



Winter 2010

WWW.NGWI.ORG

In This Issue

- President's Message
- NGWI Elects New Officers
- Research Update
- Upcoming Meetings

The National Grape and Wine Initiative (NGWI) is an industry-driven partnership with academic and government representatives, designed to focus emphasis on research and extension as a means to strengthen the competitiveness of America's grape and grape product industries.

CALENDAR OF EVENTS

NGWI Executive Committee Meeting Feb. 25 via conference call.

NGWI Research Committee Call on March 9 via conference call.

Message from Jean-Mari Peltier, NGWI President

With 2010 work in full swing, I'd like to take this opportunity to provide an update on recent NGWI activities and accomplishments. As you might expect, we have just completed a compressed schedule for applications for Specialty Crop Research Initiative (SCRI) funds, coupled with California's specialty crop block grant deadline just two weeks later. It's exciting to see that the Obama administration has vowed to ultimately double the amount of money available. But with that said, we're certainly faced with challenges in addition to new priorities and research. We will have to focus on how we can best align ourselves.

We were very pleased to see the proceedings of a two-day, NGWI-sponsored workshop on the health and nutrition components of grapes and grape products published in the prestigious *Journal of Nutrition* last September. In addition, as a key NGWI priority, we recently assisted in securing funds for a tool to ensure research results are available to grape producers across the country, called the Grape Community of Practice, or "eXtension." NGWI also leveraged over \$1 million of industry funds to support applications for SCRI Grants worth over ten times that amount. We also submitted two applications under the Specialty Crop Block grants program – one on reducing quantity and salinity of processing waste water, and the other to provide a better understanding of what leads to vegetative flavors in wine. You can find more detailed information about all NGWI supported research in this newsletter.

In closing, plans are currently underway for a special joint meeting with representatives from the U.S. Department of Agriculture this year to review, refine and revise our mutual goals for research in grapes. Each year, the Agricultural Research Service dedicates millions of dollars in research funds to grapes –

on issues ranging from breeding to nutrition to climate change. Thank you for all of you who have worked hard to realize our accomplishments and we look forward to yet another successful year in 2010!

NGWI Elects Officers

NGWI recently elected 2010 officers at their annual January board meeting. They are the following:

Chair

John Martini of New Yorks' Anthony Road Vineyards Chair

Vice Chair

Vicky Scharlau of the Washington Association of Wine Grape Growers

Secretary-Treasurer

Richard Smith of California's Paraiso Vineyards

Past Chair

Kathleen Nave, President of the California Table Grape Commission

Also re-appointed at the January board meeting were the following:

Chair of the Development Committee

Jerry Lohr of J. Lohr Winery

Chair of the Research Committee

Dr. Nick Dokoozlian of E&J Gallo Winery*

Chair of the Extension and Outreach Committee

Dr. Keith Striegler of the University of Missouri, Columbia

*Dokoozlian will be responsible for the coordination of research priorities for all NGWI's Theme Committees

NGWI Research Update

Update from Washington, DC – According to the USDA's website, the "USDA's National Institute of Food and Agriculture (NIFA) expects to release its request for applications for the 2010 Agriculture and Food Research Initiative (AFRI) in February 2010 and will commit up to \$800 million in funding for new grants, contingent on annual appropriations in following years." AFRI will support work in the plant products, agriculture systems and technology, among others. Tom Bewick, CSREES, attended NGWI's January 2010 board meeting and explained that CSREES transition to NIFA has been accomplished, although Under Secretary for Research, Dr. Rajiv Shah, has moved on to head USAID. The first-ever USDA Chief Scientist, Dr. Roger Beachy, was just named to a six-year post. Agriculture Secretary Tom Vilsack will soon announce his primary research priorities, and is expected to call for the doubling of competitive research funding. It will be interesting to see how USDA's new priorities will meet the primary challenges facing American agriculture.

USDA Funds Key NGWI-Sponsored SCRI Project

eXtension Grape Community of Practice – Designed as a tool to ensure research results are available to grape producers across the country, we are pleased that this NGWI-sponsored

program will dedicate \$800,000 to build a web-based grape "community of practice" over the next three years. Under the leadership of Dr. Eric Stafne of Oklahoma State University, this project will contain a database of "Frequently Asked Questions," have an "Ask the Expert" function, provide interactive learning modules and list events such as workshops, just to name a few features. Future grape SCRI-funded projects will be encouraged to use this platform to disseminate research results. For more information or to sign up for an eXtension account visit www.extension.org/people and look for "Grapes" under COPs. (Eric T. Stafne and Kathleen Kelsey of Oklahoma State University, Edward Hellman of Texas AgriLife Extension Service, and R. Keith Streigler of University of Missouri.)

2010 Specialty Crop Research Initiative Proposals Supported by NGWI

NGWI leveraged over \$1 million of industry funds to support SCRI initiative grants worth over ten times that amount. With a January 14 deadline to apply, decisions about funding are expected by the end of May.

Developing Sustainable Vineyard Water Management Strategies for Limited and Impaired Water Supplies – With six primary deliverables, this NGWI-supported project would provide recommendations for sustainable water management in wine, table, raisin and juice grape production using limited and impaired water supplies.

There are six primary project deliverables as follows:

- Recommendations for sustainable water management in wine, table, raisin, and juice grape production using limited and impaired water supplies;
- Recommendations for sustainable water and soil management to minimize the impacts of salinity on grape yield and quality;
- Assessment of the effect of recommended water and salinity management strategies on quality, sensory, and yield parameters for table, raisin, juice, and wine grapes and their commercial products;
- Development and expansion of commercially available grapevine rootstocks that better resist drought and tolerate salinity;
- Quantification of the economic sustainability of implementing the strategies in Deliverables 1, 2, and 4 in viticulture;
- Outreach, extension and educational training to disseminate recommendations to grower and academic audiences via presentations, publications, web-based learning and tailgate outreach.

To learn more about this project, which is being directed by Dr. James E. Ayars (USDA-ARS) and Dr. Andrew J. McElrone (USDA-ARS, University of California, Department of Viticulture and Enology), visit the NGWI website, "Research in Progress" tab or [click here](#).

Intelligent Vineyard Monitoring for Improved Production Management and Product Quality – If funded by the USDA Specialty Crop Research Initiative, Dr. Terry Bates of Cornell University will be leading a project providing grape producers with tools to enhance their ability to achieve vine balance – to

manage vineyards more efficiently and profitably. This goal will be achieved through the development, application and adoption of new vineyard measurement, data collection and automation technologies. Dr. Sanjiv Singh at the Robotics Institute at Carnegie Mellon will be working on this project as well to create new tools to help grape growers of all scales to better understand, diagnose and manage their vineyards.

Improved grape and wine quality in a challenging environment: An eastern US model for sustainability and economic vitality – Two climatic features pose significant challenges to sustainable wine grape production in the East: variable, and often excessive, growing season precipitation, and severe winter cold. This Standard Research and Extension Project, with Principle Investigator Tony Wolf would seek to improve the economic standing of the industry through improved grape and wine quality, reduced environmental impact, and enhanced consumer attitudes towards eastern wines. The project's four component objectives, several of which have applicability nationally, are as follows: **First**, practical means of achieving vine "balance", and hence improved canopy microclimate and fruit quality, will be developed by assessing the impact of light and temperature on fruit composition, developing management methods to promote optimal vine balance, and by better defining vine balance metrics. **Second**, research-based recommendations for optimal variety and site matching will be developed through evaluation of new wine grape cultivars and the further development of Geographical Information System site selection tools. **Third**, regional wine sales will be increased through enhanced understanding of consumer attitudes towards eastern US wines as assessed via survey and modeling tools exploring customer segment identification, satisfaction, reaction to promotional models, and drivers of purchase decisions. **Finally**, the broad dissemination of research-based resources derived from this work and elsewhere, will be effected through the development of novel web-based materials, including the enhancement of the eXtension grape CoP (discussed earlier in this newsletter.)

Pest Management on a Continental Scale: A Unified Approach for Viticulture East of the Rockies – As mentioned above, viticulture has grown explosively in this region with arguably the greatest diversity of climate, hosts and pests. New owners often lack pest management experience and growth of the industry has outstripped the ability of states to develop and deploy refined pest management systems. Under the leadership of Dr. David Gadoury, this project assembled an expert team of university, ARS, and private sector personnel from eight states collectively representing over 90% of the eastern crop acreage. If funded, this project would comprehensively manage multiple pests and diseases at the individual farm level across half a continent, including: (i) stakeholder-directed identification of problems; (ii) the framework and forum for coordination of grape pest management in the Eastern US; (iii) area-wide deployment of advisory systems, rapid information transfer and stakeholder education; (iv) continuous refinement via analysis of stakeholder behavior (v) economic case studies; (vi) high-quality digital media for training in grape pest management (vii) participation of graduate students to train a future cadre of experts, (viii) link state-of-the-art weather and geographic information systems

with pest and vineyard site evaluation models, including effects of climate diversity and climate change on disease potential, and (viii) engineering aspects of spray technology.

In addition, NGWI also worked to submit two 2010 Specialty Block Grant Program under California's \$17 million program

Scalable Solutions to Reduce Water Use & Salinity in Winery & Food Processing Cleaning Operations – The proposed project would compare and analyze current cleaning and sanitation practices of California wineries and food processors. This information will be used to help facilities select methods and materials that offer improved environmental performance (e.g., reducing water use, minimizing chemical inputs, reducing entrained salts, reducing the volume and strength of process wastewater, and other factors). Project partners will evaluate conventional, widely-used products, as well as more innovative "green" products and approaches; original work on green chemistry options will also be trialed. Results will be shared with California wineries and other specialty crop processors, and address several of CDFA's priority areas, including water and energy efficiency, water quality, regulatory challenges, and acceleration of Best Management Practices implementation.

Enhancing Competitiveness of Wines by Reducing Vegetative Flavors – Flavor is one of the most important factors influencing wine acceptability. In fact, knowledge of wine aroma is complicated by interactions among chemical flavor components, including perceptual enhancing or masking interactions that influence the intensity and qualitative nature of the perceived aromas. This project's initial results indicate that winemaking conditions substantially influence the concentrations of aroma compounds extracted from grapes, and these compounds can interact to enhance or mask aroma intensity of the wine. While many studies have evaluated effects of skin contact time on changes in nonvolatile wine composition (i.e., polyphenols/tannins), few have considered effects on volatile aroma. This project will provide information on the influence of winemaking conditions on changes in volatile aroma composition and wine sensory properties and will clarify the role of masking compounds to mitigate the contribution of methoxypyrazines, compounds that contribute to wine vegetative defects. NGWI will learn whether it will be invited to submit full block grant applications for these two projects in March.

National Research Planning Initiative for Greenhouse Gas Emissions Reductions in Vineyards and Other Perennial Crops:

(PI Dave Smart, Alan Lakso et al. Project type: Research and Extension Planning Project. Project total funding \$50,000.

This project addresses a recognized urgent priority in national efforts to improve sustainable production efficiency, productivity, and profitability over the long-term through understanding of greenhouse gas (GHG) emissions by perennial specialty crops production and its policy and marketing implications. Specifically mandated areas include:

1) Development of tools for new metrics and verification that will allow specialty crop producers and processors to evaluate the sustainability (greenhouse gas emissions and carbon sequestration) for 'conventional' practices and to self monitor their movement toward more sustainable practices over time.

2) Improve understanding and application of economic, social science, and production factors of deciduous perennial specialty crops through the application of Life Cycle Assessment or of cycles and feedback mechanisms.

3) Improve productivity and profitability of perennial crops through more comprehensive metrics for understanding of best management practices that would allow producers eventually enter into carbon markets through cap and trade, and other (policy) programs.

4) Project Team:

Co-Principle Investigators (Co-PIs):

David R. Smart, UC Davis, Daniel Sumner, Alan Lakso, Cornell University, Larry E. Williams, Kearney Agricultural Research & Extension Center

More information about any of the above research projects may be obtained by contacting Jean-Mari Peltier at jmpeltier@ngwi.org.

UC Davis Tour

At the January NGWI board meeting, participants were given a half-day tour of UC Davis and a local ARS research facility. Tour stops included the Robert Mondavi Institute for Wine and Food Science, an institute with the goal of becoming the global innovator in university-based wine and food sciences research, education and outreach. In addition, participants toured Foundation Plant Services, a self-supporting service department at the College of Agricultural & Environmental Sciences which produces, tests, maintains and distributes premium foundation-level virus and disease-tested plant materials for use by California nurseries. The tour also made a stop at USDA's ARS, Western Human Nutrition Center, which tests dietary interventions for preventing obesity and related chronic diseases, improving immune function and micronutrient status, and reducing pathogenic inflammation.

[SEND TO FRIEND](#) | [UNSUBSCRIBE](#)

NATIONAL GRAPE & WINE INITIATIVE 1415 L STREET, SUITE 460 SACRAMENTO, CA 95814 USA
(916) 446-3900 INFO@NGWI.ORG
© 2008 NGWI, ALL RIGHTS RESERVED.