

# NPDN News

Volume 9 Issue 3, March 2014

## SPRING SENTINEL PLANT NETWORK UPDATE

Rachel McCarthy, Northeast Plant Diagnostic Network, Cornell University



Spring is officially here and as growing degree days start to accumulate outside, hopefully Sentinel Plant Network (SPN) samples start to come into your labs (or inboxes) again. SPN, NPDN's collaborative project with the American

Public Gardens Association (APGA), extends NPDN early detection materials and diagnostic expertise to participating APGA gardens. Launched in the spring of 2010, SPN's membership has grown to include 167 public gardens!

Since fall 2011, the SPN has held 13 workshops and trained approximately 400 public garden professionals

SPN members are asked to submit samples of suspect **quarantine significant threats** OR samples which seem "new or unusual".

on high-consequence threats in their region and how to submit samples to their state's NPDN lab. Each of these workshops focuses on the importance of early detection, relationship building with diagnosticians and regulatory partners as well as, the promotion

of NPDN's First Detector program to extend reach into their communities. However "free" professional development does have its price...

Any APGA member garden is able to join the network but SPN membership requires that gardens perform



Scouting exercise at SPN workshop (left) and participants filling in sample submission forms during a hands-on sample submission exercise (right).

routine scouting in their collections and natural areas; **submit photos of suspect significant pests/pathogens and physical samples when needed**; and conduct at least one annual First Detector class for volunteers, visitors, and/or community members. So if samples are not already coming in, they should in time!

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## Issue Highlights

- Coconut rhinoceros beetle in Hawaii
- Star-D implementation booklet step 7
- National Repository — accomplishment summary reports
- Irrigation pathogens and water quality webinar series
- PAC highlights



According to your feedback NPDN labs began receiving SPN samples back in October 2011. Samples were (or should have been) accompanied by an "SPN packing slip" in addition to your specific sample submission form. This packing slip (figure 1) was intended to flag samples as SPN samples so that gardens would not incur a fee (benefit to them) but also so that we could gauge the impact of the program (benefit to us).

With the start of the 2014 season we have replaced the old packing slip with a new fillable webform. This new



Figure 1. Old SPN "packing slip".

Sentinel Plant Network  
American Public Gardens Association  
351 Longwood Road, Kennett Square, PA 19348  
www.publicgardens.org/content/sentinel-plant-network  
Email: dstern@publicgardens.org Phone: (919) 260-7143



### Sentinel Plant Network Packing Slip

Name of plant being affected/submitted: **insect**  
Laboratory Submitted to: **NC State university**  
Date Submitted: **03/18/2014**

Garden submitting the sample: **Coker Arboretum**  
Name of person submitting the sample: **Dan**  
Submitter's telephone: **9192607143**  
Submitter's email: **dstern@publicgardens.org**

#### NOTE TO DIAGNOSTICIANS:

It is very important to check the appropriate Sentinel Plant Network designation in your database system. For questions about processing SPN samples contact Rachel McCarthy, NEPDN Training and Education Coordinator, Cornell University p: (607) 225-7871 (new number) e: [rachel.mccarthy@cornell.edu](mailto:rachel.mccarthy@cornell.edu)

The Sentinel Plant Network is a cooperative endeavor between the American Public Gardens Association and the National Plant Diagnostic Network, and is funded by USDA-APHIS through the Farm Bill, Section 10201

Figure 2. New SPN "packing slip".

webform (figure 2) should accompany any and all SPN samples and be in addition to your completed sample submission form. **NPDN labs were offered funding to help cover the costs associated with these samples. It would be greatly appreciated if labs would continue to process SPN samples at no cost through the 2014 season.** For your information, SPN members are asked to submit samples of suspect **quarantine significant threats** OR samples which seem "new or unusual". In an effort to keep routine sample numbers down, members have been advised to first call or email with questions or pictures to inquire if a physical sample should be sent. Use your discretion.

So cheers to spring and the upcoming diagnostic season and keep an eye out for samples with this new slip. (If you receive any old packing slips kindly ask the garden to fill out the new webform.) If you have questions about SPN sample processing or general SPN questions contact Rachel McCarthy at [Rachel.McCarthy@cornell.edu](mailto:Rachel.McCarthy@cornell.edu).

*The Sentinel Plant Network is funded through the Farm Bill by USDA-APHIS. This cooperative endeavor engages the public garden community in the early detection of high-consequence plant pests and diseases.*

*NPDN-SPN efforts are spearheaded at Cornell University under the direction of Marc Fuchs, Director NEPDN and associate professor at Cornell University.*

## Coconut Rhinoceros Beetle (CRB) now in Hawaii

*Dick Hoenisch, WPDN, UC Davis*

The Navy, along with the State of Hawaii Departments of Agriculture (HDOA) and Land and Natural Resources (DLNR), USDA-APHIS Plant Protection and Quarantine (APHIS-PPQ), are engaged in efforts to eradicate *Oryctes rhinoceros*, the coconut rhinoceros beetle (CRB) from the island of Oahu. The coconut rhinoceros beetle is a species of rhinoceros beetle belonging to the Scarabaeidae family.



From the left the adult, pupa, and grub of CRB. Image courtesy of WPDN FD News.

Read more about this new invasive insect, in the winter 2014 edition of the *WPDN First Detector News*.

Additionally, CAPS has put together a very thorough fact sheet on *Oryctes rhinoceros*. This and other resources including the official APHIS announcement and links to Lucid keys can be found at <http://goo.gl/6kwjWY>. 🌿

## DIAGNOSTICS

### Using the Get Started Implementation Booklet to Establish the STAR-D Laboratory Accreditation System in your Laboratory; Step 7

*Karen Snover-Clift and Dawn Dailey O'Brien, Department of Plant Pathology and Plant-Microbe Biology, Cornell University*

So far we have reviewed steps 1 through 6 of the "STAR-D: How to Get Started in Your Laboratory" booklet. Our hope is that by breaking down the STAR-D laboratory accreditation quality management system down into manageable segments it won't be as intimidating of a process to begin. This is our final installment for this series of articles reviewing each page within the booklet.



#### How to Get Started – CARs and PARs

Step Seven builds on the previous steps and guides you through implementing Corrective Action Reports (CARs) and Preventive Action Reports (PARs) system in your laboratory. The CARs and PARs system focuses on correcting and preventing problems. It is process to ensure problems (or potential problems) are identified and investigated and actions are tracked and their effectiveness evaluated and documented. In this instance a problem means a condition(s) having an adverse impact on work quality; unauthorized

departures from documented procedures; or nonconforming work.

To begin the process of using Corrective and Preventive Action Report procedures into your quality management system, you should set a goal for each activity in this section. When completed, post the date. Checking off each item provides a great sense of accomplishment!

#### Activities:

- ★ Corrective Action Reports (CARs) and Preventive Action Reports (PARs) are an important part of any quality management system. Consider using the QP, WI and Form templates on the STAR-D web page regarding section 4.9 Corrective and Preventive Action.
- ★ This may be a function that you were previously not doing in your laboratory, but you can implement a CARs and PARs system easily.
- ★ Develop a mechanism to document what you do when something goes wrong = corrective action.
- ★ Develop a mechanism to document an employee suggestion for improvement = preventive action.
- ★ Create any needed QPs, WIs, and Forms for 4.9 Corrective and Preventive Action. Consider using some of the templates created for this section and available at the website. You can choose from a form for reporting either CARs or PARs or two separate forms for each action and a log template for tracking them.

### Helpful Hints

- Don't worry about determining if your issue is a corrective or preventive action.
- As long as you are addressing the issue, the label does not matter.
- When an issue arises that requires a modification to your policies or procedures, take a moment to fill out a CAR or PAR.
- Schedule time to review your CARs and PARs with your laboratory staff. Used properly, you will soon value this tool. Preventive action is a pro-active process.
- Corrective action addresses the root cause of an actual problem (so that it does not get repeated). Versus a correction which is a quick fix of an actual problem.

So now that we have reviewed all the topic pages from the "How to get started..." booklet, we need to tell the rest of the story. There are a few more topic areas in your STAR-D quality management system. Try addressing these additional areas using the

same approach you used for the previous topics. The additional areas include...

### Management Requirements

- 4.1 Organization and Management
- 4.2 Quality System
- 4.4 Review of Request and Contract
- 4.5 Subcontracting of Tests
- 4.6 Purchasing Services and Supplies
- 4.7 Complaints and Customer Relations
- 4.8 Control of Non-conforming Testing
- 4.10 Records
- 4.11 Internal Audits
- 4.12 Management Reviews

### Technical Requirements

- 5.1 General
- 5.3 Accommodations and Environmental Conditions
- 5.4 Test Methods and Method Validation
- 5.6 Reference Materials
- 5.8 Test Results Quality Control
- 5.9 Test Results Reporting

Please contact us with any questions! 

## Irrigation Pathogens and Water Quality



### Webinar Series

Time for all webinars will be 12:00 noon to 1:00 pm ET. Meeting space for all webinars will be <https://connect.extension.iastate.edu/irrigation-water/>.

Visit [www.irrigation-pathogens.ppws.vt.edu/webinar/index.php](http://www.irrigation-pathogens.ppws.vt.edu/webinar/index.php) for instructions to connect, recordings of past webinars and for other ongoing educational programs and exciting research activities. For more information contact Chuan Hong at [chong2@vt.edu](mailto:chong2@vt.edu).

4/8/2014	Alternative disinfectant water treatment	Warren Copes
5/6/2014	Substrate management practices vital for pathogen risk mitigation	Andrew Ristvey
6/3/2014	Irrigation management practices to reduce pathogen movement and survival	John Lea-Cox
7/1/2014	Locating a new production facility	Chuan Hong
8/5/2014	How may layout of a recycling irrigation system affect pathogen risk?	Chuan Hong
9/2/2014	How may water quality change in my irrigation reservoir?	Chuan Hong
10/7/2014	What are my options to deal with water pH issues in nursery production?	Chuan Hong
11/4/2014	Consumer willingness to pay for certified disease-free and water-conserving ornamental plants	James Pease



### National Repository – Accomplishment Summary Reports

Mike Hill and Eileen Luke, CERIS, Purdue University

It's that time of year again when diagnosticians are completing their annual accomplishment summary reports. We thought this would be a good opportunity to provide a refresher on how to obtain these statistics from the NPDN National Repository. The two sections that can be completed from the National Repository include the numbers for pest categories and lab methods.

Steps for how to create each type of report are provided below and on the next page. Please note that a username and password are required to access these reports and the examples shown are based on completely fictional data. Each method illustrates creating a report that has a sample date range from July 1, 2013–April 1, 2014.

#### Pest Category Report

1. Select "Summary Data" from report menu or visit report directly at [https://npdn.ceris.purdue.edu/report\\_sampdata\\_search.php](https://npdn.ceris.purdue.edu/report_sampdata_search.php)
2. Select "Pest Category" for Summary Report Type
3. Select date range under search criteria for "Sample Dates"
4. The report can be generated by clicking "Generate Report"

Figure 1: Search Criteria for Pest Category Report

Figure 2: Pest Category Report Results

Lab Sample Data Summary Report					
Pest Category	Confirmed	Suspected	Inconclusive	Not Detected	Total
Abiotics	0	0	1	0	1
Arthropods	1	1	0	4	6
Nematode	0	0	1	0	1
Other	2	0	0	0	2
Pathogen	1	0	3	1	5
Plants/Weeds	1	1	0	0	2
Totals	5	2	5	5	17

## TIP

We often get asked the difference between sample date and enter date. The sample date is the date the sample was received in the lab and the enter date is the date the data was uploaded to the NPDN National Repository.

Figure 3: Search Criteria for Lab Method Report

### Lab Method Report

1. Select “Summary Data” from report menu or visit report directly at [https://npdn.ceris.purdue.edu/report\\_sampdata\\_search.php](https://npdn.ceris.purdue.edu/report_sampdata_search.php)
2. Select “Lab Method” for Summary Report Type
3. Select date range under search criteria for “Sample Dates”
4. The report can be generated by clicking “Generate Report”

**NPDN Summary Data Reports**

Summary Report Type  
 Diagnostic Lab  Enter User ID  Lab Method  Pest Category  Program  State

Search Criteria

Sample Dates: 2013-07-01 to 2014-04-01  
 Enter Dates:  to

Pest:  Select Genus  Species  Sub-Species  
 Host:  Select Genus  Species  Sub-Species  
 State:

[\[-\] Hide Advanced Criteria](#)

Sample ID:  Diagnosis Number:   
 Pest Confidence:  Lab Method:   
 Program:  Submission Purpose:

Diagnostic Lab(s): 9995 CERIS Test Data

We hope that these instructions will be helpful to you as you work on your accomplishment summary reports. Please feel free to contact Mike Hill (765) 494-9854 or Eileen Luke (765) 494-6613 if you have any questions or need any assistance. 🍁

Figure 4: Lab Method Report Results

**NPDN Summary Data Reports**

Date of Search: 03/21/2014 02:39:11 pm EDT  
 Number of Records: 17  
 Report Type: Lab Method  
 Sorted by: Lab Method  
 Search Criteria  
 Diagnostic Lab(s): 9995  
 Sample Dates: 2013-07-01 to 2014-04-01

Lab Sample Data Summary Report					
Lab Method	Confirmed	Suspected	Inconclusive	Not Detected	Total
	0	0	1	0	1
Bioassay	1	0	0	0	1
Biochemical	0	1	0	0	1
Cultural	1	0	0	0	1
Electron Microscopy	1	0	0	0	1
Image	1	0	0	0	1
Inclusion Body	1	0	0	0	1
Incubation	0	1	1	0	2
Microscopic	0	0	1	1	2
Molecular Analysis	0	0	0	1	1
Nematode Extraction	0	0	0	1	1
Polymerase Chain Reaction	0	0	1	0	1
Serological	0	0	0	1	1
Soil Analysis	0	0	0	1	1
Visual Observation	0	0	1	0	1
Totals	5	2	5	5	17

## Diagnostics Committee

Sara May, Committee Chair, Department of Plant Pathology and Environmental Biology, Penn State

The Diagnostics Committee conducted a conference call on February 13, 2014, and the following agenda items were discussed:

- Diagnostic Training Links: Gail requested assistance going through web pages to look for links to diagnostic training. Clarissa will start at the top of APS diagnostic clinics list and Gail at bottom of list (Gail is going to email list out).
- Specialty Testing List: Ask Mike Hill to see who has access to password protected website for NPDN where Gail's survey information will be listed.
  - Gail is soliciting diagnostic survey questions from the committee. Gail is willing to include entomology if they submit questions and tell her where they would like it to go.
  - Gail is going to put an N/A option for each question and make the responses mandatory.
- Suggestion was made for the NPDN diagnostics subcommittee to have a get together at APS. A decision was made to try to piggyback on the NPDN Town Hall Meeting. Jan Byrne will check with Ray (who is in charge of scheduling for the Town Hall) on scheduling it.
- Star-D had their first audit at U. FL with small team of auditors. The audit team puts together a package, including any nonconformances, which goes back to the lab for "factual review", and the lab can also include their responses to nonconformances, then it gets sent back to the quality

management team and then to the board who makes their determination. The Interim Board is all the regional directors, Marty Draper, Eileen Luke, Kathy Burch (senior quality manager for CPHST in Raleigh), an external auditor who did not participate in the audit (rotating position) and director for that region is not included. Cornell is going to be audited next week.

- Beltsville trainings starting the beginning of March have a few spots still open. NPDN can fund travel for maybe another 1 or 2 of those spots. Participants who can fund their own travel are welcome to participate.

Read the full minutes from this meeting on the Diagnostics webpage. The next conference call is scheduled for April 10, 2014. ☺

## Training and Education

Rachel McCarthy, Committee Chair, Department of Plant Pathology and Plant-Microbe Biology, Cornell University

The Training and Education Committee conducted a conference call on March 10, 2014, and the following items were discussed:

- Rachel has posted photo clues to thousand cankers, ALB and EAB. Gail suggested that photo clues for boxwood blight could also be added to the list
- Gail offered her TCD ppt presentation. Rachel said she thought Protect US had already done a scripted ppt on TCD. TCD scripted presentation was found on the Protect US site. Follow up with Stephanie on Protect US site about this presentation.
- Discussion on First Detector presentations -- keeping

presentations up to date, participating agency logos, where and how many sites should have the posted presentations--First Detector site, NPDN national site, regional NPDN sites? How will links to other resources be handled?

- Modules in progress: Potato wort – Amy, ALB and SOD – Rachel
- Rachel has added Facebook and twitter tabs to NPDN website that will link with the Teaching and Education committee activities
- Action Items:
  - Compile a list of ongoing projects
  - Review authorship guide lines and revisit credit guide lines
  - e-mail improvement suggestions for picture clue power point presentations to Rachel

Read the full minutes from this call on the Training and Education webpage. The next Training and Education call will be held May 12, 2014. ☺

Visit the NPDN homepage at [www.npdn.org](http://www.npdn.org) for more information on Program Area Committees. Login and password required

## UPCOMING EVENTS

### Meetings

August 9–13, 2014  
**APS-CPS Joint Meeting**  
Minneapolis, MN

November 16–19, 2014  
**Entomology 2014**  
Portland, OR

### Training/Workshops

May 2014  
**Bark and Ambrosia Beetle Academy**  
University of Florida  
Gainesville, FL

September 29–October 3, 2014  
**The 19<sup>th</sup> Ornamental Workshop on Diseases and Insects**  
Hendersonville, NC



## PHOTO OF THE MONTH

clover leaf spot

*Pseudopeziza trifolii*



Clemson University - USDA  
Cooperative Extension Slide  
Series, Bugwood.org

[www.bugwood.org](http://www.bugwood.org)

## CONTRIBUTE

### Share Tips and News with Your Colleagues

Recently write an article for a trade journal? Do you have a tip, announcement, regional news or network update you would like to include in the *NPDN News*? Email Rachel McCarthy at [rachel.mccarthy@cornell.edu](mailto:rachel.mccarthy@cornell.edu)



Have a tip you would like to share with your fellow diagnosticians? Or a technique you would like to learn more about?

Email Gail Ruhl at [ruhlg@purdue.edu](mailto:ruhlg@purdue.edu)

Rachel McCarthy, Editor  
NEPDN, Training and Education Coordinator  
Cornell University



NIFA100 COOPERATIVE  
CELEBRATES 100 YEARS EXTENSION  
1914-2014



National Institute  
of Food and  
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