

# NPDN News

Volume 8 Issue 4, April 2013

## **CAPSICUM CHLOROSIS VIRUS, A NEW TOSPOVIRUS IN THE USA**

Michael Melzer, Department of Plant and Environmental Protection Sciences, University of Hawai'i at Manoa

In February 2013, a hoyo leaf with tospovirus-like symptoms was collected in a community garden in Honolulu, Hawaii. The leaf tested negative for *Tomato spotted wilt virus*, which is widespread in Hawaii, using serological assays. Molecular assays indicated the hoyo was infected with *Capsicum chlorosis virus* (CaCV) a tentative species in the family *Bunyaviridae*, genus *Tospovirus*. CaCV is transmitted by multiple species of thrips, including melon thrips (*Thrips palmi*), which are widespread in Hawaii. CaCV is closely related to *Watermelon silver mottle virus* in the tospovirus serogroup IV, but appears to have a distinct host range that includes hoyo and orchid. In Australia and South Asia, CaCV is an important pathogen of tomato and chili pepper and may pose a serious threat to these crops in Hawaii. The hoyo plant infected with CaCV has been removed from the community garden and high-throughput detection assays are being developed to determine how widespread this pathogen is in Hawaii. 🌿

CaCV is transmitted by multiple species of thrips, including melon thrips, which are widespread in Hawaii.



Hoyo leaf displaying symptoms of CaCV.

© Dr. Scot Nelson, University of Hawai'i at Manoa.

Laura Wilkens is a member of the Sentinel Plant Network's Plant Heroes team fighting to keep laurel wilt from spreading to new areas.



## Issue Highlights

- Invasives species awareness month
- Regulations on the importation of plants for planting
- Our most valuable resource
- SPN workshop in Birmingham
- In *Regional News*: EAB found in NH

## April Dedicated to Increasing Awareness on How to Stop Invasive Pests from Spreading *APHIS Newsroom*

All month APHIS highlighted how invasive species can enter the United States and spread, and how the general public can take simple, specific actions to leave these hungry pests behind. Invasive pests and diseases are non-native species that cause—or are likely to

cause—harm to the economy, the environment or human health.

“At its core, APHIS’ mission is protecting animal and plant health in the United States,” said Acting APHIS Administrator Kevin Shea. “This includes programs to address the invasive pests and diseases that have cost the United States billions of dollars in lost agricultural jobs, closed export markets and damaged ecosystems. It’s a huge job, and APHIS needs the help of the public to be successful.”

Devastating invasive pests and diseases— insects, disease-causing microorganisms, snails, slugs, mites, microscopic worms, weed seeds and fungal spores— often hitch rides on things people move and pack. These common pathways include passenger baggage; plants and plant parts like fruit, vegetables and bud wood; Internet-purchased plants and plant products; firewood; and outdoor gear, among many others. Fortunately, once people are aware of these risks, they can easily prevent the spread of hungry pests.

Visit the Hungry Pests website, which is available in English and Spanish, at [www.HungryPests.com](http://www.HungryPests.com) to view an interactive map and learn about invasive pests and diseases that are affecting or could affect individual states, and how to report them. The website’s “What You Can Do” section offers the public “Eight Ways to Leave Hungry Pests Behind.” Also, by using Facebook and Twitter links, visitors can engage on the invasive pest issue on social media. 🌿

**See How They Spread**  
Explore the top eight ways that Hungry Pests get around. Learn what you can do to help stop them.

**REPORT A PEST**  
SELECT A STATE

Internet Sales  
Firewood  
Outdoor Gear  
RVs  
Plants & Plant Parts  
Passenger Baggage  
Agricultural materials  
Outdoor Furniture

**TOP 8 WAYS I SPREAD**  
CLICK AN OBJECT TO LEARN HOW IT HELPS SPREAD INVASIVE PESTS

**LEAVE HUNGRY PESTS BEHIND.**  
Invasive species threaten our trees and crops. There are simple things that we all can do to help prevent the spread. It's up to each of us to be sure we're not packing a pest. With your help we can protect so much that we value.

## USDA Modifies Regulations on the Importation of Plants for Planting; Two Final Rules and Two Proposals for Comment *APHIS Newsroom*

On April 22, 2013, APHIS announced that they are advising the public of two final rules and two proposals (one notice and one proposed rule) for comment. The changes will streamline and strengthen the regulations for the importation of plants and plant material. These initiatives have been in progress for several years. Strengthening the plants for planting import regulations was recommended by the National Plant Board and other stakeholders in recent years. With these actions, APHIS will continue to modernize the plants for planting import regulations, increase transparency, and better control high-risk pest pathways.

- Notice of Addition of Taxa of Plants for Planting to the List of Taxa whose Importation is Not Authorized Pending a Pest Risk Analysis
- Restructuring of Regulations on the Importation of Plants for Planting
- Controlled Import Permits
- Notice of Availability of Data Sheets for Taxa of Plants for Planting that are Quarantine Pests or Hosts of Quarantine Pests to be added to NAPPRA

APHIS encourages comments on the above when they are published in the Federal Register. Comments will be posted on the [Regulations.gov](http://Regulations.gov) website. Visit the APHIS Newsroom to read the full press release. 🌿



## Our Most Valuable Resource

*Jim Stack, GPDN Director, Department of Plant Pathology, Kansas State University*

It is commonly said but not often truly appreciated, that people are the most valuable assets of any organization. People are certainly the most valuable asset for NPDN as demonstrated at Kansas State University March 19-21, 2013. The K-State Plant Diagnostic Laboratory was host to the STAR-D Audit Team for an audit exercise. I had the good fortune to participate in the opening and closing sessions where the purpose, procedures, and conclusions of the audit were discussed. I left very impressed with the NPDN and USDA people tasked with the development and implementation of STAR-D and I am confident that a functional and useful lab accreditation system will become reality. Despite the numerous setbacks at the outset and the uncertainties associated with funding, the STAR-D Accreditation Team deserves our congratulations for continued

dedication to the betterment of NPDN. Special recognition for Karen Snover-Clift, Dawn Dailey O'Brien, and Anne Vitarelli is warranted; job well done and thank you! Without the expertise and support of APHIS PPQ's Pat Shiel and Kathy Burch, we would still be struggling to develop a system that is appropriate for plant diagnostic labs – thank you Pat and Kathy! In addition, I extend special thanks to K-State's Judy O'Mara and Fanny Iriarte for responding brilliantly to the challenge of bringing a plant diagnostic lab into conformance with the STAR-D requirements. The fact that NPDN can count on individuals to provide leadership when needed and results when required is a testament to the value of our members and partners. Consequently, NPDN's future remains bright. The STAR-D experience at K-State left me proud to be affiliated with NPDN and excited about our future. Again, congratulations and thank you to the Star-D Team and participants in the K-State exercise. 🍀

*This is a story that you may find interesting...and one of the saplings is being planted in my town! —RM*

## The Story of the Anne Frank Saplings

A white horsechestnut standing in a courtyard garden in Amsterdam, the one that Anne Frank referred to often in her diary during the Second World War had come to be known as the Anne Frank tree. Over 170 years old, it was one of the oldest horsechestnuts in Amsterdam.

When in 2005 it was found that the tree was suffering from *Pseudomonas syringae* pv *aesculi*, bleeding canker of horsechestnut, custodians of the Anne Frank House decided to gather chestnuts, germinate them and donate the saplings to schools, parks and other institutions. After identifying 11 U.S. sites to receive one of these saplings, the Anne Frank Center USA—a U.S. partner organization to the Anne Frank House—called USDA-APHIS' Plant Protection and Quarantine in the fall of 2009 to inquire about importation regulations. From that inquiry, what should have been a routine matter was immediately complicated by the Europe-wide plague of bleeding canker disease. Negotiations between personnel at the USDA-APHIS Post Entry Quarantine division and European plant pathologists yielded a plan for putting the saplings in an extended 3-year quarantine at several quarantine facilities here in the U.S. —*excerpt from Intro to the Sentinel Plant Network module*

The saplings were cleared for planting in January 2013. They have been delivered to their new homes across the nation and plantings have already begun! For the most updated information on planting ceremonies, public events and online speaker forums please visit the [Sapling Project website](#).

" Our chestnut tree is in full bloom. It is covered with leaves and is even more beautiful than last year. "

Anne Frank, May 13, 1944

# TRAINING AND EDUCATION

## Southeast Sentinel Plant Network Workshop in Birmingham Alabama

SPN Managers: Rachel McCarthy, NEPDN, and Dan Stern, American Public Gardens Association (APGA)

Birmingham Botanical Gardens (BBG) was the beautiful site for our Sentinel Plant Network workshop April 25–26. A partnership between the City of Birmingham and Friends of Birmingham Botanical Gardens, BBG is 67 acres of natural gardens and collections and Alabama's largest living museum. Fred Spicer, Executive Director, welcomed the group to kick off the workshop and shared some interesting facts about BBG; the gardens are free admission, open 365 days a year and offer educational programming year round. One of the things they are most proud of is that they offer science curriculum based programming and field trips to over 10,000 children each year. What a perfect setting for a First Detector workshop on invasives, early detection and the SPN youth program—Plant Heroes.

APGA launched the Plant Heroes during Phase I of the Sentinel Plant Network project to educate young audiences about high-consequence plant pests and diseases and engage them as the next generation of

First Detectors. The program is picking up incredible momentum during Phase II particularly because many of the participants in this round of workshops are education and volunteer coordinators in charge of public programming for their gardens. It has been great fun to see the enthusiasm from this group when it comes time to build Plant Heroes lesson plans. One example was when Cora Keber

from the State Botanical Garden of Georgia got the group fired up playing a rock, paper, scissors game about forest succession and epidemiology. During this activity our participants started out as sapling

and became seedlings then trees (Plant Heroes age groups). As the game progressed more trees became redbay ambrosia beetles. Learn more about the Plant Heroes at [www.plantheroes.org](http://www.plantheroes.org) or by contacting APGA's Sentinel Plant Network Manager, Dan Stern, at [dstern@publicgardens.org](mailto:dstern@publicgardens.org).

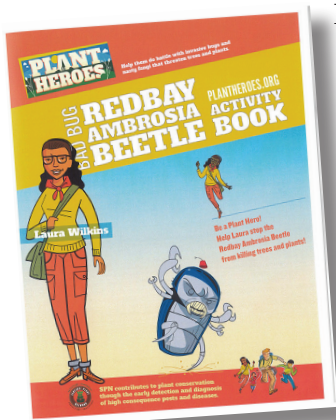
John Manion, Kaul Wildflower Garden Curator, led a tour through the garden to highlight how our new SPN signs featuring laurel wilt and the redbay ambrosia beetle had been incorporated into their garden



Jim Jacobi, Lisa Lockhart and Kassie Conner look on with interest on the interpretive signage tour with John Manion (left). One of the new outreach signs on laurel wilt in the wildflower garden (right).

© Rachel McCarthy, Cornell Univ.

collections. A suite of interpretive signs are donated to the host garden as examples of the templates available to member gardens to personalize with their logo and display in their collections or natural areas. Each sign displays a threat-specific QR code, in this case laurel wilt, that links to particular landing page on SPN's new mobile website ([www.sentinelplantnetwork.org](http://www.sentinelplantnetwork.org)).



Jim Jacobi on the pest/pathogen walk shows participants foliar nematode damage.

© Dan Stern, APGA

As always, the pest/pathogen walk was a big hit for all the participants. This activity was led by Dr. Jim Jacobi, plant pathologist and manager of the Plant

SPN article continues on page 6



### Diagnostics Committee

*Sara May, Committee Chair, Department of Plant Pathology and Environmental Biology, Penn State*

The Diagnostics Committee conducted a conference call on April 11, 2013, and the following agenda items were discussed:

- Frequency of committee calls
  - A conferencing system through Penn State
  - Adobe Connect conference calls
  - Free conferencing service and each person pays the long distance fee for their call
  - TN uses Microsoft Communicator
- Committee Membership
- Training Updates
- Diagnostician's Cookbook
- SOPs

The next Diagnostics conference call is scheduled for June 13, 2013. ☺

### National Database Committee

*Linnea Skoglund, Committee Chair, Department of Plant Sciences and Plant Pathology, Montana State University*

The National Database Committee met via Adobe Connect on April 17, 2013, and the following agenda items were discussed:

- Final changes were suggested for the pest lists: *Sclerotium*, *Sclerotinia*, and *Candidatus*. Our next project is to finalize changes for the various insect lists.
- The revision of Upload Guidelines will be continued by Mike Hill.
- The "One Name for Fungi" project received funding through the Farm Bill that will cover the hiring of a post-doc.

- We tabled for future discussion the addition of several host common names within existing host codes. Also to be considered are adding "sequencing" to the lab methods and formulating definitions for all lab methods.

The next Database conference call will be held May 15, 2013. ☺

**Visit the NPDN homepage  
at [www.npdn.org](http://www.npdn.org) for  
more information on  
specific Program Area  
Committees.  
Login and password  
required**

### Exercise Committee

*Sharon Dobesh, Program Area Manager and Committee Chair, Department of Plant Pathology, Kansas State University*

The Exercise Committee conducted a conference call on March 12, 2013, and the following agenda items were discussed:

- APHIS-PPQ update - Minnesota is still a possibility for a PDIS exercise if they complete their internal state communications SOP. No date is set. USDA-APHIS-PPQ has been concentrating on Table Top Exercises (TTX). The New Jersey TTX was completed February 20. The table top exercise was held at Robbinsville, NJ exercising summer fruit tortrix moth.
- NPDN regional updates
- National Plant Board rep status
- SPN update

The next Exercise call is scheduled for Tuesday, May 14, 2013. ☺

### Training and Education

*Rachel McCarthy, Committee Chair, Department of Plant Pathology and Plant-Microbe Biology, Cornell University*

The Training and Education Committee conducted a conference call on March 18, 2013, and the following agenda items were discussed:

- Committee membership
- Conference call with state FD educators set for April 9
- Module review update
- Newsletter T&E contributions (*NPDN News* and FD newsletter)
- Social media – Facebook, Twitter, YouTube

The next Training and Education call will be held May 13, 2013. ☺

SPN article continued from page 4

Diagnostic Laboratory at the C. Beaty Horticulture and Environmental Center at the Birmingham Botanical Gardens, with help from Drs. Charles Ray, Extension



© Dan Stern, APGA

Workshop participants working on Plant Heroes lesson plans.

entomologist and Kassie Conner, Extension plant pathologist with Auburn University's Department of Entomology and Plant Pathology.

This southeastern workshop had 30 participants from 14 APGA gardens, the Alabama Cooperative Extension System, Auburn University's Plant Diagnostic Lab and APHIS-PPQ. SPN takes a workshop break during May for the APGA annual conference in Phoenix, AZ but workshops will resume again in June for gardens in the northeast. For more information on the Sentinel Plant Network or if you are interested in attending one of the remaining workshops, contact Rachel McCarthy at [rachel.mccarthy@cornell.edu](mailto:rachel.mccarthy@cornell.edu). For more information about the Plant Heroes program, contact Dan Stern at [dstern@publicgardens.org](mailto:dstern@publicgardens.org).

### Upcoming SPN workshops

Northeast Region: June 24–25  
 Frelinghuysen Arboretum in Morristown, NJ

Central Region: July 9–10  
 Lauritzen Gardens in Omaha, NE

Northwest Region: July 24–25  
 Bloedel Reserve in Bainbridge, WA

## REGIONAL NEWS



### **Emerald Ash Borer Found for the First Time in NH**

*Eagle Tribune*

Earlier this month New Hampshire officials announced an emergency quarantine for Merrimack County, hoping to slow the spread of the emerald ash borer.



© Debbie Miller, USDA Forest Service, Bugwood.org

Emerald ash borer adult feeding on an ash leaf.

Nathan Siegert of the U.S. Department of Agriculture Forest Service said that if left unchecked, the emerald ash borers could devastate New Hampshire's 25 million forest ash trees within five to 10 years.

Ash products and material can move freely within Merrimack County but cannot leave the county unless sufficiently treated and inspected by forestry officials. Regulated material from outside Merrimack County may be transported through the county as long as it's safeguarded and accompanied with documentation listing point-of-origin and destination.

Ash makes up about 6 percent of New Hampshire's hardwood forests. The trees also are ecologically important to forest health.

[Click here](#) to read the full article from the Eagle Tribune.

## UPCOMING EVENTS

### National Events

August 4–8, 2013  
National Plant Board 2013 Annual Meeting  
Louisville, KY

August 10–14, 2013  
2013 APS-MSA Joint Meeting  
Austin, TX

November 10–13, 2013  
Entomology 2013  
Austin, TX

### Regional Events

June 24–27, 2013  
4<sup>th</sup> Int'l. Symposium on Tomato Diseases  
& 28<sup>th</sup> US Annual Tomato Disease Workshop  
Orlando, FL

## PHOTO OF THE MONTH

Spotting of  
cyclamen flowers  
caused by *Botrytis*  
infections



Tom Creswell, Purdue  
University, [Bugwood.org](http://Bugwood.org)

[www.bugwood.org](http://www.bugwood.org)

## CONTRIBUTE

### Share Tips and News with Your Colleagues

Recently write an article for a trade journal? Do you have a tip, announcement, regional news or network update you would like to include in the *NPDN News*? Email Rachel McCarthy at [rachel.mccarthy@cornell.edu](mailto:rachel.mccarthy@cornell.edu)



Have a tip you would like to share with your fellow diagnosticians? Or a technique you would like to learn more about?

Email Gail Ruhl at [ruhlg@purdue.edu](mailto:ruhlg@purdue.edu)

Rachel McCarthy, Editor  
NEPDN, Training and Education Coordinator  
Cornell University



National Institute  
of Food and  
Agriculture