



Washington Agriculture: Current Landscape and Drought Impacts

*Washington State Water Resources Association Annual Meeting
December 2025*

Presented By: Derek I. Sandison, Director and Jaclyn Hancock, Water Resource Scientist



Washington
State Department of
Agriculture

About Washington Farms

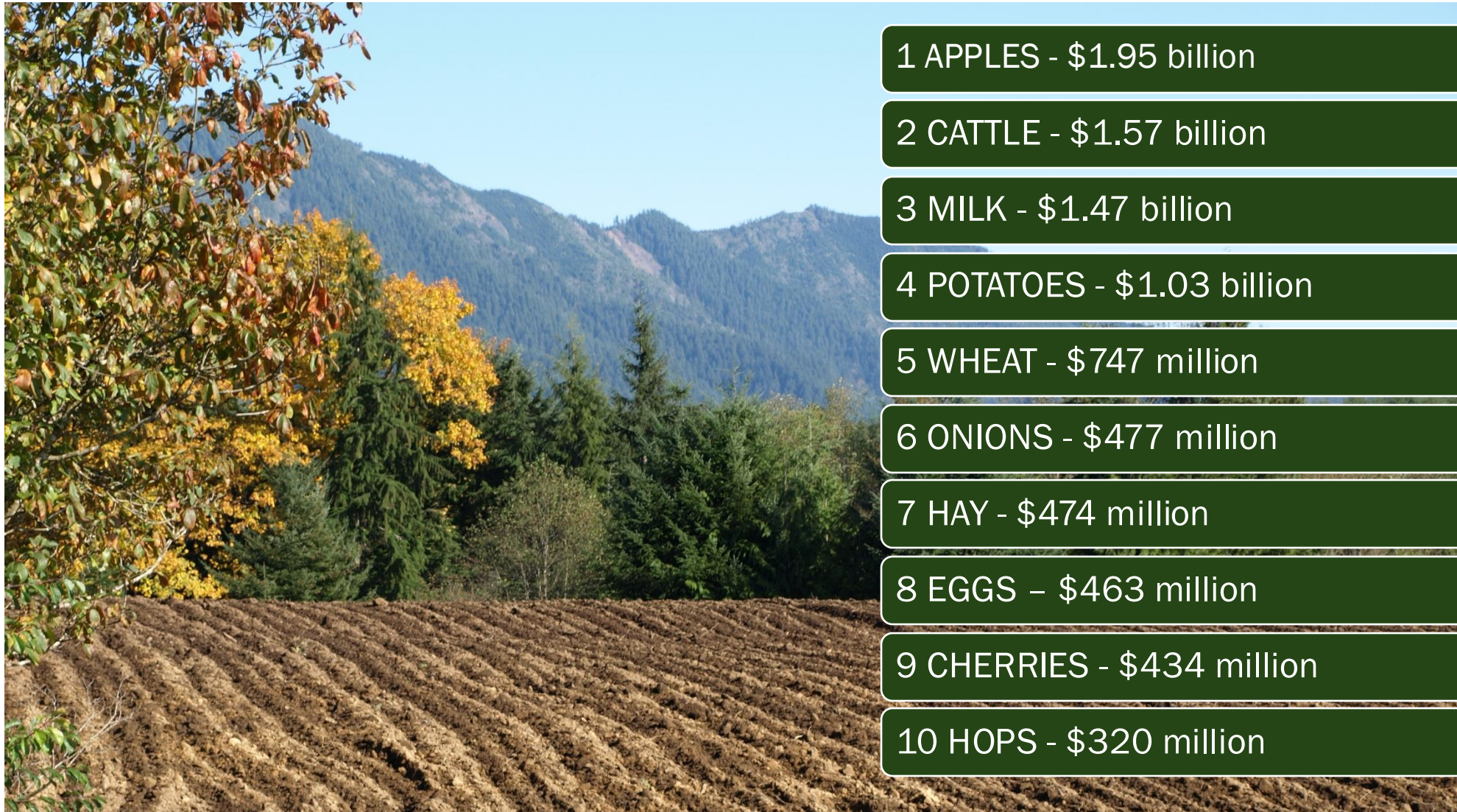
- **32,076** – total number of farms (2022). Most farms are family owned.
- **300+** - variety of crops grown in Washington.
- **\$12.9 billion** – market value of crops and livestock only (2024)*

*USDA NASS.

- **\$1.95 billion** – value of apples, state’s top crop
- **89%** - percent of Washington farms considered small farms
 - 82% - less than 180 acres
 - 67% - less than 50 acres



Top 10 Commodities in Washington (2024)*



1 APPLES - \$1.95 billion

2 CATTLE - \$1.57 billion

3 MILK - \$1.47 billion

4 POTATOES - \$1.03 billion

5 WHEAT - \$747 million

6 ONIONS - \$477 million

7 HAY - \$474 million

8 EGGS - \$463 million

9 CHERRIES - \$434 million

10 HOPS - \$320 million

*Source: USDA National Agricultural Statistics Service (NASS)

Washington's Top Export Destinations & Export Products (2024)



Top Export Destinations

Canada	\$1.3 billion
Japan	\$1.1 billion
Mexico	\$908.2 million
China	\$692.6 million
South Korea	\$508.2 million

Top Export Products

Frozen French Fries	\$1.1 billion
Fish and Seafood	\$939.9 billion
Apples	\$845.2 million
Wheat	\$651.9 million
Dairy	\$563 million

Factors Affecting Viability of Washington Agriculture

Major pressures on the agricultural industry

- Increasing input costs, especially labor
- Low commodity/crop prices
- Reduced funding for technical support and research
- Regulatory burdens
- Weather/climate impacts
- Water scarcity
- Pest pressures (Japanese beetle, little cherry disease, blight)
- Impact of trade barriers/lack of emphasis on market growth



Photo credit: Dr. Andrea Bixby Brosi, WSU

Agricultural Viability Study

- Intends to shed light on challenges producers in Washington are facing and works with partners at every level – local commissions, state agencies and Legislators – to develop sustainable solutions.
- Conducted by WSU IMPACT Center in partnership with WSDA.
- Preliminary report available 12/25.
- Final report available 6/26.



WSDA's Role in Supporting Trade

Advocacy/Expansion

To improve market access for WA agriculture, raise industry concerns and priorities with US and foreign gov't officials, and expand exports into foreign markets.

- Trade missions (inbound/outbound)
- National Association of State Departments of Agriculture (NASDA)
- Western United States Agricultural Trade Association (WUSATA)
- Meetings with foreign delegations

Export Inspection

To provide assurance that products meet foreign government requirements for entry.

- Fruit & Vegetable Inspection
- Grain Inspection
- Wood Inspection
- Livestock Inspection

Urban–Rural Divide: A Growing Challenge

Overview:

- Policies shaped by urban population and legislators
- Disconnect between urban priorities and rural/ag realities
- Labor, water, and environmental policies often hit rural areas hardest

Implications for Ag:

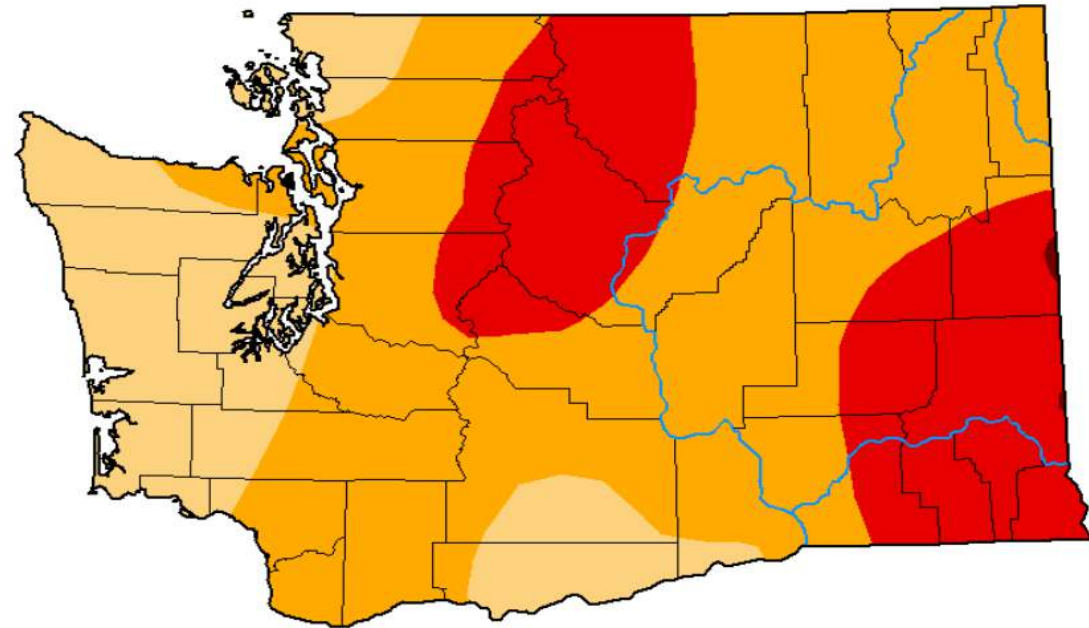
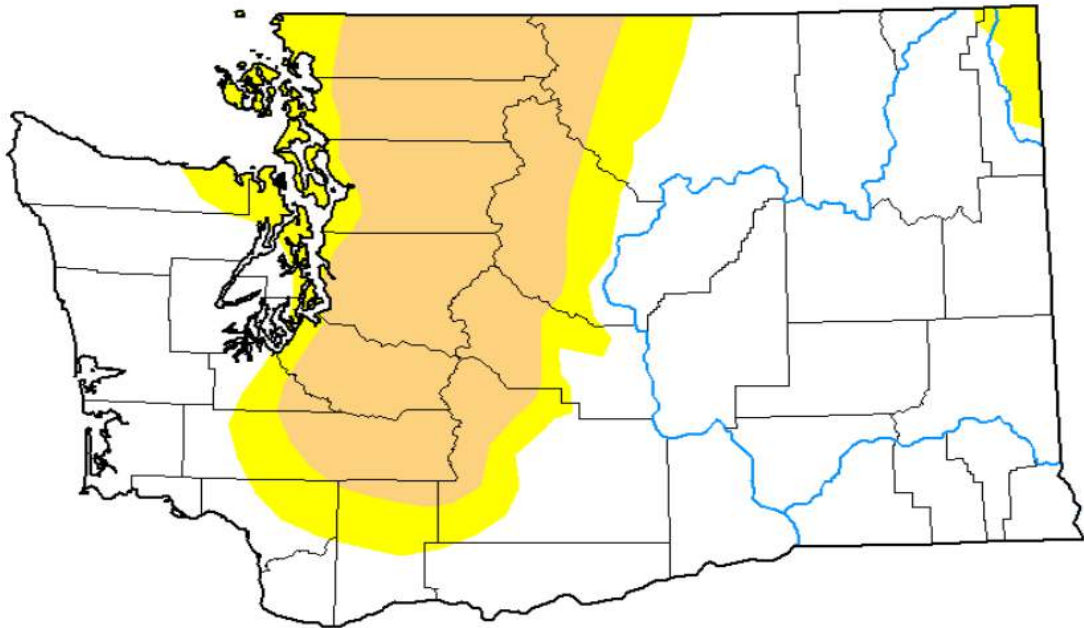
- Risk of losing support for critical infrastructure, transportation, and research funding.
- Need for bridging initiatives like legislative ag tours, urban-rural listening sessions, or ag education in schools to close the understanding gap





Understanding the Pressures: Washington Agriculture in a Time of Drought

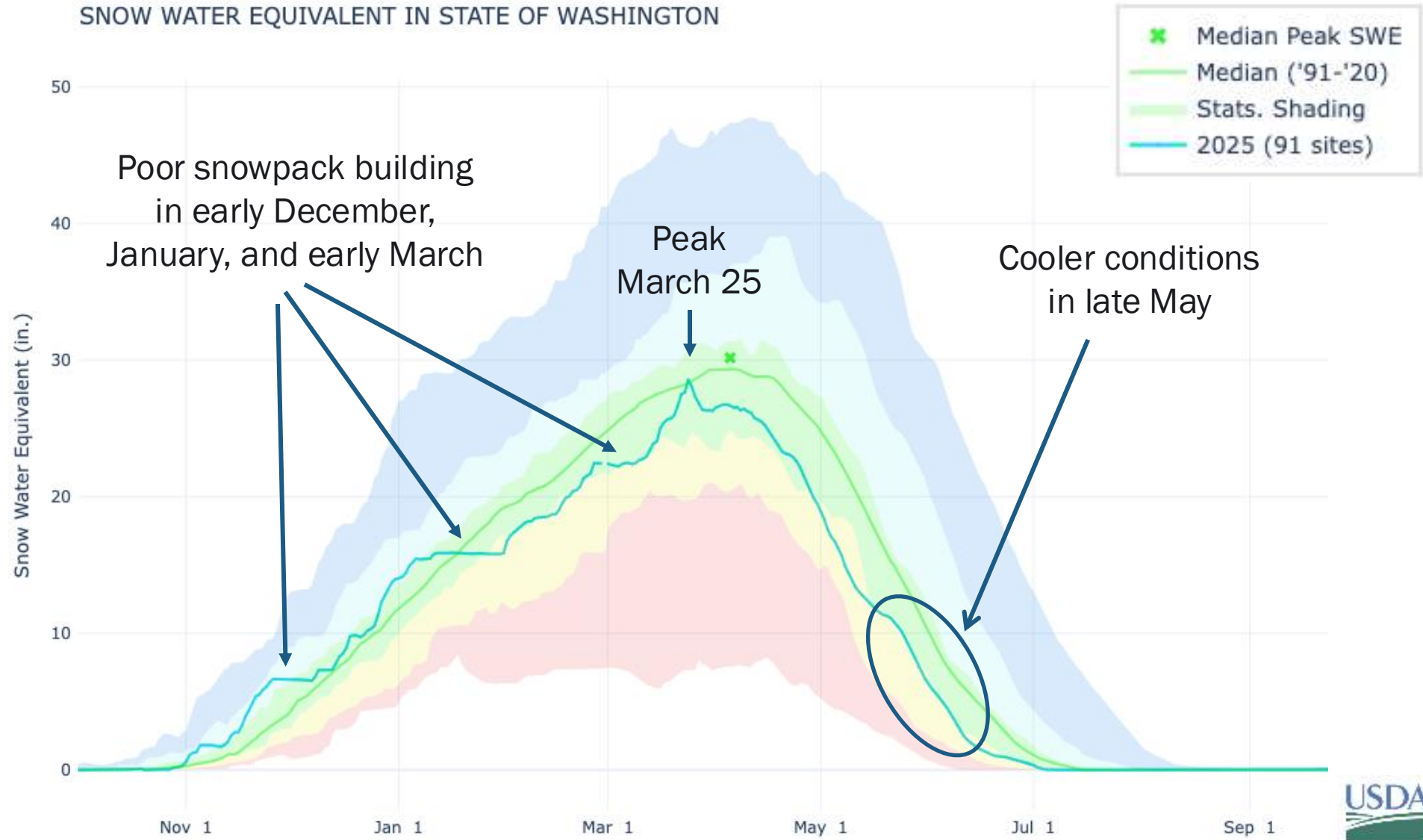
Presented by Jaclyn Hancock



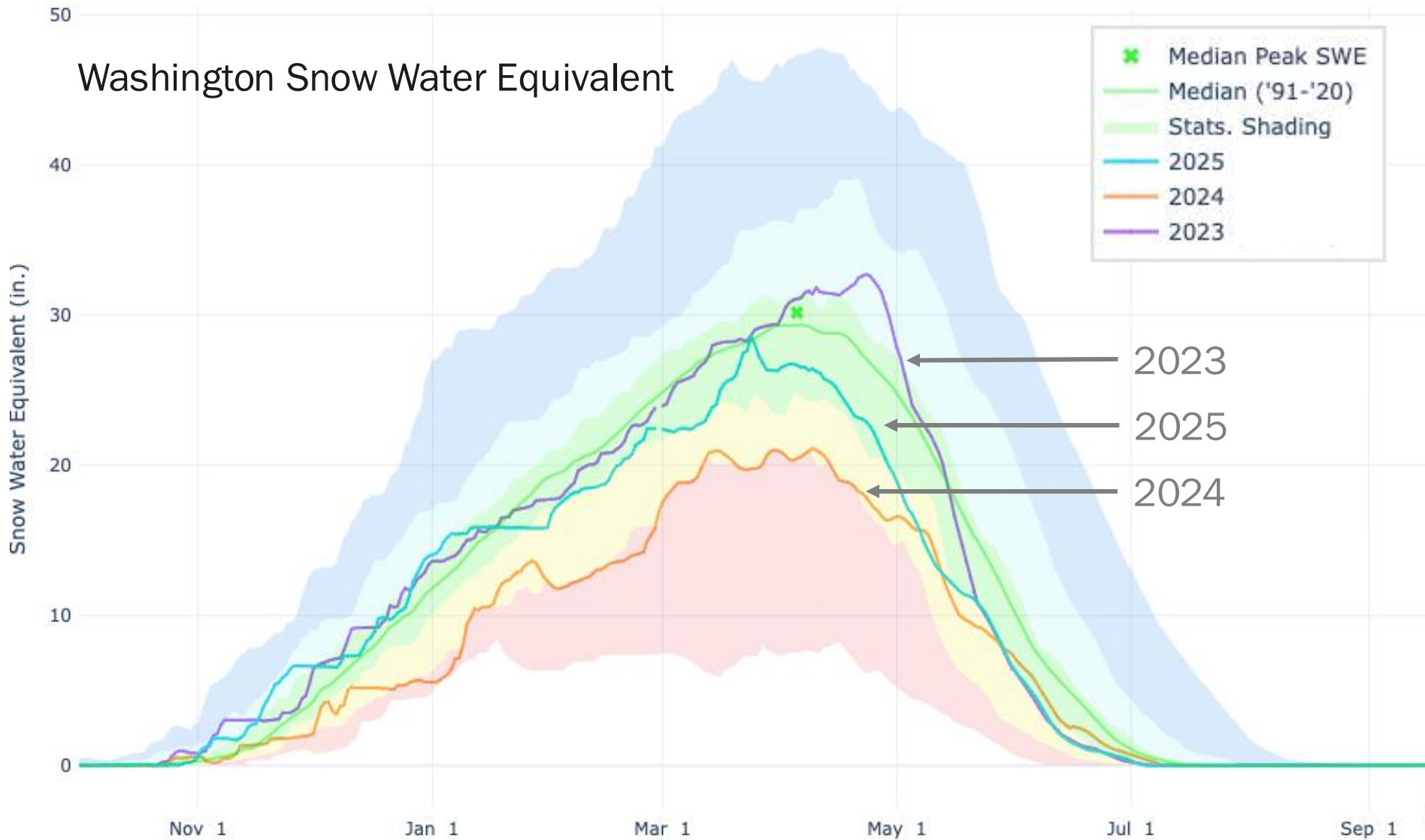
US Drought Monitor: April 1, 2025 vs Sept 30, 2025

Lack of mountain snow in January

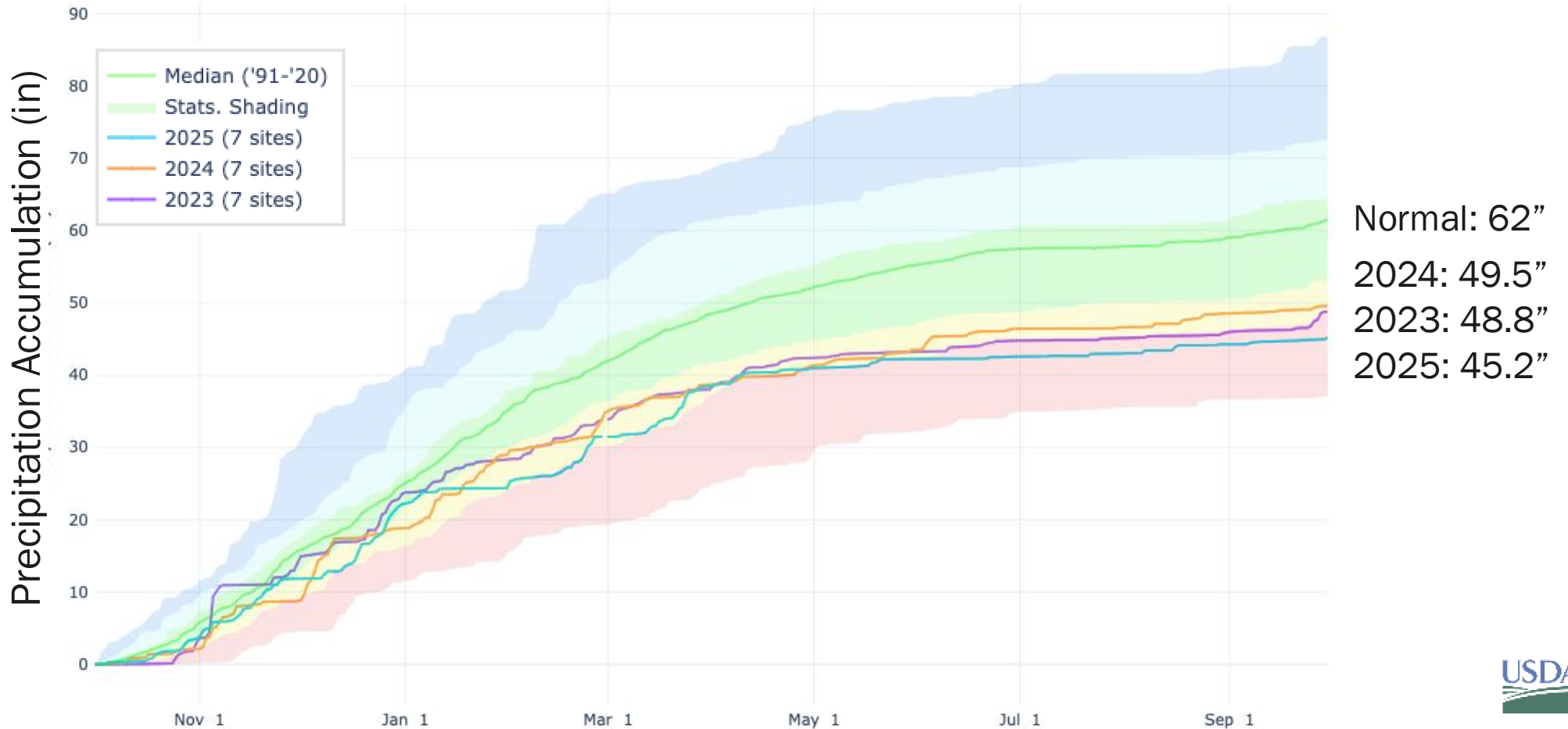
SNOW WATER EQUIVALENT IN STATE OF WASHINGTON



Low snowpack 2024 & 2025; fast melting in 2023



Upper Yakima Basin: 2023-2025



Over the span of **three** water years, the Upper Yakima Basin received less than **two and a half** water years worth of precipitation. Deficit is about 42" (77% of normal).

Examples of 2025 Drought Impacts



Example 1

A hay field that was fallowed



Example 2

A young orchard receiving very little to no water in August.



Example 3

A nectarine orchard that has just transitioned to drip irrigation.

Water Resource Challenges

- Climate change driven
- Storage
- Aquifer declines
- Infrastructure
- Legal



Water Resource Opportunities

- Integrated planning
- Improved forecasting
- Increased storage capacity
- Aquifer storage
- Updated delivery systems
- Research and strategic communication



Drought Impacts to Agriculture and WA Economy



Droughts expected to increase in frequency and severity

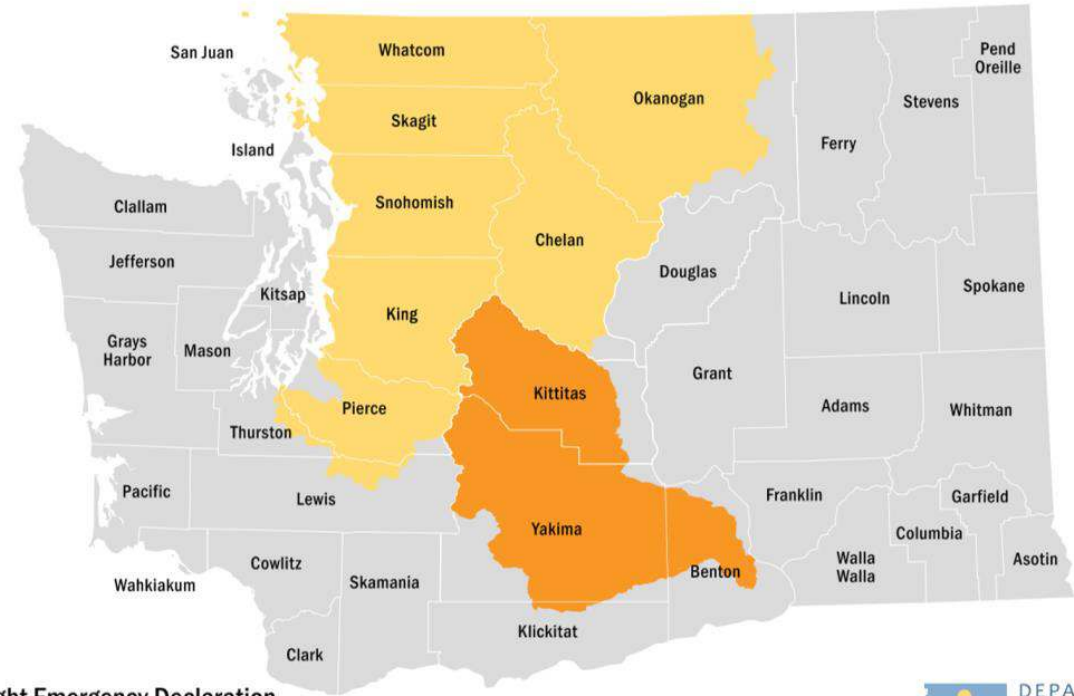


Ag sector value in terms others understand



Support infrastructure investments


Washington Drought Declaration and Advisory



Orange: Drought Emergency Declaration
Yellow: Drought Advisory





WSDA Projects and Direction



2015 Drought and Agriculture

A Study by the Washington State Department of Agriculture

February 2017

Washington State Department of Agriculture

Derek I. Sandison, Director


Agriculture in the Columbia Basin

The U.S. Bureau of Reclamation's Columbia Basin Project includes the Grand Coulee Dam and a vast irrigation system serving the region. Roughly 672,000 acres receive surface water. Additional acres use groundwater.

Beyond reliable irrigation, the project provides and manages water for:

- Municipalities
- Industries
- Flood and streamflow
- Endangered species
- Recreation
- Power production

Visit cbdl.org for more.



THE VALUE OF WATER

Benefits of Project water:

- CROP DIVERSITY
- WATER QUALITY
- WATER RELIABILITY
- INCREASING PROFIT
- CHANGING BUSINESS
- RISK TO FOOD SECURITY

Groundwater is threatened by a declining aquifer, a problem for agriculture and rural communities. Efforts to replace groundwater are underway.

THE VALUE OF AGRICULTURE*

Over **\$3 billion** in production value.
Nearly **3 million** acres in production.
3,500+ farms

Grant County: #2 in WA, #10 nationally* by value of ag production.
Lincoln County: #2 in WA, Top 10 U.S. county for wheat production.

Farms employ more than **13,000**. That is **1 in 5 jobs**.

Comparative Land Values:

- Irrigated Cropland \$/Acre: **\$7,650**
- Non-irrigated Cropland \$/Acre: **\$1,240**

WA state irrigated cropland **2x the value** of US cropland value.

This project serves **47%** of all irrigated cropland in the state.

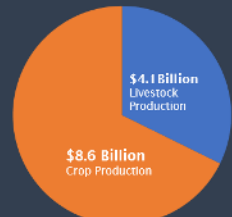
TOP 5 COMMODITIES in the Columbia Basin

- 1 APPLES** \$839.1 million. Apples are the #1 crop in Washington State, #1 state in the nation.
- 2 POTATOES** \$664.6 million. Nearly 2/3 of Washington's potatoes are grown in this region and 20% of all US potatoes.
- 3 WHEAT** \$313.3 million. Wheat is the #1 crop by acres over 1/3 of Washington's wheat is grown in this region.
- 4 HAY** \$325.9 million.
- 5 ONIONS** \$153.6 million.

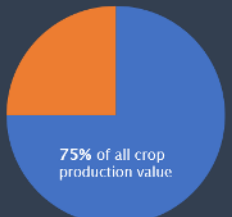
The Value of Irrigation to Ag

- Of Washington's \$8.6 billion crop production value, more than 75% of all crop value is derived from irrigated agriculture.

\$12.8 Billion: Value of Washington's Agricultural Production

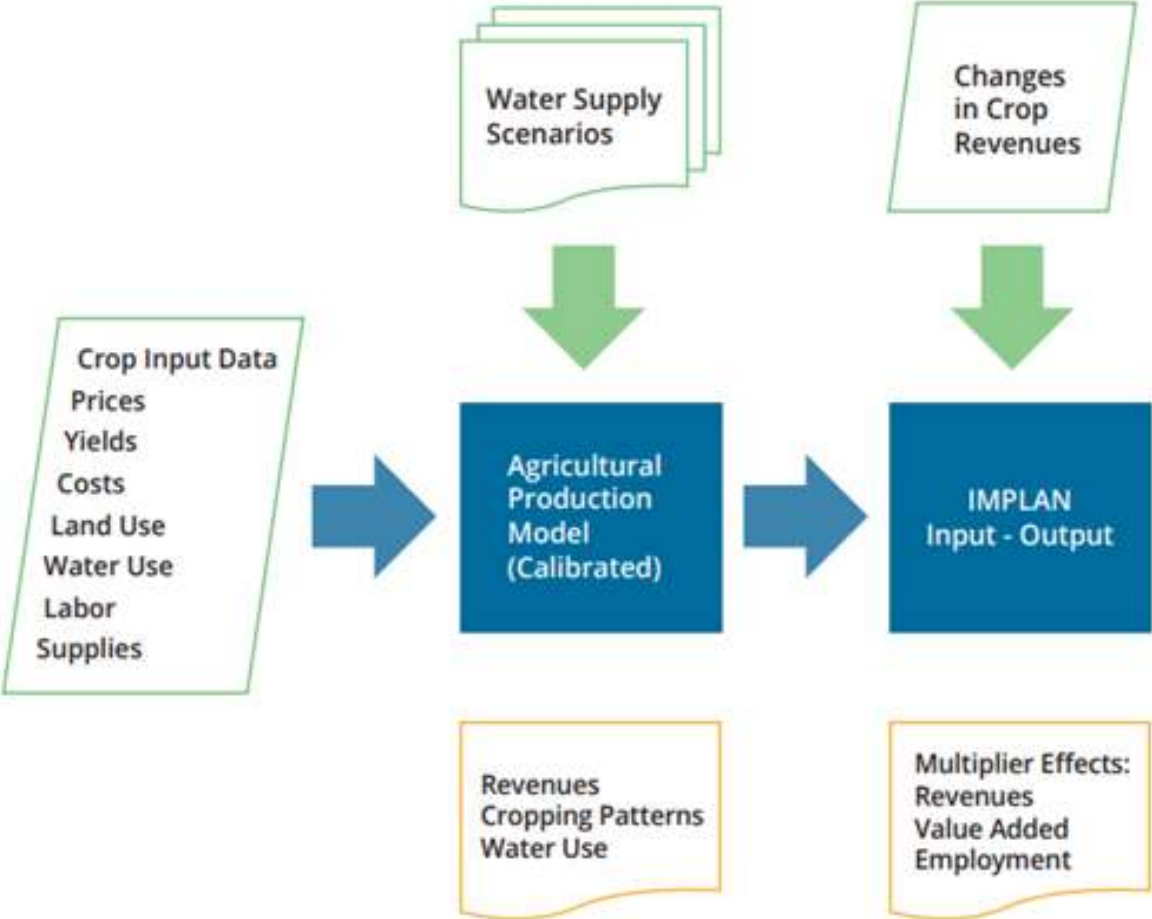


\$6.47 Billion+: The value of irrigated crops



Drought Assessment Tool Framework

Figure 1 DAT Model Framework (Medellin- Azuara, et al. 2021)



Drought Assessment Tool Application in Yakima

IMPACTS OF REDUCING WATER SUPPLY TO 70%

Revenue losses of **7.3% - 19.4%**

Loss of up to **4,457 jobs**

IMPACT OF REDUCING WATER SUPPLY TO 50%

Revenue losses of **18.1% - 30.4%**

Loss of up to **7,027 jobs**

The **50% water supply scenarios** result in estimated total producer revenue losses between \$397 million and \$668 million, accounting for between 18.1% and 30.4% of the expected producer revenue in the base case scenario. Total losses to the economy could be as high as \$1.1 billion in revenue, \$741 million in value-added, and up to 10,309 jobs lost.

Drought Assessment Phase 2

- Recalibrate the existing tool
- Refine model inputs and assumptions
- Estimate impacts of the 2024 and 2025 droughts



Beyond Agriculture

- The DAT does not provide insight into the impact of water supply changes on non-monetary factors such as fisheries, recreation, cultural and natural resources





Questions

Contact Us



Derek Sandison
Director
DSandison@agr.wa.gov



Madison Roy
Agricultural Economist
MMRoy@agr.wa.gov



Jaclyn Hancock
Water Resource Scientist
JHancock@agr.wa.gov



agr.wa.gov

