Attending: Joy Andersen, Dick Boushey, Brian Carter, Rick Hamman, Julia Kock, Mike Means, Kay Simon, Bruce Watson, Scott Williams, Wade Wolfe

Absent: Kevin Corliss

Guests and Staff: Linn Scott, Melissa Hansen (WSWC)

Call to Order
The meeting was called to order at 1:08 p.m.

A motion was made by Mike Means and seconded by Joy Andersen to accept the minutes of the May 11, 2016 WRAC meeting that were previously mailed. Motion was voted on and approved unanimously.

Meeting Purpose
Chair Rick Hamman stated that the meeting serves as the annual meeting of WRAC as specified in the new organizational structure. Action items include election of a chair and vice chair, commitment of intent to serve from Committee members, acceptance of Committee Leads, setting a calendar for 2016-17 and approval of research priorities of the Washington wine industry for 2016-17. Once research priorities are finalized, the list will be shared with the research community and industry via a news release and posted on the WSWC’s research web page.

- **WRAC Leadership** – A motion was made by Mike Means and seconded by Joy Andersen to retain the current leadership of Rick Hamman as chair and Dick Boushey as vice chair. Boushey is chair of the WSWC’s Research Committee and provides important interface. Motion was voted on and approved unanimously.

- **Intent to Serve** - WRAC members were asked to send an email to Melissa Hansen to indicate intent to serve for the 2016-17 year.

- **Calendar for 2016-17**: It was noted that the WSWC will not have a board meeting in March 2017. The Committee felt strongly that researchers need to receive timely notice of grant approvals so they can plan before the growing season begins. Dick Boushey agreed to work with the WSWC to achieve Board approval of research recommendations in a
timely manner (through email or conference call) to keep the research project timeline on track. The following are important dates:

- **September 1, 2016:** RFPs sent to researchers at WSU, USDA, private, etc.
- **October 1, 2016:** Research project progress report (short paragraph) due from WRAC Lead or Researcher
- **December 12, 2016:** Deadline to submit research proposals to WSU
- **December 21, 2016:** Proposals to be sent from WSU to WSWC Research Program Manager
- **January 3, 2017:** Proposals to be distributed to WRAC
- **January 18-19, 2017:** WRAC Research Review
- **February 6, 2017:** WRAC Meeting to Finalize Research Recommendations
- **February 17, 2017:** Committee leads report to Committee Chair
- **February 27, 2017:** Final report back to Committee for final approval
- **March 3, 2017:** Research recommendations report submitted to WSWC
- **March 10, 2017:** Research recommendations report approved by WSWC
- **March 13, 2017:** Research recommendations report submitted to WSU
- **March 24, 2017:** WSU to share funding recommendations with researchers via email
- **April 7, 2017:** WSU to send funding notification letters to researchers
- **June 29, 2017:** WRAC annual meeting

The WRAC Calendar, with meeting locations, will be posted on the WSWC Research web page.

**2016-17 Research Priorities**

Committee members reviewed topics suggested from the industry research survey that were viable research topics. It was acknowledged that many suggestions were related to previously completed research and highlights the need for information transfer to industry. Some topics were educational/extension in nature instead of research oriented. The Committee encouraged Julia Kock, chair of WAWGG’s Outreach Committee, to use the list of suggested topics in WAWGG’s educational planning efforts. From topics suggested in the survey, there is need for workshops dealing with winemaking basics, including wine analysis, quality control of lab tests, bottling, etc. The Committee also discussed the need to return to research previously completed because insects and fungal diseases continue to adapt to changing climate conditions and pesticide resistance.

Hamman also asked all Committee members that serve on other industry boards, such as WAWGG, Wine Tech, and others, to share information of WRAC activities and actions with the boards.

A motion was made by Brian Carter, and seconded by Wade Wolfe, to approve the 2016-17 Research Priorities (*see below*). The motion was unanimously approved. Melissa Hansen will email the approved list immediately to the Committee for minor tweaks to wording.

**Review Format of RFPs for 2016-17**
Melissa Hansen shared that she has received feedback from researchers regarding the current one-to-two page progress reports that are required in the RFP. Projects officially begin on July 1, a progress report is due in October and a final or progress report due in December. Researchers have shared that they are spending much of their time writing reports. To simplify things, it was agreed that Committee Leads will check in with their researcher during August-September to make sure that projects are on track and share that information (or have the researcher share) in a one-two paragraph format with the Committee Chair. Hansen will track that all Leads are touching base with their researcher and that progress paragraphs are submitted. Hansen would also like to synchronize the formatting of the RFP so that it matches the WSU RFP format.

Other Business

**Committee Leads** - Wade Wolfe asked for procedural direction regarding Committee Leads. Researchers often reach out to WRAC members who are not their Lead. While the researchers should be encouraged to work closely with their Committee Lead (the Research Program Manager will make sure researchers know who their Leads are), sometimes researchers reach out to a WRAC member that is not their Lead. Consensus was that the non-Lead member should be sure to involve the Lead in any communication with that Lead’s researcher. Chair Hamman noted that he will review the timing of new Lead assignments and assign new Leads, if necessary, when new proposals are submitted.

At 3:34 p.m., the meeting was adjourned.

Respectfully submitted,

Melissa Hansen  
Research Program Manager  
Washington State Wine Commission
Washington State Viticulture and Enology Research Priorities
July 1, 2016 – June 30, 2017

Fermentation Management
- Phenolic measurement and management
- Yeast strains, including indigenous (influence on fermentation, sensory properties, etc.)
- Management of microbiological spoilage (Brettanomyces, Lactobacillus, Pediococcus, etc.)
- Management at winery of diseased/disordered fruit (i.e. Botrytis, bunch rot, shrivel)
- Impact/management of nutrients on fermentation (e.g. fermentation adjuvants)
- Fermentation management and monitoring (cap extraction, process control, real-time techniques, etc.)

Aroma and Flavor Compounds in Wine
- Impact of various filtration options on wine quality, chemistry, mouth feel, oxygen impact, etc.
- Vineyard-derived sulfur off aromas- avoidance and removal
- Optimizing sensory compounds in wine (role of glutathione in delaying appearance of oxides, SO2 impact, effect of stabilization on esters, terpenes, aldehydes, etc.)
- Smoke taint analysis and removal

Viticulture Production Efficiency and Profitability
- Impact of canopy management/mechanization on wine quality
- Improve water use efficiency/water savings to optimize grape production and wine flavors
- Impact on vine health from water quality (salinity, etc.)
- Develop nutrient management for optimal vine health
- Develop/assess labor-savings crop estimation tool
- Berry and sour shrivel
- Optimize clonal selections for Washington State
- Impact of field grafting (vinifera to vinifera)

Climate Impacts on Site/Viticulture
- Optimum light and heat exposure of fruit
- Impact of climate variability on fruit maturity, dormancy, phenology, pest and disease management, etc.
- Winter trunk injury and secondary infections (e.g. crown gall)
- Develop decision support system for inversion, frost protection (i.e. alert system)

Disease, Insect, and Vertebrate Control
- Develop strategies for viral disease management (i.e. preventing spread, replanting, impact on vine health, developing vector control)
- Develop/refine IPM and sustainable strategies for insects with economic impact potential (cutworms, mealybugs, scale, leafhoppers, mites, etc.)
- Trunk canker disease management
- Management of powdery mildew and Botrytis (i.e. efficacy of new fungicides, resistance management, etc.)
- Develop nematode management strategies (efficacy trials, economic thresholds, resistant rootstock potential, etc.)
- Develop effective control of birds, deer, gophers, etc.

**Mechanization Options**
- Development and evaluation of mechanization tools that reduce reliance on hand labor within the vineyard and winery (e.g. canopy management, pest management, crop reduction, sorting, MOG removal)

**Winery Waste**
- Develop methods to recycle/reuse/repurpose biomass from harvest
- Winery waste and water management

**Emerging Issues**
- Unforeseen viticulture and enology emerging issues
- Extension bulletins needed for transfer of research information (i.e. publication costs)