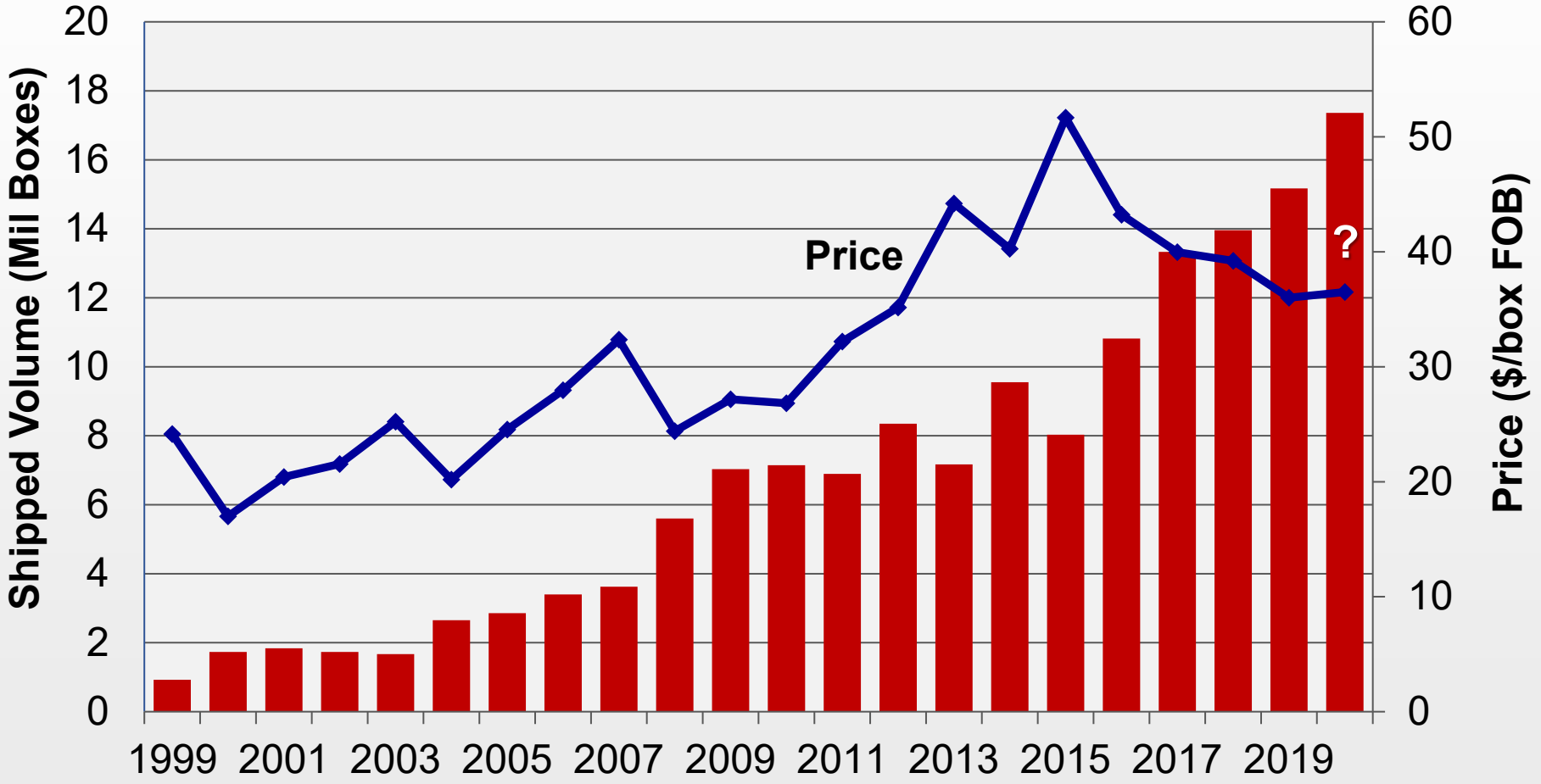



* From Dec. 1 storage report

*Data: WSTFA, WVTA, WGCH*

# Organic Apple Sales

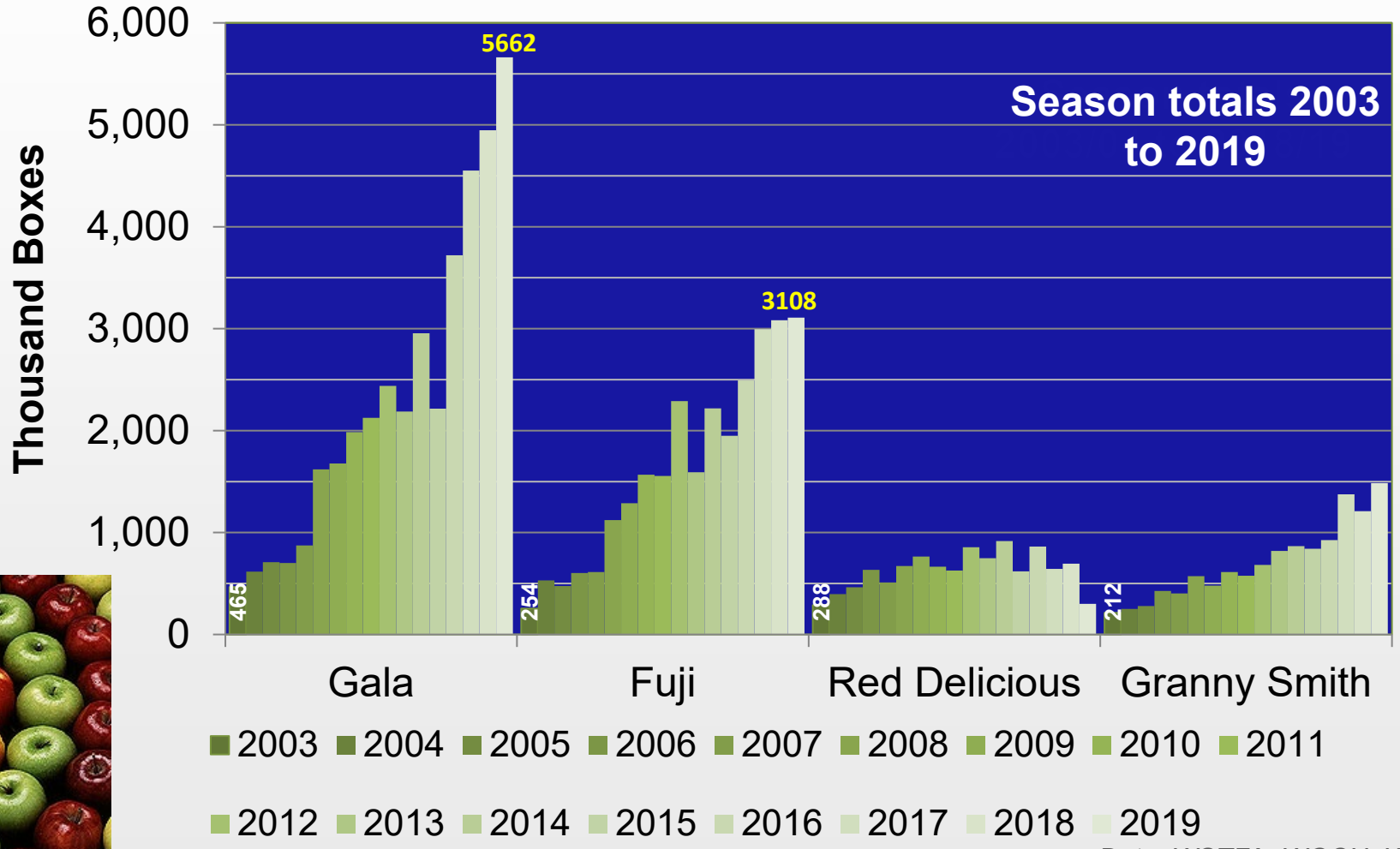
## Volume and Price Trends - WA




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

# Total Shipped Organic Volume

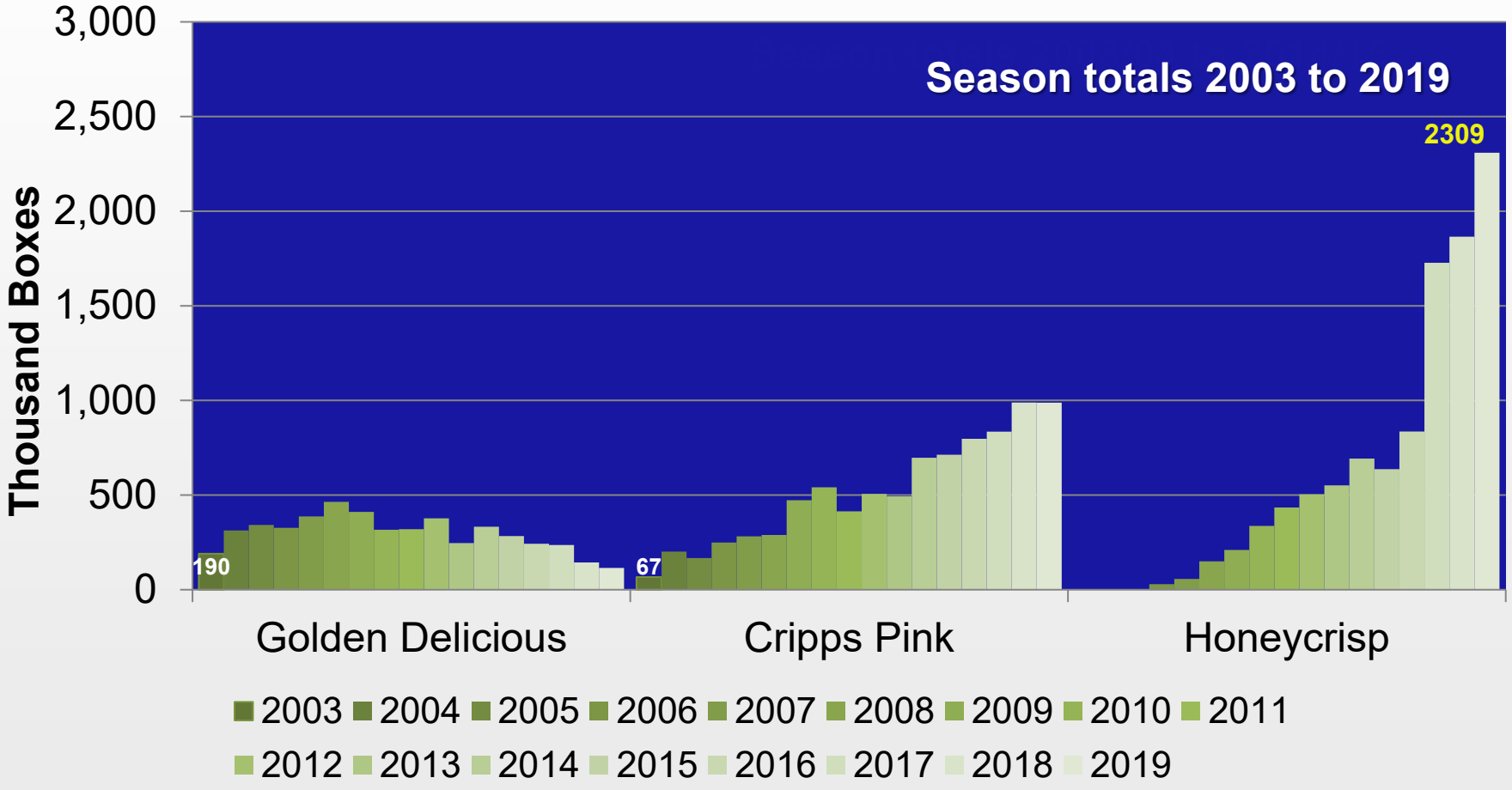
## by year and variety, Washington State




Data: WSTFA, WGCH, WVTA

ARS Photo

# Total Shipped Organic Volume
## by year and variety, Washington State

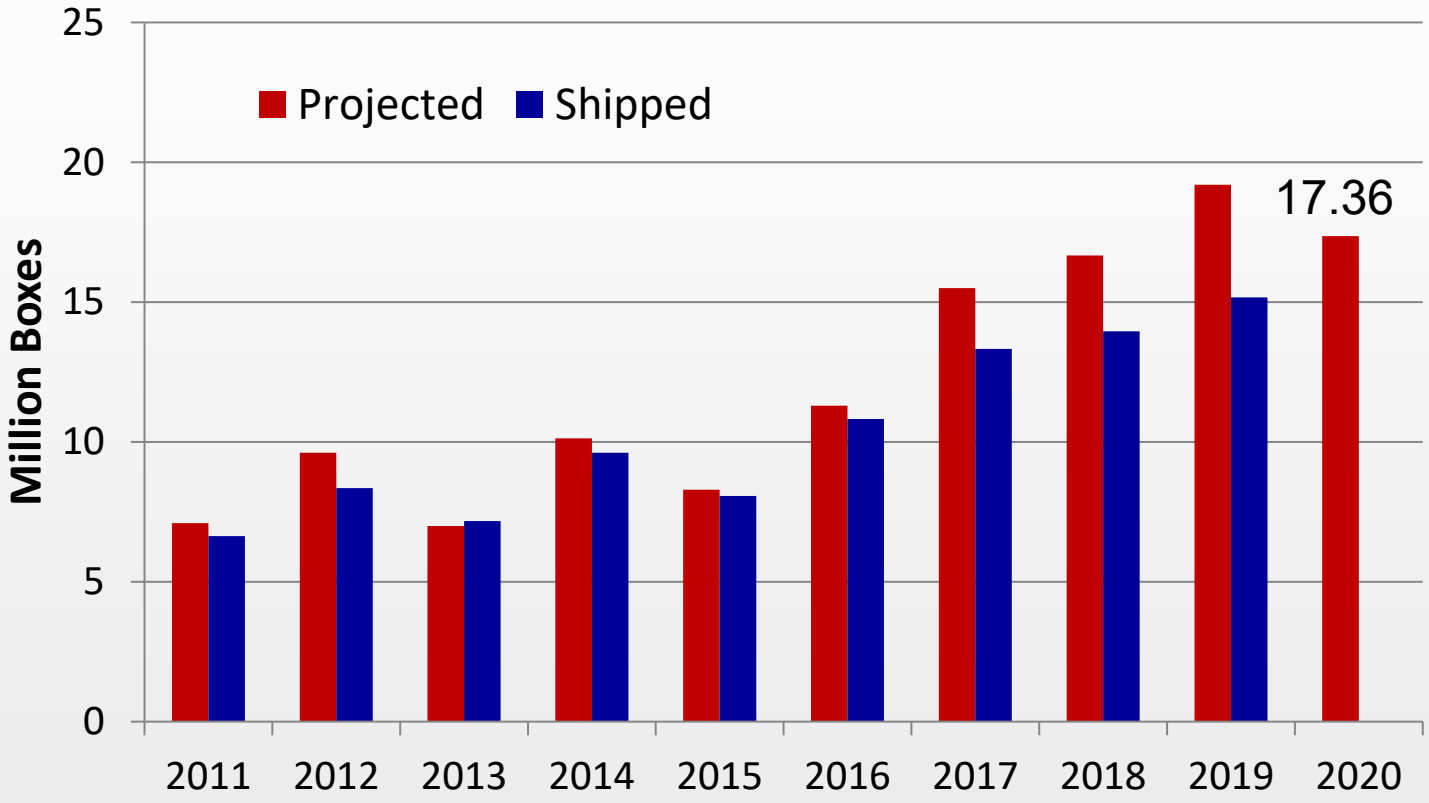



*Data: WSTFA, WGCH, WVTA*

The 2019 crop set another record after 2018, with an estimated 15.2 million boxes shipped for the season (slide 42). 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 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

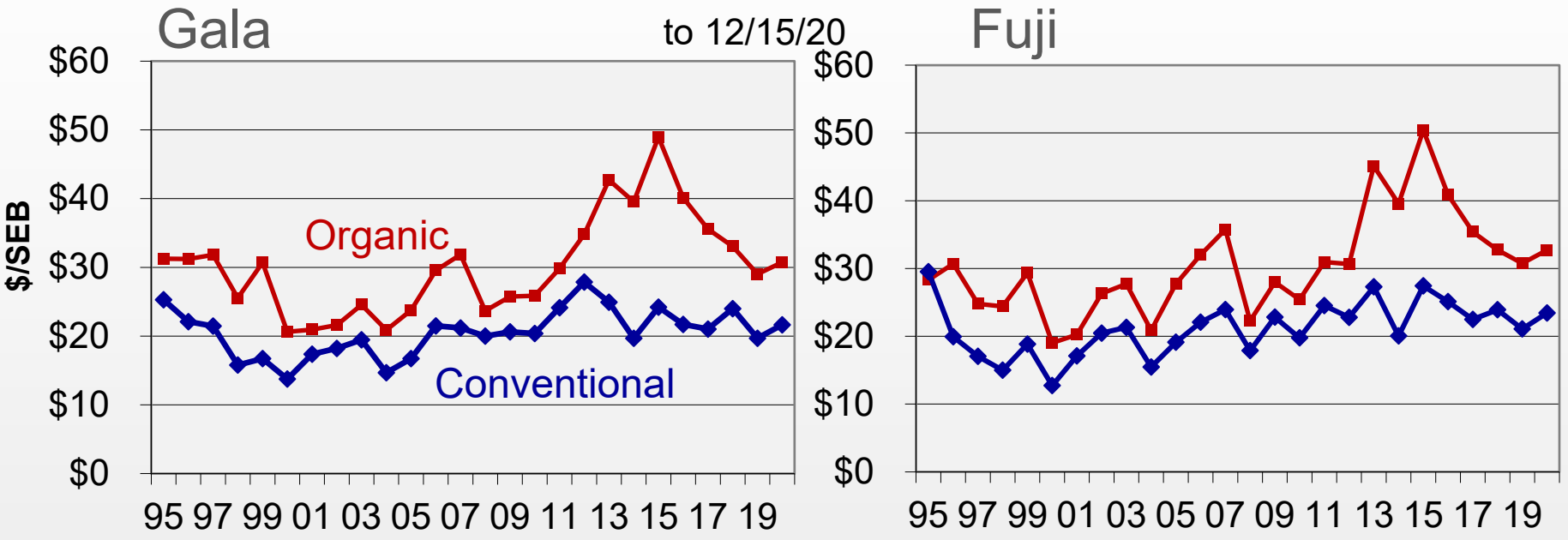
| | Red D | Gala | Fuji | Brae | Pink | Zestar!® |
|---|---|---|---|---|---|---|
| Baltimore | WA | | | | | |
| Boston | ARG | WA | ARG | NZ | ARG | |
| Chicago | ARG | NZ | NZ | ARG | ARG | |
| San Fran. | | CA, WA | CL, NZ | | CL | OR |

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 was at record levels for several years but has declined with the substantially larger harvests.

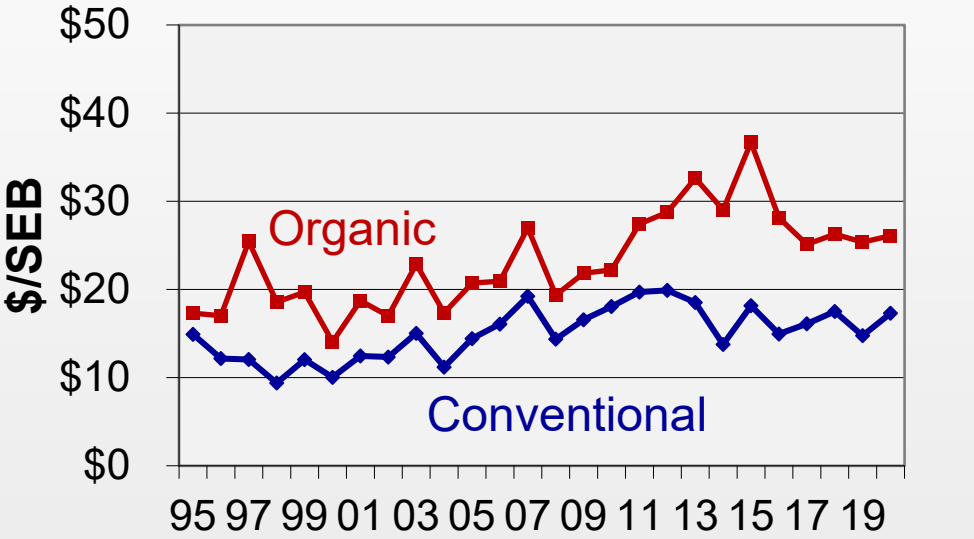
# Price Trends
# Washington Apples



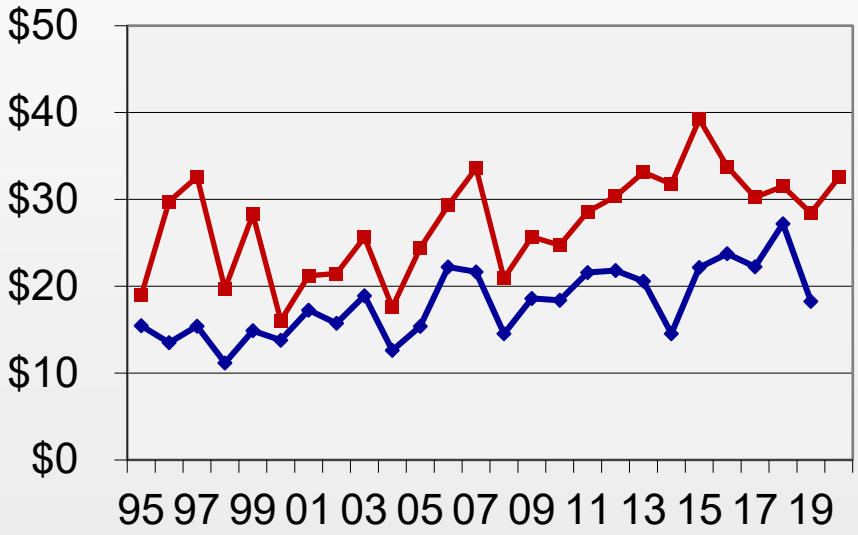

***SEB=standard equivalent box of 40 lb**. Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.*


# Price Trends
# Washington Apples

## Red Delicious




## Golden Delicious



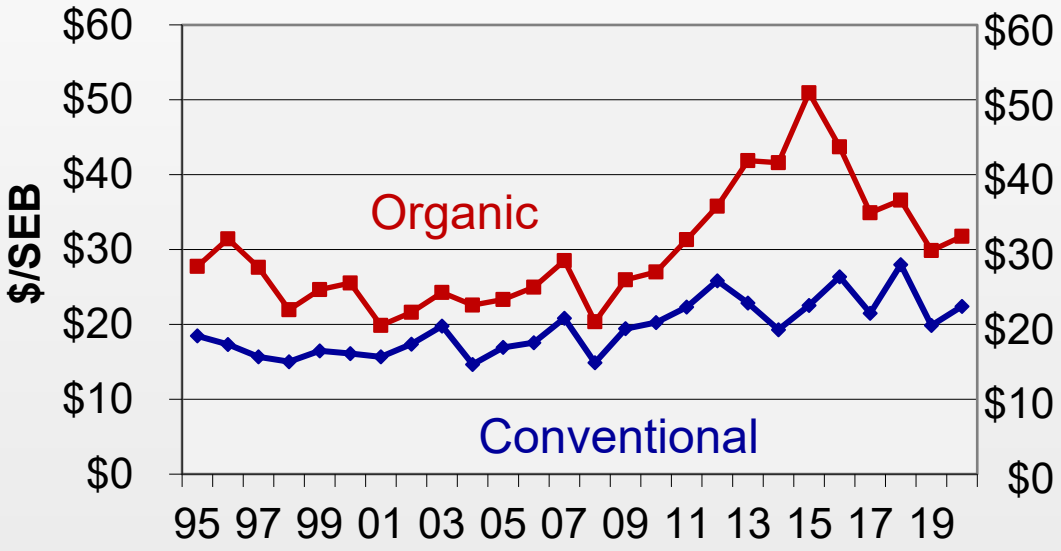


*Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season approx. Sept 1 to end of Aug.*

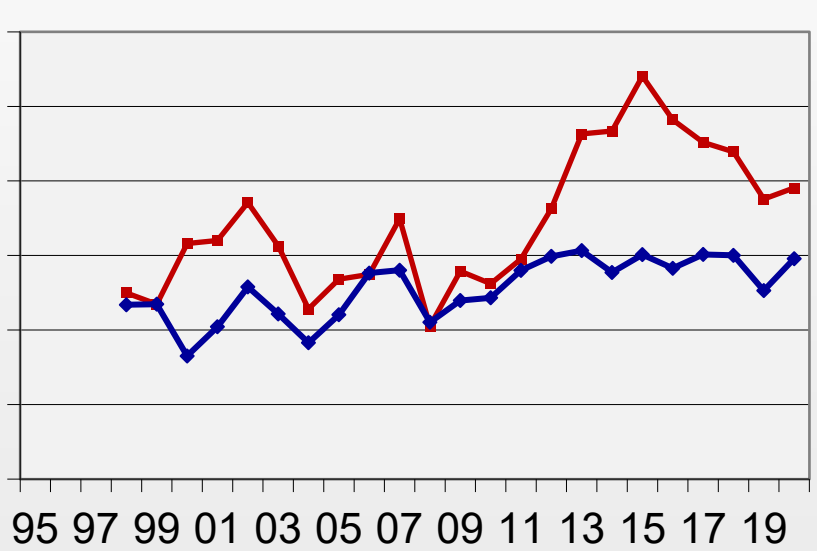
# Price Trends
# Washington Apples


## Granny Smith

to 12/15/20

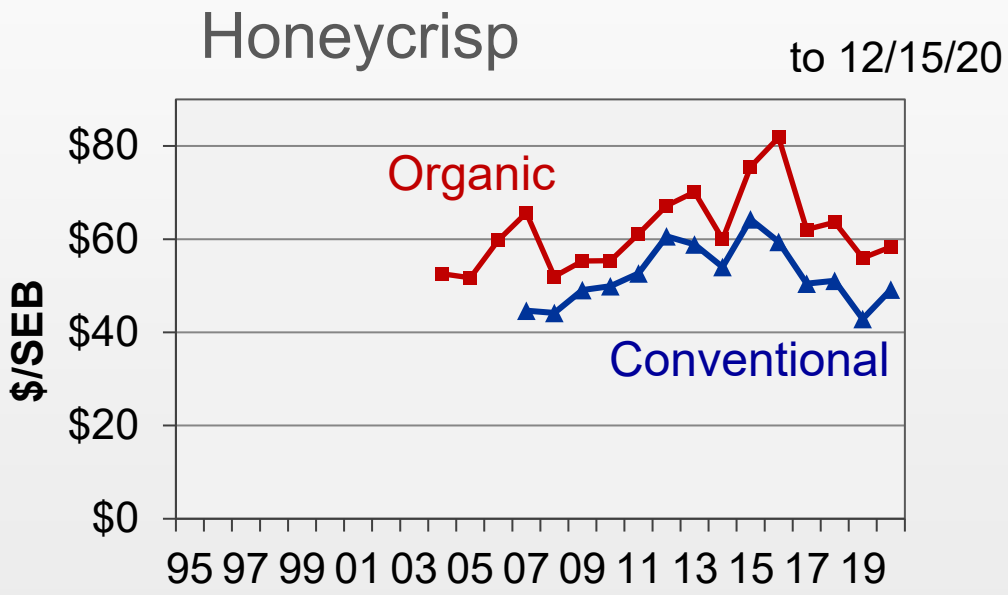


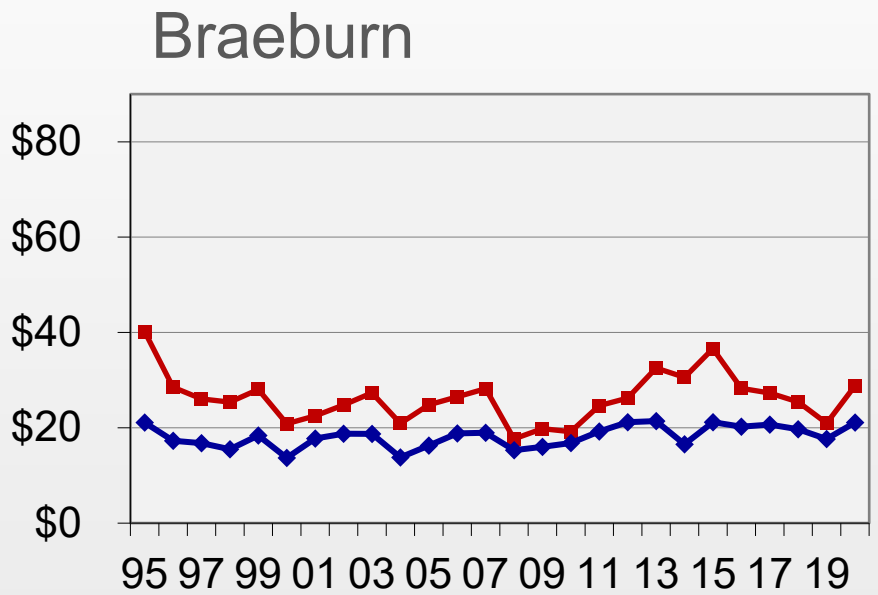

## Cripps Pink




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

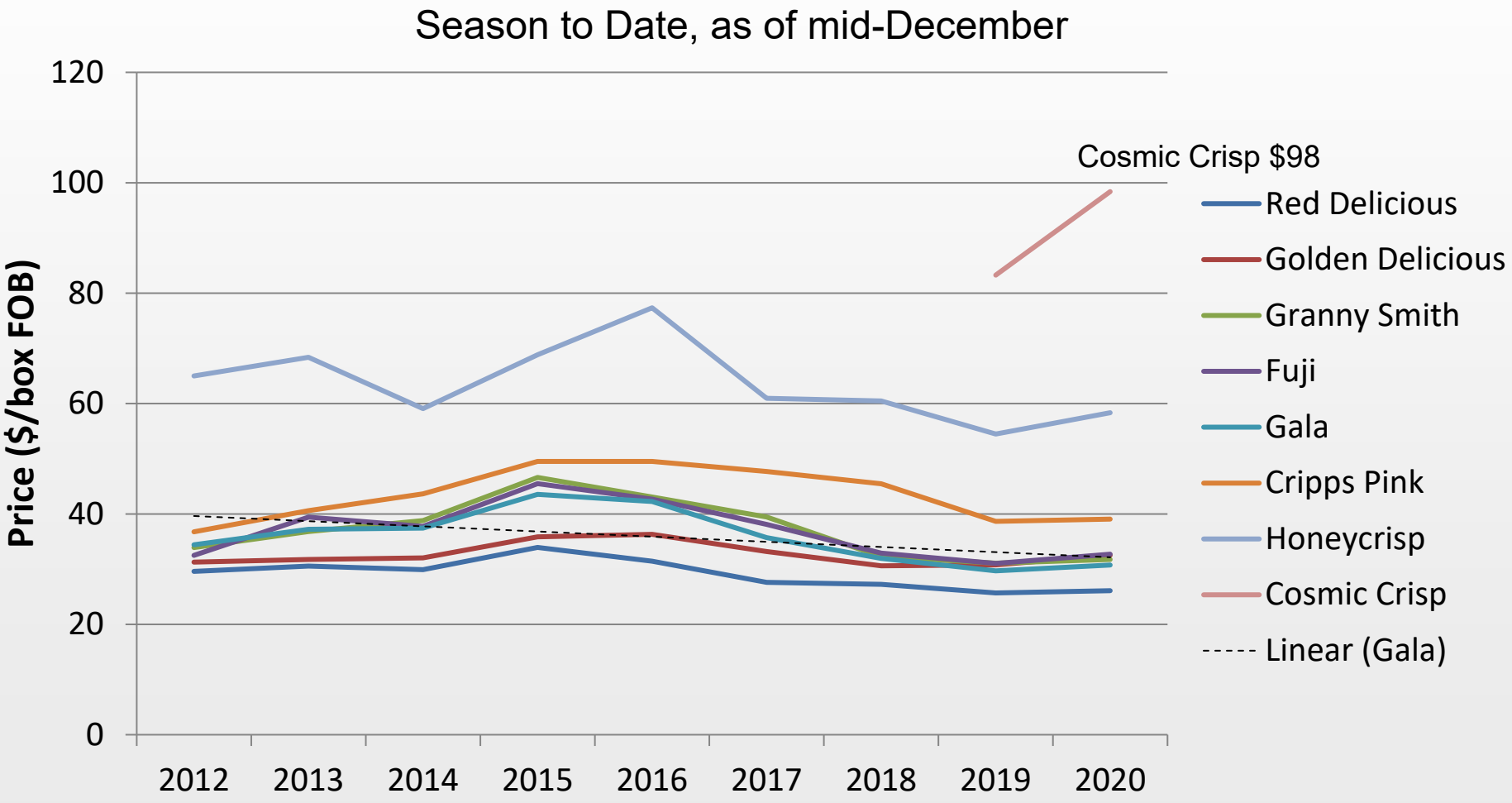
# Price Trends
# Washington Apples

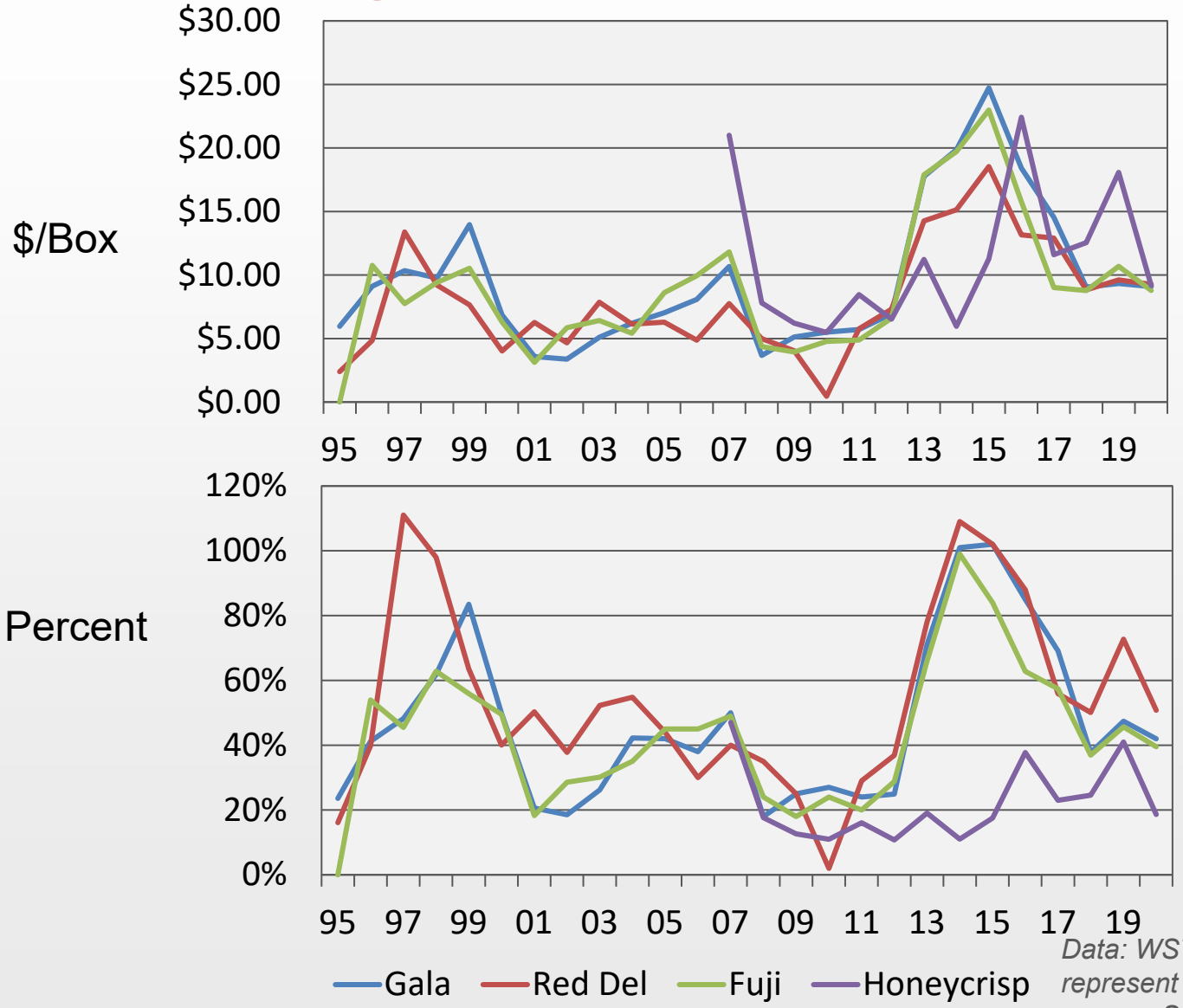

*Data: WSTFA, WGCH; FOB averages, all storage, grades, sizes. Annual data points represent season averages: season runs approx. Sept 1 to end of Aug.*

# Price Trends
# Washington Organic Apples




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

# Organic WA Apple Premiums



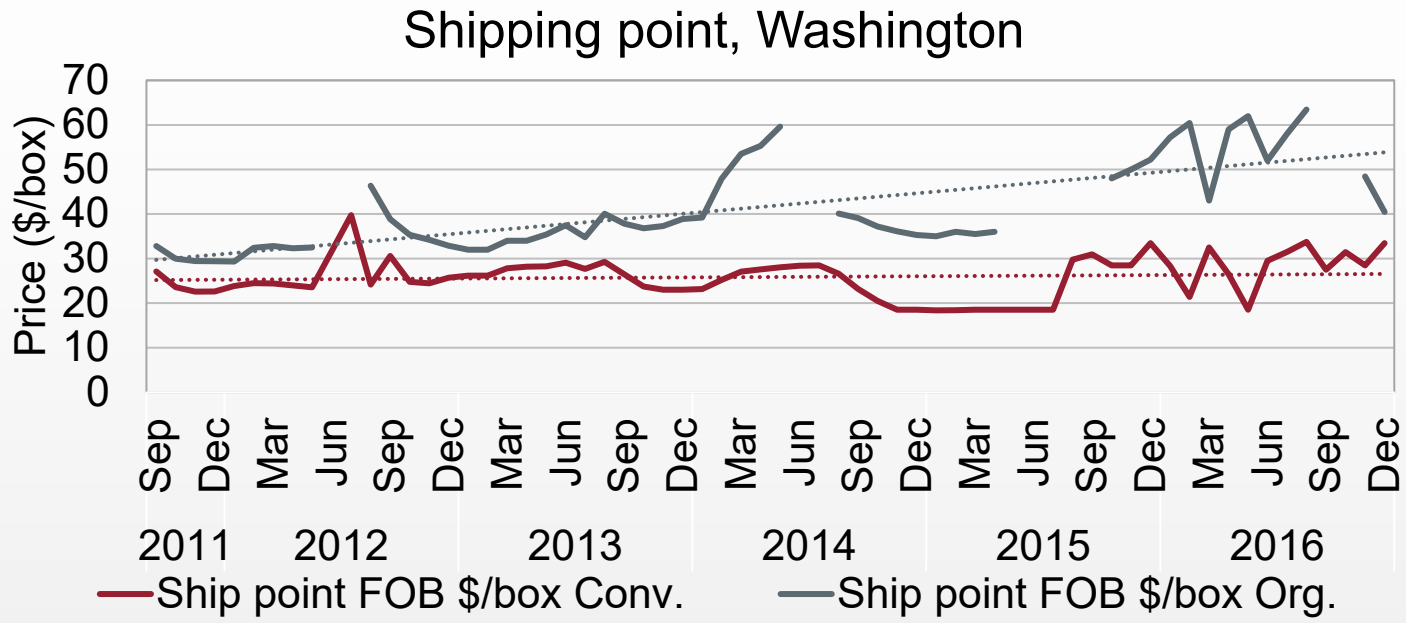


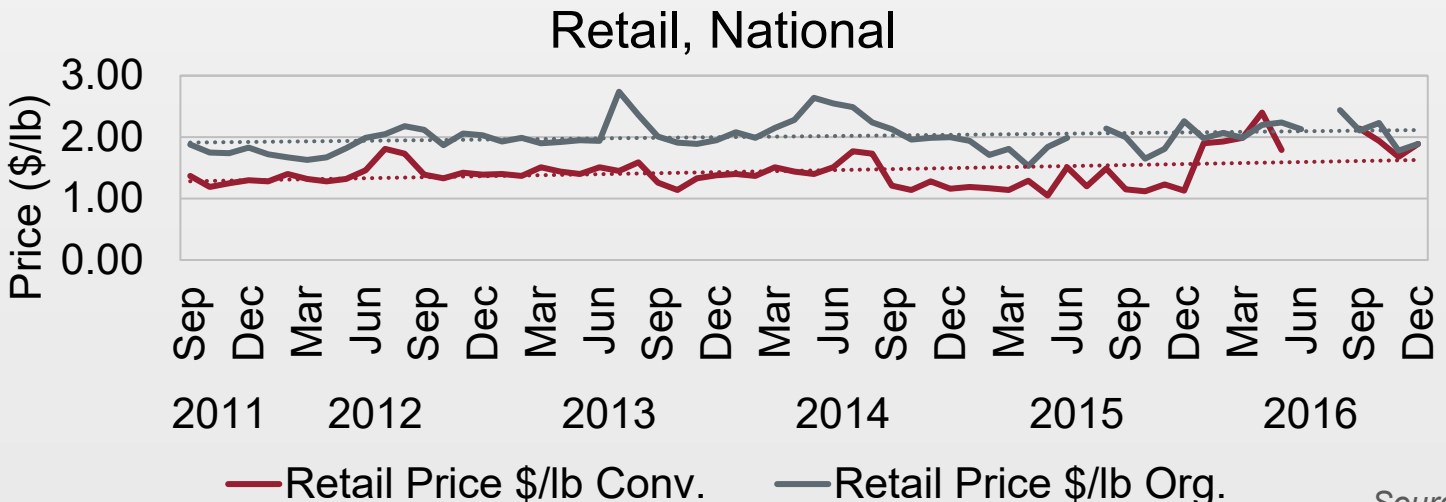
Premiums are expressed as the price difference between organic and conventional, as $ per box, or as a percent.

*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. 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.

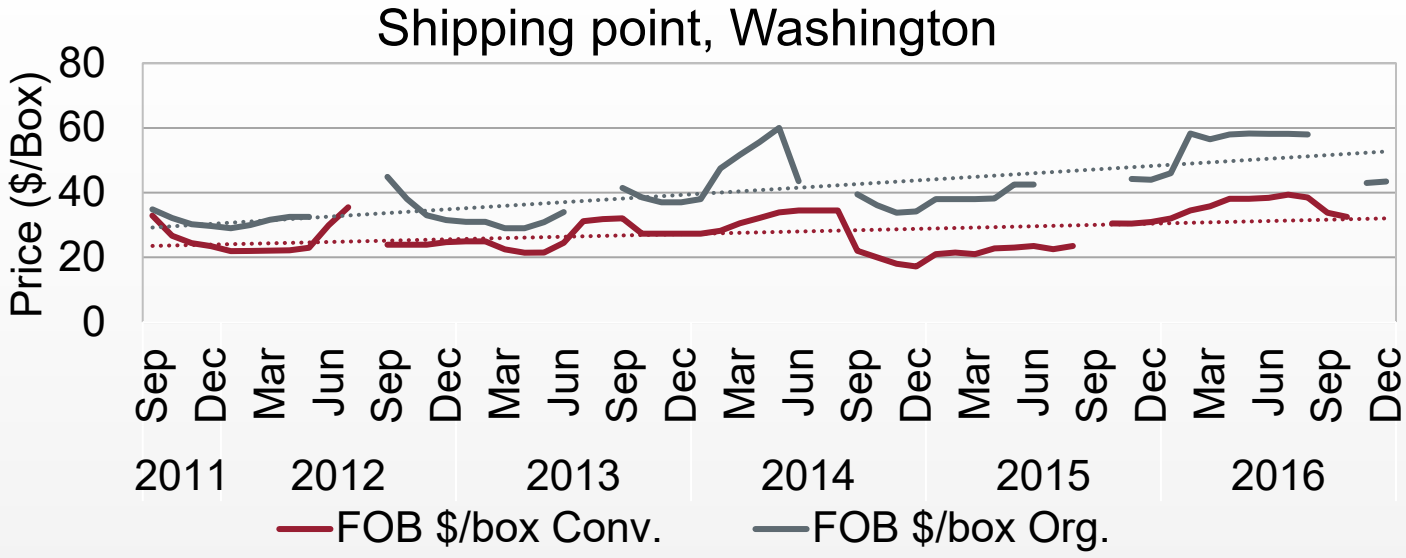
# Organic Gala Apples

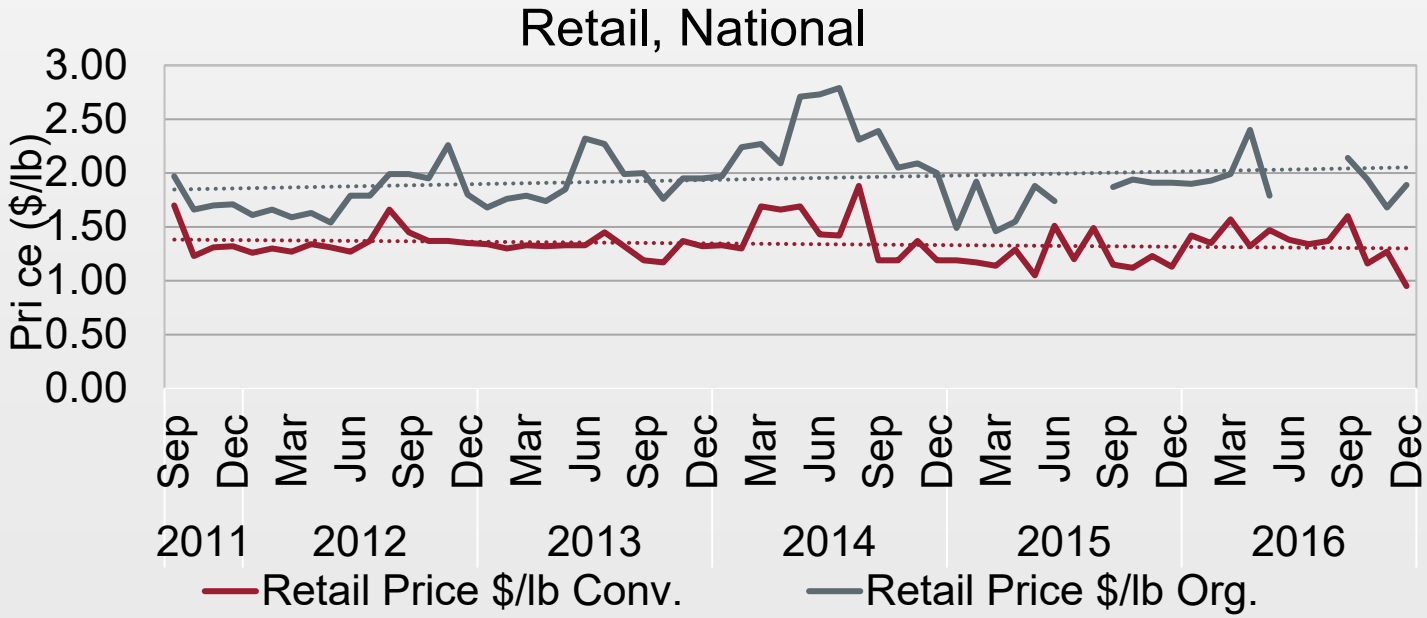



*Source: USDA-AMS*

# Organic Fuji Apples

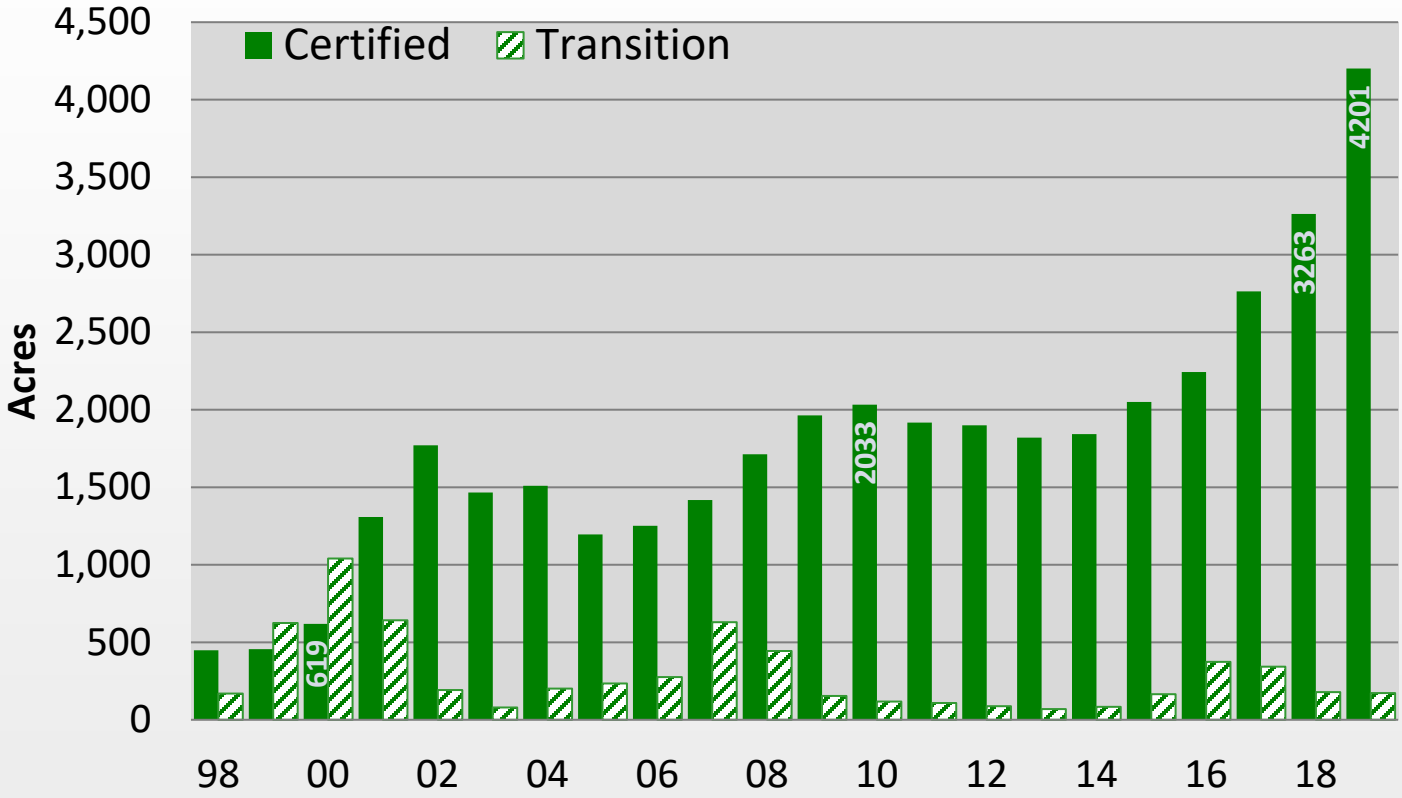



*Source: USDA-AMS*

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, but saw significant expansion since 2016. 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

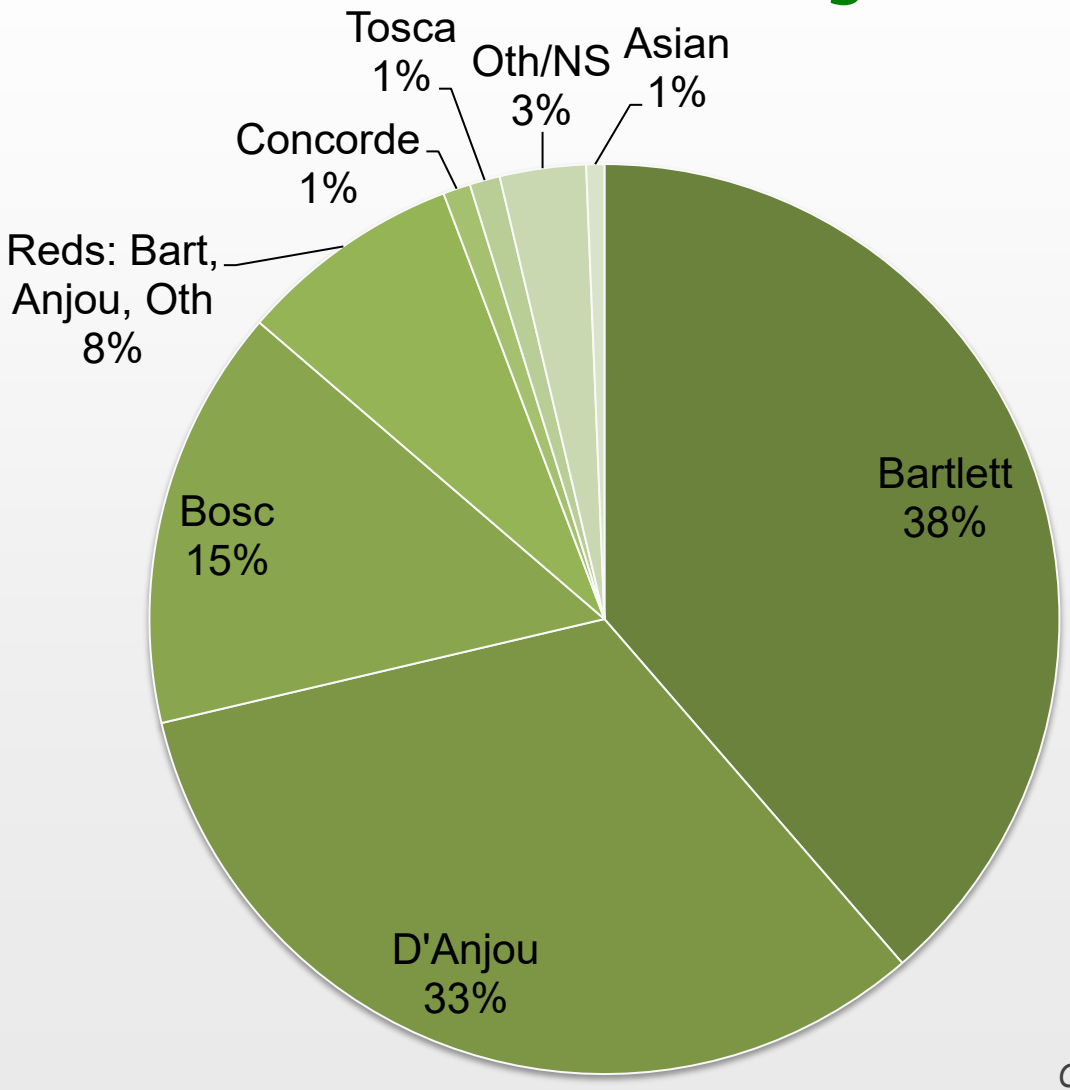



2019 organic = 20% of total WA pear acreage
(based on WA-NASS 2017 value of 20,965 pear acres)

*Combined certifier data*

# 2019 Organic Pear Acres by Variety

## Washington

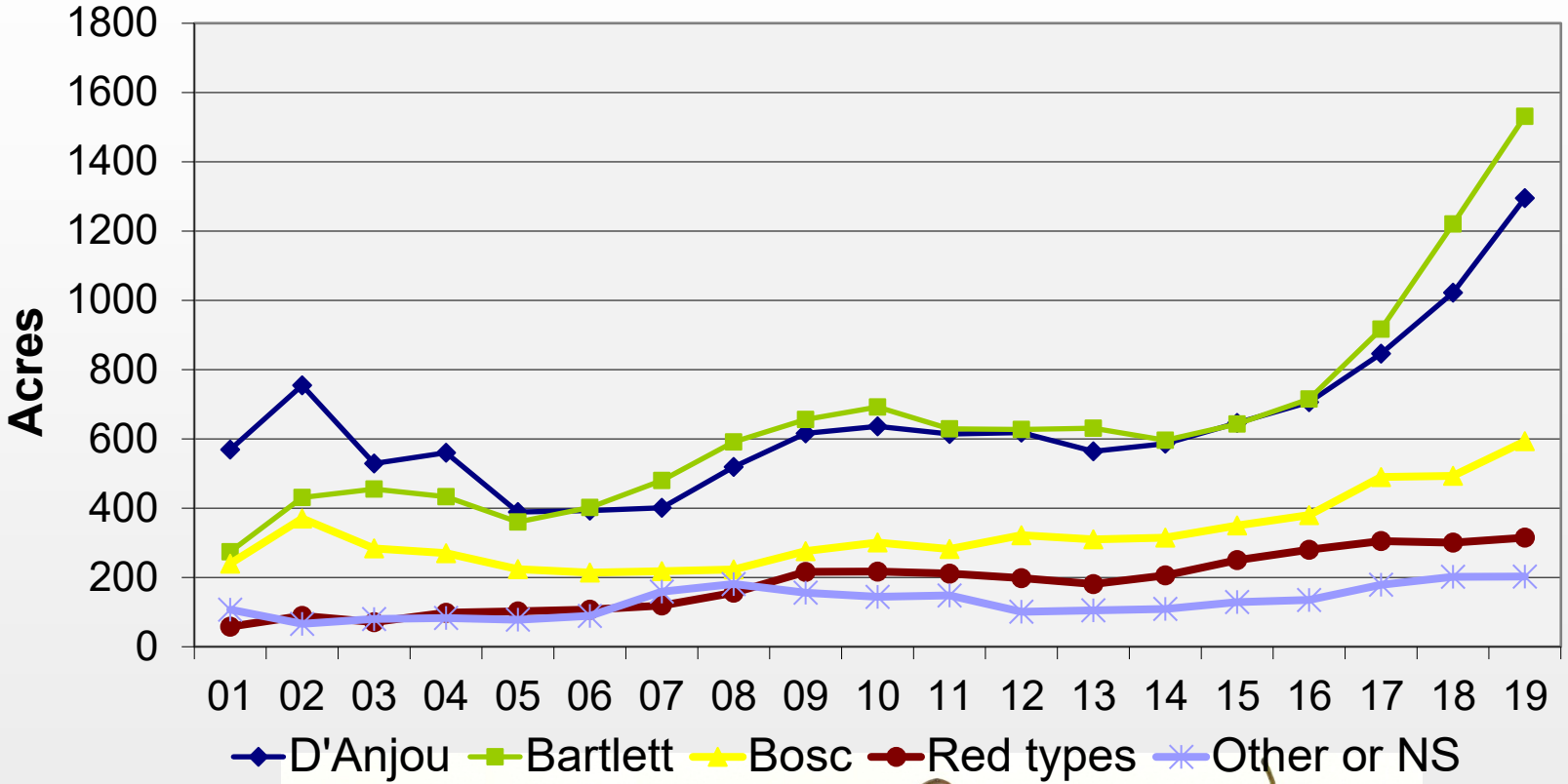




*Combined certifier data; NS = not specified*

# Organic Pear Variety Trend

## Washington State



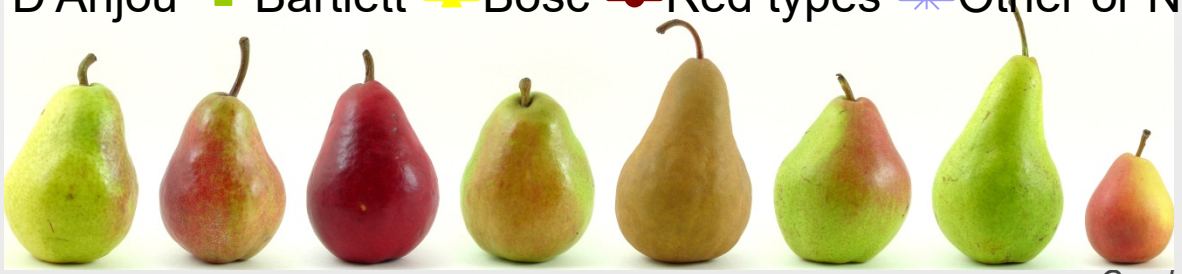



*Photo: Agyle*

*Combined certifier data*

# Organic Specialty Pears
## Washington State 2019

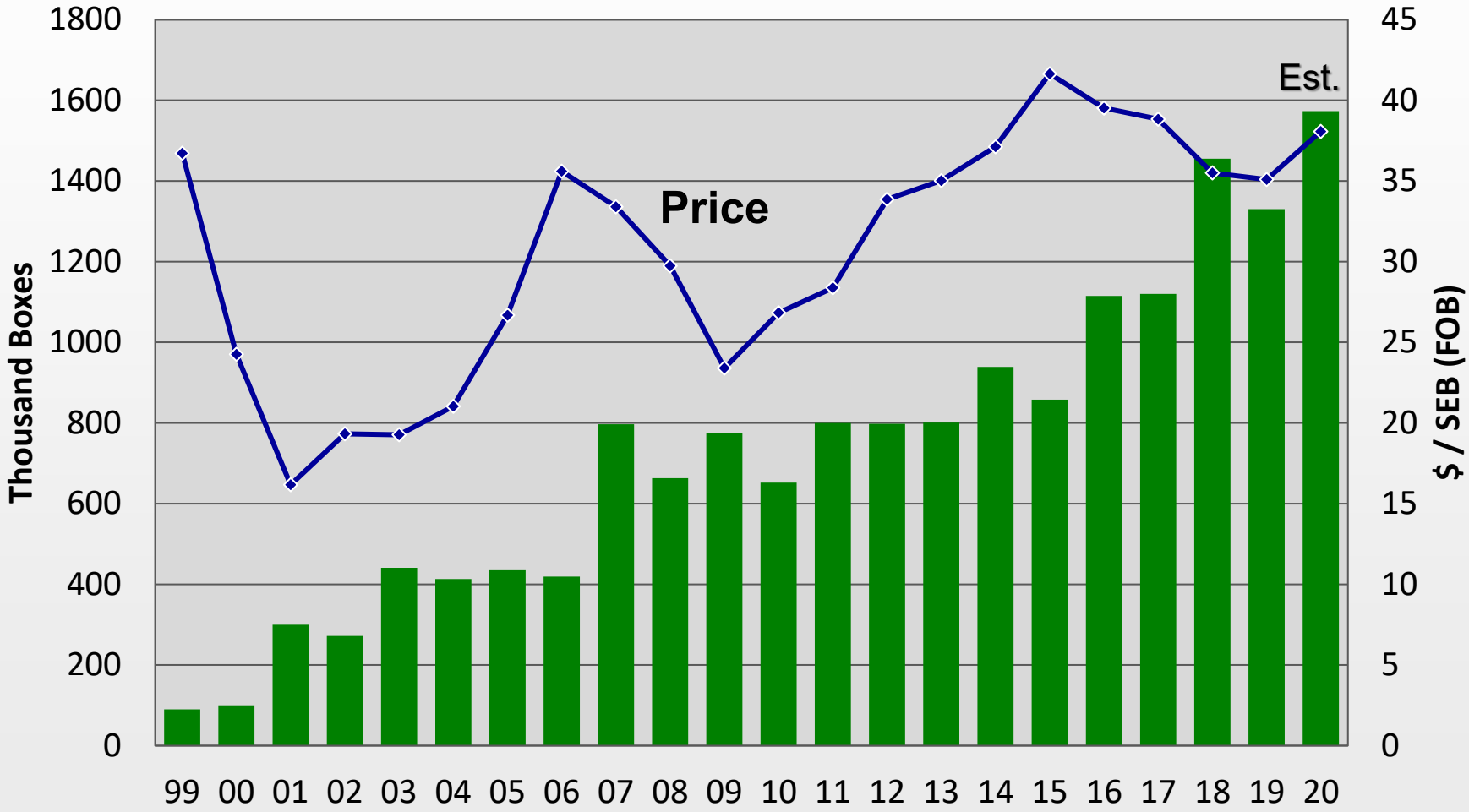
- Over 25 varieties of organic pears and Asian pears grown in WA, from small to larger quantities.
- >25 ac: Concorde, Starkrimson, Tosca, Asian
- Small areas: Comice, Forelle, Red Clapp, Seckel, Taylors Gold, Kalle Perry varieties, others
- **Varieties are listed on the WSDA producer list:**

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

*WSDA data*

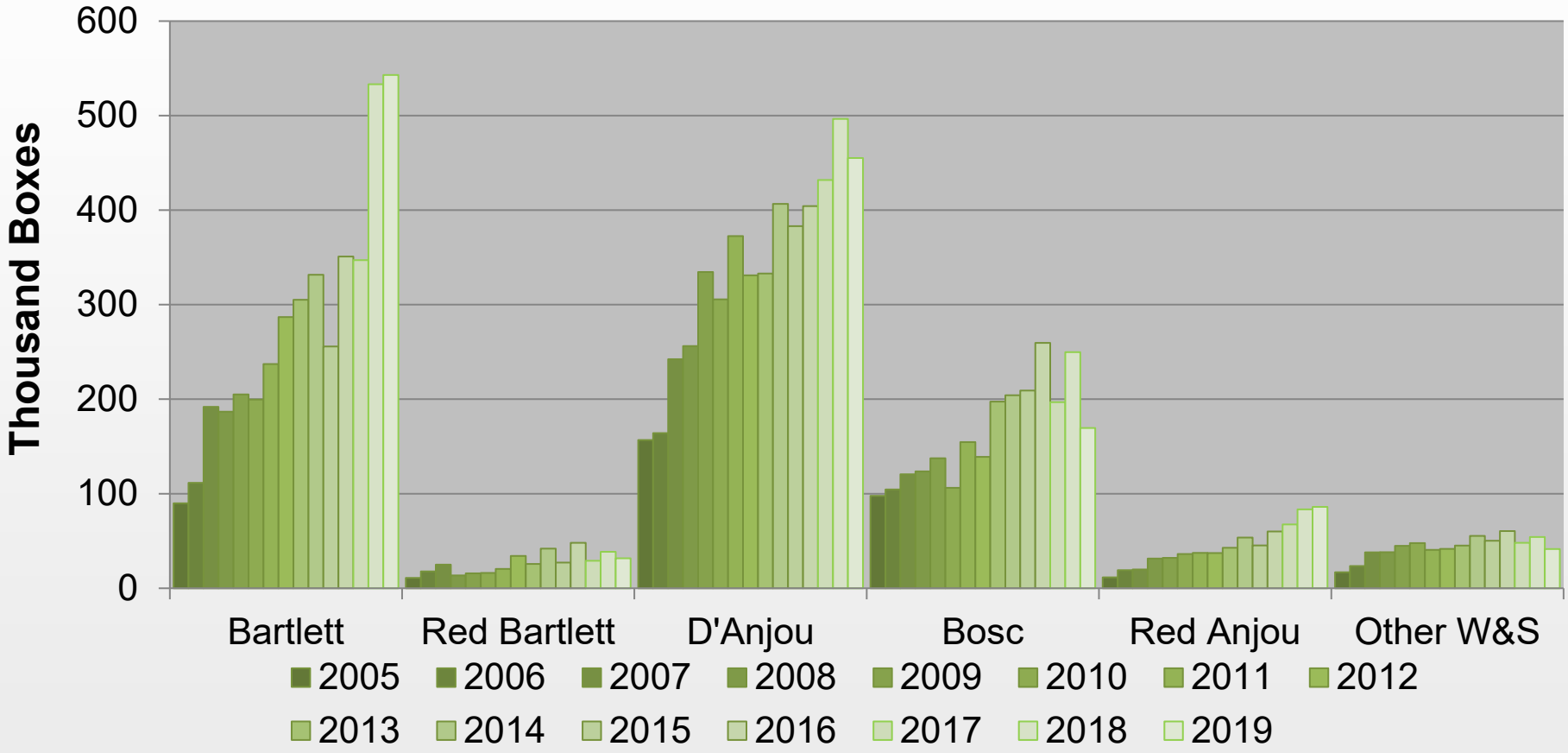
# Organic Pear Sales

## Volume and Price Trends




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

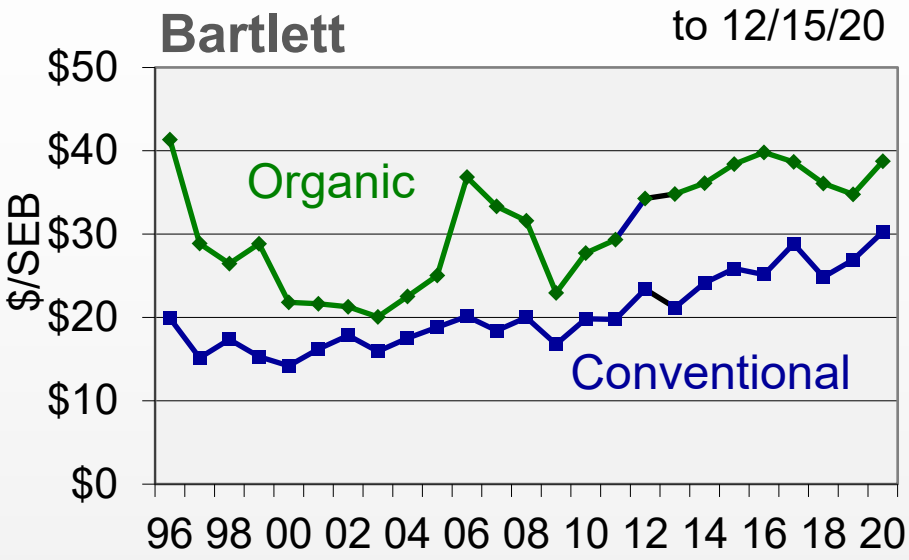
# Shipped Organic Pear Volume
## by year and variety, WA and OR

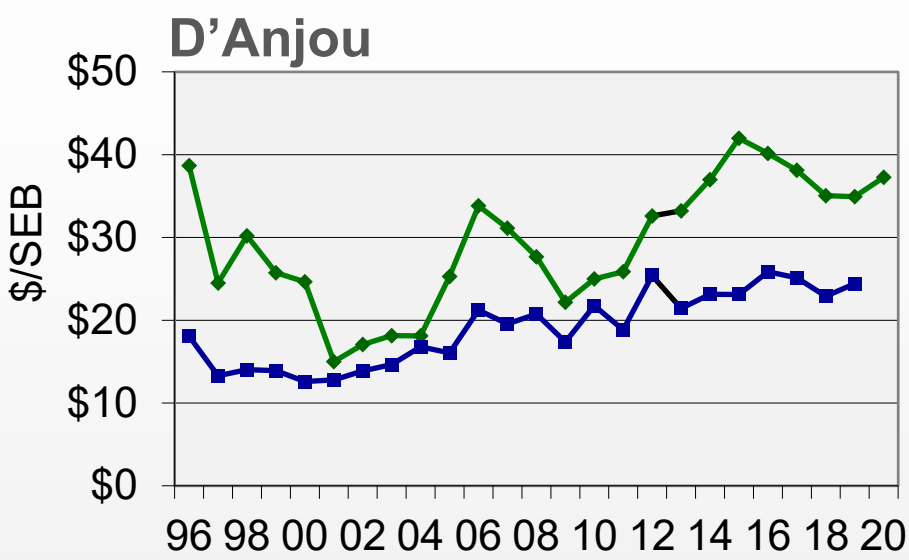


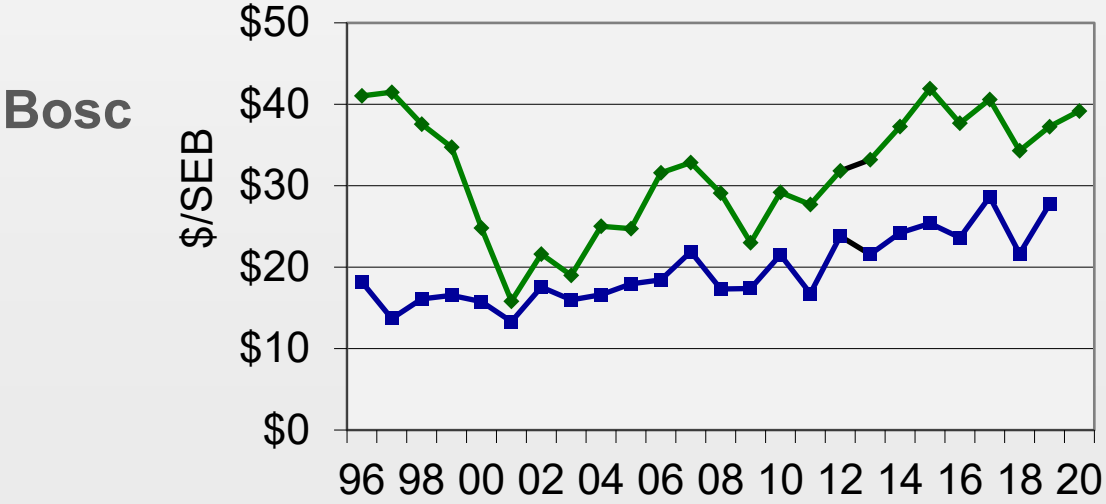

Organic volume ~8% of total WA pear volume;
OR organic volume ~ 15% of total organic

*Standard Equivalent Box = 44 lb. Data Sources: WSTFA, PBNW, WGCH, WVTA*

# Price Trends Washington Pears



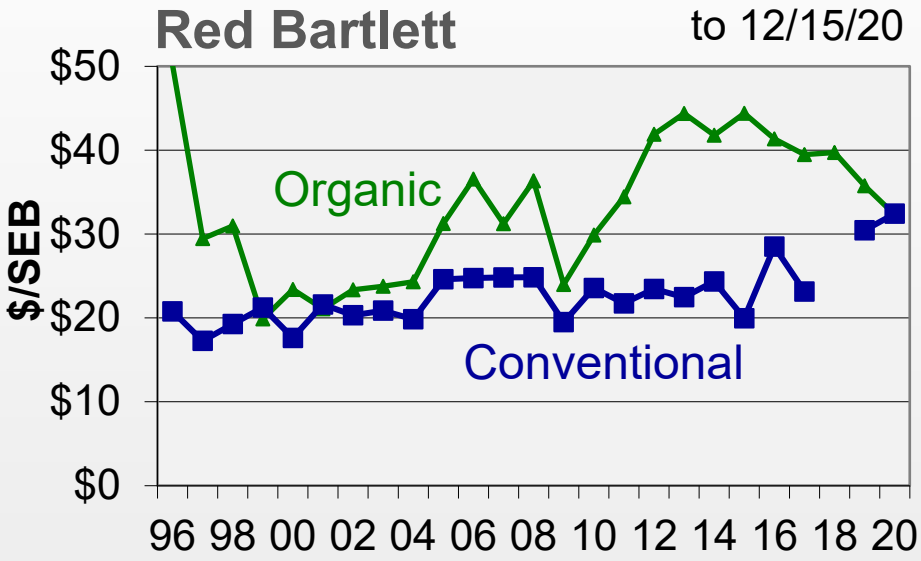



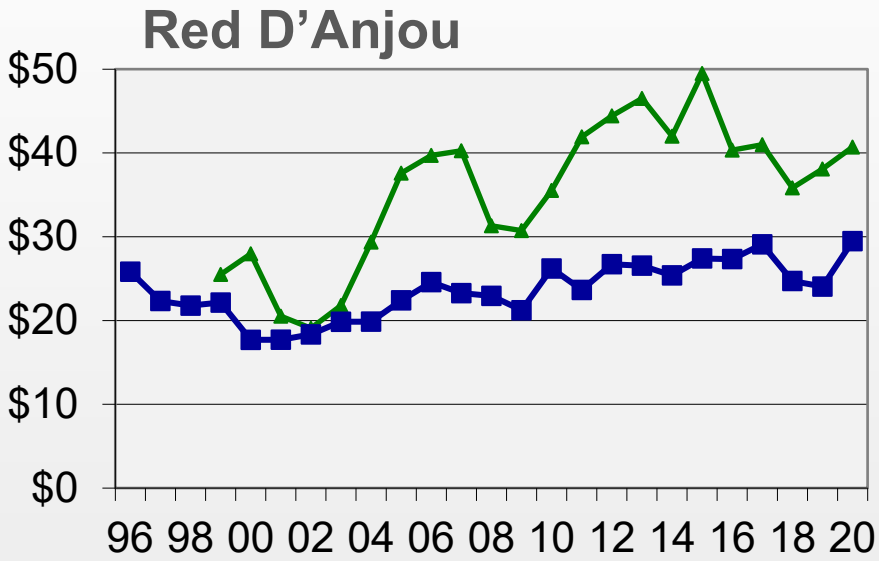




*Bosc photo: US Pear*

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

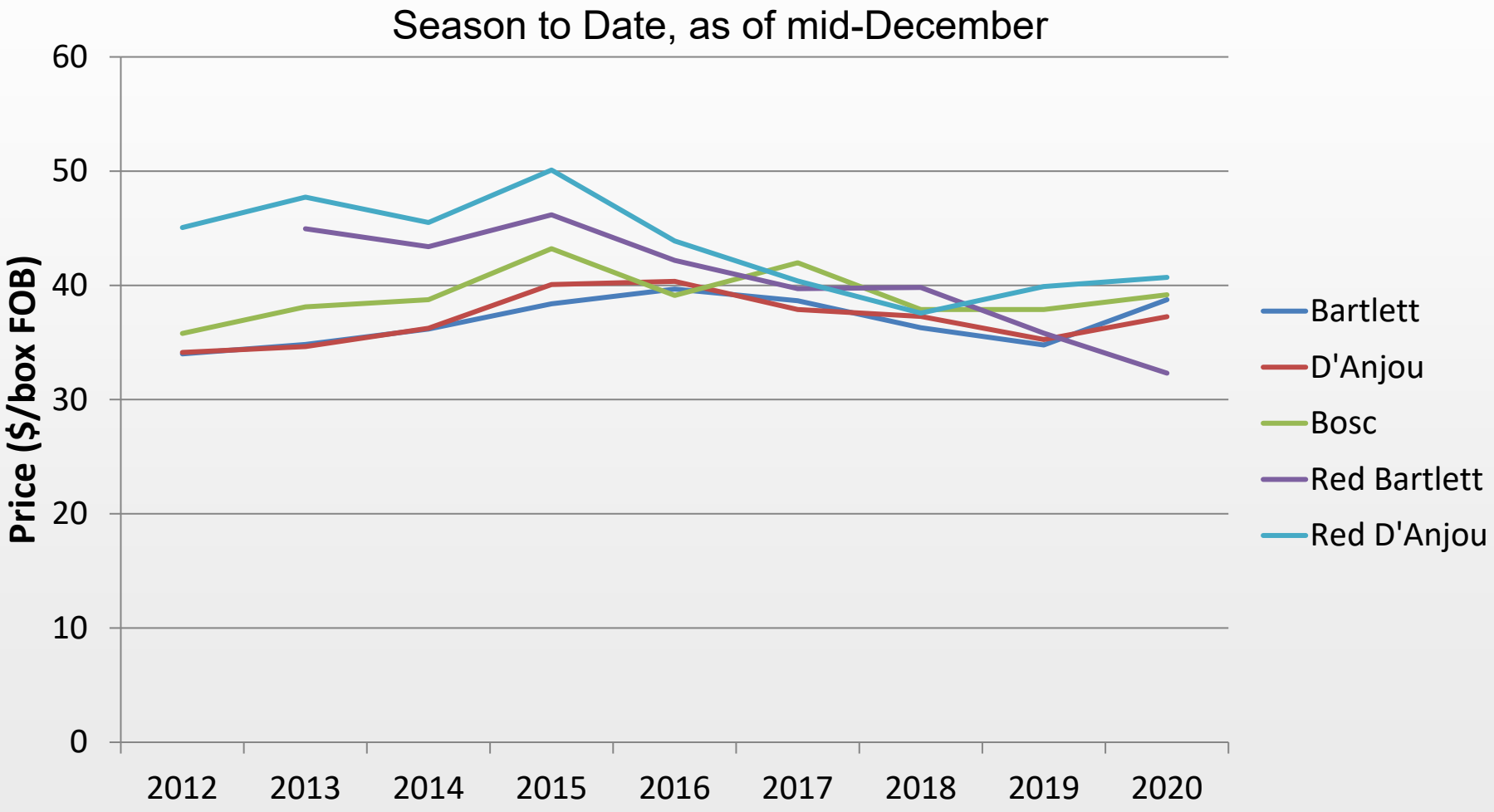
# Price Trends
# Washington Pears



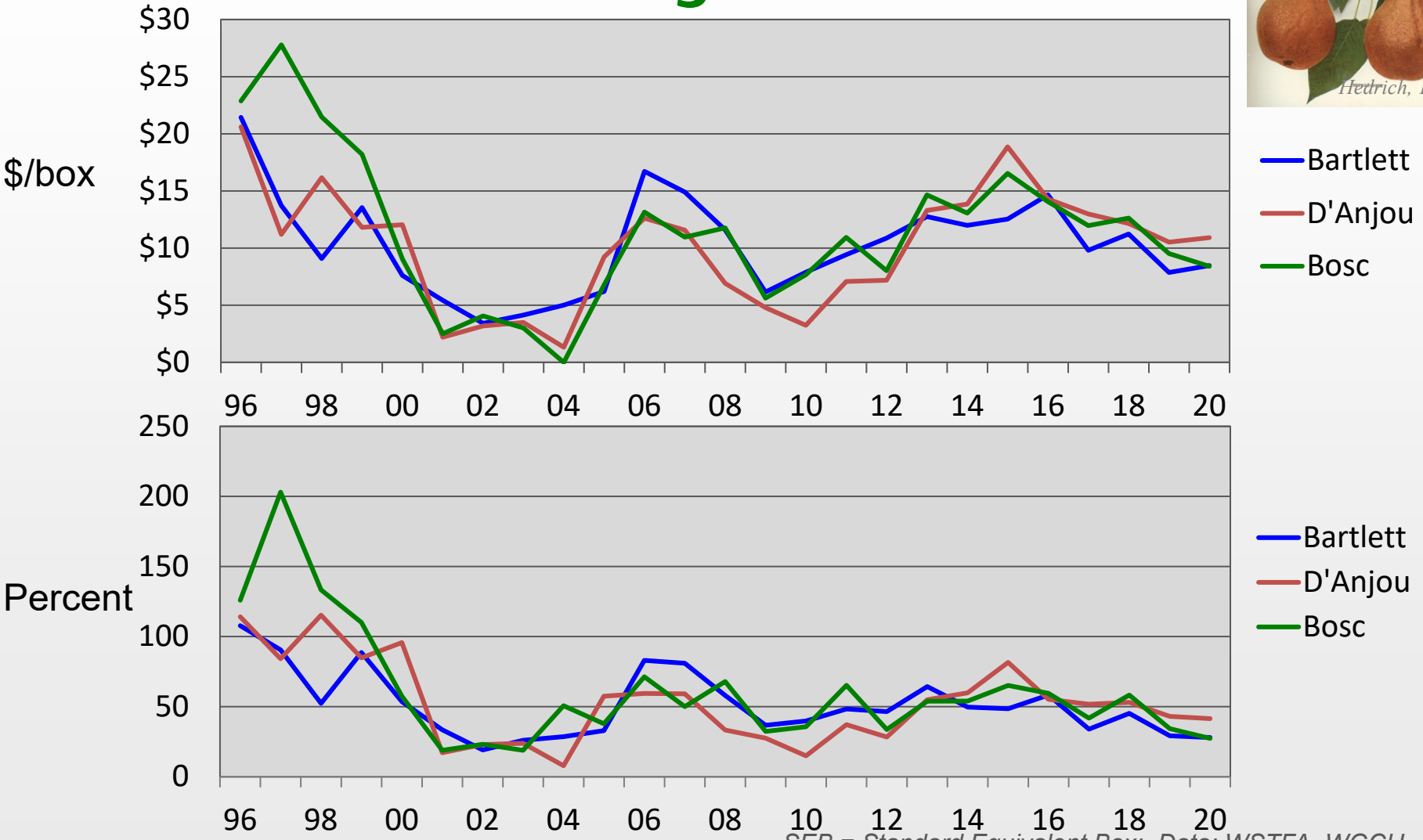

*SEB = Standard Equivalent Box; Data: WSTFA, WGCH.*
*Annual data points represent FOB season price averages.*

# Price Trends
# Washington Organic Pears




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

# Organic Premiums
# Washington Pears

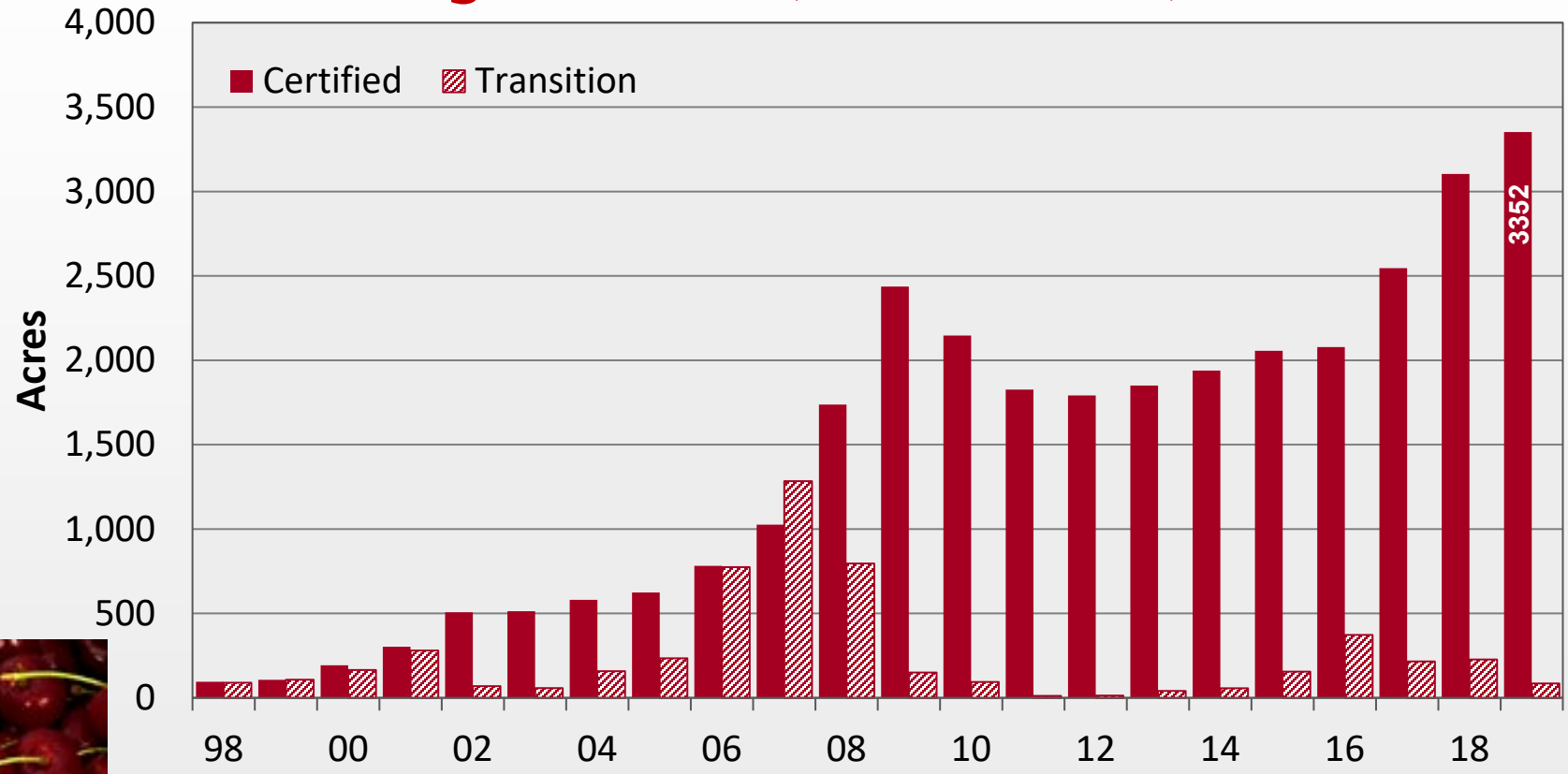




*SEB = Standard Equivalent Box; Data: WSTFA, WGCH.*
*Annual data points represent FOB season price averages.*

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.

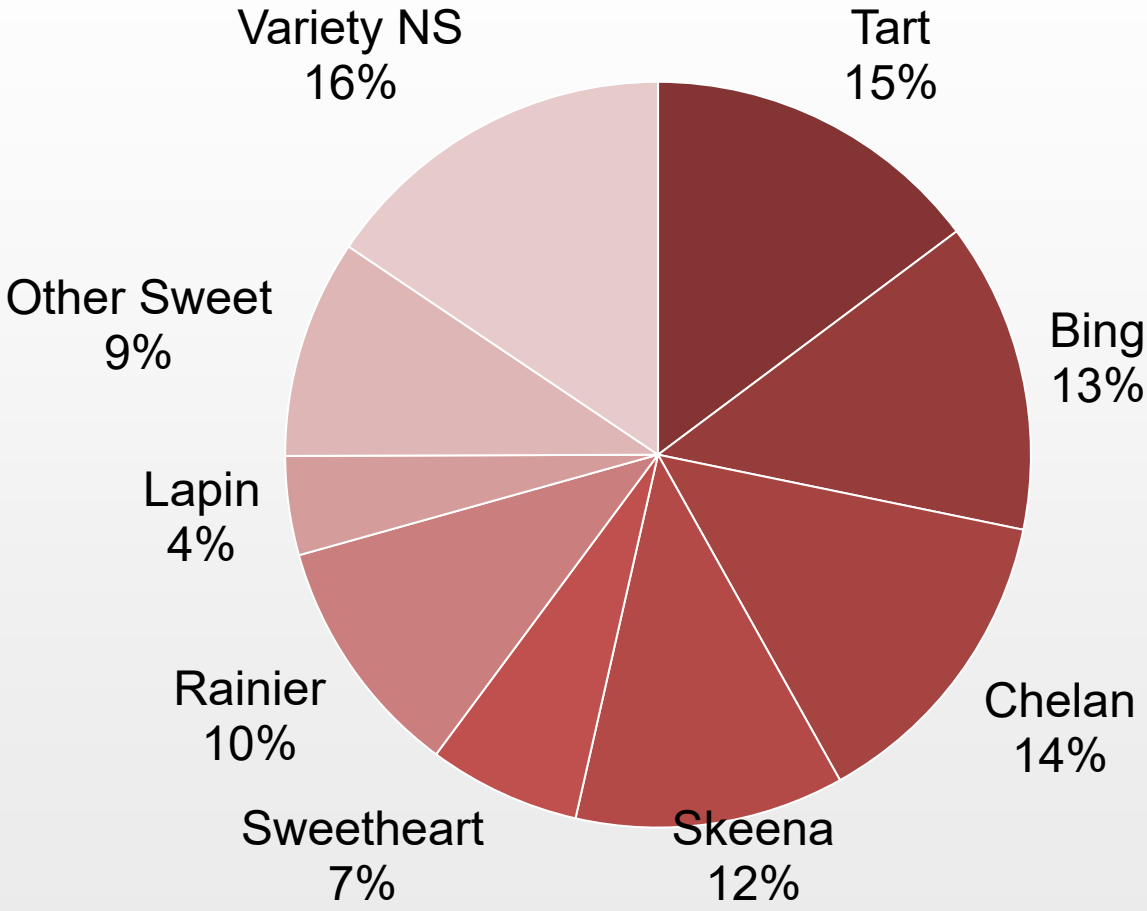
# Organic Cherry Acreage
## Washington State (sweet + tart)




2019 organic = 7.5% of total WA cherry area
(based on 2017 WA-NASS estimate of 44,707 acres)

*Combined certifier data*

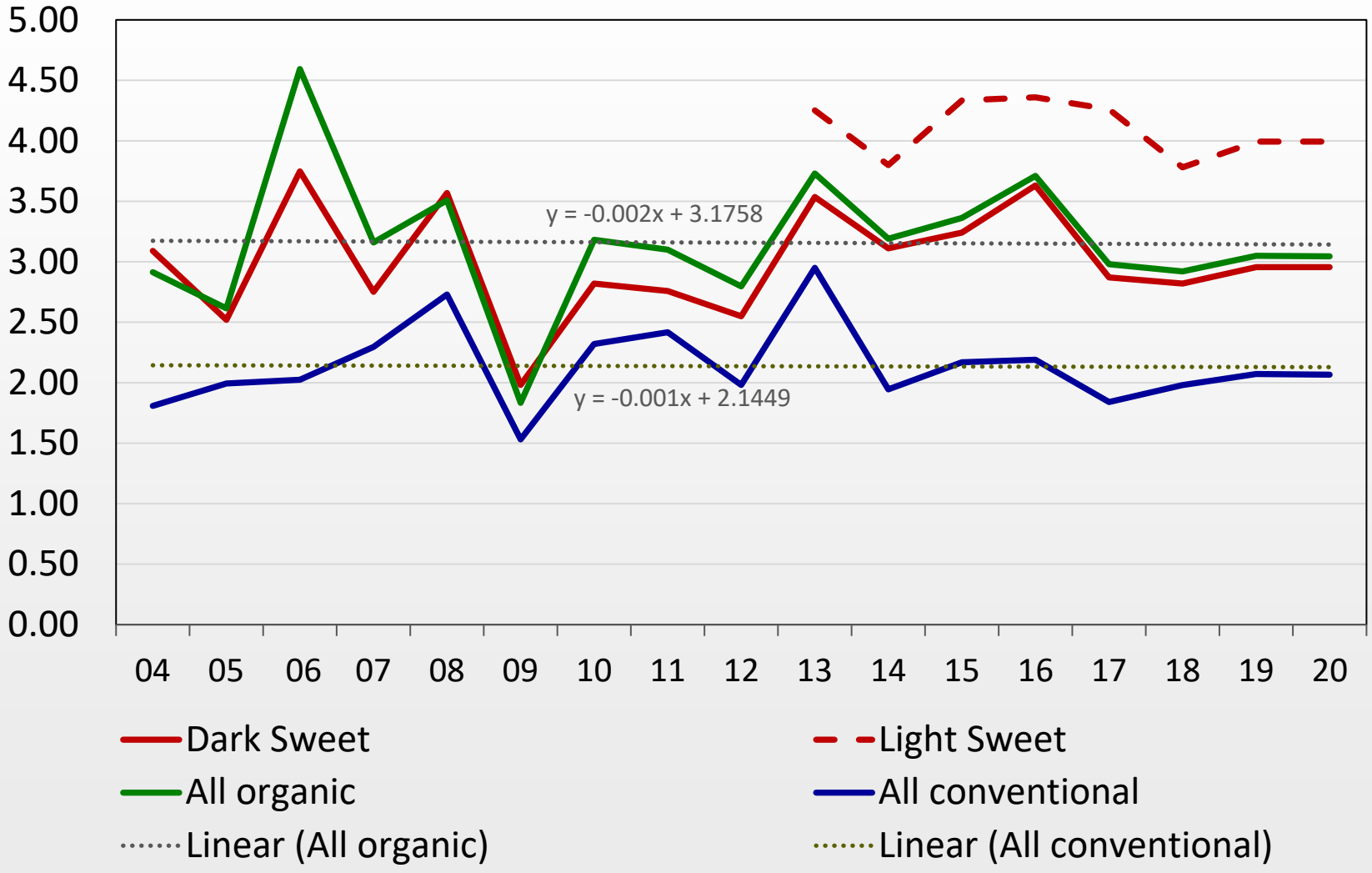
# 2019 Organic Cherry Variety Acres
## Washington State




16% of cherries not reported by variety in 2019 compared to 57% in 2008

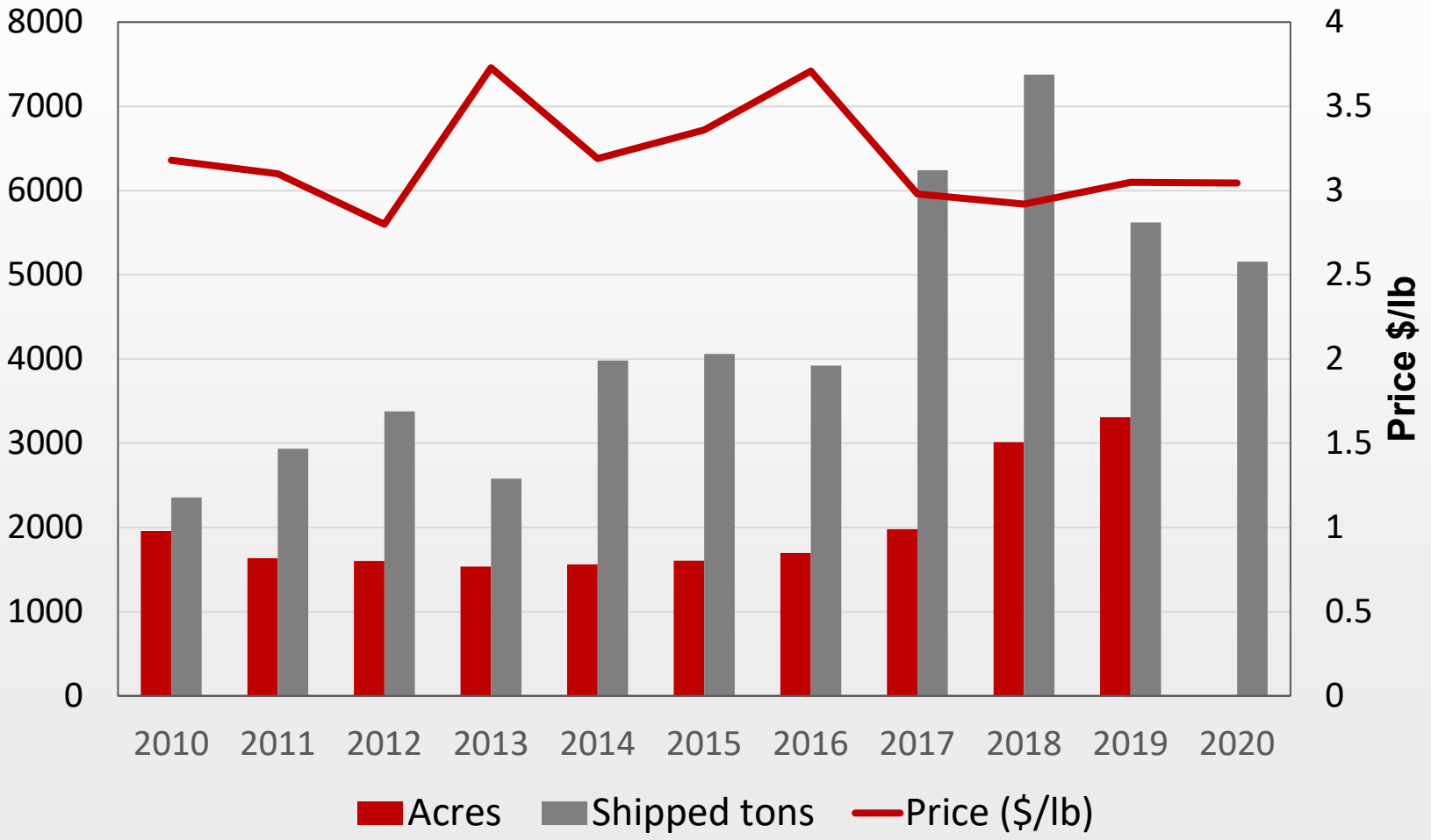
*Combined certifier data;*
*NS = not specified*

# WA Organic Sweet Cherry Prices




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

# WA Organic Sweet Cherries




*Data: WSTFA*

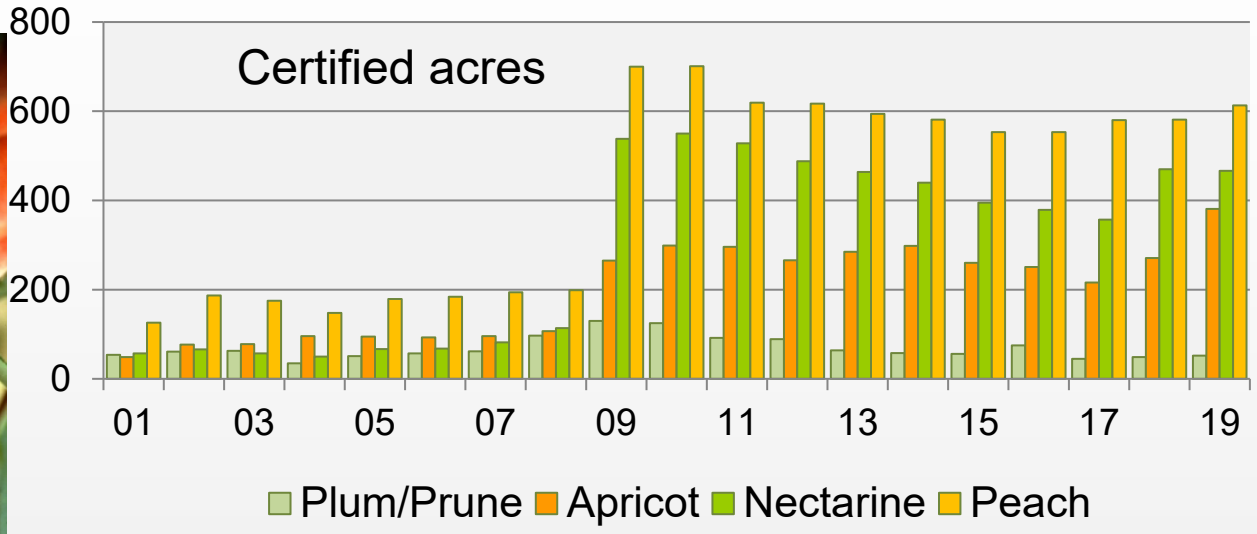
# WA Organic Cherries

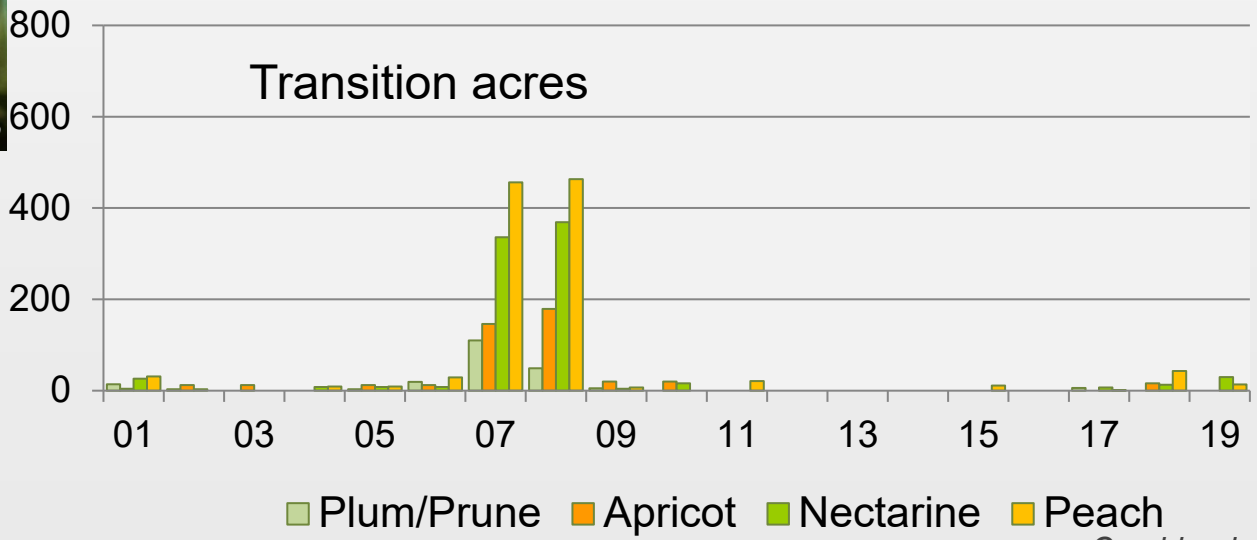
| | 2017 | | 2018 | | 2019 | | 2020 | |
|---|---|---|---|---|---|---|---|---|
| | ORG | CONV | ORG | CONV | ORG | CONV | ORG | CONV |
| Dark Sweet | | | | | | | | |
| Volume (1000 box*) | 574 | 22,407 | 665 | 20,954 | 511 | 18,739 | 471 | 16,579 |
| % of crop | 90 | 92 | 87 | 91 | 88 | 91 | 91 | 93 |
| 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

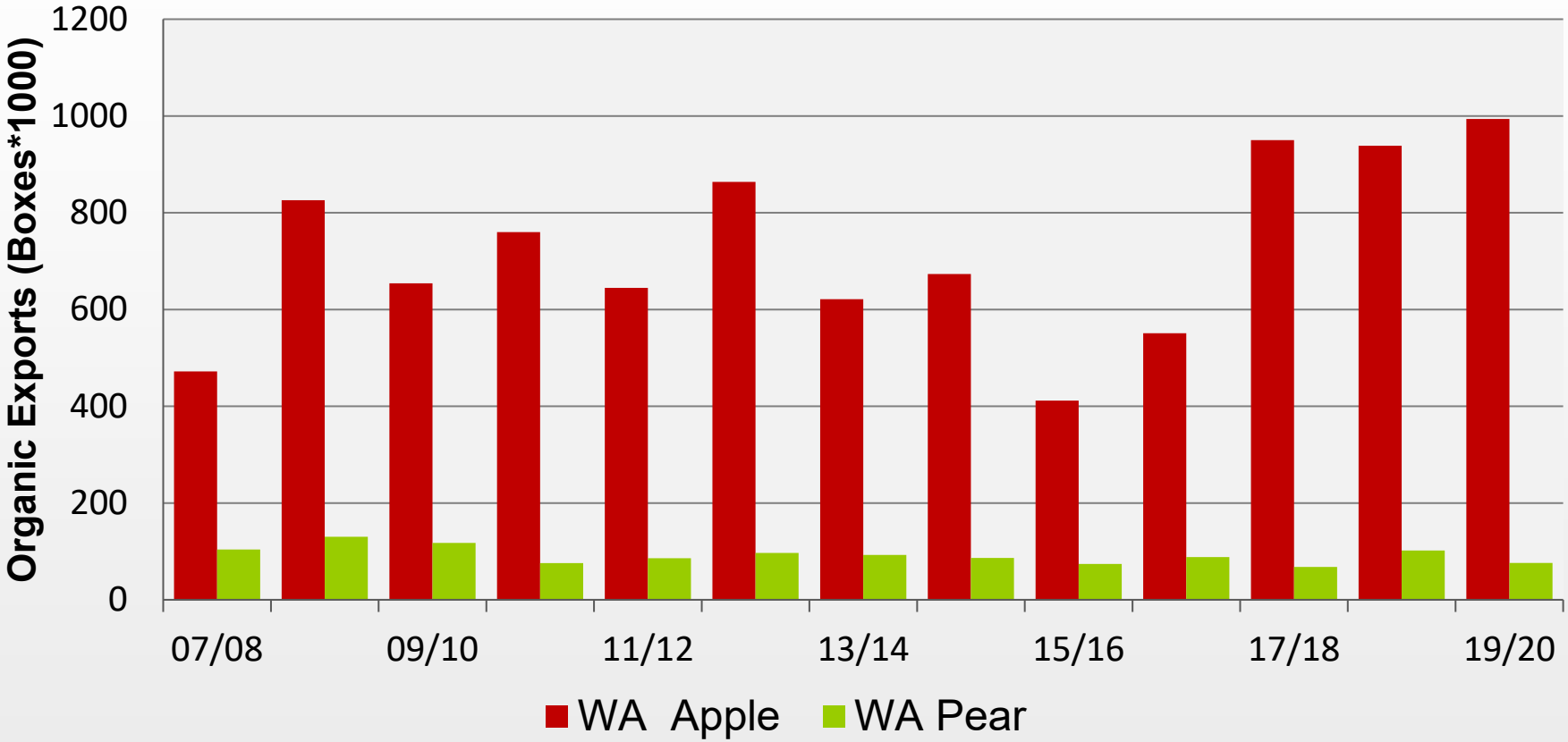




*Combined certifier data*

# Exports

Exports of organic tree fruit from Washington have occurred for years and reached an all-time high for apples in 2019 (slide 73), which included some shipments to the UK after several years with none (slide 74). Canada is by far the largest export destination (slide 75). ‘Gala’ apple and ‘Bartlett’ pear were leading organic tree fruit exports by volume in 2019 (slides 76, 77), but several other organic apple varieties have seen larger 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



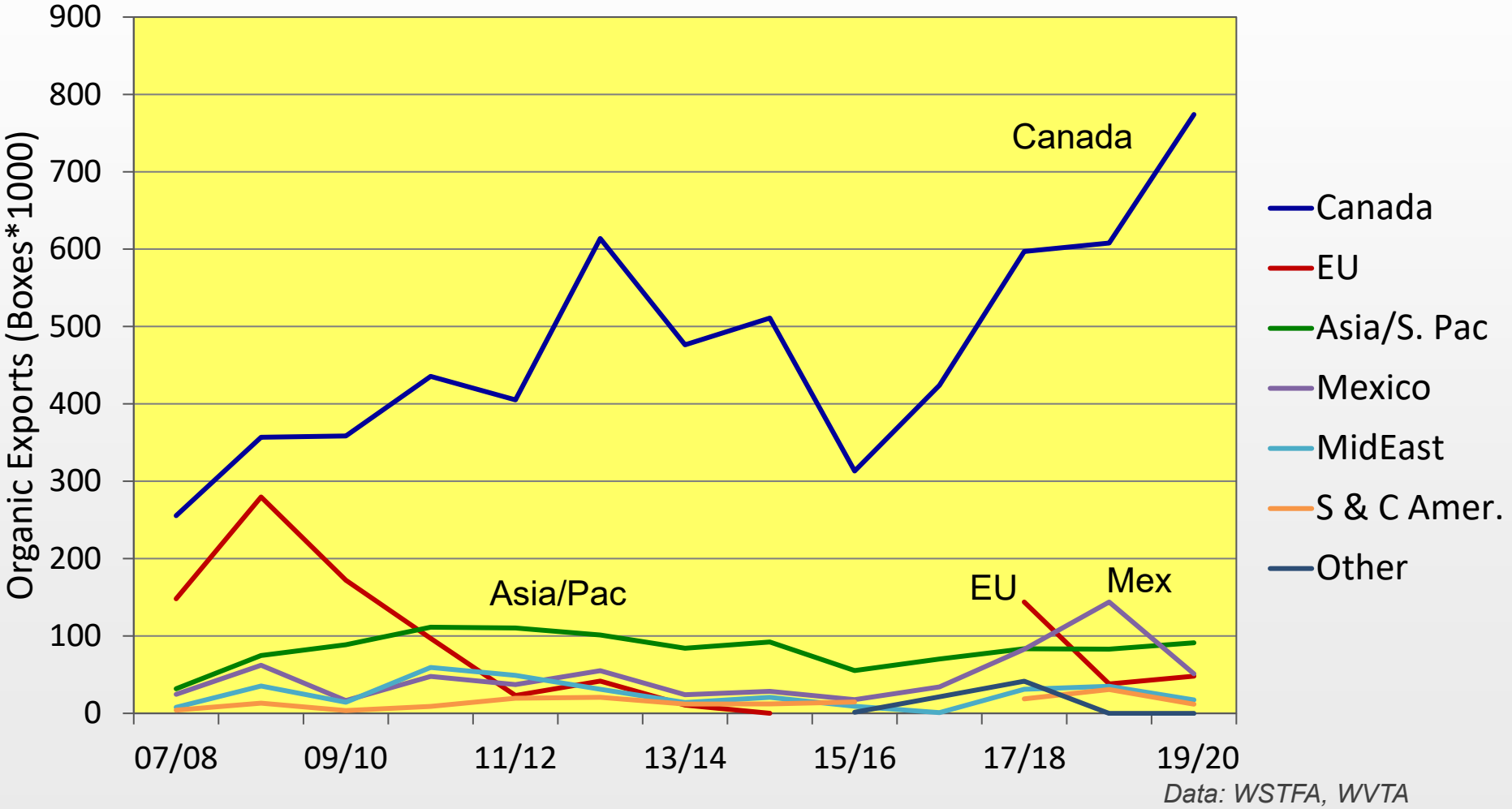

2019 exports: ~6% of the organic apple and pear volume;
Canada, largest export destination, 78% of apples and 93% of pears

*Data: WSTFA, WGCH. Export includes Canada.*

# Exports

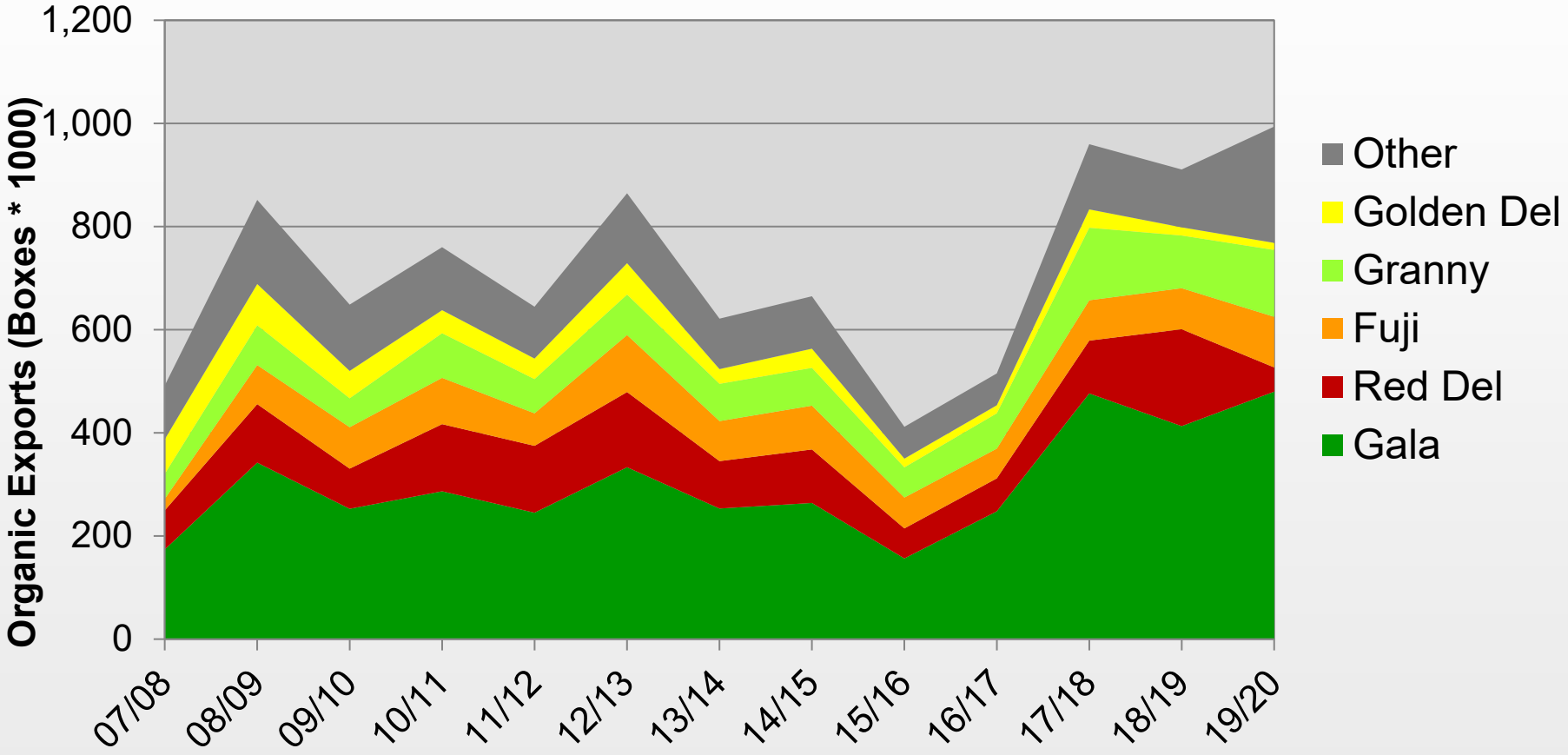
- ‘Gala’ apple and ‘Bartlett’ pear were leading export varieties
- 2017: renewed apple shipments to UK; started 1 cntr/wk, then 10-12 ctnr/wk; totaled 142,000 boxes for season, or 14% of export volume; heavy on small size, <113
- Short crop in EU for 2017 due to frost
- For comparison, in 2007, 360 ctnr 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




*Data: WSTFA, WVTA*

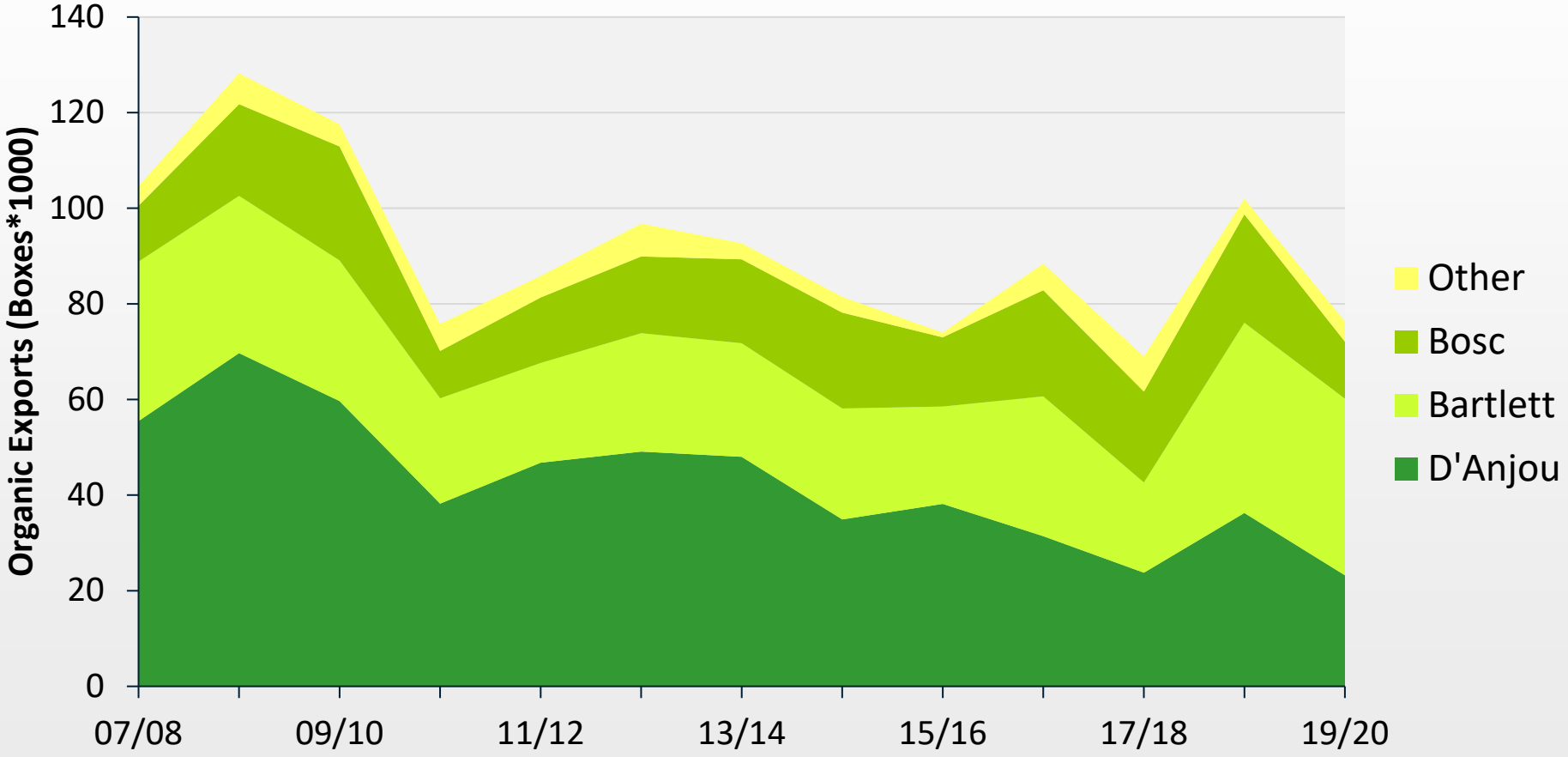
# WA Organic Apple Exports by Variety




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%

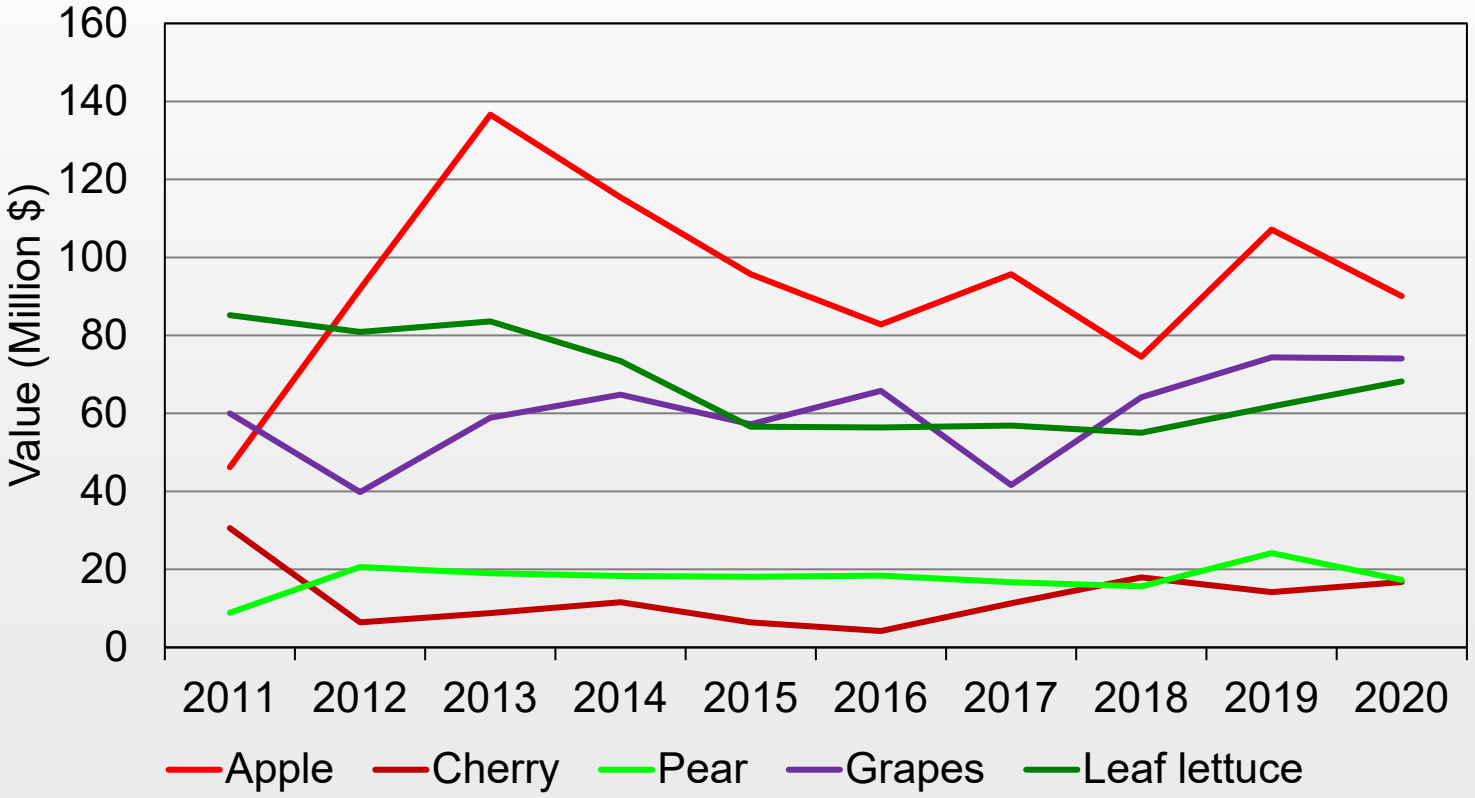
*Data: WSTFA, WVTA*

# 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 79). While the value of organic apple exports continues to exceed the value of imports, the import value has been increasing (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.

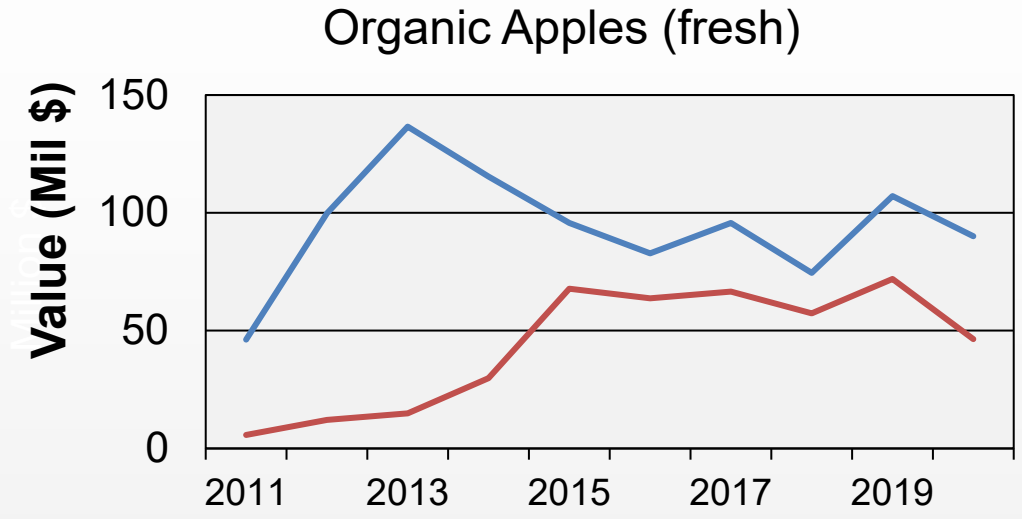
# U.S. Organic Exports

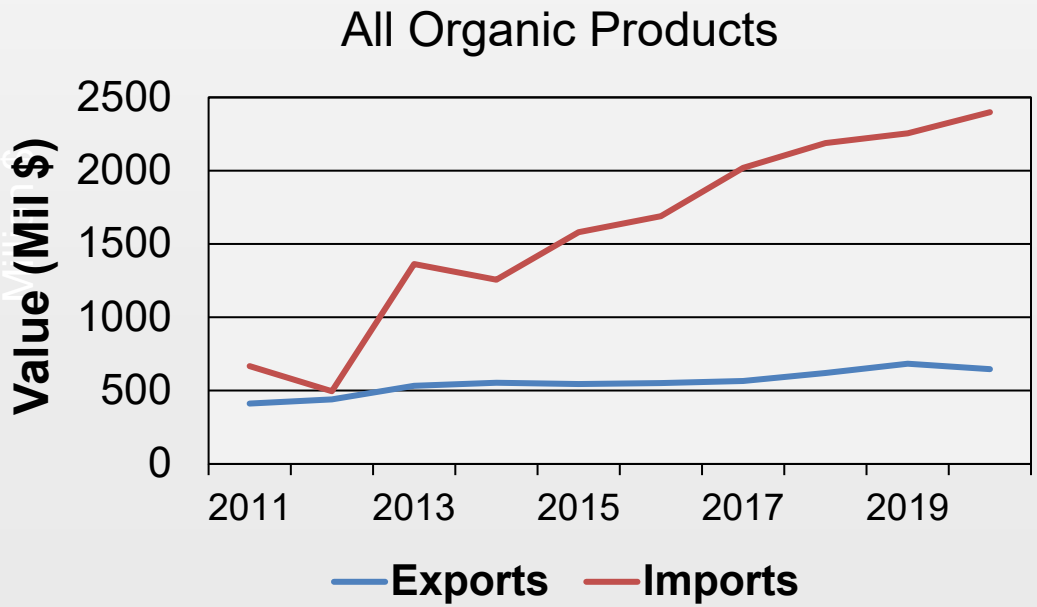
Fresh fruits are an important U.S. organic export. Apple is the leading fresh fruit product, but exports have declined in recent years.




*Source: USDA-FAS GATS*

# U.S. Organic Trade



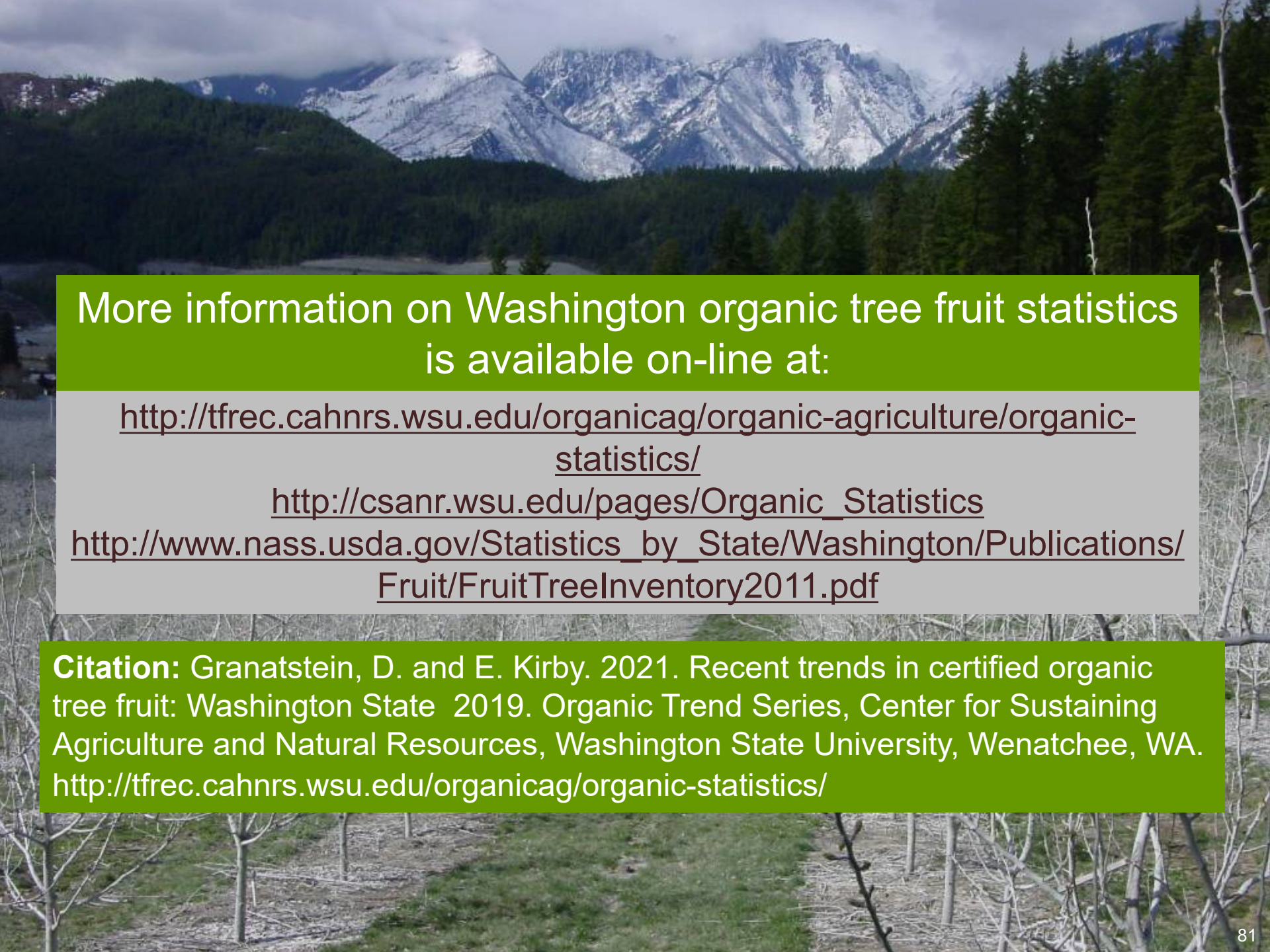




2020

- 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*



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

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