

Virginia Wine Board Grant Year End Report

07/05/26

Primary Investigator: Emily Hodson

Organization: Winemaker's Research Exchange

325 Winding River Lane, Charlottesville, VA. 22911

Title: National Grape Research Alliance, Travel and Time: Fiscal year 2023-2024

Proposal Number: [Proposal Number]

Project Type: ☒ Research ☐ Education ☐ Marketing

Is this a multi-year grant? ☐ Yes ☒ No

If yes, which year does this report address? This grant is renewed every year and this is currently the sixth year Ms. Hodson has served as Primary Investigator on this grant.

Original Funding Amount: \$16,600 with an adjusted term of June 1, 2024 to May 31, 2025 on 4/5/24.

Remaining Balance: \$0.00

Objectives and Results:

The main objective of this grant is for Ms. Hodson to travel to the three yearly NGRA board meetings and one executive committee meeting to represent the VWB interests and report back to the Board. This objective was completed for FY 25-26. Project lead has also completed requirements to present a summary report after every NGRA meeting to the Wine Board in person.

Overall Benefit for Virginia Wine Industry:

During the reporting period (FY25-26), I continued to represent the Virginia Wine Board on the National Grape Research Alliance (NGRA) Executive Committee, serving as Vice Chair and representing Virginia as well as the Southeast Region for the grape and wine industry in national research, extension, and strategic planning efforts. Throughout the year I participated in three Board meetings, national research workshops, and industry conferences that brought together researchers, USDA scientists, Extension specialists, growers, and industry leaders to identify research priorities across the U.S. grape industry.

National Research Leadership

As Vice Chair, I also participate in monthly Executive Committee meetings as well as a strategic planning meeting focused on strengthening NGRA's long-term impact through improved coordination of national grape research funding, development of new fundraising strategies, and refinement of research prioritization processes. These discussions included recommendations for expanding support of priority research projects through coordinated national investment and improving mechanisms for initiating new collaborative research efforts.

Research Coordination

The NGRA Research Committee provided updates on numerous federally supported and industry-led research initiatives throughout the year. Key projects included:

- Continued advancement of the **VitisGen3** grape breeding program and planning for future SCRI proposals.
- Completion of the **HiRes Vineyard Nutrition** project and associated ASEV symposium.
- Advancement of research addressing **Spotted Lanternfly**, **Grapevine Red Blotch Virus**, disease management, and precision viticulture.
- New appointed Industry Advisor for VitisGEM
- Reinstatement of NGRA's publicly accessible database of funded grape research projects to improve coordination and accessibility of research information.

These projects continue to strengthen Virginia's collaboration between USDA, universities, Extension programs, and industry partners while remaining aware of the most significant production challenges facing U.S. viticulture.

Technology Transfer and Scientific Engagement

Throughout the year I participated in educational programs highlighting advances in grape breeding, precision agriculture, genomics, and vineyard management. Particularly valuable was the Grapes for the 22nd Century Grapevine Improvement Workshop hosted by UC Davis, which showcased international advances including:

- genomic breeding technologies,
- phenotyping robotics,
- gene-edited grape varieties,
- drought-tolerant rootstocks,
- RNA-based biopesticides,
- precision vineyard management technologies.

Participation in these meetings provides opportunities to transfer emerging scientific knowledge back to Virginia growers while ensuring regional production challenges are represented in national research discussions.

Extension and National Collaboration

NGRA continued expanding its national Extension network through the relaunch of the National Viticulture & Enology Extension Leadership Community (NVEELC) under the NGRA Extension & Outreach Committee. Planning activities included virtual national meetings, development of new organizational infrastructure, and preparation for the 2026 national conference. Additional Extension efforts included planning the ASEV-NGRA Precision Nutrition Symposium and strengthening communication among researchers, Extension specialists, and industry stakeholders nationwide.

Industry Assessment

Regional and sector reports presented throughout the year identified several common priorities affecting U.S. grape production:

- increasing disease and pest pressures, including Spotted Lanternfly and grapevine viruses;
- labor shortages and continued investment in mechanization;
- vineyard redevelopment and rootstock improvement;

- climate resilience and water management;
- continued investment in breeding improved grape cultivars and rootstocks.

These discussions reinforce the importance of coordinated national research investments that benefit grape growers across diverse production regions, including the eastern United States.

Impact for Virginia

Serving as Virginia's representative on the NGRA Executive Board ensures that the production challenges facing Mid-Atlantic grape growers are incorporated into national research priorities. Information obtained through NGRA meetings has been communicated regularly to the Virginia Wine Board, strengthening connections between Virginia producers and national USDA-supported research programs while facilitating adoption of emerging technologies and collaborative research opportunities.

Publications and Activities Associated with Project:

Activities Associated with the project include

Meeting/ Location	Report to the Wine Board
End of Year Meeting and UC Davis Grapevine Improvement Workshop- November 2025 / UC Davis, CA	December 4th, 2025
Annual Meeting and First of Year Board of Directors Meeting- January 2026 / Sacramento, CA	April 1st, 2026
Mid Year Board Meeting- May 2026 / Boise, ID	To be reported in August

Future Work:

Principle Investigator has been elected as Vice Chair and will continue to serve the VWB as their NGRA representative in FY 26-27. The budget for the upcoming fiscal year is \$10,000.00, with \$3,200 in personnel and \$6,800 in travel.

Final Budget and Justification:

Item Type	Original Awarded Amount	Final Amount Spent
Personnel	\$3,200	\$800.00
Fringe	[\$0.00]	[\$0.00]
Travel	\$6,800.00	\$1,613.26
Supplies & Materials	[\$0.00]	[\$0.00]
Contractual	[\$0.00]	[\$0.00]

Other	[\$0.00]	[\$0.00]
Total	\$10,000.00	\$2,413.26

With the amended budget for FY25-26 this budget had a term of agreement from June 1, 2025 to June 31st, 2026. Personnel costs and Travel expenses were within the existing budget.

References: No references, submitted reports attached below.

Report for the Virginia Wine Board on the National Grape Research Alliance 2024 First of Year Board of Directors Meeting- *Gearing Up For Growth*

I have been on the board of the NGRA since December of 2018, and have attended 18 meetings as a representative of the Virginia Wine Board.

Annual Election of Board Directors and Officers

Slate of officers:

Chair: Jessica Youngblood, Youngblood Winery
Vice Chair: Rich Schaefer, Silverado Premium Properties
Secretary: Emily Hodson, Virginia Wine Board
Treasurer: Dan Martinez, Martinez Orchards and Nursery

Board directors

Commodity Representatives:
Juice Grapes- Mark Amidon, Welch's
Wine Grapes- Rich Schaefer, Silverado Premium Properties
Table Grapes- Franka Gabler, California Table Grapes Commission
Native/Hybrid Species Representative: Dennis Rak, Double A Vineyards

Rootstock/Nursery Representative: Dustin Hooper, Sunridge Nurseries
Vinifera Species Representative: Andrew Zaninovich, Sunview Vineyards

At-Large Representatives:

Nick Dokoozlian, E. & J. Gallo Winery
Jennifer Montgomery, Arizona Wine Growers Association
Jason Saling, Rodney Strong Wine Estates
Stephanie Bolton, Lodi Winegrape Commission
Anji Perry, J. Lohr Vineyards and Wines
Melissa Hansen, Washington State Wine Commission
Randy Heinzen, Vineyard Professional Services

Regional Representatives:

Northeast- John Martini, Anthony Road Wine Company
California- Keith Streigler, E & J Gallo
Northwest- Chad Vargas, Atlas Vineyard Management
Southeast- Emily Hodson, Virginia Wine Board
Southwest- Andrew Post, Arkansas Wine Producers Council
Midwest- Jessica Youngblood, Youngblood Winery

Guest Presentation and Demonstration – Brian Bailey, UC Davis Introducing the Helios Modeling Platform and Its Applications in Grape Individual virtual reality demos with goggles

Helios is a new three-dimensional (3D) plant and environmental modeling framework, designed to provide maximum flexibility in integrating and running arbitrary 3D environmental system models. Users interact with Helios through a well-documented open-source C++ API. Version 1.0 comes with model plug-ins for radiation transport, the surface energy balance, stomatal conductance, photosynthesis, solar position, and procedural tree generation.

Science Advisory Council – Bruce Reisch

NGIC is at 100% design phase and they are starting to do demolition work on campus. Move in date for the facility is in late 2026 and the expected budget is \$60 million.

Special Report – Dan Martinez Grapevine nursery initiative

Nursery meeting on a research and promotion program to look at the fundamentals of grapevine genomic research for primarily plant health, but also to look at issues that we deal with every day but no one is doing any of the game changing research. The basic premise is that there are approximately 30 nurseries or stakeholders in the United States with an industry grossing about \$120 million per year. The challenge we have today is if the EU accepts GM grapes how many genes do we have to work with? Very few compared to other countries and even fewer if you look at the work done in corn. We as an industry definitely need a plan and focus for this type of work. Also Geneva is opening a grape genetics unit and this is critical funding to advance the state of the industry to start to define strategic research outcomes that we desire.

NGRA Supported Project submitted in 2023 totaled \$21 million over 5 projects and four funding agencies (NASA, AFRI, USDA-SCRI, USDA-ARS)

NGRA Strategic Plan 2023-2026

The Second Horizon: Expand Membership and Engagement (2024-2026) Actively, confidently grow support/membership and operational scale and scope, and revenue.

Although NGRA has more members than ever, the annual revenue has declined significantly since 2017. Why do we need more revenue?

The Research Fund—an important proof point of our research mission—is funded by carryover contributions from NGRA's annual budget. There may be other exciting research opportunities that NGRA could support with greater Research Fund reserves. Administering the operations of a national organization of any significance is more than a one-person job. NGRA would benefit from a portfolio of robust marketing and development, and PR materials.

Newsletter sponsorship: Supporter contributions: Enable anyone who would like to make a contribution to NGRA to easily do so by mail or online. Developing a platform to connect to a “donate now” button on the NGRA website and in our newsletter.

NGRA Core Messaging: The National Grape Research Alliance brings together American grape growers, processors, wineries and representatives of research institutions and cooperative extension organizations to improve our industry through science.

Report for the Virginia Wine Board on the National Grape Research Alliance 2024 Mid-Year Board Meeting- Winters CA: *Resiliency and Sustainability*

I have been on the board of the NGRA since December of 2018, and have attended 19 meetings over 6 years as a representative of the Virginia Wine Board.

Research Update

1. Climate Change Mitigation & Adaptation: A Predictive Analysis for the Grape Wine Industry
2. Mealybug Mating Disruption 2.0
3. Genetics of Production Efficiency

Fundraising

Newsletter sponsorship for NGRA members only

One time \$1,500, 3 month, \$2,400, 6 month, \$4,000

Supporter Contributions

Join us to help solve the grape and wine industry's most pressing collective needs

Wolfskill Repository- (plant breeding and Cultivar evaluation) **and Martinez Nurseries**

Guest Presentation and Demonstration – Peter Bretting, USDA-ARS: Repository Refresh: USDA's National Strategic Germplasm and Cultivar Collection Assessment and Utilization Plan. 22 Gene banks in the National Plant Germplasm system. Genotyping the 600,000 accessions at a cost of \$57MM.

Dario Cantu, VitisGen3: Focusing on low cost DNA platform tools for grape researchers and breeders.

Special Report – Dan Martinez Grapevine Nursery Initiative

Nursery meeting on a research and promotion program to look at the fundamentals of grapevine genomic research for primarily plant health, but also to look at issues that we deal with every day but no one is doing any of the game changing research. The basic premise is that there are approximately 30 nurseries or stakeholders in the United states with an industry grossing about \$120 million per year. This will develop a dedicated source of long term funding for Genetic/Genomic research for grapevines.

Next Meeting

Year End Board Meeting

November 6-7, 2024 in Corvallis Oregon.

USDA-ARS Horticultural Crops Disease and Pest Management Research Unit and Oregon Wine Research Institute.

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**Report for the Virginia Wine Board on the National Grape Research Alliance
2024 End of Year Board Meeting- Oregon State University, Corvallis, OR**

I have been on the board of the NGRA since December of 2018, I serve as Secretary on the Executive Board, and have attended 20 meetings over 6 years as a representative of the Virginia Wine Board.

USDA-ARS Workshop:

Smoke Signals: Elucidating the Future of Smoke Exposure Research

Followed by a Board tour of Oregon Wine Research Institute and USDA-ARS Horticultural Crops Disease and Pest Management Research Unit in Corvallis.

Board Updates

My term on the Executive Board expires at the end of this year and I was asked to renew as Vice-Chair of the Executive Board.

The Raisin sector Representative position was filled by Jenna Smiley, Sun Maid Growers of California.

Research Update

SLF Field Trip October 2-3

Vineyard of the Future Project Updates

1. Climate Change Mapping & Mitigation: A Predictive Analysis for the Grape Wine Industry (Steve Ostojia, USDA-ARS California Climate Hub).
2. Mealybug Mating Disruption 2.0- Exploitation of Insect Sex Pheromone Receptors as Targets in the development of next generation pest control tools (PI Jacob Corcoran, USDA-ARS, Columbia, MO)
3. Genetics of Production Efficiency- Understanding genetics of polygenic traits to improve breeding efficiency of table and raisin grapes (PI Summaira Riaz, USDA-ARS, Parlier, CA). Genetic characterization and development of mechanization traits in grapevine (PI Gan-Yuan Zhong, USDA-ARS, Geneva, NY)

Guest Presentation and Demonstration

Patty Skinkis, Oregon State University: HiRes Vineyard Nutrition, an NGRA Initiated project

Regional and Sector Reports

Juice Sector- Mark Amidon (Welch's) -Native/Hybrid Species- Dennis Rak (Double A Vineyards)

Raisin Sector- Jenna Smiley (Sunmaid) California- Keith Strieglern (Gallo) Northwest Region- Chad Vargas (Atlas Vineyards)

Next Meeting

January 27th, 2024 in Sacramento, CA. Followed by Unified Wine Symposium

NGRA Core Messaging: The National Grape Research Alliance brings together American grape growers, processors, wineries and representatives of research institutions and cooperative extension organizations to improve our industry through science.

Report for the Virginia Wine Board on the National Grape Research Alliance 2025 Beginning of Year Board Meeting- Sacramento, CA

Since December of 2018, I have represented the VWB at all NGRA meetings. I currently serve on the Executive Board, and have attended 21 meetings over 7 years.

Board Updates

I have been elected for a third term on the Executive Board as new Vice Chair and would be honored to continue to serve the VWB as their NGRA representative in FY 25-26.

Guest Presentation and Demonstration

Julie Urban, Penn State University Reducing the Threat Posed to Grapevines as Spotted Lanternfly Expands Its Range in the U.S.

NGRA Fellow Abby Hammermeister, UC Davis Final Fellowship Report: Dialing in Grapevine Water Stress Indicators to Better Reflect Holistic Stress Responses

Regional and Sector Reports

Northeast Region- John Martini, New York, Southeast Region- Emily Hodson, Virginia, Southwest Region- Dennis Wiederkehr Arkansas, Vinifera Species- Andrew Zaninovich, Sunview Vineyards, California.

Next Meeting

May 28th, 2025 in Portland NY. Followed by Hi-Res Vineyard Nutrition Annual Meeting

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