



Oilseeds and Biofuels in Washington State, 2017



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Bioenergy Goals

- Reduce dependence on foreign oil
- Improve environment / public health
- Support WA agriculture and rural economy

State Action Strategies



Grow
oilseed/biofuel
crops

*Invest in cropping
systems research*



Process
at in-state
crushers /
refineries

*Incentivize investment
in processing facilities*



Use
in state

*Require biodiesel use;
Ensure quality*

Research investment made at WSU

Washington Biofuels Cropping Systems

- Initiated in August 2007.
- Initial state funding was \$500,000 annually, now \$300,000/yr.
- Rebranded in 2013:

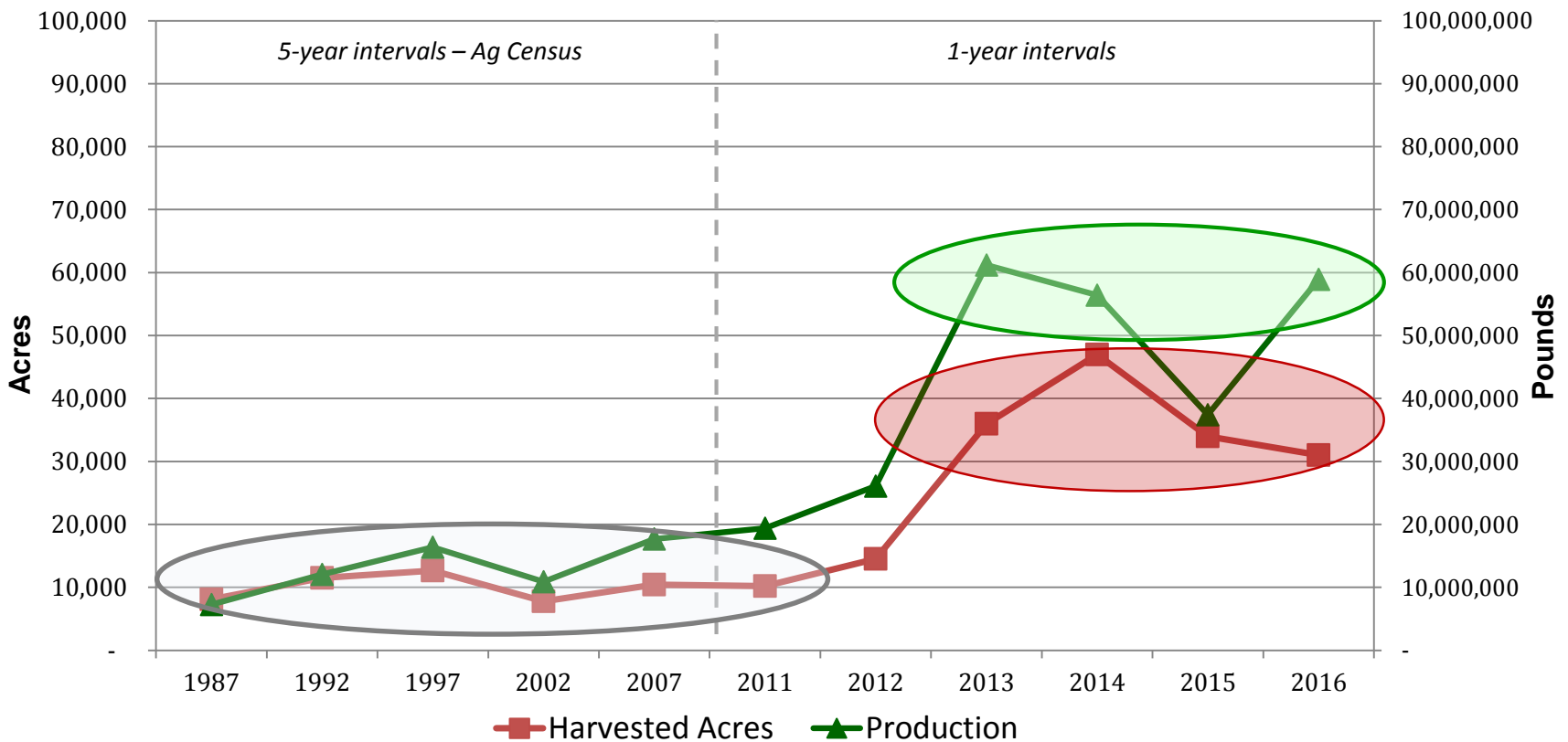
WA Oilseed Cropping Systems

- 15-20 projects each year; interdisciplinary research & extension team.
- **Goal:** *Increase oilseed acreage from <1% to 10% of crop acreage by 2020.*



WA canola production is significantly higher than it was prior to 2012

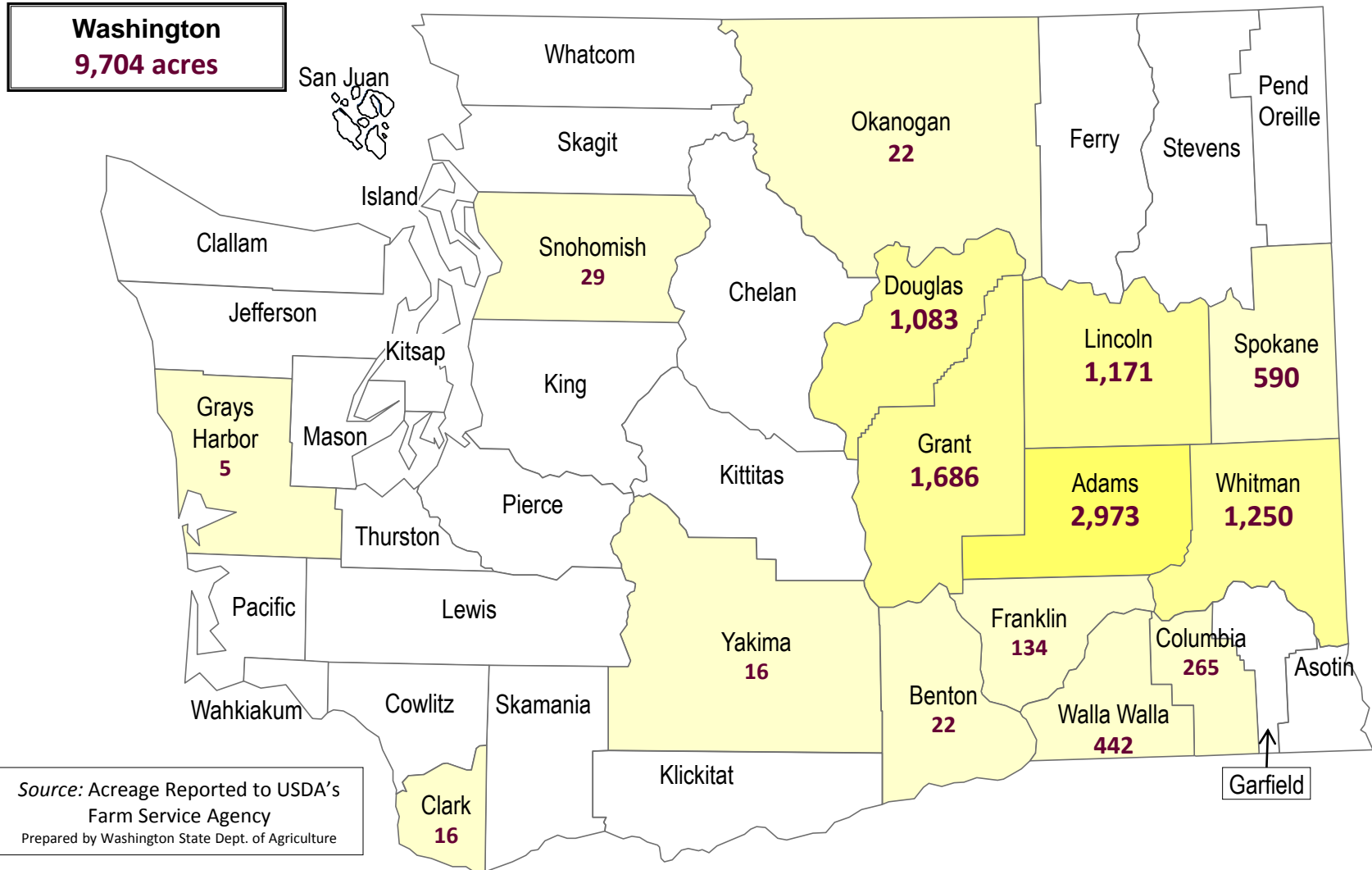
WA Canola Production 1987-2016



Source: USDA, National Agricultural Statistics Service

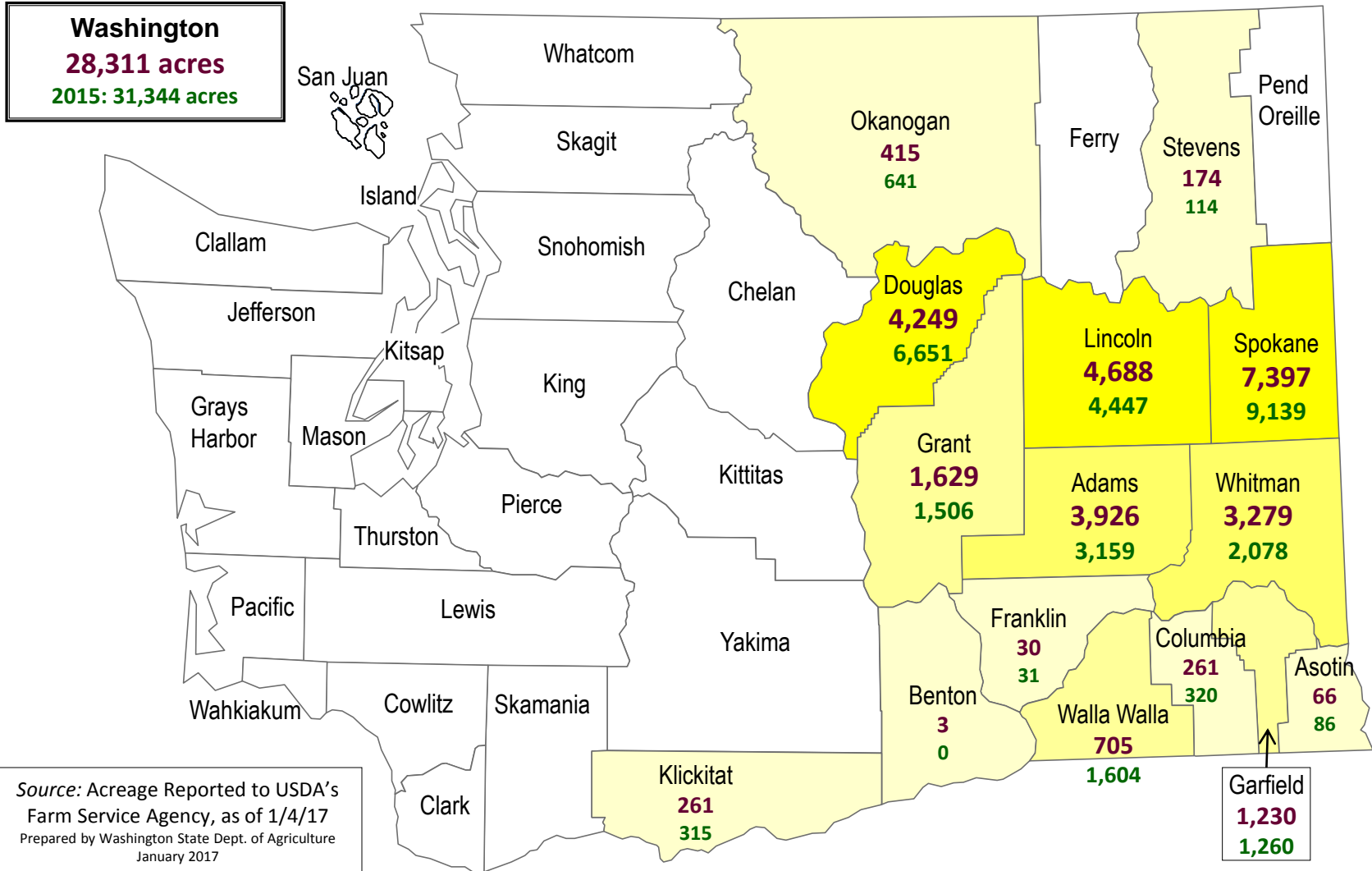
Washington Canola Acreage, 2007

Planted Acres reported to USDA-FSA by County

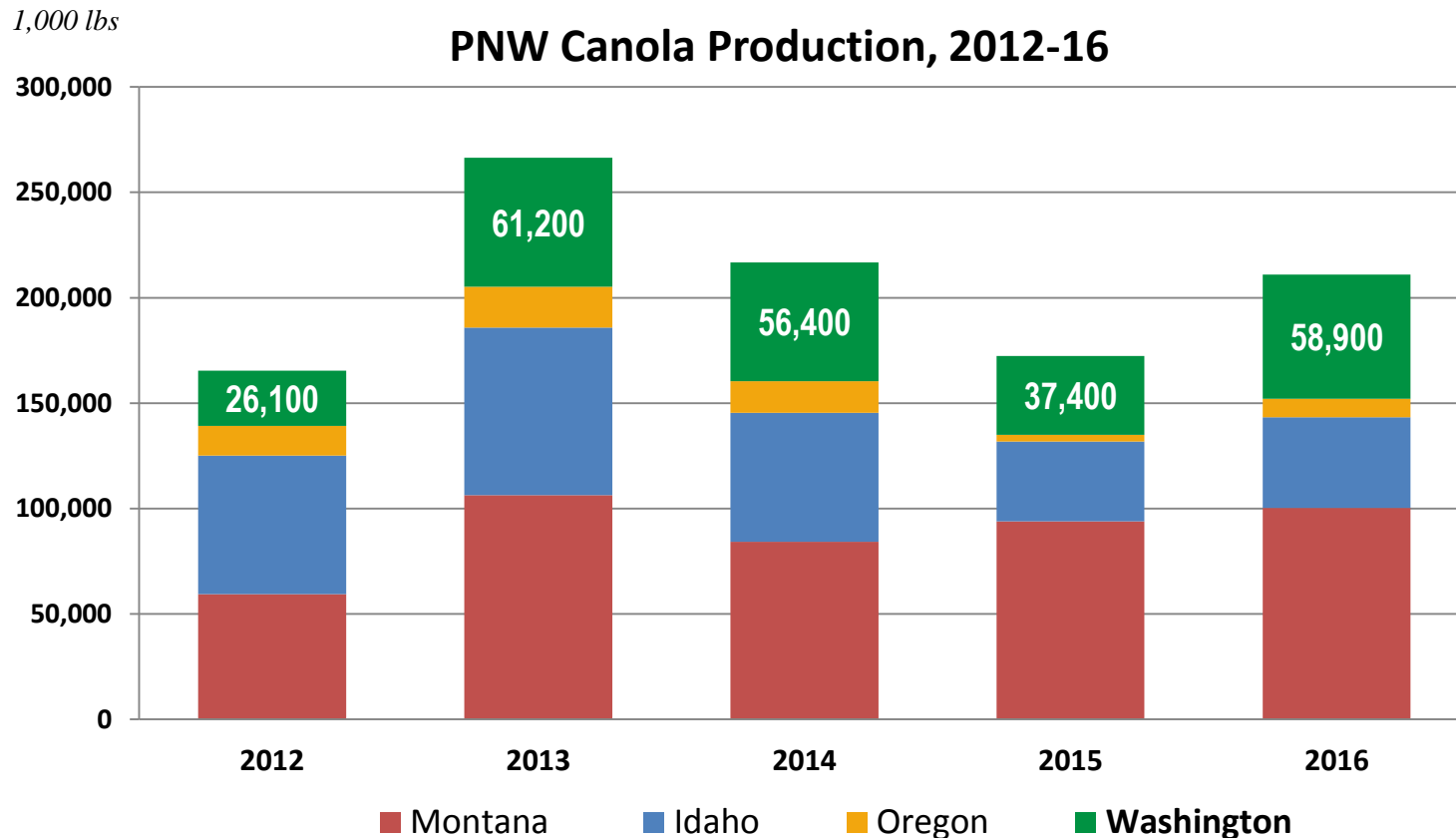


Washington Canola Acreage, 2016

Showing planted acres by County for **2016** and **2015**

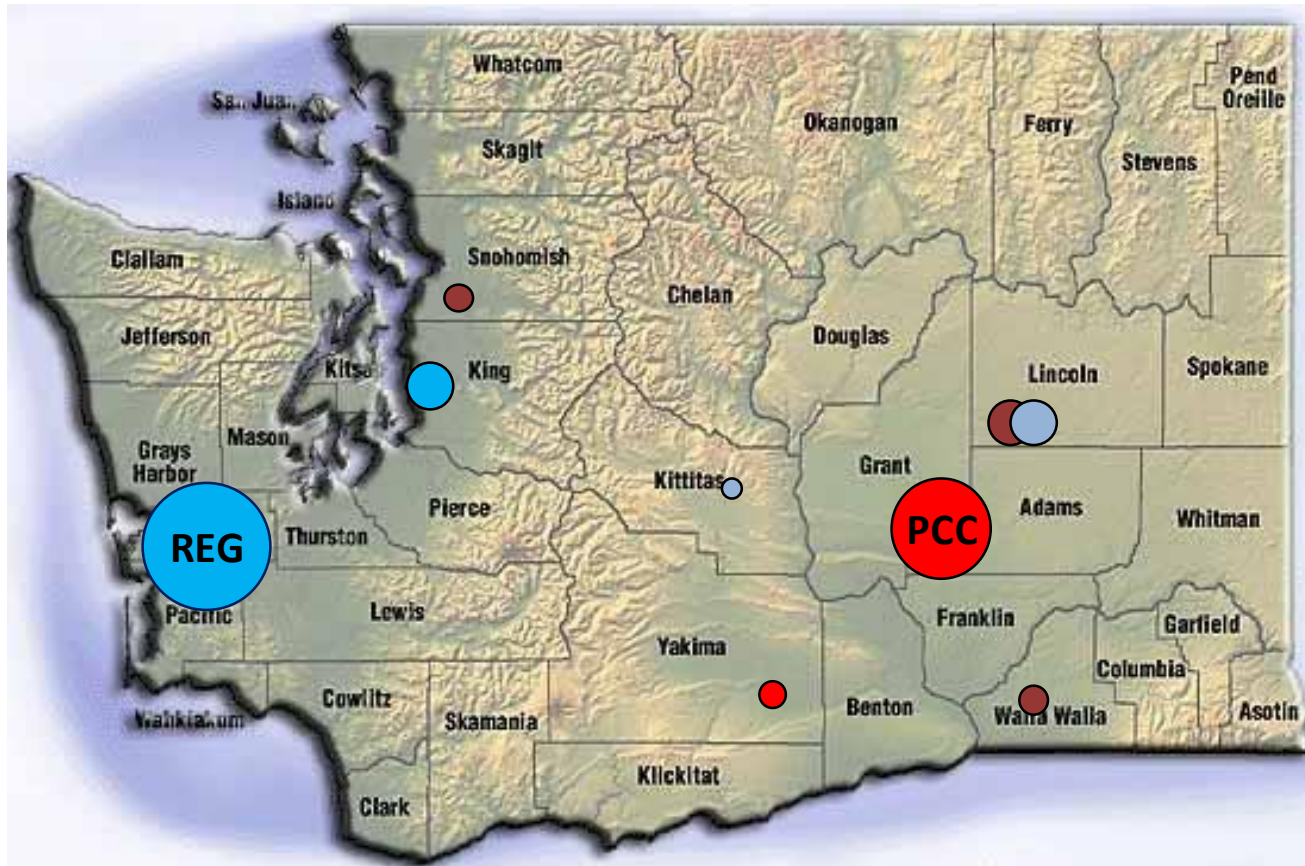


WA now producing 25% of PNW canola



Source: USDA, National Agricultural Statistics Service

WA has oilseed/biodiesel processing facilities to handle 300,000+ acres of production



- Oilseed Crusher
- Biodiesel Processor

Crush capacity: 350,000 T/yr = 350,000 acres
Refining capacity: 105 MGY = 1.5 mil acres
If yield is 1 T/ac

WA Oilseed/Biodiesel Processors

- **REG Grays Harbor**

- 100 MGY capacity. Feedstock: canola oil, primarily from Canada. Receives some oil from Pacific Coast Canola.



- **Pacific Coast Canola**

- Crush Capacity: 1,000 MT per day. Crushes GMO, non-GMO and High Oleic canola.
- Operated by Viterra since 2015. Produces food grade oil that's available for biofuel production.

- **Odessa**

- 8 MGY capacity. Integrated oilseed crusher/biodiesel production facility. Idle since 2014.
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- **General Biodiesel, Seattle**

- 5 MGY capacity; restarted production in fall 2016.
Feedstock: used cooking oil. Primarily selling into Oregon.



- **Sequential Pacific, Salem, OR**

- 17 MGY capacity. Collects substantial amount of used cooking oil in Washington.



Market for biodiesel is especially strong along the West Coast

■ Renewable Fuel Standards (RFS)

– Federal RFS2

- Requires 36 billion gallons of renewable transportation fuel by 2022

– Our neighbors

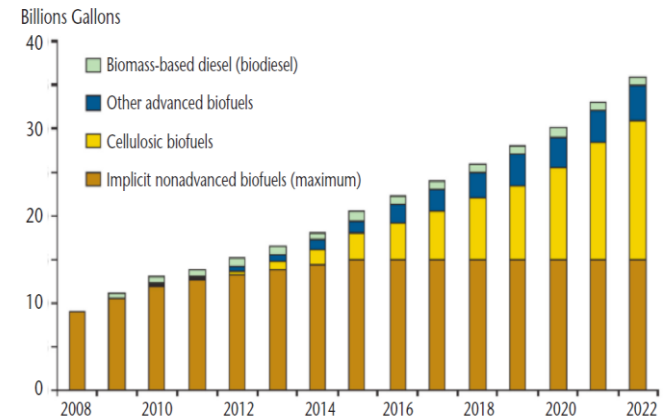
- Oregon: 5% biodiesel in all diesel since 2011
- British Columbia: 4% biodiesel
- California: Low Carbon Fuel Standard (LCFS)

– Washington's 2% biodiesel requirement is not functional

■ Industry Renewable Fuel Initiatives

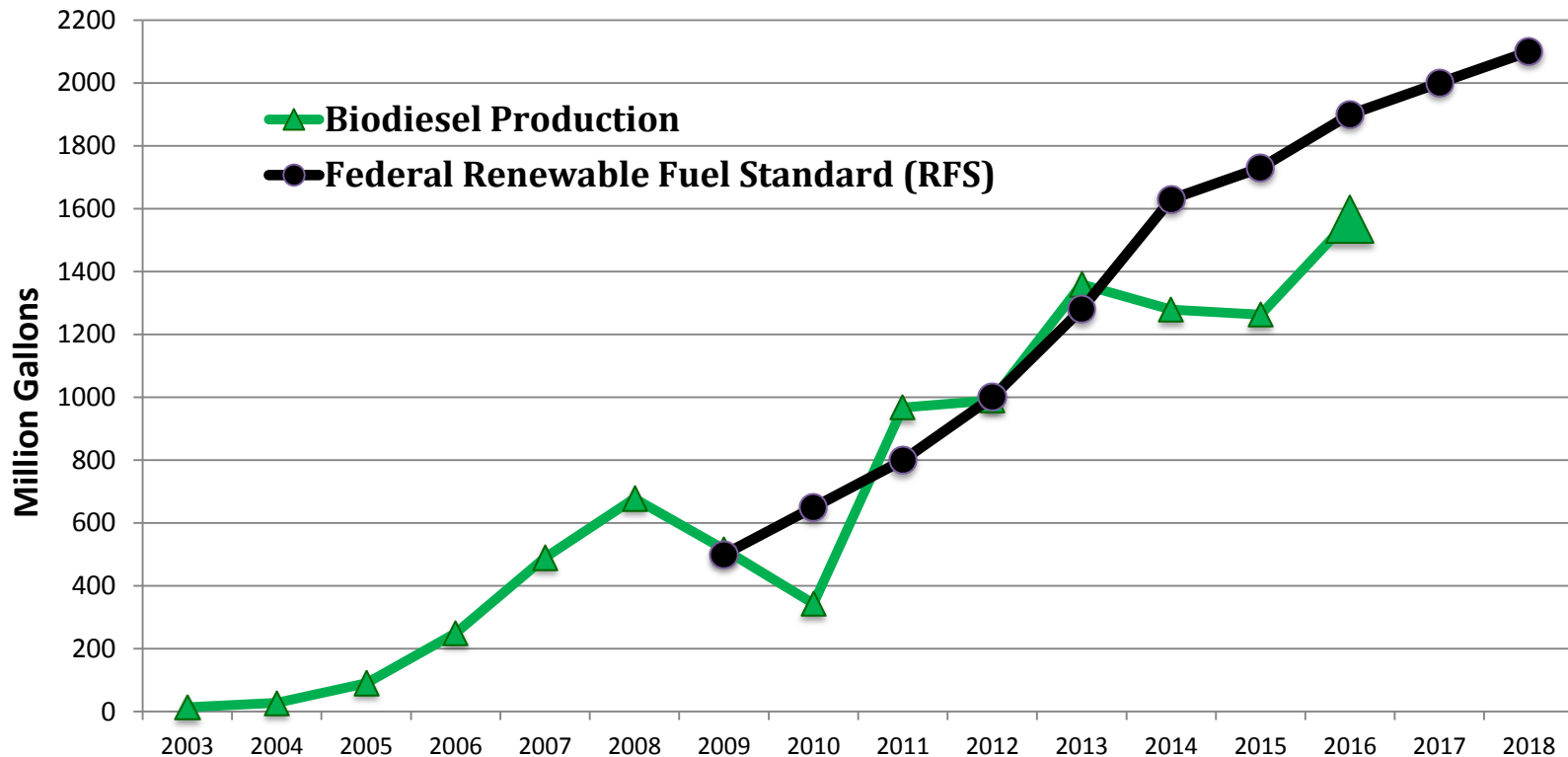
- Military
- Commercial Aviation

■ Government Use Requirements



***State and federal policy
continue to support biofuels***

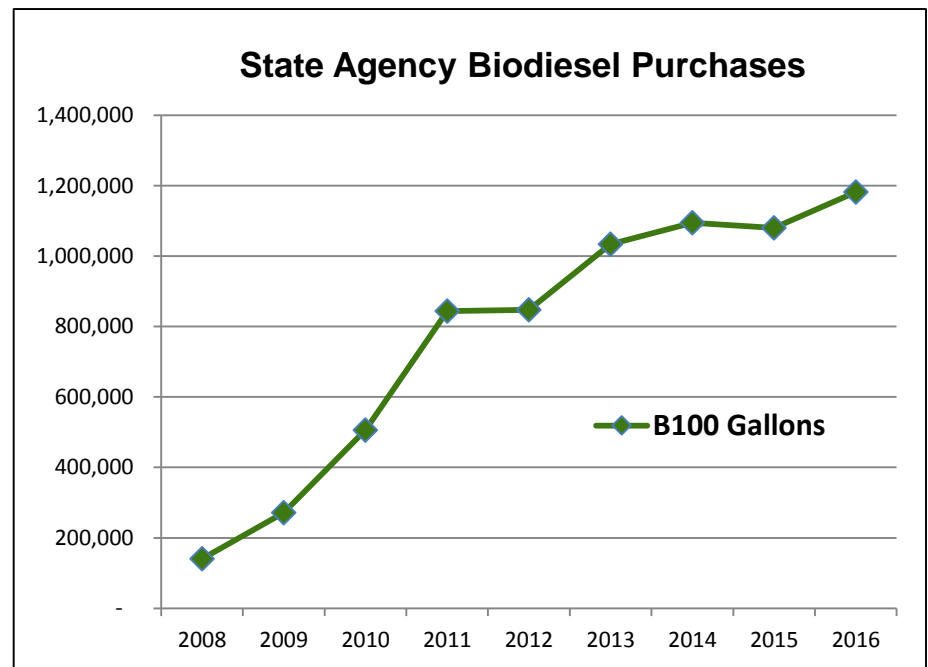
U.S. biodiesel production primarily driven by federal mandate and regional markets



Source: U.S. Energy Information Administration

State agencies lead biodiesel use in WA

- **State agency** biodiesel purchases topped 1 million gallons for 4th time in 2016.
 - State Ferries (*top user*) fuels with B5.
 - State fleets average 14% biodiesel
 - B20 in western WA
 - B20 (summer) / B5-B10 (winter) in eastern WA
 - Per contract, biodiesel must be at least 51% in-state produced or feedstock-sourced.
- Testing and use show no biodiesel-related fuel quality issues.



What's ahead in the near term?

- Market demand for **WA oilseeds** strong
 - WA crushing and biodiesel facilities very interested in WA feedstocks
- Market demand for **renewable fuels** strong
 - RFS Renewable Volume Obligation (RVO) increases already in place
 - CA, OR and Canadian market demands continuing
 - Alternative Jet Fuel demand strong
 - WA consumption increase driven by state and local govt demand

WOCS to continue and evolve in response to market and grower needs