



WASHINGTON STATE WINE

2018 RESEARCH ANNUAL REPORT



Dear Washington State Wine Industry Colleagues and Friends,

In three short years, Washington State Wine has taken our viticulture and enology research program to new heights. We're proud to share the 2018 program highlights with you in this annual report and hope you will take a few moments to learn more about the industry's wine research program.

The research program is guided by a well-defined strategic plan that was developed with broad industry input. It is one of a few in the nation funded by all wine grape growers and wineries in the state. In a nutshell, the program is:

- Industry driven - research priorities are established by growers and wineries
- Industry guided - funding recommendations are approved by industry
- Accessible to all - winemakers and growers, regardless of size, have access to research results

Washington State Wine Board members who sit on its Research Committee and volunteer industry members of the Wine Research Advisory Committee (WRAC), a subcommittee of Washington State Wine, play a crucial role for the wine research program. The Research Committee has fiduciary oversight and drives the Washington State Wine research program; WRAC works to keep the statewide viticulture and enology research program impactful and relevant to the wine industry.

The ultimate goal is to help Washington wine producers—both growers and winemakers—grow even better grapes and make even better wine by providing science-based tools to help them improve. Research is a strategic imperative for the industry's continued health and long-term growth, and one of four pillars of Washington State Wine's overall strategic plan. Nearly a quarter of the annual budget is spent on research, including support for the Wine Science Center at Washington State University's Richland campus.

We look forward to building a world-class research program that attracts the best and brightest scientists, increases collaboration among researchers and universities, and leverages industry funds to achieve outside grant awards. Please reach out to us if you have any questions, thoughts to share or want to be more involved in research.

Cheers,

Steve Warner, President and CEO

Melissa Hansen, Research Program Director

RESEARCH ACTIVITIES & HIGHLIGHTS



Industry Engagement

42

A record number of growers and wineries attended Washington State Wine's annual Research Review, where researchers shared progress reports and pitched new proposals. Industry members provided input to the Wine Research Advisory Committee.

85%

The 2018 Research Survey found high industry awareness of Washington State Wine's targeted research program. Awareness grew 15% from the 2016 survey.

218

Growers and wineries attended the industry's signature research seminars WAVE (Washington Advancements in Viticulture and Enology) and the condensed WAVEx, held in Lake Chelan, Prosser, Richland and Woodinville.



Strategic Research Plan

1

[Progress report](#) was published to highlight progress made to implement goals and objectives of the Wine Commission's Strategic Research Plan for the Washington Wine Industry. Nearly all of the objectives have been accomplished or implemented.

1

An update to the Strategic Research Plan is underway to reflect our scaled-up research program. The updated plan will be approved by the Wine Commission Board in 2019.



Strategic Communications

22

[Research articles](#) and news releases written by Washington State Wine were published in trade publications (Good Fruit Grower, Wines and Vines), local newspapers, Washington State University's newsletters of Voice of the Vine, and Viticulture and Enology Extension News and wine industry newsletters, such as winebusiness.com and wineindustryadvisor.com.

34

Radio segments produced for the [WAVE Minute](#), a weekly wine research radio program (AM 560/610) highlighting research and sponsored by Washington State Wine.

4

The number of WAVE Reports published. The WAVE Report is our quarterly research newsletter published in February, May, August and November.

586

The number of plays received by three [research-themed videos](#) produced by Washington State Wine. The short videos highlight the importance of research and were sent to state and federal government officials.



RESEARCH ACTIVITIES & HIGHLIGHTS



Sustainably Fund Research

\$1 million, again

For the second straight year, the Washington State Wine Board approved more than \$1 million in grants for viticulture and enology research projects. Sustainable funding is in part due to strong support from the Auction of Washington Wines.

18

Research projects were funded covering a range of topics, including pest management, cultural practices and mechanization, wine spoilage and microbial ecology, phenolic management, smoke exposure and wine sensory topics.

\$7.1 million leveraged

Research projects supported by Washington State Wine helped leverage about \$7,120,000 of state and federal grants to Washington State University scientists.



Research Website

50

[Research reports](#) archived on the Wine Commission's website. The list of archived reports grows annually as new research reports are published. The archive grows annually as new research articles are published and final research reports submitted.

37

[Research news](#) and news releases archived on the research website.



Research Collaboration

1

P3 Award (Partners for Progress and Prosperity) received from the American Chemical Society's Northwest Region for the Washington wine industry's research partnership with Washington State University's Viticulture and Enology Program.

2

Washington State Wine collaborated with other wine regions on two research projects: mechanization economics project (Oregon); and sustainability (led by California, collaborators include Oregon, Washington and New York).

3

Washington State Wine participated in three research-oriented organizations:

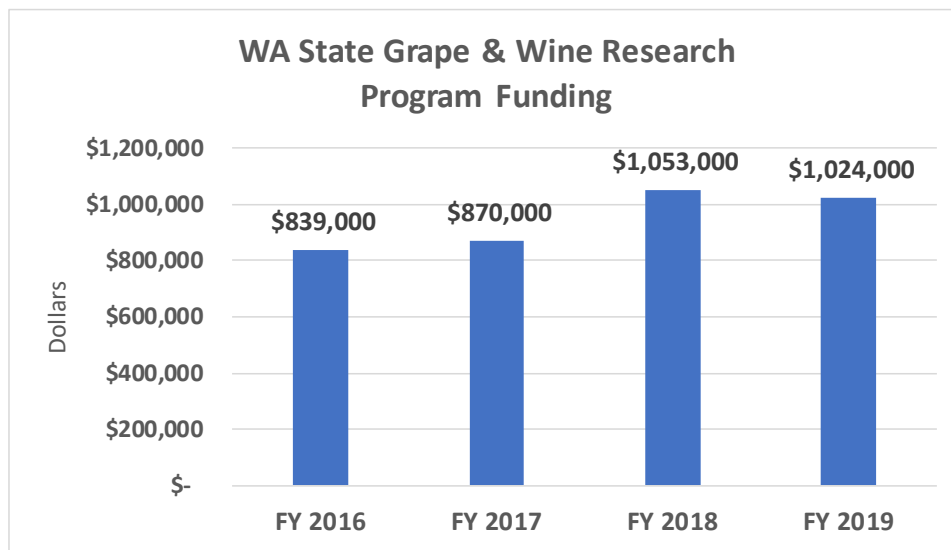
- National Grape Research Alliance (at-large board member)
- Northwest Center for Small Fruits Research (member)
- USDA-ARS Stakeholder Conference held in September at Corvallis, Oregon



RESEARCH PROGRAM GROWTH

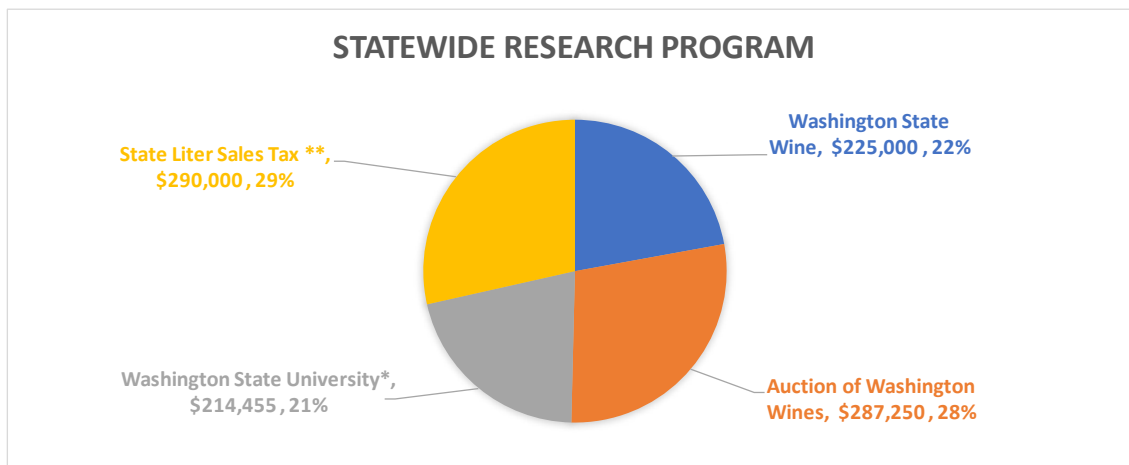


Thanks to significant increases in research funding from the Auction of Washington Wines and Washington State Wine, research funding for the Washington State Grape and Wine Research Program has increased about 20 percent since FY 2016.



For the second straight year, the Washington State Wine Board of Directors approved more than \$1,024,000 in grant funding in 2018-19 for 18 research projects to continue our strategic pillar of innovating research.

The statewide research program is uniquely supported by industry, public and private funding. In 2018, the statewide program received funding from the following:



Washington State Wine, in addition to funding part of the statewide research program, also partnered with the Oregon wine industry in 2018 to directly fund research dealing with the economics of mechanization.

*Agriculture Research Center (State general funds)

**1/4 cent per liter of all wine sold in Washington



RESEARCH PROJECTS FUNDED IN 2018

Viticulture

- Improve water use efficiency/use to optimize grape production and wine quality
- Deep root zone irrigation delivery to conserve water, improve fruit quality
- Develop grapevine virus management strategies
- Improve grape mealybug control (insect that transmits grape leafroll virus)
- Survey for vectors (insects that transmit) of Grapevine Red Blotch Virus
- Survey for newly detected leafroller in Washington vineyards
- Develop strategies to manage plant parasitic nematodes
- Monitor and map grape powdery mildew fungicide resistance
- Identify temperature thresholds for climate variability on grapevine phenology
- Assess vineyard sprayer technologies
- Develop smartphone app for crop load estimation
- Develop machine vision system for precise mechanical shoot thinner
- Develop economic benchmarks for mechanization to help growers make mechanization decisions

Enology

- Develop winery management and sanitation practices for control of wine spoilage
- Assess smoke taint risk in berries and resulting wine
- Manage phenolic compounds in the vineyard and winery to improve wine quality (grape ripening/ maturity and mechanical pruning impacts on wine quality, develop tannin model system for wineries)
- Understand the impact of pH on wine microbial ecology and wine quality
- Understand sensory characteristics and consumer acceptance of WA wines



INDUSTRY DRIVEN RESEARCH PROGRAM



Wine Research Advisory Committee

The Wine Research Advisory Committee (WRAC) serves as the scientific review arm for the wine industry. WRAC is a subcommittee of Washington State Wine and members are appointed by the Washington State Wine Board. WRAC annually establishes research priorities based on stakeholder input, issues Requests for Proposals (RFPs) to the scientific community and reviews research reports and proposals. The volunteer WRAC members make annual research funding recommendations for approval by the Board.

2018 WRAC Members

Chair, Rick Hamman, Hogue Ranches, Prosser
Leah Adint, Canoe Ridge Estate, Paterson
Dick Boushey, Boushey Vineyards, Grandview
Brian Carter, Brian Carter Cellars, Woodinville
Kevin Corliss, Ste. Michelle Wine Estates
Julia Kock, Klipsun Vineyards, Benton City

F. Linn Scott, Sparkman Cellars, Woodinville
Kay Simon, Chinook Winery, Prosser
Russell Smithyman, SMWE, Prosser
Bruce Watson, Consultant, Seattle
Scott Williams, Kiona Vineyards & Winery, Benton City
Wade Wolfe, Thurston Wolfe Winery, Prosser

2018 Washington State Wine Research Committee Members

Chair Dick Boushey, Boushey Vineyards, Grandview
Sadie Drury, North Slope Management, Walla Walla
Rachael Horn, Aniche Cellars, White Salmon
Larry Pearson, Tapteil Vineyard, Benton City





www.WashingtonWine.org