

NPDN News

Volume 2 Issue 2, February 2007

National Updates

2007 NPDN National Meeting Highlights

The first NPDN national meeting was held on January 28-31, 2007 in Orlando, Florida. Two hundred and seventy-five participants attended the meeting. The meeting offered an opportunity to highlight the accomplishments of the network and layout goals for the future. The first two days of the meeting provided attendees with a large array of information about the network.



Attendees of the 2007 NPDN National meeting during the general session. (Photo Mary McKellar, Cornell University)

On the afternoon of the second day of the meeting, each NPDN committee held a breakout session presenting information about their efforts.

Thank you to the three keynote speakers, Charles Bronson, Florida Commissioner of Agriculture, Mike Seyfert, Legislative Director for Senator Pat Roberts and Dr. Gale Buchanan, USDA, Undersecretary for Research, Extension and Economics for participating in this meeting. It was a privilege for all participants to hear the first announcement of Dr. Gale Buchanan's 2007 Farm Bill.

The meeting wrapped up on the final day with individual meetings for each of the five regions of the NPDN. Poster sessions were held throughout the meeting with a total of 56 posters presented consisting of various topics including regional activities, committee activities and specific pests and pathogens.

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Issue Highlights:

- ♦2007 National Meeting Highlights
- ◆ From the Editor: Correction/ Addition
- ◆ Diagnostic Committee Update
- ♦ NEW Monthly Article! Diagnostic Tip of the Month: Clear Tape Techniques for the Plant Disease Diagnostician
- ◆ National Database Committee Updates and Web Site Updates
- ◆Updates on significant pests and pathogens for the NEPDN and NCPDN including Sirex Woodwasp, *P. ramorum* and Emerald Ash Borer



National Updates

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The NRI Crop Biosecurity Curriculum project also had a booth

to showcase the newly developed online first detector training modules. A demonstration of the legume virus testing technique for this season's newest component of the PIPE project was also presented.

Meeting proceedings will be posted on the <u>Plant Management Network's web</u> site.

From the Editor: Correction/ Addition to August 2006 NPDN News

Mary McKellar NPDN News Editor Cornell University

In the August 2006 issue of the NPDN News the following NPDN presentations presented at the 2006 APS meeting were not mentioned in the article "NPDN Activities at the 2006 APS Annual Meeting":

- -DDIS: A Web-Based Distance Diagnostic System for Plant Diseases and Pests
- -Development of the International Plant Diagnostic Network (IPDN): A Multinational Collaboration
- -Development of the Caribbean Invasive Species Surveillance and Information Program (CISSIP)

I apologize for the exclusion.

2007 NPDN National Meeting







From top to bottom: Jim Stack, NPDN Deputy Executive Director, Kansas State University and Dr. Gale Buchanan, USDA, Undersecretary for Research, Extension and Economics. George Hudler, NEPDN Director and Rick Bostock, WPDN Director provide entertainment after the banquet dinner. Town hall meeting question and answer session. (Photos Mary McKellar, Cornell University)

Diagnostic Tip of the Month: Clear Tape Techniques for Plant Disease Diagnostics

Gail Ruhl

Plant and Pest Diagnostic Laboratory Department of Botany and Plant Pathology Purdue University



Clear tape can be used to capture fungal structures or arthropods from plant material.



Clear tape with sample acts as a coverslip when gently pressed on top of a drop of water that has been placed on a glass slide. Diagnostic Tip of the Month

Upon initial examination of a plant sample (prior to any washing), transparent tape can be used to 'capture' fungal spores, mycelium or arthropods that might be present on the surface of plant stems, roots, leaves, flowers or rotting fruit.

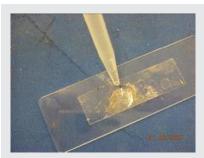
The clear tape acts as the coverslip, when gently pressed on top of a drop of water that has been placed on a glass slide.





Microbes captured on tape.

"Tape mounts" with 'captured' microbes, when viewed with the magnification made possible by a compound microscope (100x-400x), will often reveal tell-tale signature signs that assist in an initial diagnostic assessment.





The microbe 'free' side of the tape is pressed onto a slide and a drop of water and coverslip are placed on top of the exposed capture surface.

Photos Gail Ruhl, Purdue University

A lesser-known technique involves the use of double-sided transparent tape.

Double sided clear tape provides an even better microscopic mount (fewer air bubbles). The microbe 'free' side of the tape is pressed onto a slide and a drop of water and coverslip are placed on top of the exposed capture surface. The mount is easily viewed and does not dry out as quickly as the standard single-sided tape mount.

The tape technique also works well to capture fungal mycelium and spores from the surface of culture plates, such as when attempting to confirm the isolation of oak wilt via the presence of Chalara type spores.

Share this tape technique with your local high school biology teachers and make their CSI labs a whole lot easier!!



Clear tape technique works well for cultures too.

Diagnostic Updates

Diagnostics Subcommittee Update

Karen L. Snover-Clift Committee Chair Cornell University Department of Plant Pathology

The Diagnostics Subcommittee held a conference call on February 22, 2007.

During this meeting a number of issues were addressed. Please refer to the diagnostics committee page of the NPDN web site for complete minutes of this meeting. (login required)

Topics of discussion included:

- SOP formatting to PHP standards.
- Gail Ruhl's "Diagnostic Tips" to be new feature in NPDN Newsletter.
- Denis McGee interaction with this subcommittee concerning lab accreditation.
- National meeting Proceedings will be available at PMN web site.
- Review Report.

The next meeting will be held on March 8, 2007.



National Database

National Database Subcommittee Update

Karen L. Snover-Clift Committee Chairperson Cornell University Department of Plant Pathology

The National Database Subcommittee met on February 14, 2007 to continue our work on reviewing the massive EPA Pest and Host lists and creating guidelines for uploading documents that will clarify how sample diagnoses should be transmitted to the National Repository at Purdue University.

During this meeting a number of issues were addressed. Please refer to the national database committee page of the MPDN web site for complete minutes of this meeting. (login required)

Topics of discussion included:

- Appointment of our new secretary, Nancy Gregory of the University of Delaware.
- The 2007 NPDN National Meeting.
 - Sending our suggestions for the remainder of the Host List directly to Virginia Russell for review and implementation.

The next meeting will be held on March 14, 2007.

National Database

NPDN National Database Web Site

Mike Hill CERIS Programmer Analyst Purdue University

User Accounts

It was great to meet many of you at the National Meeting in Orlando, FL. If you need access to the NPDN National Database please provide the following information.

Send an e-mail to npdn@ceris.purdue.
edu with your name, telephone number, organization, and diagnostic lab contact. Someone from CERIS will follow up with your account information.

Coming Soon

Maps that can be overlaid with degree day layers will be coming in the near future. Stay tuned to the NPDN newsletter for upcoming announcements about additional features as they become available.

Contact Us

We encourage all of our users to let us know how we are doing. A feedback form is available at http://npdn.ceris.purdue.edu/ under the Help & Support link

For additional information or assistance please contact Mike Hill at (765)494-9854 or by e-mail at mikehill@purdue. edu.

Dynamic Lab Sample Data Maps from the National Database Web Site

Users can now generate maps based on their lab's data by visiting the National Database web site and clicking on Maps under the home page and selecting Lab Sample Data Maps. Searches can be done based on sample dates, pest/pathogen, and location.

Follow these instructions for generating maps. The example shown below is for Australasian Soybean Rust in Indiana for sample year 2006.

- 1. Enter search criteria (Fig. 1).
- a. Pest or Pathogen
- i.e. Soybean Rust
- b. Sample Dates
- i.e. 1/1/06-12/31/06
- c. Location i.e. Indiana
- d. Click "Search

Database" button.



Figure 1. Search Criteria for Map



2. Select pests to include in search (Fig 2).

- a. Check box for Australasian Soybean Rust
- b. Click "Submit Choice" button.

Figure 2. Select which pests or pathogens.

- 3. Map pops up in new window (Fig. 3).
- a. Hover on code for county name.
- b. Click on code for county report.
- c. State report link at top of page.
- d. Right-click on map for help.
- e. Zoom In/Out
- f. Pan Left, Right, Top,

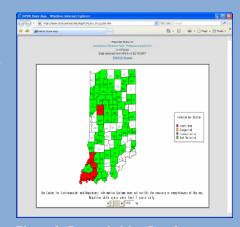


Figure 3: Dynamic Map Results

Regional Updates



New York State Declares Nassau County Free of Sudden Oak Death

The Tiffany Creek Preserve in Oyster Bay in Nassau County has been declared

free of Sudden
Oak Death by the
New York State
Department of
Agriculture and
Markets. In June
2004, a sample
from a red oak
from the Tiffany
Creek Preserve
tested positive
for *Phytophthora*ramorum. Surveys
conducted from
2004 to 2006 in

accordance to the protocol prescribed by USDA APHIS have not revealed any more samples positive for *P. ramorum*. As a result of these findings, state and federal quarantines have been removed from the Tiffany Creek Preserve.

More information about this announcement can be found on the web at:

New York State Department of
Agriculture and Markets Press Release:
State Declares Nassau County Free of
Sudden Oak Death

Sirex noctilio (Sirex woodwasp) Detected in Five More NY Counties

From late August through October 2006, Cornell University identified Sirex woodwasp, *Sirex noctilio*, from five more counties in New York State. This brings the total of infested counties in New York State to 25.



Adult Sirex woodwasp, *Sirex noctilio*. (Photo New Zealand Forest Service)

The Sirex woodwasp is a highly significant, regulated pest that has the potential to cause widespread mortality to pine trees.

In response to this infestation, a pilot biological control program for *Sirex noctilio* developed by the APHIS-

PPQ Center for Plant Health Science and Technology was implemented in November 2006. A controlled release of the Sirex woodwasp biological control nematode (*Beddingia siricidicola*) took place in the central area of the infestation in New York State.

For more information about the recent detections of *Sirex noctilio* in New York State, please visit on the web:

NAPPO Phytosanitary Alert System:

Detection of *Sirex noctilio* Fabricus

(Sirex woodwasp) in five additional New

York Counties – United States

Hairy Nightshade Found to be Alternative Host for Phytophthora infestans

In 2004, extension agents in northern Maine observed hairy nightshade (*Solanum sarrachoides*) plants speckled with dark oily spots on the foliage.

Further investigation of these symptoms by the USDA's Agricultural Research Service in Orono, Maine revealed that the plants were in fact an alternate host for *P. infestans*.

A limited survey of commercial potato fields in Maine revealed that 55 percent of them contained hairy nightshade.

The implications of these discoveries for growers will most likely result in the incorporation of hairy nightshade control into their late blight management program.

For more information on these findings, please visit on the web:

<u>USDA-ARS</u>
<u>News and Events:</u>
<u>Weed Implicated</u>
<u>in Potato Blight</u>
Persistence



Emerald Ash Borer Quarantine Area Expanded to Include Illinois, Indiana and Ohio

Regional

The quarantine area for emerald ash borer, *Agrilus planipenis*, has been expanded by the USDA-APHIS to include the entire states of Ohio, Illinois and Indiana. This expansion nearly doubles the quarantine area which included parts of Michigan. The new quarantine became effective December 1, 2006.

For more information about this expanded quarantine, please visit on the web:

NAPPO Phytosanitary Alert System:

Quarantine
Expanded for
Emerald Ash
Borer to Include
Illinois, Indiana
and Ohio



Emerald ash borer, (*Agrilus plannipennis*) on penny to give size reference. (Photo Howard Russell, Michigan State University, <u>www.forestryimages.org</u>)

Upcoming Events

National Events

July 28-August 1, 2007, APS-SON Joint Meeting, San Diego, CA

August 19-23, 2007, National Plant Board Meeting, Honolulu, HI

December 9-12, 2007, ESA Annual Meeting, San Diego, CA

March 24-26, 2009, Sixth International IPM Symposium, Portland, OR

Regional Events

May 7-9, 2007, SPDN Invasive Arthropod Workshop, Clemson, SC





Mary McKellar, Editor NEPDN Cornell University