

National Updates

Second National Meeting in Miami - A Big Success

Ray Hammerschmidt, PhD
Michigan State

University, Department of Plant Pathology

The warm weather of Miami was only one of the attractions that drew over 200 attendees to the NPDN Second National Meeting held on December 6-10, 2009. Attendees included diagnosticians from Land Grant University and State Department of Agriculture Labs, University and USDA scientists and individuals from the private sector who are interested in plant diagnostics.

A pre-meeting tour to Fairchild Tropical Botanic Garden kicked off the meeting which consisted of several symposia and workshops that was held at the Intercontinental Hotel.

Over 35 talks and workshop sessions covered a wide array of topics of interest to diagnosticians and those engaged in plant diagnostics and plant disease and pest regulatory concerns. A plenary session on issues related to plant biosecurity was followed by symposia

on “New and Emerging Threats”, “Genomic Tools and Resources for Pest Identification” and “Novel Techniques for Detection and Surveillance”. The
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Airboat ride through the Florida Everglades, Miccosukee Indian Village.



Fairchild Tropical Botanic Garden, Miami FL



National Institute of Food and Agriculture

Issue Highlights:

- National Meeting Summary
- Diagnostic Updates: New Mealybug
- Diagnostics Subcommittee Update
- Upcoming Training
- ESA Update
- NPDN First Detector Educator Awards
- National Database Subcommittee Update
- IT News and Training
- Regional Updates
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symposia were complemented with workshops on “Technology Tools and the NPDN” and “Spodoptera Identification”. Activities of NPDN committees, regions and individual diagnostic labs were highlighted at a poster session. The meeting venue provided great opportunities for attendees to discuss diagnostics, new pests and pathogens, and issues related to plant health. The meeting concluded with regional meetings where topics of interest to each of the NPDN regions were discussed.

A post-meeting production agriculture and greenhouse tour capped off a very successful meeting. The third national meeting is in the planning stages for late 2011.

For more information on all that happened at the NPDN Second National Meeting as well as pdf files of all poster presentations, go to the NPDN web site at www.npdn.org

intercepted at several ports-of-entry on other plant families.

A polyphageous pest, *N. viridis* attacks food, forage, fiber crops, and ornamental crops in its native Asia. It is also a pest of stored potatoes. The potential for invasiveness appears high.

For more information please visit [the Florida Department of Agriculture & Consumer Services Pest Alert](http://www.fda.gov/oc/ohrt/pestalert.html).

Diagnostics Subcommittee Update

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

Since the last newsletter, the Diagnostics Subcommittee held a conference call on January 21, 2010. During this meeting, a number of issues were addressed. Please refer to the website, www.npdn.org (login and password required), for complete minutes of this meeting.

- Basic technique workshop and website design update
- Double entry request to IT Subcommittee
- SOP updates
- Gap capacity analysis
- Beltsville training
- Bleeding canker of horsechestnut
- Diagnosticians cookbook- NPDN endorsement
- Ownership of data

The next conference call will be held on Thursday, February 11, 2010.

Diagnostic Updates

Pest Alert: New Exotic Mealybug Found in South Florida

Amanda Hodges, PhD
University of Florida,

Entomology & Nematology Department

The Florida Department of Agriculture & Consumer Services, Division of Plant Industry reports a new mealybug in south Florida. *Nipaecoccus viridis*, an Asia native, was collected on November 13, 2009 by Cooperative Agricultural Pest Survey (CAPS) Pest Survey Specialists Andrew Dierksen and Karolynne Griffiths in Palm Beach County. The original population was restricted to dodder, however it has been previously

NPDN-USDA APHIS 2010 Advanced Diagnostic Training

Karen L. Snover-Clift, Cornell University
Laurene Levy, USDA-APHIS-PPQ-
CHPST-NPGBL

The NPDN Diagnostics Subcommittee and members of USDA-APHIS-PPQ-CHPST-National Plant Germplasm and Biotechnology Laboratory (NPGBL) plan to continue offering the extremely valuable training workshops for a number of pathogens and techniques throughout this year. If you are interested in participating in any of these workshops, please refer to the information provided below and contact Karen Snover-Clift at kls13@cornell.edu.

2010 Workshops:

***Phytophthora ramorum* 101**

4.5-day training
8 people per session.
Covers: DNA extraction, conventional PCR (nested and multiplex), real-time PCR (ITS and Elicitin), and interpretation of results.
Team taught by: Kurt Zeller and Vessela Mavrodieva
Weeks of Availability: March 8, March 15, April 12, Oct 4, Oct 18

Plum Pox Virus

3-day training
8 people per session.
Covers: Symptoms, sub-sample taking, ELISA, and one-step immunocapture real-time PCR
Taught by: Vessela Mavrodieva
Week of Availability: April 19, May 17

Potato Cyst Nematode

3-day training
8 people per session.
Covers: Morphology, DNA extraction, real-time PCR (our new one)
Taught by: Mark Nakhla
Week of Availability: April 26

Ralstonia solanacearum

4.5-day training
8 people per session.
Covers: Immunostrip, isolation, q PCR and Biovar testing
Taught by: Elizabeth Twieg
Week of Availability: sometime in November

Bio-Informatics

2.5-day training
10 people per session.
Covers: Editing sequences, blasting sequences, etc. What to do with sequencing information....
Taught by: Wenbin Li, Mark Nakhla, and Kurt Zeller
Week of Availability: July 12 and August 23 - two sessions per week

Citrus greening (Huanglongbing) training can be fit into the schedule as needed.



Karen Rane at potato wart training in Beltsville, MD.

Education and Training

NPDN Crop Biosecurity Modules: An Excellent Teaching Resource for Diagnostics

Gail Ruhl, Purdue University,
Department of Botany and Plant
Pathology

Have you taken advantage of the on-line NPDN Crop Biosecurity Modules? Not only are these modules excellent training material for crop consultants, county extension educators, master gardeners and others who monitor the health of crops, but they are also excellent training activities for clinic interns as well as undergraduate and graduate students who have an interest in IPM, crop protection and plant biosecurity.

The online training program features several educational components that help one to learn how to:

- Recognize “high-risk” pests and “select agents”
- Establish a line of communication with local and state contacts
- Identify symptoms in the field
- Properly package a sample
- Use tools for submitting a digital image sample

The on-line program contains many media-enriched and interactive tools including over one hundred “Real World” photograph examples, “Learn More” screens that contain additional information, easy to use navigation within a learning module, links to external “Additional Resources”, instant glossary terms, a glossary library, and an evaluation quiz with opportunities for receiving a certificate of completion.

Module Subjects

Module 1: Mission of the NPDN

Module 2: Monitoring for High-Risk Pests

Module 3: Diagnosing Plant Problems

Module 4: Submitting Diagnostic Samples

Module 5: Photography for Diagnostics

Module 6: Disease and Pest Scenario

One can register for this free training by creating an account at: <http://cbc.at.ufl.edu>. Choose the second option: “Take the On-Line Training Modules”.

In Ohio, Nancy Taylor requires undergraduate student workers to complete Modules 1-5 shortly after they begin working in the Clinic. The First Detector Modules are just as much a part of their orientation training as the University-required on-line training they must take on laboratory and chemical safety. The First Detector training modules help students who have little experience with plant pathology or entomology develop an overview of what goes on in a diagnostic clinic as well as an appreciation for the value of the role they play in the overall Clinic program.

The crop biosecurity modules can be found at: <http://cbc.at.ufl.edu>.

NPDN/PSU Plant Disease Diagnostics Workshop - Basic Technique and Fusarium Workshops

Sara May, Penn State University,
Department of Plant Pathology

A workshop for diagnosticians will be held at Penn State University from May 18-20, 2010. The workshop is a collaborative effort between the NPDN Diagnostics Committee and the Plant Pathology Department at Penn State University. Both new and experienced diagnosticians are invited to attend. The workshop will cover two subjects,



ELISA test for *Plum pox virus*

the first two days on basic diagnostic techniques and the final day of laboratory techniques and lectures on Fusarium basics. The workshop is limited to only 50 participants, so if you are interested sign up as soon as possible. For more information please visit [the workshop information page](#).

Rachel McCarthy Introduction

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

The NEPDN regional staff members are proud to introduce our newest staff member, Rachel McCarthy. Rachel is filling the NEPDN Education & Training Coordinator position that was previously filled by Mary McKellar. Rachel joined the NEPDN regional center staff on January 25, 2010. Rachel graduated from Cornell University in May of 1999 with a Masters of Professional Studies in Floriculture and Ornamental Horticulture. Rachel has experience in a number of areas that made her an ideal candidate for our Education & Training Coordinator. She worked as an Integrated Pest Management (IPM) Specialist at the Cornell Plantations while working on her degree. She worked as a landscape architect and horticulture specialist at a firm in Vermont and afterwards worked for a commercial IPM company in Rochester, NY. Rachel became an assistant professor and the curriculum coordinator for the landscape development program at SUNY-Alfred State College from 2000-2004. In 2004, Rachel came back to the Ithaca area and managed the design and sales division for a private landscape company. In 2008 she took a position at Cornell University in the department of Alumni Affairs & Development, but she really missed working in agriculture which prompted

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Rachel McCarthy, NEPDN Education and Training Coordinator

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her to apply for our NEPDN position. Her experience in agriculture and specifically horticulture, Integrated Pest Management, training colleagues, teaching students, developing programs, coordinating projects, marketing, and communications made her an ideal candidate for the NEPDN Education & Training Coordinator position. We will be introducing Rachel to NPDN members as she starts working with her subcommittees, coordinating exercises, and publishing the NPDN newsletter. Please join us in welcoming Rachel as our newest NEPDN regional staff member!

ESA Update

2009 ESA Symposia Highlights Extension and Regulatory Interactions

Sharon Dobesh, Kansas State University, Department of Plant Pathology

At the 2009 Entomological Society of America (ESA) meeting held in Indianapolis, IN, December 13-16, 2009, Sharon Dobesh of Kansas State University and Scott Ludwig of Texas A & M, Chair and Vice Chair of the Extension and Regulatory Network respectively, organized a symposia which highlighted the interacting relationships between Extension and regulatory programs regarding invasive pests. The sessions highlighted how both Extension and regulatory programs have changed and progressed during the last 20 years. The symposia focused on first hand experiences with the Emerald Ash Borer as a large scale project in Michigan and with the many introduced

pests in Florida. These talks detailed how Extension works with regulatory programs to help identify and work to achieve their mission of public outreach while working within regulatory rules. The symposia concluded with talks highlighting two specific programs, NPDN and CAPS, which involve Extension and regulatory personnel working together for common interests. The full symposia line-up follows:

Changes and Trends in the State Cooperative Extension Services, Dennis Kopp, USDA-CSREES

A 20-year Perspective on Regulatory Changes and Challenges, Alan K. Dowdy, USDA

Extensions' Response to Unknown or Potentially Regulated Pests, Lance S. Osborne, University of Florida

Surviving EAB: Can Multiple Agencies and Institutions Play Well Together? Deborah G. McCullough, Michigan State University

The Role of the National Plant Diagnostic Network (NPDN) in Early Detection, Diagnostics, and Communication, Amanda C. Hodges, University of Florida-SPDN

A National Approach to Surveying for Exotic Species, John H. Bowers, USDA-APHIS-PPQ-EDP



First Detector Awards

Congratulations to First Detector Educators!

Sharon Dobesh, Kansas State University,
Department of Plant Pathology

During the second National Meeting in Miami, FL, First Detector Training Educator Awards were presented for the first time by Sharon Dobesh on behalf of the NPDN Training and Education Committee. First Detector Educator awards were created to recognize outstanding first detector educators whose hard work has resulted in quality training, which strengthens the NPDN as a whole. Three categories of awards were available for nomination:

- Outstanding First Detector Educator Training Award (Individual)
- Outstanding Team First Detector Educator Training Award (team)
- Outstanding Promotion of the Online Crop Biosecurity Course (individual or team)

Only two of the three awards received nominations. The “Outstanding Promotion of the Online Crop Biosecurity Course” award received no nominations.

The “Outstanding First Detector Educator Training Award” for an individual was presented to Dr. Natalie Goldberg from New Mexico State University of the WPDN.

Natalie has had over 4,000 attendees at her trainings during the last five years representing varied audiences. She created four levels of First Detector Training including an advanced course consisting of 10 modules. She created fanny pak first detector training kits that are field ready and include collecting supplies. Natalie obtained outside funding to expand her
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Sharon Dobesh presenting First Detector awards to (clockwise from top left) Dr. Natalie Goldberg from New Mexico State University (WPDN), Dr. David Clement from University of Maryland (NEPDN), and Dr. Karen Rane from University of Maryland (NEPDN). Mary Kay Malinoski from University of Maryland (NEPDN) was not present for a photo.



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programs, which include a continuing education program to maintain First Detector interest.

The “Outstanding Team First Detector Educator Award” was presented to the team of Dr. David Clement, Dr. Karen Rane, and Mary Kay Malinoski from the University of Maryland (NEPDN). They were nominated for their innovative and original training that incorporated the First Detector curriculum into real-time webinars reaching all twelve NEPDN states. The participants were primarily Master Gardeners. The team developed an Oak Wilt page for the Bugwood wiki which has been viewed approximately 2,600 times. The hands-on workshops and meetings have targeted many audiences including arborists, landscape professionals, and Master Gardeners. All of their efforts have resulted in over 250 registered First Detectors in Maryland for the national First Detector database.

These awards will be presented at each National Meeting. The next call for nominations will be in two years. Please consider nominating outstanding First Detector Educators in your state/region. Nominations made for individuals and teams which did not receive the award this year can be nominated again in two years. Congratulations to the first award winners!

National Database Subcommittee Update

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

National Database

Since the last newsletter, the National Database Subcommittee held a conference call on January 20, 2010. The subcommittee continues to work on reviewing the massive NPDN 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 these meetings a number of issues were addressed. Please refer to the website, www.npdn.org (login and password required), for complete minutes of this meeting.

- Discussion of change submissions
- Discussion of fungi pest codes beginning with scientific names N, and O

The next meeting will be held on February 10, 2010.

PDISv2 Diagnostician Module Trainings

PDIS Programming Team, Kansas State University

All the training sessions will be conducted with Adobe Connect Meeting Sessions. Web links for the training sessions are provided below with the schedule.

IT News and Training



What to do for and during training sessions?

1. Click on the web link provided with the training schedule below
2. e.g. <http://connect.ksre.ksu.edu/training/session1feb1/>
3. Enter the meeting/training room as a guest by entering your name on login screen
4. Turn on speakers or headphone volume
5. If you have any questions during the training session type your questions in the chat box on left hand side
6. Your questions will be answered in the chat room by one of the PDIS team member or explained during the training sessions
7. These meetings will be recorded and later available online in the PDIS help document

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Training Session Grouping

Training Session 1 (Sharmila) – 70 mins

1. Introduction to home page and Diagnostic Dashboard – 15 mins
2. Change active laboratory, Sample check-in and processing the sample – 30 mins
3. NPDN uploads (including lab administrator interface) – 15 mins
4. Sample transfer to other lab from the same institution and transfer history – 10 mins

Training Session 2 (Judy) – 65 mins

1. Sample search (advanced and general) –15 mins
2. Sample replications –20 mins
3. Billing – 20 mins
4. Data dump – 10 mins

Training Session 3 (Chandrika) – 65 mins

1. Diagnostic reports – 15 mins
2. Time period report and lab method report– 15 mins
3. Batch operations (uploads and archive) – 15 mins
4. Contact directory – 5 mins
5. Referrals – 10 mins
6. EPA code request – 5 mins

Schedule for training sessions

**Training
Session 1
Sharmila**

1st February, Monday - 3:00 pm to 4:10 pm CENTRAL

<http://connect.ksre.ksu.edu/training/session1/feb1/>

9th February, Tuesday - 3:00 pm to 4:10 pm CENTRAL

<http://connect.ksre.ksu.edu/training/session1/feb9/>

**Training
Session 2
Judy**

3rd February, Wednesday - 3:00 pm to 4:05 pm CENTRAL

<http://connect.ksre.ksu.edu/training/session2/feb3/>

11th February, Thursday - 3:00 pm to 4:05 pm CENTRAL

<http://connect.ksre.ksu.edu/training/session2/feb11/>

**Training
Session 3
Chandrika**

5th February, Friday - 3:00 pm to 4:05 pm CENTRAL

<http://connect.ksre.ksu.edu/training/session3/feb5/>

10th February, Wednesday - 3:00 pm to 4:05 pm CENTRAL

<http://connect.ksre.ksu.edu/training/session3/feb10/>



GPDN Webinar Series

The 2010 GPDN Webinar Series features speakers from universities and government agencies across the country. Featured topics include invasive pests, disease updates, emergency response and modeling of disease occurrences. All webinars will be recorded and can later be viewed at <http://www.gpdn.org/>.

This year's schedule follows:

Date	Speaker	Topic
2/17	Erik Hanson, MT Dept Ag.	Nuisance Aquatic Pests
2/24	Robb Alleman, USDA-APHIS-PPQ	Career and Educational Opportunities within Plant Protection and Quarantine
3/3	Carla Thomas, UCD	Report Tools and Charts for Understanding Past Trends
3/10	Bill Fry, Cornell University	Late Blight 2009
3/17	Gary Adams & Craig Guthrie	Emergency Response within USDA, APHIS, PPQ
3/24	Dave Appel, TAMU	Pierce's Disease
3/31	Doug Jardine, KSU	Reflections of an Extension Plant Pathologist
4/7	Carla Thomas, UCD	Mapping Tools for Understanding Workload Trends
4/14	Sam Markell, NDSU	Sunflower Rust

Regional Updates

Upcoming Events

National Events

March 21, 2010

[Invasive Pest Symposium](#) at the 239th
American Chemical Society National
Meeting and Exposition
San Francisco, CA

May 18-20, 2010

NPDN Diagnostician Basic Technique
Workshop
Penn State University
State College, PA

August 7-1, 2010

APS Annual Meeting
Nashville, TN

September 20-24, 2010

17th Ornamental Workshop on Disease
and Insects
Hendersonville, NC

Regional Events

April 6-7, 2010

NCPDN Regional Meeting
St. Paul, MN



National Institute of
Food and Agriculture

[Rachel McCarthy](#), Editor
NEPDN
Cornell University