

NPDN News

Volume 8 Issue 10, October 2013

EAB CONFIRMED IN COLORADO

Diagnostic Clinic, Colorado State University

Tamla Blunt, Colorado State University Plant



© EAB images, Kent Loeffler, Cornell University

An invasive insect responsible for the death or decline of tens of millions of ash trees in 21 states has been detected in Colorado for the first time.

A suspect tree was spotted in Boulder County on September 23rd by City of Boulder Forestry staff. Insect specimens from the ash tree were collected and sent to the United States Department of Agriculture (USDA) Systematic Entomology Laboratory where the identity of the insects were confirmed.

“The confirmation of these specimens as emerald ash borer (EAB) marks the western-most occurrence of this invasive pest in North America,” said Patrick McPherran, USDA State Plant Health Director in Colorado. “To date Colorado is the fourth state to detect EAB in 2013.” The most likely route of introduction to Colorado was probably in firewood or nursery stock. EAB impacts all native species of ash (*Fraxinus* spp.), white, purple, green and their cultivars. Colorado has many ash in the urban forest (we estimate about 15% of trees are ash). Boulder has approximately 98,000 public and private ash trees. The Denver Metro area has an estimated 1.45 million ash trees. Some neighborhoods and developments may be up to 80% ash.

The Colorado Department of Agriculture will also expand efforts to detect the destructive bug. CDA has been trapping for EAB for five years; additional efforts will now include bark inspections and tree

sampling. A delimitation survey is now underway to determine if the insect has spread beyond the original location where it was confirmed. “The first step will be to determine how widespread its presence is,” said CDA’s Plant Inspection Division Director, Mitch Yergert. “We have a plan in place to quickly respond in order to protect Colorado’s ash trees.”

Additional steps will involve initiating an emergency quarantine in the regulated area to prevent the movement of all ash tree products and hardwood firewood. Currently the proposed emergency quarantine area is Boulder County, the city of Erie



NEW PLANT WILL BE ADDED TO THE PHYTOPHTHORA RAMORUM ASSOCIATED PLANT LIST



Gaultheria procumbens, Botanical Garden, University of Copenhagen, Denmark © Dryas, wikimediacommons



Issue Highlights

- Farm Bill Update: Moving Forward
- Diagnostic tips: quick tip and YouTube video clip
- Quality corner: step 2 in the get started implementation booklet
- IT tips: how to search for Sentinel Plant Network data in the National Repository and PDIS
- In *Regional News*: welcome new diagnosticians at ND and MT

and landfill locations in Weld and Jefferson Counties. This quarantine will go into effect October 31, 2013. Officials will also step up education and outreach efforts.

The emerald ash borer (EAB) is a small, green metallic beetle first detected in North America in 2002 in southeastern Michigan. The emerald ash borer attacks only ash trees and all native ash species—including green, white, black and blue—are at risk. Signs of emerald ash borer infestation include a general decline in the appearance of the tree, thinning of upper branches and twigs, loss of leaves and serpentine tunnels produced by EAB larvae under the bark. However, in Colorado, the majority of our ash trees show a general decline due to the extended drought. Determining any trees that may be infested with EAB will be a challenge for city foresters and arborists because the drought stress symptoms resemble EAB symptoms. Woodpeckers may often be observed removing the bark of infested trees to access the larvae.

Information for this summary was taken from the press release and outreach information located on the Colorado Dept. of Agriculture website: www.colorado.gov/cs/Satellite/ag_Plants/CBON/1251646251641 

Farm Bill Update: Moving Forward

With the partial shutdown of the Federal government behind us, the Farm Bill Management Team (FBMT) would like to assure you that we are once again moving forward with the fiscal year 2014 (FY14) spending plan process. Although we are fully engaged in this effort, we must delay the open period that was originally planned for October.

We expect the open period will begin sometime in November and last for six weeks. More details, including the schedule of stakeholder webinars to explain the FY14 process, will be sent to you in the coming weeks through the APHIS Stakeholder Registry.

Read the full announcement [here](#).

Phytophthora ramorum*—Listing and Regulation of a Plant Species Reported to be Associated with *P. ramorum

Effective November 27, 2013, APHIS is adding *Gaultheria procumbens* to the list of plant species regulated for *Phytophthora ramorum*. This action is necessary to control the artificial spread of *P. ramorum* now that this plant species is associated with it.

Nurseries that operate under a compliance agreement may continue to ship hosts and associated plants, including the newly listed plants. Regulatory officials, however, must properly inspect, sample, test, and place under a compliance agreement any other nurseries

APHIS currently regulates 136 hosts of *Phytophthora ramorum*.

that contain these newly listed associated plants by November 27, 2013, to be able to move regulated plants interstate.

On February 27, 2007, APHIS published in the Federal Register an interim rule that regulates the interstate movement of restricted and regulated articles to prevent the artificial spread of *P. ramorum* from areas where the disease is established. APHIS currently regulates 136 hosts of *P. ramorum*.

Read the official announcement with revised Federal Order [here](#). 



Gaultheria procumbens, wintergreen, is a woody ground cover or low shrub native to northeastern North America. It is in the Ericaceae family.

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quick tip

TIP OF THE MONTH

A hammer and solid surface (floor for us) are fast, easy and efficient for sample pulverization.

submitted by gail ruhl and tom creswell, purdue university



Healthy Plants • Healthy World

APSnet Feature:

"The Barberry or Bread": The Public Campaign to Eradicate Common Barberry in the United States in the Early 20th Century

The wheat stem rust epidemic of the 1920's marks a rare historical case when the public was acutely aware of the social and economic significance of plant diseases.

Read this interesting story at www.apsnet.org

Diagnostics Committee

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

The Diagnostics Committee conducted a conference call on October 17, 2013, and the following agenda items were discussed:

- Committee membership: online list was updated. In the interest of rounding out the membership, WPDN and is waiting for the regional director to appoint them to the committee.
- Diagnostic training links: Sara May needs to follow-up with Gail Ruhl, and will report back at next call.
- Diagnostician's Cookbook: Sara just got the survey monkey link on the survey discussed on the last call. Sara will send it out with a letter on why we are conducting the survey and it will be passed along to the listserves.
- Specialty testing list: idea to add the types of specialty testing that labs do (i.e. Jen Olsen rose rosette) to Gail Ruhl's diagnostic lab contact info list. Gail's list is currently posted on the APS website. Maybe post it to NPDN diagnostics page.
- Workshops for NPDN National Meeting 2015: meeting looking at DC area and Karen Rane has offered to help develop workshops at UMD. Survey the diagnosticians for ideas for workshop. Several workshops ideas were discussed.

Read the full minutes from this meeting on the Diagnostics webpage. The next conference call is scheduled for December 19, 2013. ☺

National Database Committee

Linnea Skoglund, Committee Chair, Montana State University, Department of Plant Sciences and Plant Pathology

The National Database Committee met via Adobe Connect on September 18, 2013, and the following agenda items were discussed:

Change submissions included:

- Change code for Phytophthora root & crown rot to Phytophthora root; crown rot. The semicolon denotes that either symptom may be present but not necessarily both.
- Delete "potato" from potato vein band clearing as this is a disease in tobacco caused by PVY.

Mistletoe list was updated. They are listed as "pests", which is how most diagnosticians view them. Those listed as "hosts" will remain and can be added to by request.

Upload guidelines: there was a question about uploading contradictory diagnoses for different methods. In this case one sample was ELISA positive for bacterial leaf scorch but a different sample from the same tree was PCR negative. They were entered separately. What should be uploaded to the repository?

Threshold reports were introduced in the Town Hall meeting at APS. Some diagnosticians will be asked to beta test the new product. Threshold Report would look at spikes in the number of specific pathogen diagnoses, ex: *P. infestans*.

The next National Database call will be held November 13, 2013. ☺

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 September 9, 2013, and the following items were discussed:

- Membership: Rachel asked Dick and Sharon to ask someone from the GPDN and WPDN to join the T&E committee. Rachel will also recruit one additional member from the NE. Stephanie will ask if anyone else from the SPDN wants to serve. Perhaps changing the time to 2 PM ET/11 AM PT for the next call and thereafter.
- Social media: we discussed the various NPDN T&E sites and how to adapt them. Stephanie will post the Facebook, Twitter and blog sites under the Additional Information tab in the left navigation bar on the FD website.
- Module update: Stephanie said that all the revised modules should be posted by December.
- Farm Bill project FY13—working group for warehouses and airports: First Detector awareness for warehouses and airports. Contact Rachel if interested in working on this project.
- Farm Bill FY14: ideas for a grant are appreciated. Perhaps FD oriented and updated modules, new modules, etc. Contact Rachel if interested.
- Other: newsletter articles are most appreciated for the NPDN and the NPDN FD newsletters. Stephanie asked for the posting of FD workshops on the T&E site.

The next Training and Education call will be held November 18, 2013. ☺

Visit the NPDN homepage at www.npdn.org for more information on Program Area Committees. Login and password required



Using the Get Started Implementation Booklet to Establish the STAR-D Laboratory Accreditation System in Your Lab Step 2

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

Last month, we reviewed Step 1 of the “STAR-D: How to Get Started in Your Laboratory” booklet. Hopefully that article was helpful and started you thinking about implementing the STAR-D laboratory accreditation quality management system (QMS) in your laboratory. We understand that the idea of implementing such a complex system can be daunting. It is much easier to implement if it is broken down into manageable segments, therefore, we are continuing the review of each page within the booklet by providing this information in the NPDN News, under the STAR-D quality corner section.



Step Two builds on Step One by continuing the process of preparation for implementation by assigning QMS duties to lab members and reviewing the STAR-D web page, document templates and auditor checklists. Remember to begin this process 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:

- ★ Schedule the first steps of implementing STAR-D in your laboratory.
- ★ Go to the STAR-D web page at www.npdn.org, to see what is available to help you prepare and implement the STAR-D program in your laboratory.
- ★ Decide who will perform the Quality Manager functions in your laboratory.
- ★ Review the auditor’s example checklists so that you and your lab members are aware of the questions auditors will be asking.

Step Two includes a Helpful Hints section. The hints

are a collection of items gathered from a few of the diagnosticians that have started this process. They provided their most helpful messages for you. All you need to do here is review the hints, think about if any of the hints pertain to you or your laboratory and if you like one of the provided hints, discuss it with your laboratory members.

Helpful Hints:

- ★ Give yourself time to really think about the numbering system you will use for your documents.
- ★ When developing the Quality Manual, use the numbering system reflected in the NPDN Requirements and Standards document, NPDN-SYS-900.
- ★ If a section does not pertain to your laboratory, list the number followed by the wording “NOT APPLICABLE”
- ★ Consider using the same abbreviations and letters used by other NPDN members in their laboratories. For STAR-D documents use Quality Procedure (QP), Work Instruction (WI), and Form. For institution and external documents use Standard Operating Procedure (SOP), External (EXT), and University (UNI).

Please contact us with any questions! Next month we will proceed to Step 3...How to Get Started—Documents! 🍃

DIAGNOSTIC YOUTUBE



submitted by paul bachi, university of kentucky



How to search for Sentinel Plant Network Data in the National Repository

Mike Hill and Eileen Luke, CERIS, Purdue University

Sentinel Plant Network (SPN) data has been available to upload to the NPDN National Repository, as an option under the Program field, since the beginning of 2012. In [March 2012](#) there was an article describing how this data can be entered into the National Repository.

This month's article will focus on how to retrieve SPN data out of the National Repository. We will use the summary data report as an example, but the selectable fields report also provides the same search options. The difference between the two reports is that the summary data report will summarize the count of matching records whereas the selectable fields report will provide specific fields for each record.

The summary data report will return the number of matching records based on the search criteria selected. The results can be categorized by diagnostic lab, enter user ID, lab method, pest category, program or state. For this example, we will select "State". To retrieve SPN data we will need to click the "[+] Show Advanced Criteria" link which will expand the search options and allow us to select "sentinel plant network public gardens" under the Program option. A screenshot of these options is provided in Figure 1.

After selecting the search criteria in Figure 1 click the "Generate Report" button to retrieve the results. An example of the results is provided in Figure 2.

Please contact Mike Hill (mikehill@purdue.edu) at (765) 494-9854 or Eileen Luke (lukee@purdue.edu) at (765) 494-6613 if you have any questions on the NPDN National Repository site. If you have questions relating to Sentinel Plant Network data please contact Rachel McCarthy (rachel.mccarthy@cornell.edu) at (607) 255-7871. 🍀

Figure 1: Summary Data Report Search for SPN data

NPDN Summary Data Reports

Date of Search: 10/24/2013 09:25:28 am EDT
 Number of Records: 73
 Report Type: State
 Sorted by: State
 Search Criteria
 Program: sentinel plant network public gardens

Lab Sample Data Summary Report					
State	Confirmed	Suspected	Inconclusive	Not Detected	Total
FL	2	0	0	0	2
IL	5	16	0	0	21
IN	10	13	2	2	27
MI	2	1	1	0	4
MN	2	1	1	3	7
MO	1	0	0	0	1
NY	5	4	1	1	11
Totals	27	35	5	6	73

Figure 2: Summary Data Report Results for SPN data



PDIS2: Sentinel Plant Network Data Search

Judy Dizon, PDIS, Kansas State University

Diagnostics now have the option of searching for SPN data in PDIS2.

1. Select "Sample Search" from the Diagnostics Menu (Diagnostics: <Lab Name> → Sample Search)
2. Choose 'Program Supported' as the search criteria, select "Sentinel Plant Network Public Gardens" option, then click on the search button

Diagnostic Samples Search

Use this interface to conduct a search for diagnostic samples using multiple criteria.

Sample Search

Select Search Criteria

Include Samples from ALL Labs

Include Archive Samples in Results

- Field ID
- Host/Habitat
- Image Tag(s)
- Lab Name
- NPDN Sample ID
- Physical Sample Received Date
- Program Supported
- Sample Category
- Sample Number
- State
- Status
- Submit Date

Selected Search Criteria Options

Program Supported:

- Citrus Greening
- Citrus Psyllid
- ipmPIPE Plot Data
- Ralstonia
- Sentinel Plant Network Public Gardens
- Soybean Rust
- Sudden Oak Death
- Unknown

View Search Results



reminder:

Sentinel Plant Network survey for NPDN diagnosticians closes on November 6, 2013.

Your partnership in this program is invaluable! Email [Rachel McCarthy](#) for the questions and link to the survey today!



NDSU and GPDN Welcome New Hires!

*Kasia Kinzer, Department of
Plant Pathology, North Dakota
State University*

The Department of Plant Pathology at North Dakota State University would like to welcome three new members to the department and the GPDN. Extension pathologist, Andrew Friskop, received his PhD (2013) from North Dakota State University, and his Extension and applied research program focuses on the management of small grain and corn diseases. The NDSU Plant Diagnostic Lab would also like to welcome two new full-time lab members, assistant diagnostician Jesse Ostrander and seed health technician



Andrew Friskop



Kurt Rudolph



Jesse Ostrander

Kurt Rudolph. Jesse received his bachelors in Horticulture from Kansas State University and is scheduled to defend his master's degree in plant pathology (Kansas State University) this December. His master's project focused on fungicide resistance of the dollar spot pathogen of turf, *Sclerotinia homoeocarpa*. He worked as a regulatory agent for the Kansas Department

of Agriculture's Plant Protection Program before joining the NDSU Plant Diagnostic Lab team in July. Kurt has a BS in biotechnology and will soon defend his master's thesis (NDSU) in which he worked with soybean cyst nematode and sugarbeet diseases. He started full-time in the lab in July, 2013, but has been associated with the lab since January 2013. With Jesse and Kurt, the lab is once again fully staffed. 🍀

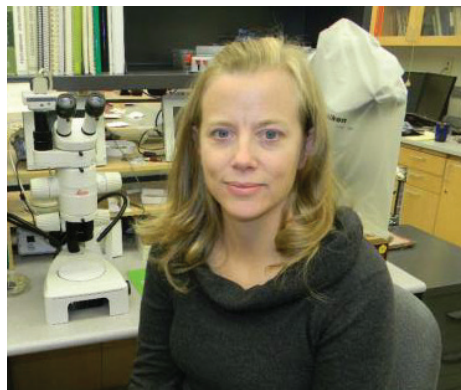
Greetings from Montana!

*Laurie Kerzicnik, Department of Plant Sciences & Plant
Pathology, Montana State University*

I am very excited to join the Plant Sciences and Plant Pathology Department at Montana State University as the new Insect Diagnostician and Assistant IPM Specialist.

My background is with IPM and spiders as pest control agents in agroecosystems. I received my Master's and PhD in Entomology from Colorado State University and am originally from outside of Detroit, MI. I described the spider fauna in eastern Colorado agroecosystems, and my collection of spiders now resides at the Denver Museum of Nature and Science. Some might call me a hypocrite because I have killed so many spiders for my collection but tell people to keep them alive! For another chapter of my research, I looked at diverse versus conventional farming systems and compared

the density and diversity of spiders in these two systems. I also performed gut-content analyses through PCR on spiders to identify the presence of the Russian wheat aphid. As a Research Associate at Colorado



State University, I conducted research on the IPM of greenbugs and Russian wheat aphids and compared the pests, predators, and weeds in diverse versus conventional cropping systems.

Concerning outreach, I have given a lot of entomology and arachnology outreach

talks to K-12 schools, the community and to growers. I traveled around to schools with tarantulas, spiders, mantids, scorpions and cockroaches for hands-on

learning. I love extension and serving as a link between science education and the community. I look forward to working with faculty, extension agents, growers and the community for insect and spider identification.

In my free time, I like to ski, hike, and am excited to learn how to fly fish! I have two pet tarantulas that I plan to train for some outreach talks. I look forward to meeting all of you and working with you in the near future. 🍃



Northeast Plant Diagnostic Network

New Hort Tips No. 8

Mary Kay Malinoski and Dave Clement, Home and Garden Information Center, University of Maryland

The latest issue of University of Maryland's Home and Garden Information Center's *Hort Tips Newsletter* is now available! Check out the excerpt below from Volume 1, Number 8 then visit our website at <http://plantdiagnostics.umd.edu/content/educational-resources.cfm> to read more!

What are those annoying little pellets falling all over my deck and sidewalk? If you have a large oak tree, they are probably galls. Galls are abnormal swellings of plant tissue, usually on leaves and twigs. Insects, mites, bacteria, fungi or nematodes may cause them. Chemicals produced by the egg laying and feeding activities cause most insect and mite galls. The chemicals cause the affected plant cells to swell. Aphids, midges, wasps, psyllids, beetles and eriophyid mites can cause galls. Galls may disfigure twigs and foliage, but they do not seriously affect the health of trees and shrubs. 🍃



© Dave Clement, Univ. of Maryland

Some oak galls.

EAB University—Fall Webinar Series

Invasions by Non-native Insect Pests and Arboriculture, *Mike Raupp, Univ. of Maryland*
September 26, recording available

EAB Biocontrol Progress and Possibilities
Juli Gould, USDA-APHIS
October 10, recording available

US Regulatory Measures to Control Invasives and Limit Introductions using the Case Study of ALB in Massachusetts, *Clint McFarland, USDA-APHIS Federal Project Manager, ALB Eradication Program-Massachusetts*
October 24, recording available

Building an EAB management program from the ground up: Milwaukee's perspective
Thursday, November 7, 2013 at 11 am ET
Randy Krouse, City of Milwaukee

Economic impact and management of EAB in woodlots, classic wood utilization
Thursday, December 5, 2013 at 11 am ET
Eric McConnell, The Ohio State University



Dave Clement talks about bacterial leaf scorch in this month's issue of Hort Tips. Check it out!



UPCOMING EVENTS

National Events

November 4–13, 2013

The 9th Meeting of the Continental Dialogue
on Non-Native Forest Insects and Diseases
Pittsburgh, PA

November 10–13, 2013

Entomology 2013
Austin, TX

Training/Workshops

May 2014

Bark and Ambrosia Beetle Academy
University of Florida
Gainesville, FL



PHOTO OF THE MONTH

anthracnose

Colletotrichum orbiculare

The stem-fruit interface is a
common location for pumpkin
fruit rots.



Gerald Holmes, Valent USA
Corporation, Bugwood.org

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



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

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



National Institute of
Food and Agriculture