

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	Evaluation of Novel Grapevines Under Local Growing Conditions				
Organization	Virginia Tech, Alson H. Smith, Jr., Agricultural Research and Extension Center				
Proposal # (if needed)	PLUAXQRM		Award # (if needed)	469057	
Project Lead		Mailing Address		Research	◇X
Name	Drew Harner	595 Laurel Grove Rd		Education	◇
Title	Assistant Prof. of Viticulture	Alson H. Smith, Jr., AREC		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 evaluate the performance and suitability of 15 novel grapevine varieties under the growing conditions of northern Virginia for 5-6 years. The goal is to publish an extension guide to these new varieties at project completion (after year 5-6) and provide recommendations for specific varieties suitable for adoption for the Virginia industry. Deliverables will also include 1-2 academic publications on canopy management needs for select varieties published throughout the 5–6-year project, at least 1-2 annual presentations at in-person extension or industry events (like the VVA technical meetings, attended by ~250 participants), and data presentation and discussion in text-based extension emails that will be sent throughout each growing season (reaching between 1,100-1,200 recipients). The project aims to positively impact the grape and wine industry by reducing input costs, minimizing crop loss, and increasing the production of high-quality fruit.

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

The project will involve data collection efforts focusing on assessing grapevine vegetative and reproductive growth characteristics, disease incidence and resistance, fruit quality, and cold hardiness. Funds will be used to hire a research assistant to assist with these efforts and help maintain the experimental vineyard. Updates on progress will be reported via progress reports and various extension-related outlets.

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

Project success will be determined by the eventual identification and adoption of a few novel varieties that perform optimally under Virginia's conditions, exhibit superior disease resistance, optimal fruit quality, and have promising growth characteristics. Additionally, continually assessing grower interest in these new varieties throughout the duration of the project and soliciting feedback at events where results/data dissemination occurs will be an ongoing gauge of project progress.

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.

We have completed the field season and completed much of the planned data collection, including data related to yield parameters collected at harvest (yield and cluster number per vine, mean cluster mass, mean berry mass) and fruit chemistry and ripeness metrics measured at harvest important for winemaking and flavor (total soluble sugars, pH, and titratable acidity). We also collected relevant data on key phenological dates, including bloom, veraison, and harvest and disease incidence throughout the season. Vine pruning will be performed in January 2025 and vine biomass will be assessed at this time. As of mid-November, we have also initiated bud cold hardiness assessments that take place on a biweekly basis and will continue through March.

Two obstacles were encountered, including a failure to hire a field assistant to help with this project and the unexpected presence and spread of pathogens that have caused vine decline. We requested a budget amendment and extension (now approved) that will allow us to use these same salary funds for a field assistant next season, while dedicating a small portion of the original funds to provide materials and supplies for project upkeep. In response to vine decline and death due to the pathogen presence, we removed 2 varieties from the trial that had experienced severe pathogen presence. These varieties were not performing well, and we will be replanting with new, novel varieties in Spring of 2025. These activities will lead to additional data that contributes to the project goals.

3.3 Original Year End Report (June, 2025)

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.

We have completed another full year of data collection (2024 vintage) on 11 of the project's cultivars and removed 2 underperforming cultivars (Marselan and Crimson Cabernet). We have planted 1 new cultivar, Voltis, a cross released by INRA and the Julius Kühn Institute with complex parentage that includes *Vitis vinifera*, *V. berlandieri*, *V. rupestris*, and Muscadinia. We now have 3 years of vintage data for these varieties. Vintage 2025 will be the first vintage of data collected for 3 of the 15 varieties. Collected data includes yield metrics (total yield, cluster weight and number), ripeness kinetics and harvest juice composition (Brix, pH, TA), dormancy pruning weights, wintertime cold hardiness, vigor assessments, and cluster and foliar disease incidence. Data suggest that Soreli and Fleurtai may be good fits for Virginia, given the nearly complete absence of foliar disease on these

vines last year; more information is needed and especially in wetter, more humid years. Fleurtaï's early budding may also prove to be a risk to those in sub-optimal sites prone to spring frost/freeze.

We presented our results at the 2025 Eastern Wine Exposition in March, held in Lancaster, PA, shared at the VVA's Winter Technical Meeting, and demonstrated at the trial at an annual industry field day held in August at the AHS Jr. AREC (experiment site) in Winchester, VA. Across the venues, we reached over 400 individual stakeholders. Stakeholders attending the AHSAREC expressed verbal interest in the cultivars and appreciated seeing their growth habit, fruit development, and disease resistance. These comments were echoed at presentations given to the Eastern Winery Exposition. Most questions from stakeholders at these events focused on fruit and wine composition and sensory traits, reflecting the continued need to vinify fruit from these cultivars and assess their enological potential. Stakeholders also expressed seeing how their disease performance would hold up under wetter seasons.

3.2 Mid-Year Report (December, 2025)—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.

We have completed the 2025 field season and completed data collection, including data related to yield parameters collected at harvest (yield and cluster number per vine, mean cluster mass, mean berry mass) and fruit chemistry and ripeness metrics measured at harvest important for winemaking and flavor (total soluble sugars, pH, titratable acidity, yeast assimilable nitrogen, potassium concentration, and malic acid). We also collected relevant data on key phenological dates, including bloom, veraison, and harvest and disease incidence throughout the season, despite the unexpected loss of field technical support. Vine pruning will be performed in January 2026 and vine biomass will be assessed at this time. Bud cold hardiness measurements commenced in late November and will continue monthly through early March. High early season rainfall followed by a prolonged and continuing drought period resulted in nutrient deficiencies in the vineyard. Harvest parameters were collected for the first time for new varieties that are tolerant of Pierce's Disease (Ambulo blanc, Errante noir, and Paseante noir). So far, these varieties have exhibited a high susceptibility to foliar downy mildew infections, but more data is necessary before a definitive conclusion can be reached.

Following the addition of a new enologist to the AREC faculty (Dr. Demi Perry), fruit harvested from this trial were fermented following a standardized protocol and wines will be used to assess the enological potential of these varieties. Finally, samples were collected from juice and from finished wines, and samples will be analyzed for volatile composition, an important component of juice/wine flavor.

3.3 Final Report (June, 2026)

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.

This reports marks the successfully completion of another project year and the collection of an additional season's worth of data, despite a loss in field technical support. With the 2025 data, we now have 3-4 years of data for the bulk of the tested varieties (Chardone1, Fleurtaï, Soreli, Petra, Itasca, Gamaret, Garanoir, Teroldego, Saperavi, San Marco, Verdejo), and at least 1 year of data for production parameters for three different Pierce's disease-tolerant varieties (Ambulo Blanc, Errante Noir, and Paseante Noir). Establishment of an exciting new variety, Voltis, was moderately successful,

with a handful of vines exhibiting mortality throughout the 2025-2026 winter; replants are being established in 2026. This project period was the first time small-lot wines were vinified as part of this project, with the support of Dr. Demi Perry, Extension Enologist and Assistant Professor, with wines produced from all varieties except for Ambulo Blanc, Errante Noir, and Paseante Noir, due to insufficient crop and high incidence of various berry diseases, including bitter rot and ripe rot. Based on data collected so far, the potential disease tolerance of a few varieties, namely Itasca, Soreli, Fleurtaï, Petra, and Chardonel, to powdery and downy mildews under a reduced spray program seem notable. Each of these varieties has a few viticultural tradeoffs, however: Itasca produces very small clusters and we have been unable to evaluate wine quality thus far; Soreli and Fleurtaï tend to lose acidity during ripening at an atypical rate and are prone to early budbreak, but remain fruitful on secondary and tertiary buds. We have also noted the susceptibility of the three tested Pierce's disease-tolerant varieties (Errante Noir, Paseante Noir, and Ambulo Blanc) to downy mildew, indicating a potential need to maintain a more robust spray program. Finally, these results indicate that further testing of highly disease-resistant/tolerant varieties in Virginia is warranted.

Preliminary results from this experiment were presented at various events from 2024-2026. In the first project year, we presented results at the VVA's Winter Technical Meeting (February, 2025), the 2025 Eastern Wine Exposition (March), and an annual industry field day (August, 2024). In the 2nd project year (2025-2026), we presented the trial at the VVA's Summer Technical Meeting (July 2025), a sustainability-focused workshop organized by Penn State Extension (August, 2025), two different Virginia Tech field days (August and September, 2025), and at a tasting event we organized with industry stakeholders (April) in northern Virginia. We estimated that about 600 stakeholders were reached via these different in-person presentation avenues. As of writing (June 26, 2026), a PDF detailing preliminary results from this project have been downloaded from our Extension website 41 times. We conducted a post-tasting event survey that indicated that Soreli and Ambulo Blanc were of greatest interest, with 71.4% and 57.1% of respondents stating that these cultivars warranted additional enological trials. A total of 15.4% of attendees indicated that they would consider adopting new disease-resistant cultivars after this session, with the majority (61.5%) indicating that it was 'Too early to tell, but initial results are promising'. Finally, we identified viticultural traits that attendees emphasized considering when selecting new varieties to test: 83.3% of respondents said a late bud break, 41.7% said fruitful secondaries, and high acid and loose clusters were tied for third place at 33.3% of votes cast.

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)

Multiple platforms will be used to share project results. First, the completion of the multi-year project will result in the publication of a variety guide that will present the viticultural data collected throughout the project and provide tiered, detailed recommendations for which varieties are optimal for Virginia grape growers. Additionally, we aim to publish at least 1-2 peer-reviewed articles in major viticulture journals (i.e., the American Journal of Enology and Viticulture) detailing viticultural experiments performed during the project duration on select varieties as well. Aside from publications, we aim to routinely present results and updates from the project at grower stakeholder events (e.g., VVA Technical Meetings, reaching ~250 participants), both within Virginia and other Mid-Atlantic states, and via online resources like extension email newsletters (reaching between 1,100-1,200 recipients), for example.

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> We have featured this project and the data collected at multiple venues. First, we held a mid-summer field day (8/19/2024) showcasing this project and these new varieties that was attended by stakeholders from the grape industry. Updates were also provided monthly to stakeholders via a monthly webinar series organized by PI Harner and Dr. Mizuho Nita in the first week of each month held from April through October (our Virtual Vineyard Meetings). Data from this project was also featured in: a guest lecture given to HORT 2224 “Horticulture Science and Industry” about the Virginia wine industry on 9/23/2024, to a class of 72 Virginia Tech undergraduates; and a late August meeting of the Loudoun Wineries & Winegrowers Association. Data will be presented by co-PI Acimovic at the upcoming Eastern Wineries Exposition in Lancaster, PA on 3/25/2024.
4.3 Original Year End Report (June, 2025)
<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> Data was presented by co-PI Acimovic at the Eastern Wineries Exposition, held in Lancaster, PA on 3/25/2024. Approximately 50 stakeholders were reached within this venue. Updates on early season performance and changes to the trial (we planted 1 new variety) were highlighted in our annual IPM workshop held on March 14 and hosted by Dr. Mizuho Nita and PI Harner, reaching about 20 stakeholders. Future outreach plans in the next reporting period include the following: publishing the 2024 vintage data on PI Harner’s lab website (harnerlab.com); a presentation by co-PI Acimovic and PI Harner of project data to the American Society for Enology and Viticulture’s Eastern Section annual meeting on July 8, in Athens Georgia; a short in-person demo as part of the VVA’s Summer Technical Meeting on July 31; a presentation by PI Harner as part of a PSU Extension sustainability-themed workshop on August 17 in Andreas, PA; and updates provided as part of PI Harner’s Virtual Vineyard Meeting series.
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> A presentation that included data from this field trial was presented to the American Society for Enology and Viticulture’s Eastern Section annual meeting on July 8, in Athens Georgia, which included about 60-70 attendees, including stakeholders (abstract can be found here: https://static1.squarespace.com/static/640a19148d7b7171a327c178/t/68655f759e7bb44bb6d6427d/1751474039157/2025+Program+ASEV-ES+full+reduced+size.pdf). Presentations that included this data were also given to a Penn State Extension workshop on sustainability that was held on August 17

at Galen Glen Winery in Andreas, PA (<https://pennsylvaniawine.com/industry/news/sustainability-and-cabernet-franc-production-in-the-east>), that included about 40 attendees. The project was also featured at VVA's Summer Technical meeting on July 31, 2025, reaching about 80 stakeholders; another 40-50 stakeholders were reached via a station-wide Fruit Industry Field Day on September 25, 2025. Project updates were provided to about 30 attendees at a quarterly meeting of the Loudoun Wineries & Winegrowers Association on August 20, 2025. Efforts are under way to store the data on a publicly accessible website for stakeholders to access and use to inform planting decisions.

4.3 Final Report (June)

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.

Preliminary results from this project have been presented in various formats to stakeholders and to the public, as stated in previous report sections. A preliminary 2024 reports is available for access at PI Harner's website (<https://vtviticulture.com/project-data-and-resources/>) and a full multi-year summary is forthcoming and will be free to access. This will be hosted indefinitely on this website.

Data will also be presented in a forthcoming manuscript published in *Frontiers in Plant Science*, slated to be published later this calendar year (2026). This manuscript will be free to access and available at the journal website; a permanent link to the article and a copy (PDF) of the article will be hosted on PI Harner's website as well.

5.0 BUDGET

Budget Summary			Mid-Year Research/Education only		Original Year End (2025)	
Expense Category	5.1 Requested	5.2 Awarded	5.3 Spent	5.4 Remaining	5.5 Spent	5.6 Remaining
Personnel	6670	4708		4708	2423.33	2284.67
Fringe Benefits	442	334		334	0	334
Travel						
Equipment (Rental)						
Supplies		2070	380.64	1689.36	1522.14	167.22
Contractual						
Other						
Total	7112			6731.36		2451.89

Budget Summary			Mid-Year (2025) Research/Education only		Final (2026)	
Expense Category	5.1 Requested	5.2 Awarded	5.3 Spent	5.4 Remaining	5.5 Spent	5.6 Remaining
Personnel	6670	4708	2255.41	29.26	0	29.26
Fringe Benefits	442	334	355.40	-21.40	0	-21.40

Travel						
Equipment (Rental)						
Supplies		2070	44.33	122.89	0	122.89
Contractual						
Other						
Total	7112		2655.14	130.75	0	130.75