



## Special Initiatives Update

The December 2018 issue of *NCPN Network News* introduced five initiatives currently being pursued by members of the Network, to ensure the mission remains relevant and efficient in the pursuit of economic success of specialty crops for U.S. agriculture. In this issue, we provide an update on some of those initiatives, detailing activities and outcomes from the committees chartered with their success.

The five initiatives are Economics, Quality Management, Education/Outreach/Communications, Scientific Information Sharing, and Strategic Planning. Here we look at updates for the first three on that list.

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### Economics

On April 17-18, 2019, stakeholders, economists, center directors, and NCPN program managers convened at Cornell University to discuss the status of existing economic research on clean plants and to decide on the future direction of economic studies. A review of the economic literature revealed a focus on a limited array of crops and a need for better production data for up-to-date and realistic crop enterprise budgets that are needed to support economic studies. Another need is to better understand the appropriate incentives for adoption of clean plant material by nurseries and growers in order to conduct the best economic studies.

A vision for supporting appropriate economic research was discussed. Economic studies would be used to explain the value of using clean plants to stakeholders by quantifying the benefits and costs of using them. Studies would also be used to support future funding for the NCPN by describing the macro-economic benefits of clean plants to NCPN's funders and policy makers.

Meeting attendees developed a plan to move forward with supporting economic research:

- Summarize gaps between needs and knowledge based on a comprehensive literature review
- Reach out to NCPN membership, including industry, centers, policy makers to strategically validate priorities
- Invite economists to participate in relevant NCPN meetings to fully understand needs
- Develop a priority plan for economic studies
- Devise an effective plan to interact with other members of the network for the delivery of impactful information

An economic studies working group will be formed to make sure plans for needed research move forward. The group will include key economists along with commodity representatives from the NCPN Tier 2s and members with expert knowledge of NCPN affairs. The goal will be to develop priorities for economic research and provide expertise in evaluating outreach materials to benefit the NCPN and its mission.

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### Virus Surveys of Commercial Vineyards Show Value of Planting Certified Vines

Viruses cost the California wine grape industry as much as \$91,661 per acre over the life of a vineyard, according to a 2015 economic study of the North Coast wine-growing region. Some viruses are spread by insects and nematodes, but the propagation of infected material can also distribute viruses into vineyards. As a first step toward managing viruses, growers are encouraged to plant certified material regulated by the California Grapevine Registration and Certification program. In a recent study, researchers surveyed vineyards of varying ages for eight common viruses to demonstrate the value of selecting certified material for new plantings. Analysis of the results showed an even distribution of viruses in material planted between 1880 and 1980, while certified material planted between 2011 and 2014 showed predominantly zero infection. The results of this survey demonstrate the importance of using regulated vineyard material for establishment of new vineyards.

Read the entire [article](http://calag.ucanr.edu/Archive/?article=ca.2019a0006) at: <http://calag.ucanr.edu/Archive/?article=ca.2019a0006>

## Quality Management

As high-profile and large networks such as NCPN mature, they are faced with the question of assessing the quality of their products and processes internally, within centers, at their commodity level, and at the whole network level. NCPN's focus is to provide high-quality, propagated plant material free of targeted plant pathogens and pests to ensure the global competitiveness of specialty crop producers. Quality underpins all aspects and operations leading to the products of NCPN: diagnostics, therapeutics, foundation collections and distribution. To address different areas where quality plays an important role, including scientific program credibility, governance and management, recordkeeping and information, the administration of foundations, and communications, NCPN Center Directors, managers, and stakeholders began their engagement in an analysis of what quality means in NCPN. The first NCPN-supported workshop on Quality was very successful and took place June 18-20, 2019. Thirty people participated in the workshop in Riverside, CA, which was organized by Irene Lavagi-Craddock and Fatima Osman, who share the roles of NCPN-Citrus Coordinators and NCPN Quality Initiative Principal Investigators.

On the first day, a series of talks introduced the meeting participants to key concepts of quality management and existing accreditation programs. Directors of laboratories that have already begun implementing a quality management system provided an overview of the current status of quality management (QM) in their centers, including presentations from Maher Al Rwahnih at UC Davis, Consuelo Estevez de Jensen in Puerto Rico, Oscar Hurtado-Gonzales at the USDA Beltsville Lab, and Georgios Vidalakis at the CCPP, UC Riverside. Katherine Burch from USDA/APHIS also led the group in a very engaging hands-on activity designed to illustrate some common practices and advantages of quality management.

On the second day, June 19, 2019, meeting participants learned more about existing QM systems and had an opportunity to follow-up on any quality management topic of particular interest with a panel of lab directors and quality managers who shared their stories on how they got involved with quality management, what the first steps in system implementation were, what benefits they observed, what resources they had available and several other questions aimed at facilitating participants in forming an opinion on how this could evolve in their labs. A fruitful discussion continued in the afternoon and meeting participants provided ideas on how to take this initiative further.

On the third day, June 20, a smaller group of participants stayed behind to draft a roadmap based on the discussions of the previous 2 days. The identified future steps include the organization of a series of Quality Management training sessions in Beltsville, MD for NCPN members, including lab directors and other lab members, with a tentative goal of training 40 people by April 2020. At the same time, NCPN-centric standards for a quality management system that fits NCPN mission and activities will be drafted tentatively by July 2020. As these two major tasks are being tackled over the course of the next few months, discussions regarding a quality manager position at the whole NCPN network level, and a dialogue on the development of an implementation and communication plan to roll out the NCPN QM plan will continue.



Kevin Ong (Texas A &M) and Lori Leong (UCDavis) in hands-on LEGO activity designed to illustrate some common practices and advantages of quality management.



Stephanie Szostek (Washington State University), Karen Snover-Clift (Cornell), and Jim Stack (Kansas State University), collaborating on another Quality Management exercise.

## Education/Outreach/Communications

As part of the special initiative for Education/Outreach/Communications, the Education & Outreach committee for the National Clean Plant Network (NCPN) is in the final stages of developing a comprehensive national communications plan. In tandem, the group is refining seven crop-specific communication plans, detailing a strategic approach for how best to share NCPN's overarching goal to use more clean plants and keep them clean.

What exactly does a communications plan include and why is such a plan necessary? Well, the need is great to be strategic in how NCPN resources are best used and leveraged to gain the attention of the target audience and move the needle with the most impact.

Communications planning workshops were held in Sacramento, CA, in March and June of 2019. In both workshops, over 20 Education and Outreach (E&O) members, crop coordinators, and other key industry stakeholders began building the components of a national plan and crop-specific NCPN communication plans that are solidly based on who uses clean plants and the process involved in obtaining the plants. The group also considered where customers currently get credible information about clean plants and the physical dispersal of the target audience across the U.S. Facilitated by the Washington Wine Industry Foundation, the workshops were productive and enlightening. All components of crop-specific and the national communications plan have been identified to inform a final comprehensive NCPN Communications Plan, which will be completed by September 1, 2019.



Participants in the NCPN Communication Initiative met in Sacramento CA to create National and Crop-Specific Communication Plans.

### A Communications Plan Includes:

- Goals
- Objectives
- Target Audiences + Motivations
- Compelling Arguments + Messaging
- Messengers + Influencers
- Channels
- Tactics
- Tools
- Work Plan
- Measurement + Metrics

**FACT SHEET**  
National Clean Plant Network

**Blueberry red ringspot disease**

**What is blueberry red ringspot disease?**  
Blueberry red ringspot disease was first described in New Jersey affecting highbush blueberry in 1950. The disease is graft transmissible and is caused by a virus. The disease is widespread along the east coast from Georgia to Massachusetts. The disease is also a problem in Michigan, Arkansas and is less important in California and Oregon. The disease affects highbush, southern highbush and rabbiteye blueberry as well as cranberry.

**What are the symptoms of blueberry red ringspot disease?**  
The symptoms of blueberry red ringspot disease vary by cultivar. One year old and older green stems on affected plants can develop circular red ringspots. Leaves develop solid red spots that coalesce into red blotches later in the season. Although red spots on the leaves are typical, the spots do not go through the leaves of most blueberry cultivars and this was thought to be a key diagnostic feature. However, the spots can be seen on the underside of the leaves of some cultivars.

**Where has it been found?**  
The disease is currently known to occur in highbush blueberry along the east coast from North Carolina to Massachusetts. The disease is also found in Michigan and Arkansas and is newly seen along the west coast in California and Oregon. The disease is prevalent in southern highbush and rabbiteye blueberry throughout the southeastern U.S. The disease has been reported in several other parts of the world.

**FACT SHEET**  
National Clean Plant Network

**VIRUS ELIMINATION using MICROSHOOT TIP THERAPY**

**What is a microshoot tip?**  
A microshoot tip consists of the apical meristem, a dome shaped area at the growing tip of a shoot that contains a few hundred undifferentiated cells, and 2 to 3 years of leaf primordia. A microshoot tip is 0.2 to 0.5 mm in size.

**How does microshoot tip therapy work?**  
It is not known exactly how microshoot tip therapy works but there are several plausible theories. One theory is that the virus has not yet infected the cells in the growing tip because the plant cells are dividing faster than the virus can replicate and infect. In other words, the plants are growing faster than the virus.

**What is microshoot tip therapy?**  
Microshoot tip therapy is the process of culturing microshoot tips from an infected plant to generate a population

Two new Fact Sheets have been added to the **Education & Outreach Library** on the [NCPN web site](https://www.ncpn.net). The new additions provide detailed information on Blueberry red ringspot disease and Microshoot tip virus elimination therapy. Professionally printed versions of these and other Fact Sheets, created by E&O participants, can be ordered through a link on the website. PDF files may also be downloaded from the website.

## Tim Martinson Honored with Outstanding Achievement Award

Dr. Timothy Martinson, senior extension associate at Cornell University, was presented the Section's Outstanding Achievement Award at the opening session of the ASEV-Eastern Section conference in Geneva, NY on July 16. In presenting the award, Dr. Chris Gerling, chair of the American Society for Enology and Viticulture, Eastern Section, noted that Martinson had been the senior extension agent and statewide viticultural extension person since 2007. "Tim is a really giving and generous colleague," Gerling commented. "He's one who 'shares the credit and takes the blame.'" [Read more:](#)

<https://www.winebusiness.com/news/?go=getArticle&dataId=217084>



Dr. Chris Gerling and Dr. Tim Martinson

## Newsorthy News!

**A new assay has been developed to easily test for grapevine red blotch virus.** It can be done in about 30 minutes, costs less than \$1 and is more sensitive than conventional PCR. It is called a LAMP reaction (loop-mediated isothermal amplification) and was developed by scientists at Cornell University. [Read more:](#)

<https://grapesandwine.cals.cornell.edu/newsletters/appellation-cornell/2019-newsletters/issue-37-may-2019/research-plain-english-1/>



Pictured clockwise from upper left: red blotch virus symptoms on Merlot, Sauvignon Blanc, Malbec, and Chardonnay grapevines. (Photo credit: Rhonda Smith)

### A Look Ahead: *What's Happening in the Network*

- **August 3-7, 2019** [American Phyto. Society Annual Meeting](#), Cleveland, OH
- **August 8-10, 2019** [Texas Nursery & Landscape Expo](#), San Antonio, TX
- **September 4-5, 2019** NCPN-Fruit Trees Tier 2 Meeting, Davis, CA

### National Clean Plant Network

USDA-APHIS-Plant Protection  
and Quarantine  
Science and Technology

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