

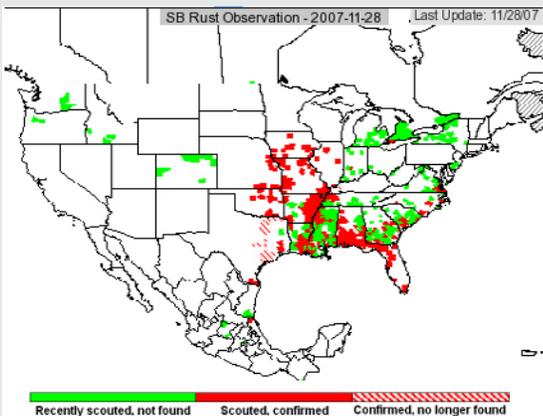
National Updates

Soybean Rust Continues to be Detected in U.S., New finds in Mexico and Canada

For more information about the most recent detections of soybean rust, please visit on the web:

[USDA Pest Information Platform for Extension and Education](#)

Soybean leaf samples found in Ontario the last week of October tested positive for soybean rust. This is the first detection of the disease in Canada.



Current status of soybean rust (*P. pachyrhizi*) in the U.S., Mexico and Canada in November 2007, www.sbrusa.net.

Scouting in the northern U.S. states is almost complete due to frost and lack of green tissue. Efforts were made to scout remaining green tissue in Northern U.S. soybean producing states after the initial

announcement of the Ontario find. However, no soybean rust was found.

Soybean rust continues to be detected in several states in the south most recently in North Carolina and Florida on soybean and kudzu respectively. Additionally, soybean rust was detected on soybean in the Mexican state of Veracruz-Llave on November 22, 2007.

Issue Highlights:

- ◆ Soybean Rust Continues to be Detected in U.S., New finds in Mexico and Canada
- ◆ Diagnostics Subcommittee Update
- ◆ Diagnostic Tip of the Month: Diagnostic Lab Floor Plan and Lab Organization
- ◆ NCPDN and GPDN Co-host Mycotoxin Workshop for the National Plant Diagnostic Network
- ◆ Key to Species of Hylesine Bark Beetles of the Southeastern United States Now Available
- ◆ National Database Subcommittee Update
- ◆ Regional Updates: NEPDN Holds DNA Extraction Training for Diagnosticians, Emerald Ash Borer Intercepted in West Virginia, New Detections of Sirex Woodwasp in Pennsylvania and New York, *Ceratitis capitata*, Mediterranean Fruit Fly – Quarantined Area in Los Angeles County, California



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 August 9, 2007. During this meeting a number of issues were addressed. Please refer to the diagnostics subcommittee web page of the [NPDN web site](#) for complete minutes of this meeting (login and password required).

Topics of discussion included:

- Beltsville-NPDN diagnostician training planning.
- Comprehensive Phytopathogen Genomics Resource (CPGR) Workshop in Fort Collins, CO, February 6, 2008 by Ned Tisserat.
- Lucid Bark Beetle Key.
- 4th IT-Diagnosticians Meeting Plans.

The next meeting will be held December 13, 2007.

NCPDN and GPDN Co-host Mycotoxin Workshop for the National Plant Diagnostic Network

Nina Zidack
Montana State University
Gail Ruhl
Purdue University

On November 6th and 8th, Gail Ruhl of Purdue University (NCPDN) and Nina Zidack of Montana State University (GPDN) co-hosted a “Mycotoxin Workshop for Diagnosticians” that was delivered via web conferencing using Adobe Connect. Presenters were Dr. Barry Jacobsen at MSU and Dr. Charles Woloshuk at Purdue. Adobe Connect was provided by Kansas State and Will Lanier at MSU coordinated IT support. Topics covered included important genera of mycotoxigenic fungi, mycotoxins and mycotoxicoses, traditional and molecular diagnostic techniques for the identification of mycotoxigenic fungi, and analytical methods for detection and identification of mycotoxins.

Advertisement for the workshop was via the Agdia diagnostics list serve, state departments of agriculture, land grant university e-mail lists and the NPDN newsletter. Participants included diagnosticians at land grant university and state department diagnostic labs, commercial diagnostic labs, as well as researchers, graduate students and technicians. Web conferencing proved to be a valuable tool to deliver this presentation to participants at 36 locations in 15 states throughout the United States, and at one location in Canada.

Continued on page 3...



The advertisement features logos for NPDN (National Plant Diagnostic Network) and GPDN (Great Plains Diagnostic Network) at the top. The main title is "Mycotoxin Workshop for Diagnosticians I". Below the title, it lists the speakers: Barry J. Jacobsen, Montana State University and Charles P. Woloshuk, Purdue University, and the dates: November 6 & 8, 2007. At the bottom, there is a logo for NCPDN (National Center for Plant Diagnostic Network) with the tagline "Protecting Midwestern Agriculture".

Continued from page 2...

A survey conducted at the end of the presentation showed that 76% of participants agreed and 24% strongly agreed that the workshop would enhance their ability to process specimens suspected of mycotoxigenic fungal contamination. 54% of participants agreed and 38% strongly agreed that web conferencing was an appropriate presentation medium for this type of workshop and 64% agreed and 20% strongly agreed that they would recommend that colleagues view the web recording. 62% of participants agreed and 31% strongly agreed that they would attend additional diagnostic workshops presented using web-conferencing.

Diagnostic Tip of the Month: Diagnostic Lab Floor Plan and Lab Organization

Jackie Mullen
Charles Ray
Debra Carey
Kristie Siggers
Auburn University,
Alabama

Four years ago, we moved into a new building designed to house Plant Diagnostic Services and the Soil Testing Lab. If you should have the good fortune to be planning a move in the near future, some of our room arrangements and attempts at lab organization may be helpful as you consider your future lab arrangement.

Our diagnostic section of

the building includes the Plant Diagnostic Lab, the Soil Nematode Analysis Lab, and the Entomology Lab, along with offices, storage room, and break area (Figure 1). Comments below pertain mostly to the Plant Diagnostic Lab portion of our Diagnostic Services.

The Plant Diagnostic Lab consists of two large rooms: the Plant Examination Room and the Diagnostic Procedures Room. Smaller rooms open off both of the larger lab rooms.

In the Plant Exam Room, samples are examined on one central bench and microscopy is done on the second central bench. This is a general work area that is shared with entomology studies and special projects such as soybean rust.

Continued on page 4...

Diagnostic Tip of the Month

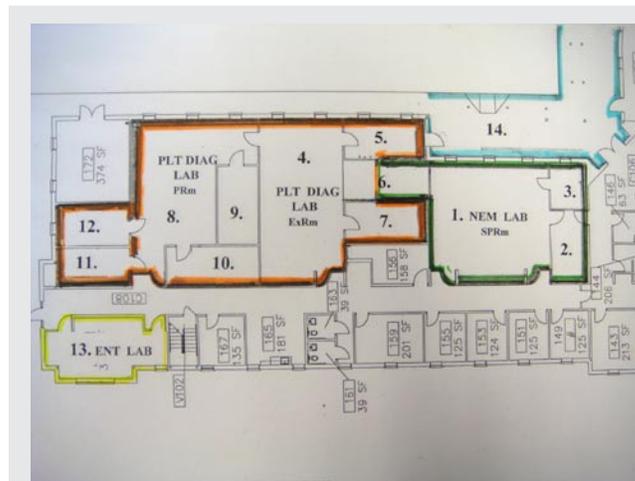


Figure 1. Architect Drawing of the Plant Diagnostic Lab Unit, Soil Nematode Analysis Lab, and Entomology Lab.

Key for Diagram

- | | |
|------------------------------------|---|
| 1. Soil Nematode Analysis Lab | 8. Plant Diagnostic Lab, Procedure Room |
| 2. Nematode Receiving Room | 9. DNA/RT-PCR Room |
| 3. Nematode Microscopy Room | 10. Media Prep/Autoclave Room |
| 4. Plant Diagnostic Lab, Exam Room | 11. Culture Isolation Room |
| 5. Plant Diagnostic Receiving Room | 12. Incubator/Refrigerator Room |
| 6. Cold Storage Room | 13. Entomology Lab |
| 7. Photographic Room | 14. Loading Dock |

Diagnostic Tip of the Month

Continued from page 3...

Rooms that open off the Plant Exam Room are: the Plant Receiving Room, the Cold Storage Room, and

the Photographic Room.

At lunch time, the exterior door to the Receiving Room (which opens onto the Loading Dock) is left open for client sample drop off. The door connecting the Receiving Room with the rest of the lab is locked at lunch.

The Cold Room is located between the Plant Exam Room and the Soil Nematode Lab so plant and soil samples can be easily moved into cold storage (Figure 1, #6).



Figure 3. One side of the RT-PCR Room showing Cepheid RT-PCR System and Captair Bio by Erlab hood for DNA work.

In the Diagnostic Lab Procedure Room, we have our ELISA work area, our bacterial identification GC area, and our DNA extraction hood and work area. This room contains two central benches.

One is used partially for ELISA work. The other bench is a chemistry type bench where some of the bacterial GC work and DNA extraction work is done. The four smaller rooms

that open off the Procedure Room are: the DNA/RT-PCR Room, the Media Prep/Autoclave Room, the Culture Isolation Room, and the Incubator/Freezer Room.



Figure 2. Shelves on one side of the Cold Storage Room.

Arrangements we are especially pleased with include: (1) The Cold Room location organized with shelves on each side of the rectangular room. Labeled baskets help keep our plant samples easy to find (Figure 2).

(2) The separate room for DNA/RT-PCR work (Figure 3). (3) A separate room for incubators, freezer, and refrigerator with closed door keeps the noise level down in the large lab Procedures Room. (4) Keeping the Receiving Rooms (Plant Diagnostic Lab and Soil Nematode Analysis Lab) open during lunch with the main labs locked has worked out well for our clients and for us.

Arrangements we would change include: (1) Locating the biological safety cabinet near the Plant Exam Room and the Plant Receiving Room. Having the unit located in the Entomology Lab is somewhat of an accident but it is a workable situation. (2) If possible, purchase benches that have built-in electrical outlets. We had to buy power strips for our centrally placed lab benches.

Key to Species of Hylesine Bark Beetles of the Southeastern United States Now Available

The *Key to Species of Hylesine Bark Beetles of the Southeastern United States* produced by Jim Baker and Steve Bambara of North Carolina State University has been posted on the LUCID website. This is an excellent regional resource for taxonomic identification, and has been supported in part by the Southern Plant Diagnostic Network. You can access this key at: <http://lucidcentral.com/>.

National Database

National Database Subcommittee Update

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

The national database subcommittee met on November 17, 2007 to continue their 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 subcommittee web page of the [NPDN web site](#) for complete minutes of this meeting (login and password required).

Topics of discussion included:

- Change submission requests.

- 4th IT/Diagnosticians Meeting.
- Review of the bacteria list to discuss inconsistencies on common names and syntactic problems.
- Initiation of the review of the fungi codes including common names beginning with A & B.

The next meeting will be held on December 12, 2007.



Northeast Region

NEPDN Holds DNA Extraction Training for Diagnosticians

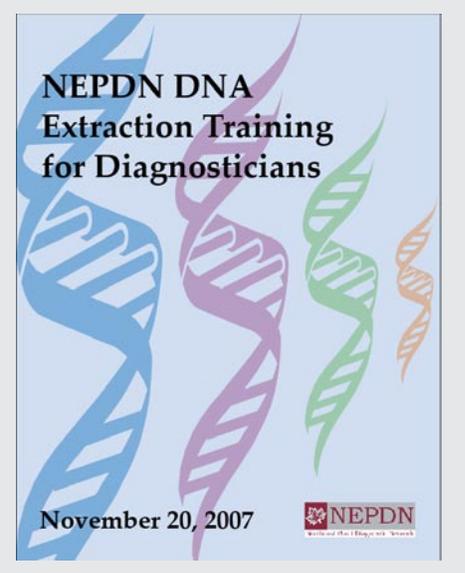
The Northeast Plant Diagnostic Network held a DNA Extraction Training for Diagnosticians on November 20, 2007 via web conferencing using Adobe Connect software.

The training consisted of a PowerPoint introduction presented by Karen Snover-Clift and a video developed by the NEPDN regional staff depicting the extraction of DNA following the NPDN standard operating procedure for *Phytophthora ramorum*. Nineteen participants from twelve states in the Northeast region attended the training.

Participants included diagnosticians from land grant universities and state departments of agriculture.

Continued on page 6...

Regional Updates



Regional Updates

Continued from page 5...

In addition to the training, participants received a training manual containing DNA extraction protocols and supply and equipment lists. Initial reviews of the training have been favorable.



Ash tree with girdling used as a detection tree for emerald ash borer. (Photo Pennsylvania Dept. of Agriculture, www.forestryimages.org)

Emerald Ash Borer Intercepted in West Virginia

On October 17, 2007, APHIS confirmed the detection of one Emerald Ash Borer (EAB) larva from a detection tree in Fayette County,

West Virginia. This is the first confirmed EAB detection in this state. After confirming this detection, the affected detection tree was removed and its bark was stripped, revealing seven additional EAB larvae upon inspection.

Detection trees are used as a means to survey for EAB in areas where it is not known to exist but may be likely to be found. Trees are girdled causing them to be stressed and more attractive to EAB.

For more information on this detection, please visit on the web:

[NAPPO Phytosanitary Alert System: Interception of Emerald Ash Borer \(*Agrilus planipennis*\) in Michigan's Upper Peninsula and West Virginia](#)

New Detections of Sirex Woodwasp in Pennsylvania and New York

Sirex woodwasp was recently detected in Monroe County, Pennsylvania on October 1, 2007 and Cortland County, New York on November 5, 2007. Monroe County is within Pennsylvania's Pocono Mountains region and borders the state of New Jersey.

The sirex woodwasp is a highly significant, regulated pest that has the potential to cause widespread mortality to pine trees. To date, sirex woodwasp has been detected in 29 counties in New York, 6 counties in Pennsylvania, 1 county in Michigan and 1 county in Vermont.

More information on this pest, the current detections and biocontrol efforts can be found on the web at:

[NAPPO Phytosanitary Alert System: New detections of *Sirex noctilio* Fabricius in Pennsylvania and New York, and biocontrol efforts – United States](#)



Adult sirex woodwasp. (Photo William Ciesla, Forest Health Management International, www.forestryimages.org)

Ceratitis capitata, Mediterranean Fruit Fly – Quarantined Area in Los Angeles County, California

During the last week of October and the first week of November, APHIS confirmed the detection of four mated and two unmated female *Ceratitis capitata* or Medflies on four separate residential properties in the Rolling Hills/Rancho Palos Verdes area of Los Angeles County, California. As a result of these detections, APHIS is designating portions of Los Angeles County as Medfly quarantine areas.

The Medfly is one of the world's most destructive agricultural pests. In the U.S., Medfly may attack many hosts including peaches, pears, plums and other stone fruit, apples, apricots, citrus, grapes, peppers and tomatoes.

For more information on this pest and its current detection, please visit on the web:

[NAPPO Phytosanitary Alert System: *Ceratitis capitata* \(Mediterranean fruit fly\) - Quarantined Area in Los Angeles County, California – United States](#)



Mediterranean fruit fly. (Photo Scott Bauer, USDA-ARs, www.forestryimages.org)

Upcoming Events

National Events

December 9-12, 2007, [ESA Annual Meeting](#), San Diego, CA

December 12-14, 2007, [2007 National Soybean Rust Symposium](#),
Louisville, KY

March 24-26, 2009, [Sixth International IPM Symposium](#), Portland, OR

Northeast Region

February 26-28, 2008, [NEPDN Regional Meeting](#), Chadds Ford, PA

[Mary McKellar](#), Editor
NEPDN
Cornell University

