

Virginia Wine Board Grant Report Template

1.0 INSTRUCTIONS

Use this grant report template to communicate progress on your project objectives to the Virginia Wine Board and its administrative agents.

This simplified form focuses attention on the intended and achieved results of the project, including how project results are separately shared with their intended beneficiaries. This report is not the place for a detailed technical discussion of research methodology or results.

- During the proposal stage, applicants complete the first (WHITE) sections to summarize the project's objectives, deliverables, and intended impact plus planned communication to stakeholders.
- At the midpoint of the project (December 1, due December 15), Research and Education grantees complete the center (GRAY) sections to note progress as well as expenditures to date.
- Finally, upon project conclusion (May 31, due June 30), all grantees complete the final (BLUE) sections to describe the project's results and communication, as well as the final expenditures.

2.0 GRANTEE INFORMATION

Project Title	Virginia High-Resolution Vineyard Nutrient Program				
Organization	AHS Jr. Agriculture Research & Extension Center, Virginia Tech				
Proposal # (if needed)	25-25		Award # (if needed)		
Project Lead		Mailing Address		Research	◊ Yes
Name	Dana Acimovic	AHS Jr. AREC		Education	◊
Title	Viticulture Research Associate	595 Laurel Grove Road		Marketing	◊
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3.0 PROJECT OBJECTIVE, PROGRESS, AND IMPACT

3.1 PROPOSAL (February)

Summarize the project objective, the intended deliverable or result, and expected impact. (1-5 sentences or bullets)

- The project objective is to optimize grapevine nutrition guidelines by (i) expanding the geographic and climatic scope of the HiRes project to the Mid-Atlantic region; (ii) evaluating the viticultural response of vines to a range of nitrogen levels under field conditions; (iii) including an interspecific wine grape variety (iv) assessing the tissue that better reflects a range of applied nitrogen; (v) evaluating the timing of tissue collection that affects nutrient status; (vi) determining the level of YAN after veraison that can serve as an indicator of the overall vine nitrogen status.
- The intended deliverables are (i) N sufficiency thresholds for Chardonnay and Chardonee based on vine productivity and fruit quality parameters; (ii) large tissue sample collection (leaves and berries) that will give us a better indication of tissue responsiveness to different nutrient rates and sampling time.
- We expect that the project will make an impact on improved sampling guidelines and nutrient recommendations. The use of precision viticulture in nutrient management can reduce the cost of fertilization by 10 – 30 % while equalizing yield and fruit quality can increase a gross margin of \$3,134/ha.

Summarize the project's workplan (1-5 sentences or bullets)

- Analyze leaf and berry samples collected in Chardonnay and Chardoneel vineyards where a series of nitrogen treatments have been applied.
- Apply the nitrogen treatments in Chardonnay vineyards and collect data on vine capacity and fruit quality.

How will you know your project has been successful? What project indicators will measure progress or success? (1-5 sentences or bullets)

- Indicators that will measure progress are the applied treatments and collected data that lead to the realization of the project objectives.

3.2 Mid-Year Report (December)—Research and Education Grants only

Provide project indicator status information. Describe project/workplan progress. Include any obstacles the project has encountered and the plan to overcome them.

3.3 Final Report (June)

Compare the project to the objective, workplan, and project indicators. Provide (as a link or attachment) the project deliverable or result. Describe the realized or expected impact of the project.

To date, our project objectives remain unchanged. Regarding deliverables, our team has successfully collected data on berry and leaf nitrogen content. Our initial research suggests that tissue sampling at veraison provides a more accurate indication of vine nitrogen status compared to sampling at bloom. Furthermore, leaf blades appear to be a superior choice over leaf petioles for this assessment. Our Chardonnay trial, conducted at two different locations, showed that two years of nitrogen application had no significant impact on yield components and basic fruit chemistry. However, we observed significant interaction between soil nitrogen application and year effect, particularly for the observables average cluster weight and brix level.

These are the preliminary findings and our data will contribute to a comprehensive meta-analysis, incorporating information gathered across the United States as part of the broader HiRes project. The goal of this analysis is to predict vines' requirements for nitrogen more accurately.

We are pleased to report that the proposed work plan has been fully executed. Currently, we are in the process of statistically analyzing the collected information on vine capacity and fruit quality. This analysis will provide valuable insights into the relationship between nitrogen management and vineyard performance.

Our progress aligns with the project timeline, and we anticipate that the results of this analysis will contribute significantly to improving vineyard nutrient management practices.

4.0 COMMUNICATION WITH STAKEHOLDERS

4.1 PROPOSAL (February)

Summarize how you will share project information or results. For example, will you submit for publication in a peer reviewed journal? Present at a technical conference? Conduct a training? Post on a site? Identify the specific audience/s you will inform. (1-5 sentences or bullets)

- Our findings will be shared at the VVA Technical Meetings (2024 Summer/250 attendances), published in 2 peer-reviewed journals, shared with the growers through VT viticulture extension blogs and email groups (1-2 reports/1,117 recipients), and posted on the HiRes project website. The audience includes educators, crop consultants, growers, and Extension faculty.

4.2 Mid-Year Report (December)—Research and Education Grants Only <i>Describe communication with stakeholders to date. Note dates and locations of events or publications, as available/relevant.</i>						
4.3 Final Report (June) <i>Describe how the technical or material content of the project was or is planned to be shared with stakeholders or beneficiaries. List title, date, type (article, brochure, presentation, or other), purpose, and estimated audience reached. Provide a copy or link if (when) available for inclusion on the virginiawine.org site.</i>						
<p>To date, two presentations were given:</p> <ul style="list-style-type: none"> • M. Mershon, D. Acimovic, T. Wolf, M. Ac-Pangan, E. Chang, J. Lahne, A.C. Stewart. 2024. Vineyard nitrogen applications boost yeast assimilable nitrogen and major amino acid constituents proline, glutamine, and alanine in Chardonel grown in Virginia. In <i>Vino Analytica Symposium</i>, Davis, CA, July 9-12, 2024. The estimated audience reached ~ 100. • Mershon, M., D. Acimovic, T.K. Wolf, M.D. Calvert, E. Chang, J. Lahne, A.C. Stewart. 2024. Impact of Vineyard Nitrogen Management on Wine Chemistry and Sensory Characteristics in Virginia Chardonel. <i>Institute of Food Technologists</i>, Chicago, IL, July 15-16, 2024. The estimated audience reached ~ 100. <p>We plan to present our findings at:</p> <ul style="list-style-type: none"> • 23rd international GiESCO conference at Geisenheim University. The conference will take place from July 27–31, 2025. • 49th ASEV-Eastern Section Annual Meeting in 2025 <p>Dr. Drew Harner's and Dr. Amanda Stewart's labs plan to publish six peer-reviewed papers following the completion of data collection. Both research teams will attend the HiRes Annual Meeting on May 29-30, 2025, in New York to present their work conducted in Virginia to other teams involved in the HiRes Project. This collaborative effort aims to share valuable insights and findings regarding the optimized grapevine nutrition guidelines with the broader research community, educators, crop consultants, and growers, advancing the field of high-resolution vineyard nutrient management.</p> <p>The HiRes Outreach Group launched a podcast series tailored for an industry audience. This initiative aims to keep listeners informed about project activities and share advances in vineyard nutrient management. Two seasons have been published online, featuring speakers from the research team and their labs who report on project results. The podcast serves as an effective medium to disseminate valuable insights and findings to professionals in the viticulture industry. Podcast High Resolution Vineyard Nutrient Management</p>						
5.0 BUDGET						

Budget Summary			Mid-Year Research/Education only		Final	
Expense Category	5.1 Requested	5.2 Awarded	5.3 Spent	5.4 Remaining	5.5 Spent	5.6 Remaining
Personnel						

Fringe Benefits						
Travel						
Equipment (Rental)						
Supplies						
Contractual	\$13,776.00				\$13,776.00	\$0.00
Other						
Total	\$13,776.00					