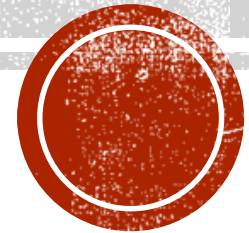


RESOURCES FOR VINEYARDS AND WINERIES IN MONTANA

Steph Hystad- MT-Department of Ag.

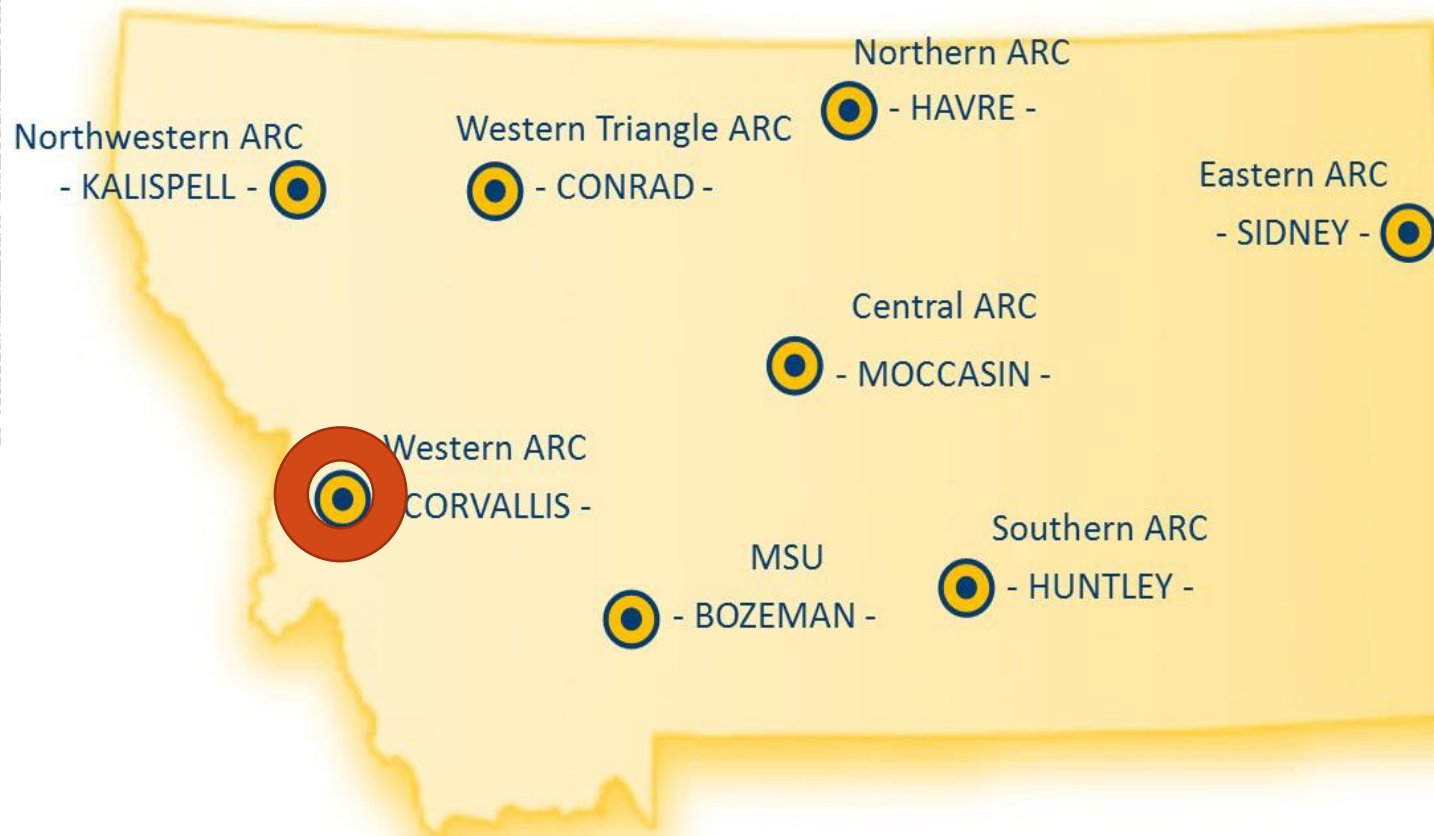
Dr. Zach Miller-MSU-Western Ag. Research Center



RESEARCH/EDUCATION GRANT UPDATE

- Faculty search update
- Research and outreach proposals
 - Vineyards Wineries
 - Berries/Small Fruits
 - Cider
 - Markets





ADDING TO THE TEAM: FACULTY SEARCH UPDATE



- New MSU faculty specializing in fruit production
- Dr. Rachel Leisso
 - ARS –Wenatchee
 - WSU-Wenatchee
 - MSU
 - Plant Disease
 - Pruning and Training in Tree Fruits



RESEARCH AND OUTREACH PROPOSALS

- USDA-SCRI: Northern Grapes Project V2.0
- Specialty Crop Block Proposals
 - Vineyards and Wineries
 - Small Fruits and Berries
 - Orchard/Cider



United States Department of Agriculture
National Institute of Food and Agriculture



NORTHERN GRAPES PROJECT II

- Multi-University Regional project: 20 institutions in 19 states.
- Total funding requested: \$7.5 million over four years.



NORTHERN GRAPES PROJECT II

Vineyard
production

Marketing/
Economics

Wine quality



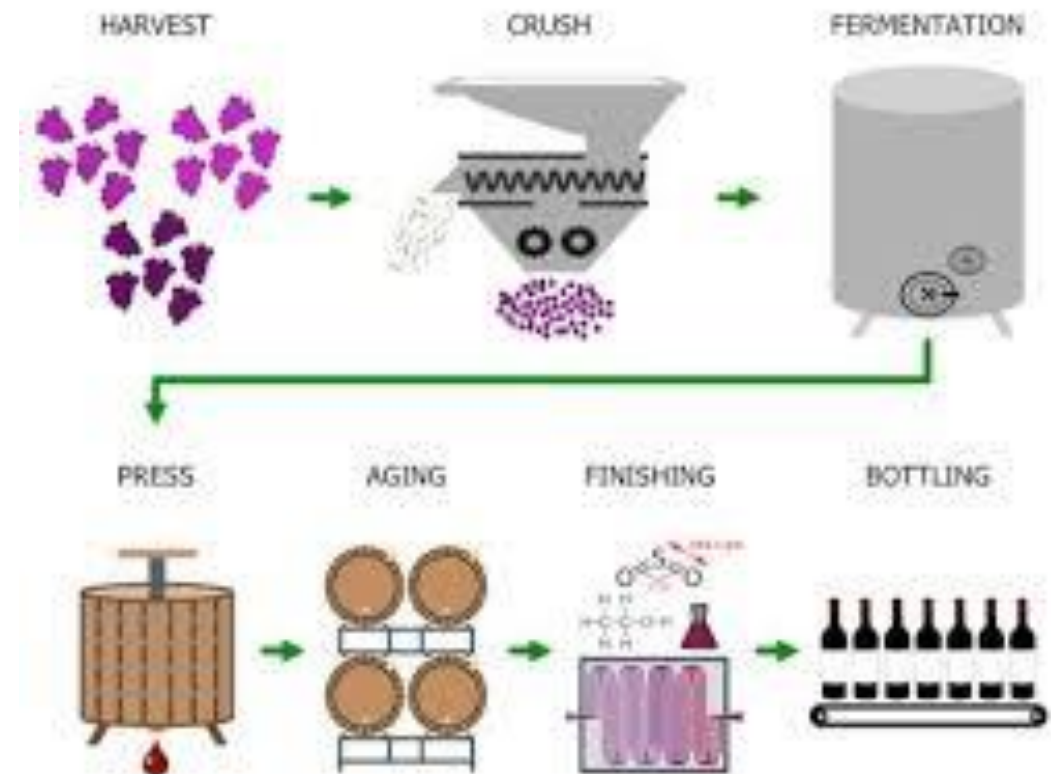
VITICULTURE

- Sustain production and quality by improving cold and pest management.
 - Evaluate bud cold tolerance across cultivars during late winter/early spring
 - Evaluate cultural practices and new products on cold damage
 - Training systems and fungal disease management



ENOLOGY: FRUIT CHEMISTRY AND WINE QUALITY

- Understand environmental/climate effects on juice chemistry and wine quality
- Minimize phenolic binding by proteins
- Understanding anthocyanins to improve wine color
- Determining optimal wine styles for hybrid blends.



SPECIALTY CROP BLOCK GRANTS

- USDA funds, managed by Montana Department of Ag.
- Typically 3 year projects
- Vineyard and Winery: \$136,000
- Small fruits/berries: \$120,000
- Orchards/Cider: \$100,000



United States Department of Agriculture
National Institute of Food and Agriculture



SUPPORTING THE GROWTH OF MONTANA VINEYARD AND WINERIES THROUGH RESEARCH AND OUTREACH

- Group effort: thanks to Dan Getman, Steve Cummings, Larry Robertson, Rich Torquemada, Rod and Linda Allen, Al Putnam, Brian and Roxanne Austin, Bob Thaden for your input.





VINEYARD PRODUCTION/QUALITY

Variety	Yields(lbs./ac.)	Avg. Brix	Avg%TA
Frontenac	5990	23.8	1.9
Marquette	4160	23.7	1.7
Petite Pearl	4960	19.1	1.0
Frontenac Gris	4780	25.5	2.0
LaCrescent	5870	24.4	1.8
St. Pepin	4810	21.3	1.2



VINEYARD PROJECT OBJECTIVES

- Improving yields and quality of wine grapes and other fruits used for wine.
- Improving wine quality through wine making workshops and consumer and expert evaluation of Montana-made wines.
- Develop grower networks and capacity for advocacy in the MGWA through trainings and workshops.



IMPROVING YIELDS AND QUALITY OF WINE GRAPES AND OTHER FRUITS USED FOR WINE.

- Partnering with vineyards to evaluate relationships between plant nutrition and crops load on grape quality and yield
 - MSU will provide petiole testing and juice quality testing
 - Growers provide information on management practices and yields.
 - ~10 vineyards in MT.
- Optimizing irrigation practices for cold-hardy, hybrid grapes.
 - Survey current practices
 - Evaluate evapotranspiration (ET) models of water use/needs developed for *V. vinifera* wine grapes in California and Washington.
 - Determine effects of regulated deficient irrigation on grape yields and quality
 - On-vineyard trials to compare grower irrigations practice to ET-based practices





FRUIT WINES

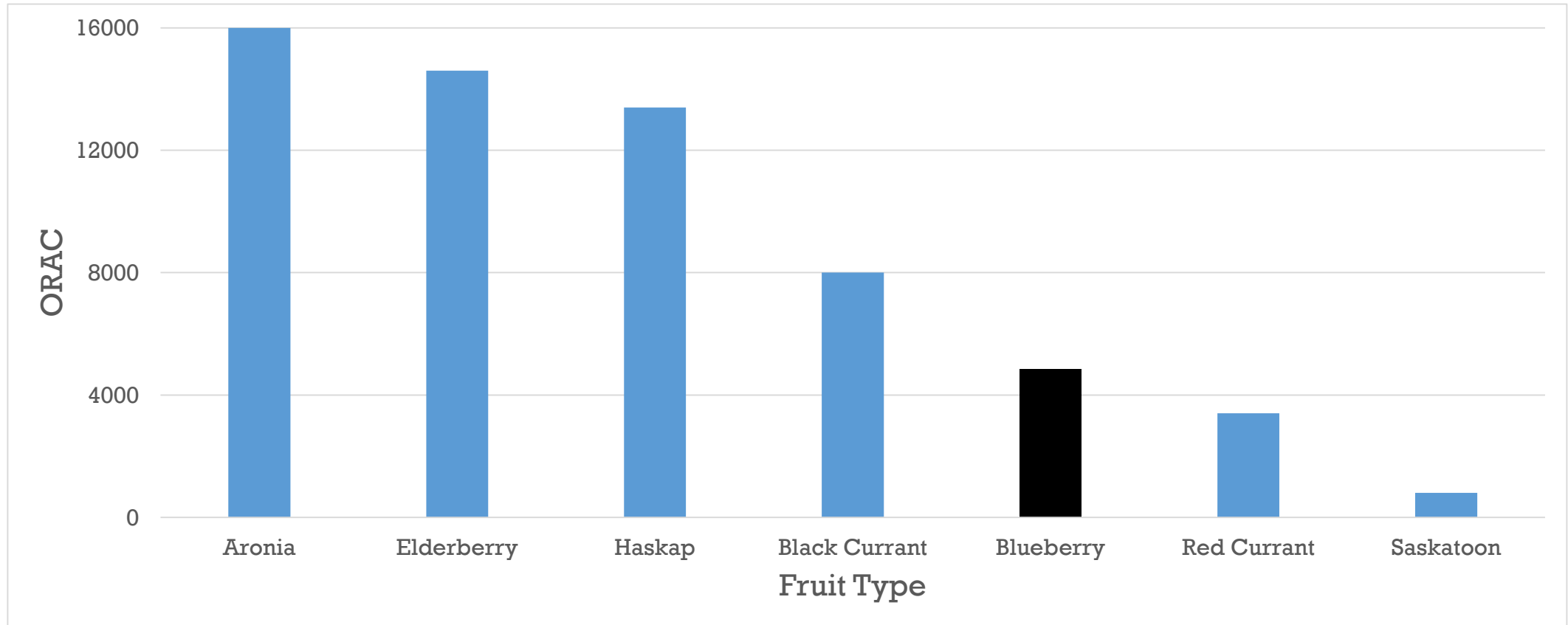
- Identify which cold-hardy fruit cultivars best-suited for wine making
- Compare juice chemistry and wine quality for ~35 cultivars:
 - Haskap
 - Aronia
 - Red/Black Currants
 - Cherries




EVALUATION OF MONTANA-GROWN SUPERFOOD FRUITS: PHASE II



ANTIOXIDANT POTENTIAL (ORAC)




FRUITS WORK WELL TOGETHER

	June	July	August	September
Haskaps				
Saskat				
Sour c				
Curran				
Aronia				
Elderb				



Tongue River Winery

Aronia Fruit Wine



750 ML
ALC 11-14% by VOL



ORCHARDS / CIDER

Major



Harrison



Dabinette



CHISEL JERSEY
UK (Somerset). Full bitter, good body. Cider



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Marie Ménard
(Cidre)



gardenbreath.org



MARKETING/ECONOMICS: GROW THE SPECIALTY CROP INDUSTRY

- MDA-Steph Hystad
- Market Analysis
- Support/Training
- Vineyards, Orchards, Berries, Hops



RESOURCES FOR VINEYARDS AND WINERIES: CONCLUSIONS

- Growing support to vineyards and wineries in Montana
 - Direct support
 - New horticulture scientist at MSU-Western Ag.
 - New State and Federal Grant Proposals (~\$500,000 over the next five years)
- A team effort
 - Let the University and State know that what this support means to you
 - If funded, we will be looking forward to working with the MGWA
 - On-vineyard trials
 - Industry survey

