

Interim Report to the Virginia Wine Board

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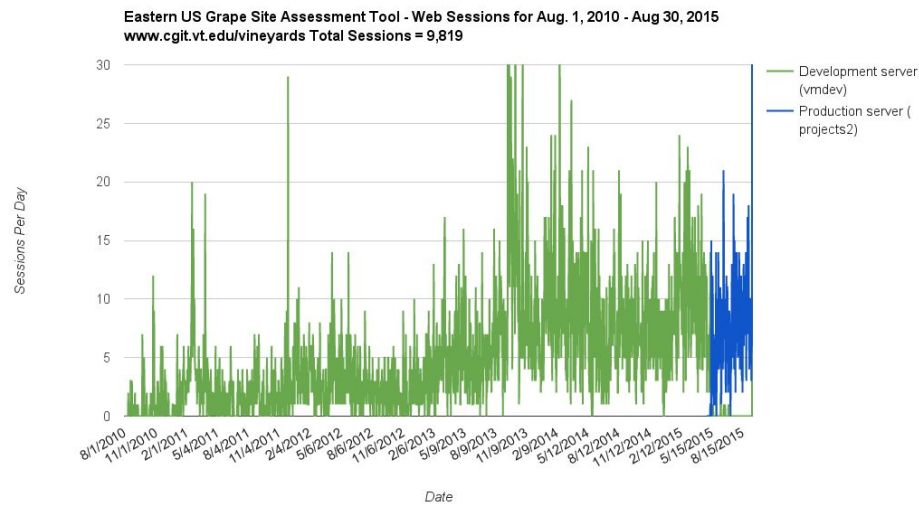
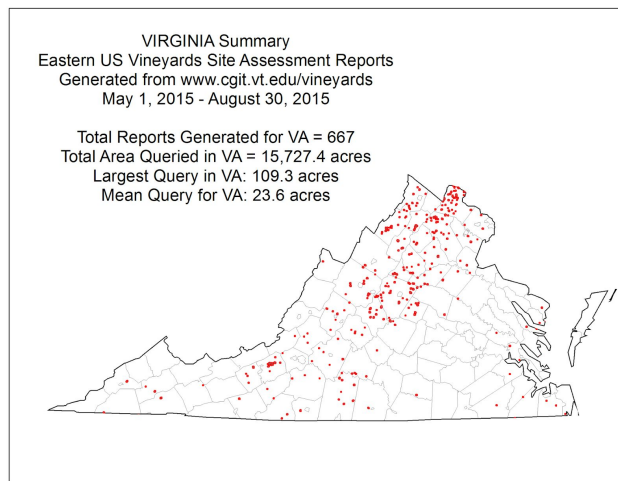
The full project scope is approximately 70% completed at this time, with projections for the current tasks and expenditures to reach 100% completion in early 2016, in time for the Virginia Winter Technical conference.

At this time, CGIT has completed the following:

1. Draft of Virginia Grape and Wine Policy Review (attached).
2. Draft of Land Use Regulations to Consider When Purchasing Property for a Vineyard (attached)
3. Major updates to the web interface at <http://www.cgit.vt.edu/vineyards>
 - a. This website is also used for the USDA eastern US grape and wine project, and will be rebranded to feature Virginia on the web site starting in December 2015. A new URL will be made available for the Eastern US interface, and while both sites will use the same computational infrastructure (back end), the Virginia data and models will continue to be improved whereas the Eastern US data will largely be static until further funding can be secured.
 - b. Unified naming and ordering of values and report sections
 - c. QAQC to ensure reported values are correct
 - d. Added NLCD map to the appendix
 - e. Removed soil suitability rankings
 - f. Updated graphs and tables
 - g. Stabilized code to handle errors properly
 - h. improved image resolution in reports
4. The statewide geospatial data layers are progressing, with map books drafts being reviewed internally and with selected stakeholders in Virginia. Statewide parcel datasets are 70% complete with remaining counties still based in paper land records.
5. CGIT has is conducting a formal phone interview process (7 completed to date) related to the research and development of on-line resources on behalf of the

grape and wine industry in Virginia. Stakeholders and interviewees include researchers, commercial growers, distributors, merchants, government employees, consultants, or consumers in the grape and wine industry and as a potential user and beneficiary of the web portal. We focused on data and data privacy issues, but also prompted stakeholders with a series of open ended questions about what on-line resources would be of greatest benefit to them? The results are currently being synthesized and will help inform the next phase of development proposed for the Virginia Vineyards Portal www.cgit.vt.edu/vineyards.

Web metrics for the Virginia Vineyards Portal



Real-time Weather and Grape Disease Risk Models

In addition to the accomplishments listed above, the Virginia Wine Board should be aware of a new capability at CGIT for hourly weather modeling and grape disease risk models for Virginia. The web interface should be completed in mid-October. I have shared a preview of the outputs with Tony Wolf and Mizuho Nita on Sept 30, 2015. The models are not validated at this time.

The Virginia Tech Center for Geospatial Information Technology is launching a Real-Time Weather and Grape Disease Modeling service as a component of the Virginia Vineyard Portal, a research and outreach platform for Vineyard Site Assessment, Geodesign, and Management.

CGIT now has four grape disease models running on an hourly basis including Powdery Mildew, Phomopsis, Blackrot, and Bunch Rot.

A zip file has been placed on Google Drive containing the outputs of models for the week of Sept 23, 2015 - Sept 30, 2015, which include a couple of days of good weather before the rain sets in over Virginia and disease models show increased risk.

☰ [VA Weather and Grape Disease Risk 093015 VTCGIT...](#)

https://drive.google.com/a/vt.edu/file/d/0B4FQhIFVAo_TZzFSWjRkTjNYdTQ/view?usp=drive_web

Inside the ZIP file, you will find:

_README VA Weather and Grape Disease Model Description 093015 Sforza.pdf
(also attached here)

_VIEW_Virginia Grape Weather and Disease Risk.html

25 webm files, which are movies of the model outputs that will play in any web browser, or viewed using the HTML file listed above.

Unzip the files to a local directory, then open the HTML file in a web browser (Chrome or Firefox recommended however it should display in IE and other web browsers). Note this is a beta test, with feedback and collaboration required to validate and improve the model outputs for Virginia as we move forward.