

## I. New 2022 NCSFR Funded Projects

| <u>Years</u> | <u>PI/ Affiliation</u>     | <u>Proposal Title</u>   | <u>Project Type</u> |
|--------------|----------------------------|---|---------------------|
| 2            | Wendy Hoashi-Erhardt (WSU) | Assessing the current state and stewarding the future of Pacific Northwest strawberry production, economics, and breeding               | Berries             |
| 3            | Rebecca Bunn (West WA)     | Establishment and cultivar-specific associations of mycorrhizal fungi in newly-turned raspberry fields                                  | Berries             |
| 3            | Dimitre Mollov (ARS)       | Identifying genetic resistance to blueberry shock virus and the role of the newly identified luteovirus in recurrence of shock symptoms | Berries             |
| 3            | Stephen Cook (Uofl)        | Identifying Huckleberry Pollinators and the Impact of Soil Amendment Treatments   | Berries             |
| 3            | Franck Carbonero (WSU)     | Investigating the role of microbiome and metabolome in the prebiotic and urinary tract infection preventative effect of cranberry juice | Berries             |
| 3            | David Bryla (ARS)          | Irrigation Strategies for Handling Heat and Improving Production, Plant Health, and Cold Hardiness in Trailing Blackberry               | Berries             |
| 1            | Dani Lightle (OSU)         | Understanding the extent of symphylan damage in strawberry production   | Berries             |
| 3            | Woodhall (Uofl)            | Characterization and epidemiology of Grapevine Trunk Diseases (GTD) in Idaho  | Grapes              |
| 3            | Matthew Clark (UMN)        | Evaluation of novel cold hardy grape rootstocks for use in the Pacific Northwest  | Grapes              |
| 3            | Michael Qian               | Optimal irrigation initiation time based on grape and   | Grapes              |

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|---|-------------------------|---|--------|
|   | (OSU)                   | wine composition and quality  |        |
| 3 | Markus Keller<br>(WSU)  | Testing drought and heat mitigation strategies for vineyards  | Grapes |
| 1 | Katherine East<br>(ARS) | The effect of soil parameters on plant-parasitic nematodes of wine grapes in Washington and Oregon              | Grapes |
| 2 | Patty Skinkis<br>(OSU)  | The Yield-Quality Paradigm: Using Long-Term, Multi-Vineyard Data to Understand Yield Management into the Future | Grapes |

## II. Continuing NCSFR Funded Projects

| <u>Years</u> | <u>PI/ Affiliation</u>                          | <u>Proposal Title</u>  | <u>Project Type</u> |
|--------------|---|--|---------------------|
| Year 3 of 3  | Erica Chernoh, Javier Fernandez- Salvador (OSU) | Alternative Plastic Culture Production of Fresh-market Strawberry in Substrate, High Tunnels, and Low Tunnels                          | Berries             |
| Year 2 of 2  | Virginia Stockwell (ARS)                        | Assessing the role of <i>Gnomoniopsis idaeicola</i> and other fungal cane blight pathogens in Blackberry Collapse                      | Berries             |
| Year 3 of 3  | Amanda Davis (OSU)                              | Can humic acids improve production in mature organic northern highbush blueberry?  | Berries             |
| Year 2 of 2  | Michael Hardigan (ARS)                          | Evaluating the potential of genetic markers for predicting blueberry fruit quality and ripening season in Pacific Northwest germplasm. | Berries             |
| Year 2 of 3  | David Bryla (ARS)                               | Evapotranspiration and Crop Coefficients from Lysimeter Measurements of Blueberry  | Berries             |



|             |                             |   |         |
|-------------|-----------------------------|---|---------|
| Year 2 of 3 | Marcelo Moretti (OSU)       | Expanding Weed Control Options for Cranberry Growers  | Berries |
| Year 2 of 3 | Wendy Hoashi-Erhardt (WSU)  | Genomic Prediction for Quantitative Resistance to Root Lesion Nematode in Raspberry           | Berries |
| Year 2 of 3 | Vaughn Walton (OSU)         | Improvement of a novel plant-based deterrent against <i>Drosophila suzukii</i>                | Berries |
| Year 3 of 3 | Lisa DeVetter (WSU)         | Optimizing Nutrient Management for Organically Grown Blueberries East of the Cascade Range    | Berries |
| Year 3 of 3 | Inga Zasada (ARS)           | Risk assessment of nematode-transmitted viruses of small fruit crops in the Pacific Northwest | Berries |
| Year 3 of 3 | Walt Mahaffee (ARS)         | Botrytis Bunch Rot: Where, when and what to use   | Grapes  |
| Year 2 of 2 | Achala KC (OSU)             | Fungal microbiome associated with grapevine trunk diseases in Oregon vineyards                | Grapes  |
| Year 2 of 3 | James Osborne (OSU)         | Impact of <i>Pediococcus</i> on wine chemical and sensory properties                          | Grapes  |
| Year 2 of 2 | Chakradhar Mattupalli (WSU) | Monitoring Botrytis fungicide resistance on blueberries in Washington and Oregon              | Grapes  |
| Year 2 of 3 | Pete Jacoby (WSU)           | Optimizing Water Use for Winegrapes with Sensor-controlled Subsurface Irrigation              | Grapes  |
| Year 2 of 2 | Alexander Levin (OSU)       | Taking proof of concept to wide-scale field use: the OSU high-performance dendrometer         | Grapes  |
| Year 2 of 3 | Naidu Rayapati (WSU)        | Tracking genetic variants of Grapevine leafroll-associated virus 3 for Disease                | Grapes  |

Prevention and Control in Pacific Northwest vineyards

|             |                       |   |        |
|-------------|-----------------------|---|--------|
| Year 3 of 3 | Bhaskar Bondada (WSU) | Understanding the onset of systemic infection of Red Blotch virus and phenotypic studies of grapevines expressing a Red Blotch virus infectious clone | Grapes |
| Year 2 of 3 | Charlie Edwards (WSU) | Use of non-Saccharomyces yeasts to ferment high sugar Chardonnay grape musts from the Pacific Northwest.  | Grapes |

### III. Improvement Initiative Projects

| <u>Years</u>  | <u>PI/ Affiliation</u>     | <u>Proposal Title</u>  | <u>Project Type</u> |
|---------------|----------------------------|--|---------------------|
| Always funded | Zak Wiegand (OSU)          | Quality Evaluation of Berry Selections and Varieties                                     | P                   |
| Always funded | Wendy Hoashi-Erhardt (WSU) | Small Fruit Breeding in the Pacific Northwest  | P                   |
| Always funded | Amanda Davis (OSU)         | Testing and Evaluation of Berry Crops for Commercial Production in the Pacific Northwest | P                   |

### IV. 2021 Fully Funded Projects



| <u>Years</u> | <u>PI/ Affiliation</u>                           | <u>Proposal Title</u>  | <u>Project Type</u> |
|--------------|--|--|---------------------|
| Year 3 of 3  | Virginia Stockwell<br>and Cassie Bouska<br>(ARS) | Prevalence of cranberry fruit rots in commercial production beds in Oregon and Washington                  | Berries             |
| Year 2 of 3  | Wendy<br>Hoashi-Erhardt<br>(WSU)                 | Trials of Advanced Raspberry selections to evaluate suitability for IQF processing and to promote adoption | Berries             |
| Year 3 of 3  | Alexander Karasev<br>(UI)                        | Virome associated with common grape virus diseases in the development of new detection tools               | Grapes              |