

## National Updates

### 2009 APS NPDN Town Hall Meeting

Mark your calendars!

The NPDN town hall meeting is scheduled for Monday August 3, 2009 from 3:30 to 5:00 pm at the 2009 APS Meeting in Portland, Oregon. The meeting will be held in Room D-136 in the Convention Center.

Topics of discussion will include:

- NPDN Governance
- NPDN National Meeting
- STAR-D Update
- Network Kudos

Hope to see you all there!

### Call for Abstracts for 2009 NPDN National Meeting

Submission of poster abstracts for the 2009 NPDN national meeting in Miami, FL opened on July 15th. The deadline for abstract submission is September 15th. Only abstracts

for posters are being accepted for this meeting. There is a \$20.00 fee for each abstract submitted.

Presentation categories include:

- New Pest Detections/State Updates – state-based reports of pest detections
- Pest Surveys – reports of planned, in-progress or completed pest surveys
- Diagnostic/Identification/ Detection Methods – reports of new or in-use methods for diagnostics and identification

*Continued on page 2...*



Miami, Florida: The site of the 2009 NPDN National Meeting.

### *Issue Highlights:*

- ◆ 2009 APS NPDN Town Hall Meeting
- ◆ Call for Abstracts for 2009 NPDN National Meeting
- ◆ Diagnostics Subcommittee Update
- ◆ Diagnostic Tip of the Month: Clearing and Staining Roots and Other Plant Tissues
- ◆ National Database Subcommittee Update
- ◆ IT/Diagnosticians' Meeting Update
- ◆ 1000 Cankers Disease Pest Alert Available

*Continued from page 1...*

- Network Information – NPDN network information for members
- Training and Education – First Detector and diagnostician/identifier training information/events
- Information Technology – databases, websites, other technologies
- Pest Eradication/Management – reports of planned, in-progress, or completed pest management/mitigation measures

Full abstract submission instructions can be found on the web at: [2009 NPDN National Meeting Abstract Submission Guidelines](#).

## Diagnostic Updates

### Diagnostics Subcommittee Update

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

The NPDN diagnostics subcommittee held a conference call on July 9, 2009. 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:

- Update on potato wart workshops, Beltsville-NPDN diagnostician trainings
- Update of the basic technique workshop at Penn State University
- Web-based platform for diagnostician forum

- 2009 IT/diagnostician's meeting
- NPDN national meeting subcommittee poster
- Aflatoxin testing capacity

The next conference call will be held on August 13, 2009.

### Diagnostic Tip of the Month: Clearing and Staining Roots and Other Plant Tissues

Modified by Rob Wick  
University of Massachusetts

This procedure was developed to examine endomycorrhizal fungi in feeder root tissues. This technique can be used successfully on other plant tissues as well. If delicate tissues are destroyed by the treatments described below try soaking the tissue overnight in concentrated chloral hydrate.

1. Carefully wash soil from roots and cut into 1 cm lengths.
2. Place root pieces in a small beaker with enough 10% potassium hydroxide solution (it is caustic) to cover generously.
3. Cover beaker and autoclave; allow the autoclave to reach about 15 lb pressure, turn off immediately and exhaust slowly. This step removes the protoplasm from the cell.
4. Carefully decant the KOH solution from the beaker, leaving the roots behind. The solution is hot and caustic.
5. Rinse with about 20 ml of distilled water and decant.
6. Add about 20 ml of 0.1N HCl to the beaker, swirl and let sit for a minute or so.
7. Decant off the HCl. The acid neutralizes the base so the stain can react with the tissues.

*Continued on page 3...*



Mycorrhizae stained in roots viewed by clearing and staining roots.

10% KOH Solution

For a 10% solution, 10 grams KOH per 100 ml H<sub>2</sub>O. (Note: Bases should not be stored in bottles with ground glass stoppers.)

0.1N HCl

Concentrated HCl is approximately 38% HCl. 83 ml of concentrated HCl in 917 ml H<sub>2</sub>O makes 1 liter of approximately

0.1N HCl. To make 0.1N HCl, add 8.3 ml concentrated HCl per 992 ml water.

*Continued from page 2...*

8. Add sufficient aniline blue solution to cover the roots generously; cover the beaker and autoclave as for the KOH step.

9. Pour off as much of the stain solution as possible and add the glycerin/water/lactic acid solution (see below). This is the same solution the aniline blue is made up in; it removes the excessive stain.

10. Mount root pieces on a microscope slide with a drop or two of the destaining solution. Gently push the cover slip onto the specimen to flatten.

Aniline Blue (cotton blue) Dye

The original recipe, called “lacto phenol” contains phenol (see below). Phenol is hazardous when heated so it has been left out of this recipe. The phenol is not necessary. Reserve half of the solution without dye to use for destaining.

Distilled H <sub>2</sub> O	500 ml
Lactic acid	500 ml
Glycerin	1,000 ml
Aniline blue	0.5g per liter

**National Database Subcommittee Update**

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

The NPDN national database subcommittee met on July 8, 2009 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 national database subcommittee web page of the [NPDN web site](#) for complete minutes of this meeting (login and password required).

*Continued on page 4...*

**National Database**

# National Database

*Continued from page 3...*

Topics of discussion included:

- Discussion of change submissions
- Discussion of fungi pest codes with scientific names beginning with the letter A, B, and C

The next meeting will be held on August 12, 2009.



## IT/Diagnosticians' Meeting Update

Michael Hill, CISSP  
NPDN Project Administrator / Programmer Analyst  
CERIS - Purdue University

Please take note that the date for the upcoming IT/Diagnosticians' meeting **has been changed to October 14-15, 2009.**

The meeting is scheduled for two full days and will be held at Purdue University in West Lafayette, IN. Hotel reservations can be made at the University Plaza by calling "1-800-777-9808" and mentioning "CERIS-NPDN" to receive a discounted rate of \$92 per room. Additional information on the hotel can be found by visiting their website at <http://universityplazahotelwestlafayette-px.trvlclick.com/>.

Shuttle service from the Indianapolis airport to the University Plaza hotel is available through Lafayette Limo. Scheduled pick-up times and shuttle

costs are available on the Lafayette Limo website at <http://www.lafayettelimo.com/>. Individual pick-up arrangements can also be made by contacting Mike Hill at 765-494-9854 or by e-mail at [mhill@ceris.purdue.edu](mailto:mhill@ceris.purdue.edu).

## Regional Updates



### Western Region 1000 Canker Disease of Black Walnut

Within the past decade an unusual decline of black walnut (*Juglans nigra*) has been observed in several western states. Initial symptoms involve a yellowing and thinning of the upper crown, which progresses to include death of progressively larger branches. During the final stages large areas of foliage may rapidly wilt. Trees often are killed within three years after initial symptoms are noted. Tree mortality is the result of attack by the walnut twig beetle (*Pityophthorus juglandis*) and subsequent canker development around beetle galleries caused by a fungal associate (*Geosmithia* sp.) of the beetle. A second fungus (*Fusarium solani*) is also associated with canker formation on the trunk and scaffold branches. The proposed name for this insect-disease complex is thousand cankers.

For the full fact sheet, please visit on the web: [Pest Alert Walnut Twig Beetle and Thousand Cankers Disease of Black Walnut, Colorado State University.](#)

## *National Events*

**August 1-5, 2009, [2009 APS Annual Meeting, Portland](#), Oregon**

**August 26-27, 2009, [2009 Soybean Rust Short Course](#), Quincy, FL**

**December 6-10, 2009, [NPDN National Meeting](#), Miami, FL**

**December 9-11, 2009, [2009 National Soybean Rust Symposium](#), New Orleans, LA**

**December 13-16, 2009, [2009 Entomological Society of America Annual Meeting](#), Indianapolis, IN**

# Upcoming Events

