

NPDN News

The Newsletter of the National Plant Diagnostic Network

Volume 1, Issue 3, June 2006

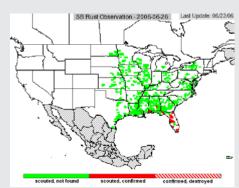
National Updates

First Find of Soybean Rust on Soybean in 2006 Growing Season

Soybean rust was

reported this month on soybean in a

sentinel plot in Martin County, Florida. This is the first find of soybean rust on soybean in the 2006 growing season. To date, in 2006, soybean rust has been reported in five counties in Alabama. 12



Soybean rust findings in U.S. as of June 2006. www.sbrusa.net

counties in Georgia. For current news and updates about soybean rust in the U.S. please visit on the web:

www.sbrusa.net, USDA Pest Information Platform for Extension and Education

counties in

Florida, and four

Potato Cyst Nematode Update

Surveys conducted as a result of the April 19, 2006 detection of potato cyst nematode (PCN) in soil collected at a potato grading station in Idaho have resulted in the confirmation of PCN in a single eastern Idaho field. As part of this survey, over 2,500 samples collected from numerous fields associated with the grading station have been tested and found to be negative. Additionally, over

3000 soil samples collected in Idaho taken as part of the Cooperative Agricultural Pest Survey have also been found negative for PCN. Production within the area of the identified field is for fresh market and processed potatoes only.

For more information on this update please visit on the web:

<u>Potato Cyst Nematode Traced to a Single Idaho Field</u>, USDA-APHIS

Press Release

Issue Highlights:

- ◆ Significat Pest and Pathogen Updates
- ◆Call for Volunteers for NPDN Booth at APS Meeting
- ◆ NPDN Annual Meeting Update
- ◆ Date Set for NPDN IT/ Diagnostician Meeting
- ◆IT Updates from the PDIS Development Team
- ◆NPDN Diagnostician SOD PCR Training May 2006
- ◆ NPDN Education and Training Updates
- ◆ Second Edition of NPDN First Detector Training Manual
- ◆ Regional News from the NEPDN, SPDN and WPDN



National Updates

Emerald Ash Borer Confirmed in Illinois

On June 13, 2006 the Illinois Department of

Agriculture announced the confirmation of the emerald ash borer (EAB) in

Illinois. The discovery of the beetle was made by a homeowner who contacted the Animal and Plant Health Inspection Service's Illinois field office. Inspection of the neighborhood in which EAB was discovered



(Photo David Cappaert, www.forestryimages.org)

revealed several infected ash trees. It is uncertain as to how EAB was introduced to Illinois. Since EAB can only move short distances through flying, long distance movement is dependent upon transportation on nursery stock, ash logs, branches and firewood.

For more information on the confirmation of emerald ash borer in Illinois please visit on the web:

Emerald Ash Borer Confirmed in Illinois, Illinois Department of Agriculture Press Release

Volunteers Needed for NPDN Booth at APS Meeting

Karen Scott NEPDN IT Cornell University

Volunteers are needed to work the exhibit booth at the 2006 APS.CPS.MSA joint meeting in Quebec City, Canada. The schedule has one hour blocks that

need to be filled. We need to have at least one IT and one Diagnostician at all times and it would be extremely helpful to have one Regional Director as well. The current schedule is posted (as an Excel file) on the MPDN web site under "Meeting Information." Please check

your calendars and let Lee Duynslager (duynslag@msu.edu) or Karen Scott (kas8@cornell.edu) know when you would like to work the booth.

NPDN National Meeting Date Set

Annual Meeting Planning Team Karen L. Snover-Clift Department of Plant Pathology Cornell University

The Annual Meeting Planning Team is pleased to announce the NPDN National Meeting has been scheduled for January 28-31, 2007 to be held at the Wyndham Orlando Resort in Orlando, Florida.

Start looking for details about the hotel accommodations, the reservation process, and how to register for the meeting in early August on the NPDN web site and in future issues of the NPDN News.

This meeting will take the place of the regional meetings (and will include regional business) normally held during the late fall and winter months. Be sure to mark your calendars for this event!

Continued on page 3....

Continued from page 2...

Meeting Schedule

Sunday, January 28, 2007 5:00pm Registration and Poster Set-up 7:00pm-9:00pm Poster Viewing and Welcome Reception

Monday, January 29, 2007 8:00am-5:00pm General Session 6:30pm Banquet

Tuesday, January 30, 2007 8:00am-12:00pm General Session 1:00pm-5:00pm Subcommittee Break Out Sessions

Wednesday, January 31, 2007 8:00am-2:00pm Regional Meetings 2:15pm-5:00pm Town Hall and Summary Sessions 5:00 Meeting Adjourns



Wyndham Resort, Orlando, FL

NPDN IT/ Diagnostics Meeting Phase 2 October 16-17, 2006

National Updates

The NPDN Information Technology Group and Diagnostic Representatives, along with some Epidemiologists, will have a 2 day meeting in Excelsior Springs, Missouri to be held at the Elms Resort and Spa to discuss and develop the implementation plan of Phase 2 of NPDN National Repository collection. After three seasons of data collection, software development, and working out many of the 'bugs', more detailed information is sought from the diagnostic labs in order to provide enhanced models and monitoring systems. Also, meetings are being planned for the morning of the 18th for the Plant Diagnostic Information System (PDIS) and possibly some other group discussions on Epidemiology, the Pest List, etc. More information will follow in later newsletters.

Diagnostics Subcommittee Update

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

Diagnostic Updates

The Diagnostics Subcommittee held a conference call on June 8, 2006. During this meeting a number of issues were address. Please refer to the NPDN web site diagnostic subcommittee page (login required) for complete minutes of this meeting.

Continued on page 4.....

Diagnostic **Updates**

Continued from page 3......

Topics discussed on this call included:

•Planning for the Diagnostic section during the NPDN National Meeting in Orlando. Members were asked to think about subject matter we could present in three 20 minute presentations. Suggestion included:

- NPPLAP
- Re-certification
- Proper communication between laboratories
- Permit Issues of Compliance
- Need for a tally of labs with Biosafety cabinets
- APS Soybean Rust Symposium-Poster
- Schedule of future meetings
- Review of the PCR Training for P. ramorum held in Beltsville
- **Standard Operating Procedures** updates being made to Ralstonia and SOD

Phakopsora spp. Clones Available to NPDN Labs for Real-Time PCR

Dr. Paul Vincelli from the University of Kentucky reports that they have successfully cloned the amplicons from the USDA real-time PCR protocols for detecting Phakopsora meibomiae and Phakopsora pachyrhizi. The idea for the creation of these clones came from Dr. Reid Frederick when Dr. Vincelli's group found they were running low on genomic DNA for use as positive controls in their real-time PCR tests for soybean rust.

Dr. Vincelli reports that the cloned inserts have 100% homology to the respective target species across the full length of each amplicon, and mini-prep DNA extracted from these clones reacts positively in PCR tests. Also, these clones can be mini-prepped to provide an unlimited supply of DNA to use for positive controls in PCR tests for their respective pathogen species.

Dr. Vincelli is offering these clones to any NPDN lab that wishes them. Interested labs simply need to contact Dr. Vincelli (pvincell@uky.edu) to make arrangements to receive the clones and instructions for handling them.

PCR Training for Sudden Oak Death, May 2006

Karen Rane Purdue Plant and Pest **Diagnostic Laboratory Purdue University**

The second 2006 Phytophthora ramorum PCR training session, coordinated by the Diagnostics Subcommittee, was held May 23-25 at the USDA/APHIS PPQ/CPHST laboratory in Beltsville, MD.

Participants included Aaron Trippe, Jennifer Falacy, Kelly Collins and Wendy Kaneshiro (WPDN), Gail Ruhl and Karen Rane (NCPDN),

Continued on page 5....



May 2006 P. ramorum PCR training workshop participants, Beltsville, MD.

Continued from page 4.....

Shawn Butler (SPDN), Bob Marra (NEPDN) and Jason Corwin (NEPDN).

Instructor Kurt Zeller devoted the first day to the real-time PCR protocol for *P. ramorum*. Conventional double nested and multiplex PCR protocols were the focus of days 2 and 3, including a session on trouble-shooting *P. ramorum* assay problems. The split session allowed participants to stay for training in either or both techniques as individual needs warranted.



May 2006 *P. ramorum* workshop: participants at the bench.

Education and Training Subcommittee Update

Amanda Hodges Entomology and Nematology Department University of Florida

The NPDN Regional Educational Coordinators met via conference call to discuss monthly training & education updates. Full conference minutes can be viewed on the NPDN web site training and education committee page (login and password required).

An overview of the conference call included the following:

- •An updated version of the subcommittee's governance document was available. The governance document and the revised Trainthe-Trainer manual were sent for final review to Training & Education subcommittee for the June 19,2006 conference call.
- •Questions were raised about the difference between the EDEN and NPDN training courses. A summary document of the two courses has been placed in a revised version of the training manual.
- •Will Lanier, GPDN, Montana State University, and Mary McKellar, NEPDN, Cornell University agreed to serve as co-vice chairs for the subcommittee.

The NPDN Training & Education Subcommittee held a conference call on June 19, 2006. Full conference minutes can be viewed on the NPDN web site training and education committee page (login and password required).

Several items were discussed during the meeting including the following:

- The Training & Education Subcommittee governance document.
- The Revised NPDN First Detector Educator Training Manual
- The new NPDN Training & Education web site

Continued on page 6....

Education and Training

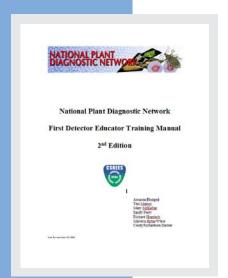
Education and **Training**

Continued from page 5....

- Updates to the NPDN Training & Education Subcommittee Web site
- The NRI Crop
 Biosecurity Online
 Learning Program

Updates to the First Detector Educator Training Manual

Amanda Hodges Entomology and Nematology Department University of Florida



The NPDN Training & Education Subcommittee has implemented major changes to the NPDN First Detector Educator Training Manual. The 2nd Edition of the NPDN Train-the-Trainer Manual will be released Tuesday, June 27, 2006. The updated version of the training manual will be available on the SPDN web site, the new NPDN First Detector web page on the main NPDN portal, the new

NPDN training site, or from other regional web pages.

Major changes to the First Detector Educator Training Manual include the following:

•Elimination of the use of electronic answer sheets and uniform testing. An example test bank is under development, and should be available by July/ August 2006. In the interim, the previous uniform First Detector

and First Detector Educator test are available. As many speakers adapt First Detector training to fit local needs, the subcommittee voted that uniform testing did not provide as effective of a means to summarize training impacts as would a customized test. Testing is still required for First Detector and First Detector Educator training, but session organizer will be asked to report their training results back to NPDN. A web site interface for reporting test information will be available in July/August 2006. For more questions, contact your regional educational coordinator or Amanda Hodges achodges@ufl.edu.

- Call for submission of new educational materials. During 2006-07, the NPDN Training & **Education Subcommittee would** like to solicit submissions of Powerpoint presentations, images, and accompanying information on select agents or other invasive species of concern to the NPDN for the purposes of First Detector training. Submission guidelines are available in the revised NPDN First Detector Training manual. A web site interface for submission of material to the NPDN is under construction and is anticipated to be available in August 2006.
- Information on both the NRI Crop Biosecurity and EDEN courses.

NPDN Education Web Site Gets New URL and Other Changes

Amanda Hodges Entomology and Nematology Department University of Florida

The NPDN Training & Education site is

moving from the SPDN homepage to http://cbc.at.ufl.edu/. Once the web site

transition has occurred, instructional information will be provided on the SPDN 'Educational Modules' page http://spdn.ifas.ufl.edu/

instructional materials.htm.

We anticipate that the web site transition will occur within the next couple of weeks and prior to July 7, 2006. During the week of June 26, 2006, a group of NPDN Training & Education Subcommittee members will meet as a irregular conference call to work on a review of the web site with IT personnel to hopefully work out some of the 'kinks' in the system.

New features that will be available on the web site include the following:

- Simplified information and sessions search for participants.
 Older sessions will be archived.
- Session descriptions and advertisements (optional) may also be included by instructors in the information provided to participants. *Instructors-this will allow you to use the site to encourage participants to register

themselves for an upcoming session.*

Education and Training

Instructors
 will have
 access to participant data
 from their
 sessions. Currently, this
 may be viewed as a web

page but the ability to upload participant data into an excel file is under development.

• Regional educational coordinators will have access to

training materials in their region.

•More updates in the future!

You may also visit the new First Detector page on the main NPDN portal http://www.npdn.org/ (no login or password required) for the latest updates and First Detector news.

NPDN First Detector Rulers

The NPDN First Detector rulers for training relating to digital diagnosis are once again available. Please email Amanda Hodges achodges@ufl.edu for shipping request. Please specify quantity and shipping address.



IT Updates

NPDN Web Site Offers Members a Wealth of Information

The NPDN Web site was created to inform the general public of the existence of the National Plant Diagnostic Network

(NPDN) and to facilitate NPDN committee function, activities, and

house of information

organization. This site serves as a clearing for network members.



Web site features include:

Committee Pages:

These web pages were created to facilitate NPDN committee function, activities, and organization. Members of the NPDN committees have access to their specific committee pages through links displayed in the "NPDN Portal" box located on the lefthand side of this screen. Only the committee names

available to the user are shown as options for selection.

If you are a committee member or someone who should have access to this area and don't see your committee name listed, you have not been given access rights and should contact your committee chairman for help in correcting this mistake.

Committee pages include committee member contact information, committee meeting minutes, committee related documents and other announcements.

Meeting Information: This web page is used to provide details about upcoming NPDN organized meetings and requests for booth exhibit volunteers.

Newsletter: All NPDN newsletters are archived on this page.

Events: Provides information on upcoming meetings of interest to our membership. This section lists the title, date, location, and includes links to meeting registration pages.

Need assistance with accessing the NPDN web site? Please contact Karen Scott (kas8@cornell.edu) for help.

From the PDIS **Development Team Changes and New Feature Requests in PDIS**

Jayasri Krishnasamy PDIS Development Team Kansas State University

The PDIS Development team's goal is to evolve the PDIS System to meet changing users' needs. Thus, PDIS has been designed to accommodate required changes and include new features.

The PDIS Change Management Committee plays an important role in ensuring that the PDIS system fulfills the users' requirements.

Continued on page 9.....

Forgot Your PDIS Password?

Sharmila Dabade PDIS Development Team Kansas State University

- 1.Enter your 'User ID'.
- 2. Then click on 'Forgot your password?' button.
- 3. You will see a message saying 'Your Password has been mailed to your account. Open the email and follow the instructions.'
- 4. Check your email for password.

For more information, please click on the 'Help' link under the Main Menu on www.pdis.org.

Continued from page 8.....

PDIS Change Management Committee members are Karen Snover-Clift (NEPDN), Jan Byrne (NCPDN), Will Lanier (GPDN), Joy Pierzynski (GPDN), Tom Creswell (SPDN), Will Baldwin (GPDN), Karen Scott (NEPDN) and Lee Duynslager (NCPDN). This committee has been meeting since 2003, to discuss requested changes and new features.

PDIS users are encouraged to submit their change requests and new feature requests through the PDIS system to get it reviewed. If you have any questions please contact the PDIS software development team at (785)532-1836 or (785)532-1813 or email at PDIS@list.oznet.ksu.edu.

Accomplished Requests

Nagarjuna Nagulapati PDIS Development Team Kansas State University

IT Updates

- When viewing details of a sample which is part of a sample set, diagnosticians can now navigate between the sample set queue and each of the individual samples of that set.
 Diagnosticians can click the "View Sample Set" link which is present in the top panel to take them to the queue where other samples of the sample set are present.
- When printing invoices from the batch summary page of a sample set, the software has been modified so that the system will print the first invoice and not the second invoice.
- To facilitate the calculation of turnaround time correctly for some of the sample(s) which are answered over the phone or in person, a "Completed Date" textbox is provided on the "Diagnosis" tab for every sample so that a diagnostician can choose to enter a date instead of the system automatically assigning the completed date.

♦ New PDIS Feature ♦

In an effort to streamline PDIS sample queue management, we released a new Batch Archive feature for "Completed" sample queue. With this feature, PDIS diagnosticians now have the capability of archiving any or all of the completed sample(s) in batch.

IT Updates

Did ya know? Judy Dizon PDIS Development Team Kansas State University

- •Users will be automatically logged out of the system after sixty minutes of inactivity. However, a pop-up message alert will appear five minutes before the session ends so users will have time to save their work.
- •Mouse over on the icon will provide significant information to users on how to go about certain features of the system.

Updating an Expired PDIS Password

Sharmila Dabade PDIS Development Team Kansas State University

- 1. After trying to log in with correct 'User ID' and 'Password', if you get this message 'Your password has not been changed since the last 6 months'.
- 2. Then click on 'Change Password' button.
- 3.It will ask you for your old password (which is your current password) and asks you to set up a new password.
- 4. Then click on 'Change' button to change the password to new password.

For more information, please click on the 'Help' link under the Main Menu on www.pdis.org.

National Database

National Database Subcommittee Update

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

The National Database Subcommittee met on June 14, 2006 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 NPDN web site National Database subcommittee page (login required), for complete minutes of this meeting.

Topics covered during this meeting included:

- Review of the draft version of the Diagnostician Guidelines for Sample Reporting to the National Repository.
- Review of the proposed Level of Confidence definitions.
- Review of the Nematode EPA pest codes.
- General comments on formatting of information within these code files.
- Host/Pest code request approval process.
- Reviewing of abiotic listing and recommendations.

The next meeting will be held on July 12, 2006.



Northeast Region:

Mary McKellar NEPDN Education and Training Coordinator, Cornell University

Brochures, Pest Alerts and Educational Materials Available

Do you need NEPDN brochures, pest alerts or sudden oak death posters for your next educational outreach? You can order them by simply filling out a form and faxing it to the NEPDN regional center. Available pest alerts include sudden oak death, soybean rust, *Ralstonia solanacearaum* and Tospoviruses. The order form for these materials can be found on the NEPDN web site (www.nepdn.org) under the "Marketing" link.



Southeast Region: May 2006 Virus Inclusion Workshop

Sandra Jensen-Tracy Department of Plant Pathology Cornell University

The 2006 Virus Inclusion Workshop was held May 8-10 in Gainesville at the University of Florida and hosted by the University of Florida Plant Pathology Department. Participants included diagnosticians from various State Dept. of Agriculture and university laboratories from all over the U.S as well as from Guam, and Manitoba, Canada.

The purpose of the workshop was to learn how to view virus inclusions in plant material. Examination of virus inclusions is an older technique that may be useful for all types of plants viruses. Although the technique may seem antiquated, examination of virus inclusions using staining techniques and light microscopy is actually a relatively quick and inexpensive way to determine if a host plant is infected with a virus. This method allows the diagnostician to try to

determine if a virus is present in suspicious tissue before running multiple or expensive tests.

During the workshop, participants learned how to select plant tissue, obtain a good epidermal peel, and section of meristematic and vein tissue. We also learned what the different types of inclusions look like, what kind corresponded with different families, where in the plant tissue these were likely to be found, and what stains should or should not work on the different types of inclusions.

A workbook and reference manual full of color photos of virus inclusion were available to take home. Additionally, all participants got to take home the slides they made to use for future reference as well as a great "inclusion" t-shirt.

Continued on page 12.....

Regional Updates



Participants examine virus infected plant material using skills learned during workshop. (Photo Carrie Harmon)

Regional Updates

Continued from page 11....

Workshop Attendees included:

Jennifer Chaky,

University of Nebraska, Kelly Collins, Oregon State University, David Davison, FDOACS-DPI (Gainesville)

Mardi Desjardins, Manitoba Ag Food &

rural Initiatives Crop
Diag. Centre, Rob
(John) Fisher Ohio
Dept of Ag, DPI,
Sandra Jensen-Tracy,
Cornell University,
Dave Johnson,.
Missouri Dept of Ag,
Jim Mertley UF
GCREC, Rosa
Muchovej, UF
SWREC, Anette
Phibbs, University of
Wisconsin, George C.
Wall AES/CNAS

University of Guam.



2006 Virus Inclusion Workshop Participants, Gainesville, FL. (Photo Carrie Harmon)

Workshop instruction and support included:

Dr. Gail Wisler - UF/IFAS – Plant Pathology, Professor & Chair, **Director SPDN** Dr. Robert McGovern – UF/IFAS – Plant Pathology, Director, Plant Disease Clinic & Doctor of Plant Medicine Program Dr. Carlye Baker – FDACS – DPI; Bio-Scientist IV; Plant Virologist/ Diagnostician Mark Gooch - FDACS -DPI - Bio-Scientist III Richard Cullen UF/IFAS – Plant Pathology, Plant Disease Clinic Coordinator, Diagnostician Kris Beckham - UF/IFAS - Plant

Pathology, Senior Biological Scientist, Diagnostician

Anne Vitoreli - UF/IFAS – Plant Pathology, Biological Scientist, Diagnostician Carrie Harmon - UF/IFAS – Plant Pathology, Asst. Director SPDN

Coleoptera Workshop, Blacksburg, VA, May 2006

Amanda Hodges Entomology and Nematology Dept. University of Florida

The SPDN held an intensive taxonomic workshop focusing on Chrysomelidae, Scolytine, and Cerambycidae beetle identification on May 22-25, 2006.

Training focused on native and exotic pest concerns for states in the southern region. The training was hosted by the Department of Entomology at the Virginia Tech campus. Eric Day, Virginia Tech University, and Amanda Hodges, University of Florida/SPDN coordinated the training.

Continued on page 13.....



Participants of 2006 Coleoptera Workshop, Blacksburg, VA. (Photo Lyle Buss, UF)

Continued from page 12....

Instructors included Ed Riley (Texas A&M University), Shawn Clark (Brigham Young University), Jim Labonté (Oregon Department of Agriculture), Rick Hoebeke (Cornell University), Steve Lingafelter (USDA-ARS-SEL), and Gino Nearns (University of Florida).

Participants were provided with a 120-page training manual on Cerambycidae beetles, 200-300 pages of training material on Chrysomelidae and Scolytine beetles, and a Southeastern Scolytine screening aid CD. The majority of the workshop focused on instruction and hands-on identification, but an afternoon collecting trip followed by a BBQ dinner was also included as a mid-week break for instructors and participants.



Jim Labonté teaching during Coleoptera Workshop. (Photo: Diana Kimberling)

Thirty-three participants from various institutions including North Carolina State University, Texas A&M University, USDA-APHIS-PPQ, Kansas State University, Virginia Department of Agriculture & Consumer Services, University of Florida, University of Puerto Rico, Auburn University, LSU AgCenter, EcoSolutions, Inc., Virginia

Tech, OHP, Inc., Florida A&M University, Cornell **University Extension** Service of Suffolk County, University of Tennessee Extension, County of San Diego California, Cornell University, University of Panama, Texas Cooperative Extension, West Virginia Department of Agriculture, University of Kentucky, University of Georgia, Clemson

University, Florida

Department of

Agriculture, Division of

Plant Industry,

University of Maine.

and Tennessee State University attended the workshop.

Initial workshop training registration was limited to SPDN states, but an attempt to accommodate attendance requests for other regional representatives, USDA-APHIS identifiers, and industry was made.

A post-workshop survey was conducted, and all responses were extremely favorable. Major outcomes of the workshop included the following: 1) enhanced taxonomic skills 2) additional regional resources for diagnostics and 3) an improved ability to network with experts and other colleagues on identification issues.

Regional Updates



Rick Hoebeke (Cornell University) and Jim Zablotny (Michigan State University) on Field Trip (Photo Julieta Brambila, USDA-APHIS-PPQ).

Regional Updates

Soybean Rust Identification Short Course Offered

The University of Florida and the Southern Plant Diagnostic Network would like to invite interested soybean professionals to participate in a hands-on short course on July 13, 2006. The North Florida Research and Education Center at Quincy, FL, will host up to 100 agricultural professionals, consultants, and specialists for an intensive identification course. More information including registration, schedule, transportation, and lodging details may be found on the SPDN web site.

WPDN
Western Plant Diagnostic Network

Western Region

Carla Thomas
Department of Plant Pathology,
UC Davis

Hawaii Homoptera Workshop 2006

The Western Plant Diagnostic Network, in partnership with USDA Western Region Animal and Plant Health Information Service, Hawaii Department of Agriculture,

University of Hawaii Manoa, and California Department of Agriculture hosted a Homoptera workshop in Oahu, Hawaii January 23-24, 2006. This workshop was scheduled just prior to the WPDN Annual Workgroup to enable a number of people to participate in both meetings. Attending the course were 3 participants from Guam, 6 participants from Hawaii, 2 from California and one from Nevada.

Ray Gill and Gillian Watson, California Department of Food and Agriculture were the lead instructors, and Richard Hoenisch, WPDN, worked with them to organize the course and provide assistance. Dick Tsuda and Mark Wright from the University of Hawaii, Manoa, Department of Entomology and Bernarr Kumashiro from the Hawaiian Department of Agriculture also provided instructional support and materials.

Participants learned how to build their own keys, prepare an archival-quality slide mount of a mealybug for expert level identification. They received instruction on collection, identification and preservation of scale insects,

> mealybugs, whitefies, psyllids and aphids.



Hawaii Homoptera Workshop 2006: Gillian Watson demonstrates techniques to participants. (Photo Dick Hoennisch, WPDN)

WPDN 2006 Annual Meeting

The Western Plant Diagnostic Network held its annual 2006 workgroup meeting on the island of Hawaii on Jan 25-27, 2006. The meeting

was attended by 44 members representing the ten states and two of the US Pacific Island Territories (Guam and American Samoa).

Continued on page 15....



Stinging nettle caterpillar (Photo Eric LaGasa)

Continued from page 14....

USDA Western Integrated Pest Management Center, USDA Animal Plant Health Inspection Service, State Departments of Agriculture, and Land Grant Universities.

During the meeting, successes and challenges of the past year were reviewed. The group set goals and strategies for meeting the objectives for the next year.

Pat Conant, with help from Bernarr Kumashiro, Ken Teramoto and Eloise Killgore (all from Hawaii Department of Agriculture) organized an outstanding set of tours to complement the workgroup discussion sessions. During these tours, participants were able to see first hand the tremendous impact of invasive weeds, diseases, and insects on the island. These species included giant African land snails, Erythrina gall wasp, guava scab disease, lantana leaf spot (Septoria lantanae), guava rust (Puccinia psidii), papaya ringspot, little fire ant, banana bunchy top virus, soybean rust, exotic ginger, stinging nettle caterpillars, and several biological

control agents under development at the USDA Forest Service Quarantine Facility.

Regional Updates

These tours provided an excellent backdrop for a fascinating exchange of ideas and solutions during the workgroup sessions. A theme throughout the discussions was the particularly challenging diversity of the NPDN's western region and our vulnerability to invasive species that have a multitude of entry paths. Participants exchanged perspectives on these issues and gained a greater appreciation of the diversity of our region and the special needs of our unique ecosystems and cropping systems.



Ken Teramoto talks about banana bunchy top to WPDN workgroup in Hawaii. (Photo Eric LaGasa)

Upcoming Events

National Events

July 29-August 2, 2006: American Phytopathological Society Annual Meeting, Quebec City, Canada

August 13-18, 2006: National Plant Board Meeting, Milwaulkee, WI

September 25-29, 2006: <u>15th Ornamental Workshop on Diseases and Insects,</u> Crossnore/Kanuga, Hendersonville, NC

October 16-17, 2006: <u>IT-Diagnosticians Meeting</u>, Kansas City, MO. More information to follow!

November 29 – December 1: National Soybean Rust Symposium, St. Louis, Missouri

December 10-13, 2006: Entomological Society of America Annual Meeting, Indianopolis, IN

January 28-31, 2007, NPDN National Meeting, Orlando, FL.

Regional Events

July 13, 2006, Soybean Rust Identification Short Course, Quincy, FL



