



Taking a Closer Look at NCPN Clean Plant Centers

While this quarterly newsletter generally provides updates from each of the seven crop groups in the Network, we occasionally diverge to theme-based issues, such as the [crop-specific newsletters](#) produced in 2019-2020. With this issue, we start to dig deeper into the individual Clean Plant Centers within the Network (see map later in this issue). The three Fruit Tree Centers are featured in this edition, and we hope you will come along with us to see how each Center is unique in providing for the needs of specialty crop growers across the United States.

Olives Joins NCPN Fruit Tree Center in Davis, California



Foundation Plant Services at UC Davis is the home of the new Olive Foundation Collection.

Foundation Plant Services (FPS) at University of California, Davis, is one of the founding Clean Plant Centers for NCPN. Identified as an NCPN Center in 2008, FPS has been an integral resource for several of the NCPN crops, with foundation collections for Grapes, Fruit Trees & Nuts, Roses, and Sweetpotatoes. They now host a crop new to NCPN, olives.

In 2022, olives were folded into the tree fruits and nuts crop group. NCPN funding is supporting the development of virus elimination procedures for olive at FPS in Davis, CA. FPS is also building a foundation olive collection to ensure that olive growers will have access to pathogen-tested planting material.

This work has built upon earlier funding that FPS received from the California Department of Food and Agriculture Fruit Tree, Nut Tree, and Grapevine Improvement Advisory Board to develop assays for olive pathogen detection. FPS holds a controlled import permit for olive introductions to the US, and in 2022 one olive selection completed quarantine and was released. There are five additional olive selections in the introduction pipeline, and parties interested in submitting a selection for introduction should contact fps@ucdavis.edu.

CPCNW Works Toward a Nationally Diversified Public Tree Fruit Foundation

Over the past two years, Clean Plant Center Northwest in Prosser, Washington, has worked to build a more diverse public tree fruit foundation to include more cider and heritage apple varieties important to smaller farm-to-table operations across the northern half of the United States. The diversification of public foundations is vital to the core mission and success of the National Clean Plant Network. For more information about the center's heritage lines and cider apples, visit <https://cpcnw.wsu.edu/pome-and-stone-fruit/>.

The Clemson Clean Plant Center Expands With Prunus Virus Elimination Program

The Clemson Clean Plant Center (CCPC) in Clemson South Carolina maintains a collection of highly valued peach trees for ensuring the survival of specific cultivars important to US agriculture. CCPC, formerly known as the Southeastern Budwood Program, became one of three NCPN Fruit Tree Centers in 2009.



CCPC is expanding their capabilities to include diagnostics, foundation, and now virus elimination therapy. Dr. Rabia El-Hawaz joined the CCPC team in fall of 2022 to lead efforts on virus elimination at the CCPC. As an expert in plant tissue culture with a focus on fruit tree propagation, Dr. El-Hawaz will be fine-tuning protocols and procedures for Prunus virus elimination, with an initial focus on peach cultivars with low chill hour requirements. Current efforts are focused on testing media formulations, establishing clonal rootstock lines, and initial rounds of heat therapy on peach accessions. This will add a new service for growers, breeders, and nurseries in the Southeast U.S. The CCPC maintains a Prunus Foundation primarily to provide cultivars with low chilling hour requirements suitable to the southern growing regions. The Center added 14 new peach accessions since 2021 to the indoor Foundation, which is housed at the Musser Fruit Research Center in South Carolina.

The indoor Foundation ensures that these important cultivars are publicly available and protected. In addition to the indoor Foundation, CCPC also maintains an expanding outdoor Foundation collection, which is tested annually for vector- and pollen-borne Prunus viruses and viroids. The addition of these new accessions bolsters the inventory of what CCPC can offer to stakeholders, and increases the capacity of NCPN-Fruit Tree as a whole.



2023 Spring NCPN-Fruit Trees Tier II Meeting in Clemson, South Carolina

The CCPC will host the 2023 spring NCPN Fruit Tree Tier II meeting. We are excited to be finally be meeting in person to host our colleagues and show our center, campus, and local peach growers. The meeting will be held March 21st – 22nd. Mid-March in South Carolina means the peach trees should be blooming! We are excited to have great discussion, collaboration, and share some of the southeastern fruit tree industry.

Part 2: Being Proactive to Mitigate Plant Disease

Below is Part 2 of the two-part series, shared by NCPN-Citrus, exploring ideas for preparing for hurricanes that may damage high-value crops. Part 1 was published in the November 2022 issue of [Network News](#).

One of the basic tenets of preventing disease due to pathogens is proactively planting material that has been virus-tested. And one of the strategies for minimizing the devastation of hurricanes and other natural disasters is to proactively prepare to protect people, infrastructure, and—yes—even landscape and agricultural crops.

According to University of Florida Institute of Food and Agricultural Sciences (UF/IFAS), in their article *Treatment After Hurricane*, "Tree defoliation also poses the risk of Asian citrus psyllids being attracted to any new flush that the trees will produce." More on that below.



When crops are damaged by natural disasters such as hurricanes, the new growth of surviving plants may provide an additional path to destruction from harmful pathogens.

Part 2 of 2: [Treatment after Hurricane](#)

Mongi Zekri, Robert E. Rouse, and Jonathan H. Crane

University of Florida Institute of Food and Agricultural Sciences (UF/IFAS faculty recommend actions citrus growers can take to prevent further damage to root systems and future fruit drop following Hurricane Ian.

Cultural recommendation:

DEAL WITH PHYTOPHTHORA

If standing water has occurred in groves with phytophthora problems, growers should evaluate for root damage and treat accordingly. Floodwaters resulting from heavy rains can severely impact roots already diminished because of HLB disease. Phytophthora is a pathogen that attacks citrus tree roots which are already weakened by HLB. Wet conditions, especially flooded groves, increase the possibility of phytophthora infection in groves with historical problems.

USE GIBBERELIC ACID

Hurricane Ian caused fruit to drop from trees but also weakened fruit left on trees. Tripti Vashisth, associate professor of horticulture, recommends applying gibberellic acid (GA) in the next few weeks and prior to Oct. 30 to support the tree's ability to hold its fruit.

"Extensive leaf loss is going to stress already stressed trees," Vashisth said. "It is quite likely that extensive leaf loss with good soil moisture will induce new growth. GA application at this time can help with rehabilitating the trees and improve the leaf growth."

Some growers are already using GA in a series of applications to improve fruit production and should continue to do so. Growers not using GA in this way are encouraged to make at least one application to encourage leaf growth lost to the hurricane, which will support future fruit production. [Read more on applying GA.](#)

WATCH FOR PSYLLID FLAREUPS

Tree defoliation also poses the risk of Asian citrus psyllids being attracted to any new flush that the trees will produce. It would be wise to watch for pest flareups associated with intense flushing later in October in those areas where groves were heavily defoliated by Ian.

Coordinators Corner

Welcome to the **Coordinators Corner**, a new feature of *Network News*, where we share news and updates on the “workings” of the Network—funding, research, emerging technology, lessons-learned, collaborations and meetings. You know, all those things that bind us as a network and help us continue the good work of protecting US specialty crops!

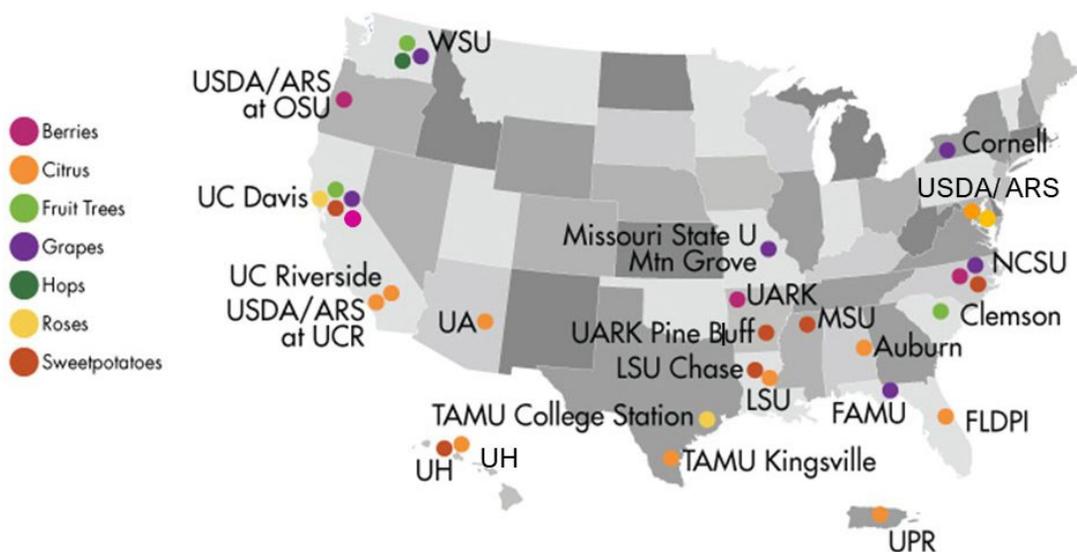
2023 National Clean Plant Network Spending Plan Announced

On January 18, the USDA Animal and Plant Health Inspection Service announced the release of the Plant Protection Act Section 7721 Program spending plans for the Plant Pest and Disease Management and Disaster Prevention Program and the National Clean Plant Network. In Fiscal Year 2023, APHIS is allocating \$7.75 million to support 28 NCPN projects. NCPN funding supports a network of clean plant centers for diagnostic and pathogen elimination services to produce clean propagative plant material and maintain blocks of pathogen-tested plant material in sites throughout the United States. Universities, States, Federal agencies, and non-profit organizations in 16 States and Puerto Rico will carry out the selected projects.

Since 2009, USDA has supported about 316 NCPN projects and provided close to \$80 million in funding for this PPA 7721 initiative. These projects focused on producing clean plants of specialty crops including fruit trees, grapes, hops, berries, citrus, sweet potato, and roses; and have advanced NCPN as a network through governance, planning, outreach, economics, and quality management.

For more information, see [USDA APHIS | Plant Protection Act Section 7721 Funding](https://www.aphis.usda.gov/plant-protection/section-7721).

National Clean Plant Network Centers



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