The National Clean Plant Network: Progress and Accomplishments

The National Clean Plant Network (NCPN) is an association of Clean Plant Centers, growers, nursery and industry representatives, scientists, educators, and state and federal regulators concerned with the healthy planting stock of specialty crops that have joined to produce, provide and promote the use of pathogen-tested, healthy plant material in the United States. The NCPN operates under the auspices of three agencies within the United States Department of Agriculture - Animal and Plant Health Inspection Service (APHIS), Agricultural Research Service (ARS) and National Institute of Food and Agriculture (NIFA).

Benefits of the Clean Plant Programs
Healthy planting stock is key to the cost-effective production of horticultural crops. The most efficient approach to producing healthy planting stock is through programs which screen valuable plant selections for viruses and other diseases that can be spread by contaminated plant stock. Quarantine services provided by clean plant stock programs reduce the chance of introduction of exotic pests that can be difficult and costly to control.

What is the NCPN?
NCPN has an active Outreach and Education Committee that conducts regional and national programs for nurseries, growers, regulators and others on NCPN goals and emerging issues of concern such as new pathogens and new detection techniques. Activities include: special sessions at professional meetings, talks and booths at trade conferences, on-site nursery visits, publications, and webinars.

Outreach
NCPN provides high quality axially propagated plant material free of targeted plant pathogens and pests that cause economic loss to propagated plant material free of targeted plant pathogens and pests that cause economic loss to protect the environment and ensure the global competitiveness of specialty crop producers.

Our Mission: The NCPN provides high quality axially propagated plant material free of targeted plant pathogens and pests that cause economic loss to protect the environment and ensure the global competitiveness of specialty crop producers.

Start clean, stay clean. nationalcleanplantnetwork.org

Background
It takes many years to establish the healthy live plant collections that are the core of clean stock programs. The goal of the National Clean Plant Network (NCPN) is sustained national funding for clean planting stock programs of key horticultural crops, such as berries, citrus, fruit trees, grapevines and hops.

We establish and maintain extensive Foundation blocks with regular disease monitoring.

We import and quarantine new varieties to reduce the risk of bringing in pests and diseases.

We develop state of the art techniques for detecting pathogens.

We rigorously test plants using standards that are stricter than state and federal requirements.

We eliminate viruses and other pathogens using microshoot tip therapy.

We provide clean, tested propagation material to nurseries and growers throughout the U.S. and world.

The impetus for the NCPN came from the grape and fruit tree industries, who in 2005 initiated a series of meetings to explore the formation of a national group devoted to focusing on horticultural crops that are tested, treated and maintained as a healthy source of plant materials for growers in the United States. In 2008, the grape and fruit tree networks were developed by stakeholders, industry members, scientists and other interested parties. In 2010, berries, citrus and hops were added.

The technology used to create healthy planting stock is becoming faster, more accurate, and more expensive. U.S. clean plant programs must use state-of-the-art technology to ensure that our producers stay competitive in the global market. Program continuity is critical because these collections must be continually protected from infection, monitored for disease, tested, and documented. It would take decades of work to recover from disruptions in funding for a single year because of the risk these collections.

Operations
Each specialty crop network has its own board with representatives from industry, state and federal regulatory agencies, and research and extension areas in different regions of the country.

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Specialty crops currently include:

Grapes
The National Clean Plant Network (NCPN) Grapes activities at the Clean Plant Center Northwest, Washington State University; USDA Horticultural Crops Research Unit, USDA/ARS, Corvallis, Oregon; Cornell, Missouri State University, and Florida A & M.

Berries
The National Clean Plant Network (NCPN) Berries include the genera: Rubus (raspberries), Rubus spectabilis (blackberries), and Vaccinium (blueberries). The headquarters for NCPN Berries is at the Berry Protection Sciences, Univ. Hawaii.

Fruit trees
The National Clean Plant Network (NCPN) Fruit Trees include Prunus (peach, plum, cherry, almond), Malus (apple) and Pyrus (pear). With input from tree nurseries and growers beginning in 2008, fruit trees was one of the first crops to establish and join the NCPN. The headquarters for NCPN Fruit Trees is at the Clean Plant Center Northwest, Washington State University; Prosser, Washington. There are NCPN Fruit Trees activities at the Southeast Budwood Program, Clemson University, SC, and Foundation Plant Services, UC Davis.

Citrus
The headquarters for NCPN Citrus is at the Citrus Clonal Protection Program, University of California, Riverside. There are NCPN Citrus activities at the Certified Budwood Program, Yuma, Arizona, Citrus Center, Texas A&M University-Kingsville, Citrus Germplasm Introduction Program and Citrus Nursery Stock Certification Program, Florida, Louisiana State Univ. Burden Research Station, Alabama Ag. Exp. Station, Auburn Univ., and Dept of Plant and Environmental Protection Sciences, Univ. Hawaii.

Hops
Currently there is one center in the network, the Clean Plant Center Northwest (CPCNW) at the Washington State University research and extension center in Prosser, Washington.

Weeded specih of the text:
- The NCPN provides high quality axially propagated plant material free of targeted plant pathogens and pests that cause economic loss to protect the environment and ensure the global competitiveness of specialty crop producers.
- Healthy planting stock is key to the cost-effective production of horticultural crops. The most efficient approach to producing healthy planting stock is through programs which screen valuable plant selections for viruses and other diseases that can be spread by contaminated plant stock. Quarantine services provided by clean plant stock programs reduce the chance of introduction of exotic pests that can be difficult and costly to control.
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