

## National Updates

### NPDN-USDA APHIS Potato Cyst Nematode Training

Karen L. Snover-Clift,  
Cornell University

Laurene Levy, USDA-  
APHIS-PPQ-CHPST-NPGBL  
Mark Nakhla, USDA-APHIS-PPQ-  
CHPST



Above, September 3-5, 2009 training participants: Mark Nakhla (CPHST), Sabrina Tirpak (Rutgers University), Brent Sipes (University of Hawaii), Clarissa Balbalian (Mississippi State University), Tina Seeland (Minnesota DOA), Tina Gresham (APHIS-Idaho), Brent VanWagner (APHIS-Idaho), Jim Stack (Kansas State University).

The NPDN Diagnostics Subcommittee and members of USDA-APHIS-PPQ-CHPST-National Plant Germplasm and Biotechnology Laboratory (NPGBL) collaborated to conduct diagnostician hands-on laboratory

training for the Potato Cyst Nematode (PCN) during September and October of 2008. The NPDN offered this training to all its 53 State and Territory members and Plant Industry diagnosticians.

The first workshop on PCN was conducted in the Spring of 2008 with 10 participants attending the 3 day session. Due to the overwhelming interest in PCN identification techniques, three additional classes were needed to accommodate everyone. Mark Nakhla and Kristina Owens of the Center for

Plant Health Science and Technology (CPHST) laboratory conducted the training which included biochemical and molecular techniques for the detection of PCN. The morphological characteristics for identification of cyst nematodes was provided by ARS scientist Zafar Handoo of the ARS Nematology Laboratory in Beltsville, MD.

In all, twenty-one NPDN diagnosticians, State Department of Agriculture personnel and USDA-APHIS-PPQ personnel from numerous states across the nation (including a representative from Hawaii)

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# National Updates

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attended the three training sessions offered this Fall.

The NPGBL is located in the PPQ facility in Beltsville, MD that most of us refer to as “Building 580”. Recent renovation to the NPGBL lab area has resulted in the NPGBL operating larger training classes (8-10 diagnosticians per session versus 6). PPQ is designing an addition to this facility in 2008 that will increase the space for PPQ programs but has also planned for a dedicated set of training labs and a classroom for the lecture portion of training. If funding for the construction of this facility is approved it will result in increased NPGBL training sessions per year and larger class sizes when needed. As the NPGBL develops and validates new detection methods they will use these training sessions as a mechanism to transfer methods to diagnosticians in the NPDN, State Departments of Agriculture, and PPQ programs.



Above, October 8-10, 2009 training participants: Sergie Stubbotin (WPDN), Kristina Owens (CPHST), Steve Gao (Idaho DOA), Mark Nakhla (CPHST), John Rascoe (USDA-APHIS-PPQ-MDL), Mann Ko (Hawaii DOA), Dimitre Mollov (University of Minnesota), Ke Dong (WPDN), Gang Wei (CPHST).

## Upcoming training sessions:

Laurene Levy and her NPGBL colleagues are planning to continue this very valuable collaboration between USDA-APHIS and NPDN and offer new workshops in the Spring of 2009. We will be offering two workshops, one on a relatively new pathogen of interest, *Phytophthora kernoviae*, and one on the pathogen that causes Potato Wart, *Synchytrium endobioticum*. We are currently scheduling *P. kernoviae* workshops, that will include training for the ITS and new elicitin real-time PCR assays, for February and March 2009 and have 33 people signed-up for the training. We are scheduling Potato Wart workshops for March and April 2009 and have 21 people signed-up for the training. If you are interested in participating in any of these workshops, please contact Karen Snover-Clift at [kls13@cornell.edu](mailto:kls13@cornell.edu).



Above, October 21-23, 2009 training participants: Kristina Owens (CPHST), David McCann (West Virginia University), Kara Schile, (Montana State University) Karen Snover-Clift (Cornell University), Mark Nakhla (CPHST), Cindy Fraley (Oregon DOA), Bob Mulrooney, (University of Delaware) and Norm Dart (West Virginia DOA).

## **Diagnostics Subcommittee Update**

**Karen L. Snover-Clift  
Committee Chair  
Cornell University**

**Department of Plant Pathology and  
Plant-Microbe Biology**

The Diagnostics Subcommittee held a conference call on October 9, 2008. During this meeting a number of issues were addressed. Please refer to the website, <http://www.npdn.org>, for complete minutes of this meeting.

- Potato Cyst Nematode, Beltsville-NPDN Diagnostician Training
- Update on the Lab Accreditation Progress
- IT/Diagnosticians Meeting Agenda Discussion
- Diagnostician Survey
- Update on SOPs
- National Meeting Update
- Discussion of What Users are Uploading to the National Repository
- Update of the 2009 NPPLAP Program
- Nematode Survey for PDIS Users
- March Lepidoptera Workshop

The next conference call will be held on Thursday, November 6, 2008.

## **National Database Subcommittee Update**

**Karen L. Snover-Clift  
Committee Chair  
Cornell University**

**Department of Plant Pathology and  
Plant-Microbe Biology**

The National Database Subcommittee met on October 7, 2008 to continue our work on reviewing the massive EPA Pest and Host lists and revising 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 website, <http://www.npdn.org>, for complete minutes of this meeting.

- Discussed Change Submission Requests
- Discussed the IT/Diagnosticians Meeting Agenda
- Reviewed Fungal Disease Common Names Beginning with the Letters M-N

The next meeting will be held on November 4, 2008.

# **Diagnostic Updates**

# Diagnostic Tip of the Month

**Re-pointing Forceps**  
Julia W. Thompson  
Missouri Dept. of Agriculture

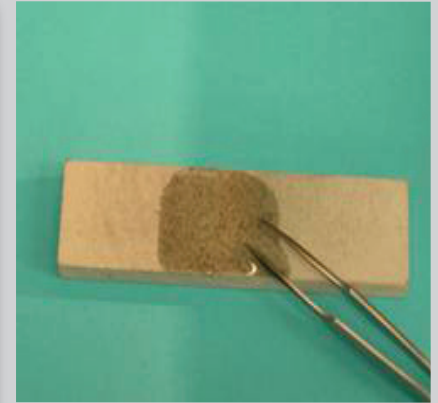
The pair of fine pointed forceps that accidentally dropped nose down on the floor may never be the same again, but in only a few minutes you can extend their useful life.



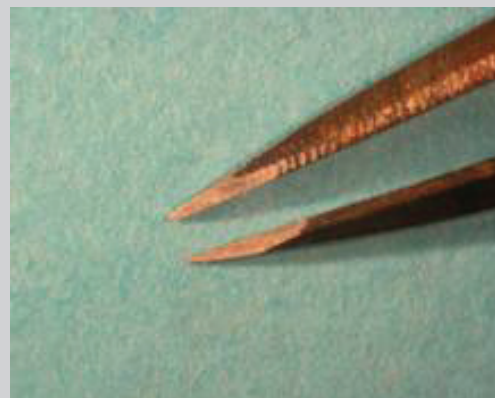
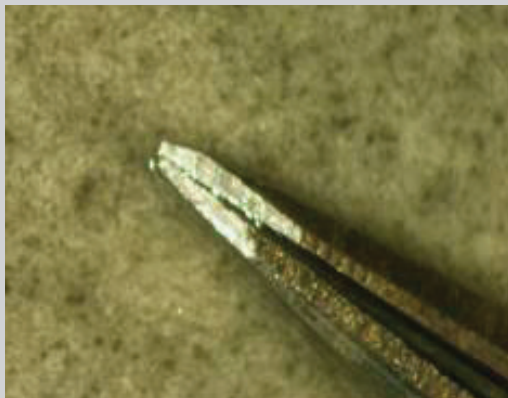
Damaged forceps.



Straighten the points as much as possible with a pair of needle nosed pliers. Extremely bent bits will probably break off when straightened.



Place a drop of oil on a fine oilstone.



Hold the points together; grind new points. It is nearly impossible to hold the points exactly evenly while you are grinding, so be sure to rotate the forceps and change their position in your grip often so the points will meet precisely when you are finished.

## Software Vulnerabilities

Lee Duynslager

Michigan State University

According to a recent report dated October 2008 from Danish Information Security firm Secunia, they tested 12 internet security suites (ISS). Secunia found that ISS did not provide protection from exploits. Shockingly the best performing security suite Norton Internet Security 2009 only detected 21% of exploits. Internet security suites are software loaded that usually consist of an Antivirus Module, Firewall Module and some type of module that monitors network activity to detect intrusions and protects your computer when you are connecting to other computers on the internet via the web or via other applications or protocols.

Most of the security suites are reactionary in the way they handle exploits by detecting attacks or malware payload by using signatures. Malware and attacks change over time, and to develop signatures it can take a considerable amount of time as the companies must observe the attack or payload sample and develop a signature from it. Unfortunately malware code can be modified, encrypted or morph to avoid signature based detection. A more proactive approach would be to detect and eliminate the vulnerabilities in the software that allow for these exploits and permit the proliferation of malware.

One of the most basic things you can do proactively is to ensure that you have your system set for automatic updates, regardless if it is a Windows or Mac. For any Windows System you can download and run the Microsoft Baseline Security Analyzer. This tool is free and can be downloaded by googling on "MBSA

download site: Microsoft.com" The MBSA will tell you if the Microsoft OS and Office Automation Software you are running has any vulnerabilities.

Unfortunately not all software vulnerabilities can be detected by any free tool, as there are many companies and organizations that develop software.

Security Suite Name	Percentage of Vulnerabilities Detected
Norton Internet Security 2009	21.33%
Bit Defender	2.33%
Trend Micro	2.33%
McAfee	2%
Microsoft One Care	1.67%
Kaspersky	1%
Avg	1%
Fsecure	1%
Panda	1%
Zone Alarm	0.67%
Norman	0.33%
CA	0%

Figure 1 Results of the October 2008 Secunia Report

The MBSA only works on windows and Microsoft Products so the best practice is to only load the minimal amount of software necessary to do your work.

If you are unable to check the status of your systems updates, then ask your systems administrator about the policy on software updates and vulnerabilities. By proactively addressing security issues and vulnerabilities we can do our part to protect our systems and data from exploitation or disclosure.

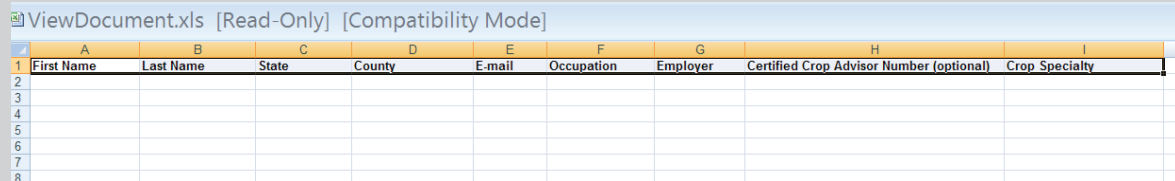
# Education and Training

## Reminder to Submit Your First Detector Training Data Amanda Hodges University of Florida

As field seasons may be coming to a close for some regions, it's time to remember to submit your First Detector training data for 2008. Even if you haven't used the NPDN training site (<http://cbc.at.ufl.edu>) for advance participant registration and advertisement of your training sessions, it is still easy to upload your past training session information. An easy-to-use excel file for batch upload is available on the training site and the NPDN First

speakers and planning team members for the event: Adam Silagyi (USDA, APHIS, PPQ, CAPS), Dick Hoenisch (UC-Davis, WPDN), Gail Ruhl (Purdue University), Jodie Ellis (Purdue University), Joe LaForest (University of Georgia, Bugwood Network), Karen Rane (University of Maryland), Kelly Estes (University of Illinois, CAPS), Marty Draper (USDA-CSREES), Steve Cain (Purdue University, EDEN), Scott Ludwig (Texas AgriLife Extension). Additionally, the following individuals participated in conference call and/or e-mail communications for the planning team: Matt Royer (USDA, APHIS, PPQ), Nina Zidack (Montana State University),

Mary McKellar (Cornell University, NEPDN), Cassandra Bates (Michigan



The image shows a screenshot of an Excel spreadsheet titled "ViewDocument.xls [Read-Only] [Compatibility Mode]". The spreadsheet has a header row with columns labeled A through I. The columns are: A: First Name, B: Last Name, C: State, D: County, E: E-mail, F: Occupation, G: Employer, H: Certified Crop Advisor Number (optional), and I: Crop Specialty. The rows are numbered 1 through 8. Row 1 contains the headers, and rows 2 through 8 are empty.

Example of easy-to-use Excel template for download

Detector Information page (<http://npdn.org>), which also links to the site where you can create a workshop, and upload your participant data for NPDN training. In order to have your training session included in the December 2008 biannual accomplishments map, please submit your data by Monday, November 20, 2008. Further questions or problems with uploading your data can be directed to Amanda Hodges, [achodges@ufl.edu](mailto:achodges@ufl.edu).

### How to Conduct First Detector Training-Teleconference and Webinar

A two-part 'How to Conduct First Detector Training' distance education course was conducted on October 14 and 16, 2008. Each training session was approximately 2 hours in length. Amanda Hodges, University of Florida, SPDN, and Susan Ratcliffe, University of Illinois, NCIPMC co-organized the training. The following individuals participated as

State University, NCPDN), Trevor Smith (Florida Department of Agriculture & Consumer Services, Division of Plant Industry, CAPS), and Lance Osborne (University of Florida, Mid-Florida Research and Education Center). In addition to planning the training session over several months with the above multi-agency committee, the NPDN Training and Education Subcommittee also reviewed and provided a new committee for program planning. Funding for the toll-free teleconference portion of the training was provided by a USDA-CSREES National Extension IPM project, award no. 2007-41530-03984.

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The training included information about multi-agency partnership opportunities for conducting First Detector training and developing associated educational materials. Participants also attended a live example 'First Detector Training' as a component of the content for October 14, 2008. Sample submission, brief concepts about the mission of the NPDN, and two example pests of national interest-emerald ash borer and *Ralstonia solanacearum* Race 3, biovar 2 were covered. During the second part of the training (October 16, 2008), participants were provided web tours of available NPDN training sites for entering and managing participating data, as well as information on creating 'Bugwood Wiki' pages and the process involved in developing interactive modules, with chilli thrips as an example. In total, 79 locations joined the training on Day 1 (October 14, 2008) and 73 on Day 2 (October 16, 2008), excluding speakers. Most participants successfully logged into the Elluminate® web portion of the training with the advance meeting instructions provided. PowerPoint presentations were available to use as a back-up for the web access, but the stand alone presentations could not fully follow the live web tour presentation delivered on Day 2 (as anticipated). Outcomes from the training are still begin evaluated. If you attended the training and have not completed the post-workshop evaluation, please do so by Friday, November 10, 2008. The survey is available at: <http://www.surveymonkey.com>. You can also link to the survey, or a printable survey for standard mail if you prefer, at the following site: [http://fpdn.ifas.ufl.edu/Conducting\\_FDtraining.htm](http://fpdn.ifas.ufl.edu/Conducting_FDtraining.htm). If you were interested in attending the training and not able to attend, the training was

recorded. We anticipate that the voice overlay version of the training will be available by mid-November. Look for the announcement regarding the audio version of the presentations in the next issue of the NPDN newsletter, or on the NPDN website.

Are you interested in more distance education courses through the NPDN? Contact Amanda Hodges, [achodges@ufl.edu](mailto:achodges@ufl.edu) or your regional training coordinator with ideas, thoughts, and suggestions.

### **Contribute Content to the NPDN-Bugwood Wiki Site**

Do you have content geared towards Master Gardener education in terms of pest or pathogen identification? Would you be willing to share your information, with the proper credit for authorship provided to you? Consider contributing to the content section for the Bugwood Wiki-NPDN page, <http://wiki.bugwood.org/NPDN-MG-Training>. Entering information with the wiki software is almost as easy as using Microsoft Word. Questions about NPDN-Bugwood Wiki content can be directed to Joe LaForest, [laforest@uga.edu](mailto:laforest@uga.edu) or Amanda Hodges, [achodges@ufl.edu](mailto:achodges@ufl.edu)

### **Reminder-Promote the Online Crop Biosecurity Course!**

Remember that the online crop biosecurity course is available at: <http://cbc.at.ufl.edu>. Encourage the First Detectors in your state to complete the training. Wondering about incentives for First Detector training? Some states in the WPDN have had success in state approval of the online crop biosecurity modules for CEU credits. Contact WPDN Training Coordinator, Richard Hoenisch, [rwhoenisch@ucdavis.edu](mailto:rwhoenisch@ucdavis.edu) for further details.

# Education and Training

## Training and Education Subcommittee Conference Call Reminder

The NPDN Training and Education Subcommittee has missed a few monthly calls, due in part, to the extensive planning efforts required for the national 'How to Conduct First Detector Training' webinar and teleconference training session. The next monthly call for the NPDN Training and Education Subcommittee will be held on Monday, November 24, 2008 at 1pm ET. Agenda items are subject to change, but tentative include the following:

1. Outcomes from the October 14 and 16, 2008 national teleconference and webinar training on 'How to Conduct First Detector Training'
2. CEUs for the online crop biosecurity modules
3. I-PED Update (Identification and Reporting Tool for Early Pest Detection)
4. Bugwood Wiki-Status of NPDN Master Gardener Content and Other Details
5. Biannual training summaries-traditional and online
6. Chilli thrips online module development update
7. Other business

## Volunteers Needed for Booth at 2008 Entomological Society of America Meeting

The NPDN will host an informational booth at the 2008 ESA meeting in Reno, Nevada, November 16-19, 2008 <http://www.entsoc.org>. If you are an entomologist in the NPDN, please consider

volunteering an hour or two of your time at the booth. You can volunteer by contacting Amanda Hodges, [achodges@ufl.edu](mailto:achodges@ufl.edu)



in advance of the meeting, or by stopping by the booth and filling in your name for a time slot. We will have an interactive quiz with prizes, as well as advertisement flyers for the 2009 NPDN National Meeting. Thanks in advance for volunteering some of your time to promote diagnostic efforts and the NPDN at ESA!



## Soybean Rust Found in Maryland Near Delaware Border

**Bob Mulrooney**  
**University of Delaware**

Soybean rust was discovered in a sentinel plot near Selbyville. The sentinel plot was a late-planted Group VII soybean deliberately chosen to provide green susceptible plant material until frost. As it turns out the site is actually right across the state line in Worchester County, MD. The samples were collected on October 23 and incubated until October 28<sup>th</sup> when they were examined by Debbie Parrish working out of the Delaware Department of Agriculture (DDA)lab in Dover. She found a single pustule soon after examining the first few leaves. The rest of the sample and the pustule that was found were brought to Newark by Randy Ciurlino from the DDA. Nancy Gregory and Bob Mulrooney checked the rest of the sample and the single pustule that Debbie found and found no other pustules. With the pictures that Nancy took of the pustule and other fungal structures including the spores that were present, the identification was confirmed by Dr. Mary Palm at USDA-APHIS-PPQ as *Phakopsora pachyrhizi*, the causal agent of soybean rust. This is the first report of soybean rust in either Maryland or Delaware.

As Dr. Arv Grybauskas in Maryland so aptly stated, “The primary significance of this find is to illustrate that soybeans in the Mid-Atlantic region can become infected with soybean rust given the right combination of events. However, his particular discovery has no direct implications for soybeans in our region. It happened at the very end of the growing season, and in fact frost (approx. Oct 20) had already damaged the upper most

foliage of this extremely late soybean sentinel plot. There is no remaining green foliage in this sentinel plot and all commercial fields are in various stages of harvest. Furthermore, soybean rust is not seed-borne and has no overwintering mechanism other than survival on live host tissue, so the organism cannot establish itself in our region. Any infections that may occur in subsequent years will depend on reintroduction of spores from long distance. The key message to take from this find is that soybean rust can blow into our region and under the right combination of temperature, moisture and plant susceptibility could cause infection in our soybean crop. It will take a combination of unusual events to provide those favorable conditions earlier in a growing season to be a significant threat. Nevertheless, we must keep vigilant to protect this significant component of our agricultural economy.”

This detection illustrates that under the present set of standards, soybean rust can be detected at very low incidence. This ability gives us the information to provide growers an early warning in time to take protective measures in case it should appear earlier in the season when the crop could be at risk. The ipm PIPE program has been a very effective tool for monitoring the presence of soybean rust in the US and preventing this disease from causing needless losses from rust or unnecessary spraying when the threat of rust is not present.

Thank you to our soybean rust team for their diligence in this effort over the past season. It has been a great partnership between Delaware Extension, the DDA, USDA/APHIS and the growers that have cooperated with us since the beginning in 2005.

## Regional Updates

# Upcoming Events

## *National Events*

November 16-19, 2008, [ESA Annual Meeting](#), Reno, NV  
November 18-19, 2008, [5th Annual IT/Diagnostician Meeting](#), Chandler, AZ  
March 24-26, 2009, [Sixth International IPM Symposium](#), Portland, OR  
December 6-10, 2009, NPDN National Meeting, Miami, FL

## *Diagnostician Training Events*

**Citrus Greening**, USDA-APHIS-PPQ-CPHST-NGBTL, Beltsville, Md.  
February 3, 2009

***Phytophthora kernoviae***, USDA-APHIS-PPQ-CPHST-NGBTL, Beltsville, Md.  
February 10-12, 2009  
February 17-19, 2009  
March 3-5, 2009  
March 10-12, 2009

**Potato Wart**, USDA-APHIS-PPQ-CPHST-NGBTL, Beltsville, Md.  
March 17-19, 2009  
April 7-9, 2009  
April 17-19, 2009

## *Regional Events*

November 13-14, 2008, WPDN Annual Meeting, Reno, NV  
January 21-22, 2009, GPDN Annual Meeting, Fargo, ND  
March 18-19, 2009, NEPDN Annual Meeting, New Brunswick, NJ

Editing by  
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