Precision Vineyard Management: Collecting and Interpreting Spatial Data for Variable Vineyard Management.

Project Theme 5: Adoption and Outreach Progress Report 2017

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As the second full year of the Efficient Vineyard SCRI project comes to completion, it is interesting to examine the tools developed, and their use, to move project information into grower vineyards. The most obvious tool is the project website found at https://efficientvineyard.com that provides access to current research articles, bios, interviews and contact information for project participants (broken down by team), general outreach information on the project as well as blog posts, project publications, photos, and general resources found in the dropdown menu under News. Since the start of the project, 12 current research articles and 33 blog posts have been posted. Posts are pushed out on social media (Facebook) to increase the audience for the project https://www.facebook.com/EfficientVineyard-1105411842849154 .

The Technology Adoption and Outreach team continues to promote the Lake Erie Regional Grape Program team's weekly video podcasts http://lergp.com/podcasts/ that are related to the Efficient Vineyard Project. Fifteen podcasts focus on portions of the Efficient Vineyard project. All 44 podcasts found on the site promote the Efficient Vineyard project by including the link to the project homepage throughout the podcast.

The initial survey of growers and project participants helped the Outreach and Adoption team determine the preferred methods of information transfer with these groups and it was not surprising that face-to-face interactions and meetings were highly ranked. In California, team members have been active in 2017 presenting to a total of 1,168 total participants at 6 large grower meetings. Members of the Lake Erie grape industry in New York and Pennsylvania were able to access information on the Efficient Vineyard project through 18 "Coffee Pot" meetings, small group meetings held weekly during the growing season at grower venues across the Lake Erie growing region. A variable rate equipment demonstration was held at CLEREL to expose growers to project research. In addition, the Efficient Vineyard project was highlighted with half-day sessions at both the Summer and Winter Growers' conference of the Lake Erie Regional Grape Program.

Growers in the Lake Erie region were also given the chance for face-to face interaction by volunteering to participate in the loaner sensor portion of the project. Five growers scanned approximately 508 acres using NDVI sensors by simply driving through their vineyards while completing normal vineyard practices such as spraying or mowing. NDVI scans have also been made in vineyards participating in a grape rootworm project to help identify problem areas and focus scouting efforts.

Dr. Terry Bates group undertook outreach for the Efficient Vineyard project outside of the original areas participating when they traveled to Michigan in August 2017. Working with the local Michigan State University Horticulture educator, Brad Baughman and Dave Miller, assistant professor, Michigan State University, the Bates group was able to work with two growers in four separate variety blocks totaling approximately 40 acres scanned. The group also worked with Hans Walter Peterson of the Cornell Finger Lakes Grape Program, to conduct scanning at a local vineyard and provided a grower

presentation to spread the word on the potential to implement the technology developed in the Efficient Vineyard project in growers' vineyards.

We are using Google Analytics to track usage of our web pages. The data shows increases in all areas of website usage.   As of November 16, 2017 the analytics show 5,083 sessions with 3,402 users viewing 12,919 pages. Users of the website is growing as shown by the 66.56% new sessions rating. The average visit lasted 2 minutes 22 seconds with an average of 2.4 pages viewed per visit.