

# NPDN News

Volume 8 Issue 8, August 2013

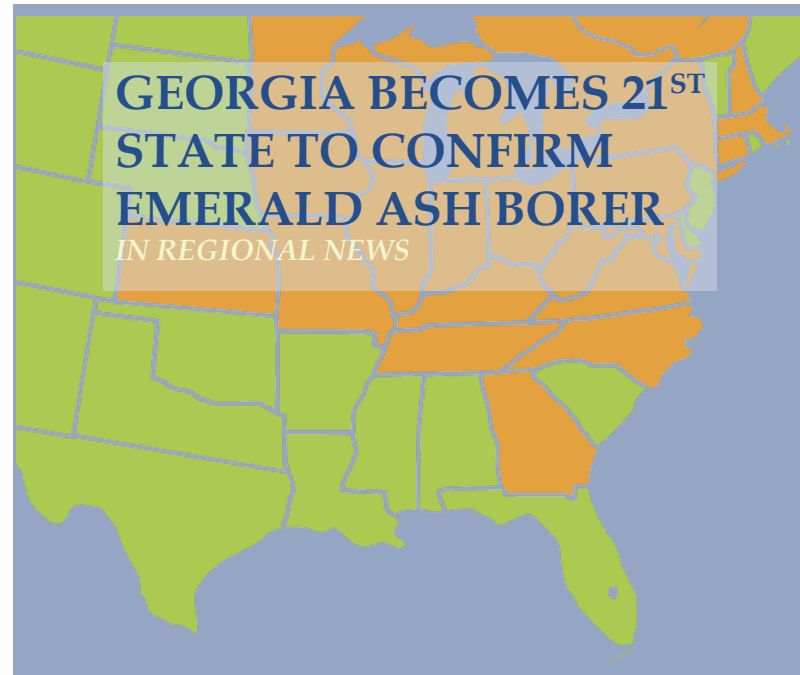
## STAR-D HIGHLIGHTED IN THE APS-NPDN TOWN HALL MEETING

*Karen Snover-Clift, National Quality Manager and Dawn Dailey O'Brien, NPDN Quality Coordinator, NEPDN, Cornell University*

On August 12, NPDN members and colleagues attended a STAR-D presentation on program progress, auditing scenarios and a new implementation tool as part of the APS-NPDN Town Hall Meeting. The STAR-D program progress section of the presentation reviewed activities accomplished displayed in a Gantt chart format by each year's work plan beginning in 2010 when a new focus on the laboratory accreditation project began. The 2010–2011 accomplishments included sending NPDN members to the USDA-APHIS-PPQ-CPHST facility in Raleigh, North Carolina twice during that first year to meet with Pat Shiel and Kathy Burch, their Senior Quality Manager, who presented information on CPHST quality management systems (QMS) and provided us with examples of the *American Association of Veterinary Laboratory Diagnosticians (AAVLD)* laboratory systems and their documentation; reviving the STAR-D working group to meet regularly with their first objective of providing input in the development of templates; presenting a STAR-D update as part of the GPDN webinar series; creating the STAR-D web page to house all STAR-D related business announcements and documentation; and coordinating the QMS Workshop at the AAVLD facility in Ames, Iowa.

The 2011–2012 accomplishments included conducting our first ISO-17025 Auditor Training for 12 NPDN

Auditors (9 NPDN members and 3 CPHST personnel); providing information to our members in the forms of a presentation, a poster, and display booth during the 3rd NPDN National Meeting; and coordinating a checklist development workshop that created auditor tools to be used at external auditing sessions.



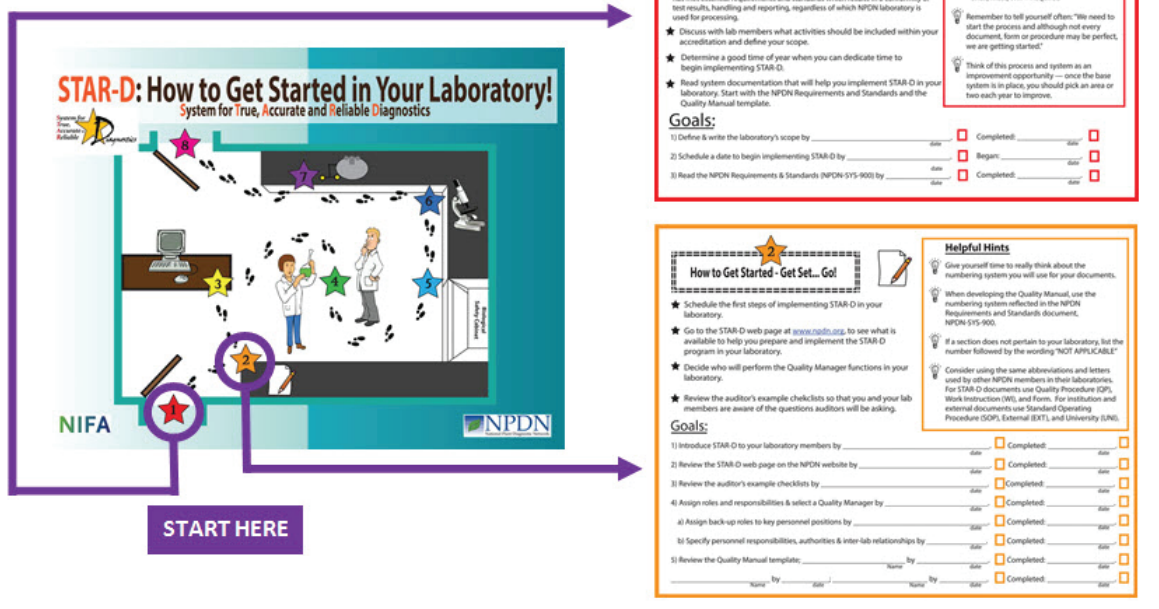
## Issue Highlights

- Tip: Using Cheap Filters to Soften Lighting Hot Spots
- NPDN Town Hall minutes from APS 2013
- K-State Hires New Insect Diagnostician
- Jim Kalisch Receives North Central ESA Award

The 2012–2013 accomplishments included conducting four auditing exercises and gap audits at Cornell University, Nevada Department of Agriculture, University of Florida, and Kansas State University; creating a new NPDN News feature called the “Quality Corner” to keep our members informed about STAR-D techniques and helpful ideas; presenting a poster at the Kanuga Ornamentals Workshop; and presenting a STAR-D update as part of the GPDN webinar series.

attendees participating in a couple of scenarios illustrating possible situations that could occur during external audits. For the entire script download our presentation from the [NPDN Town Hall page](#). The first scenario addressed the discovery of a broken biological safety cabinet. The “actors” that served as laboratory members and the auditor in the scenario described how they handled the situation. This laboratory did not have a written procedure that detailed exactly

New STAR-D Implementation Tool Booklet. Spiral bound booklet with 8 steps that provide tips for getting started, helpful hints and a place to schedule and track your goals. Step 1 and 2 shown here.



what the technician should do and/or what the laboratory director should do when a piece of equipment breaks down. But through questioning, it was clear that the technician knew to contact his supervisor (the laboratory director) and that the laboratory director had a list of items to carry out which she plainly knew and she described what she did with each of the items so this process obviously works the way that they do it and they were clearly on the way to correcting

A Gantt chart with future activities listed for 2013–2014 was also included in the presentation to show what activities were going to be done during this challenging year of very limited funding. The NPDN Directors have placed the STAR-D project very high on the NPDN list of priorities and they backed this up with a small portion of regional funding going to the STAR-D program for this year’s funding cycle. At least one external audit will be conducted this year and two webinars will be developed to provide additional training to members wanting to begin the implementation process in their laboratories. Grant proposals are in the development process for 2014–2015 activities and NPDN members and leaders are researching options for submission of our STAR-D program proposals.

The Gantt charts were followed by our Town Hall

the problem with the broken piece of equipment. The take home message was: 1.) Not all procedures need to be written down in a formal document but evidence is needed to prove their methods work and 2.) The equipment inventory document contained all the pieces of information (serial#, purchase date, repair history, etc.) that made this repair process a much easier event than if no system was in place and 3) The auditors are trained not to hide anything during the process. They are not there to catch a mistake or error so they have something to write up. They want to know the truth of how things are done. They seek evidence so they can report it properly to the STAR-D Board.

The second scenario addressed finding expired test kits in a cabinet in the laboratory. Again “actors” that

[article continues on page 8](#)

## Using Cheap Filters to Soften Lighting

**Hot Spots** Paul Bachi, UK Plant Disease Diagnostic Laboratory, University of Kentucky

Taking good quality digital images of many types of objects, including insects and plant samples, can be difficult when these objects have highly reflective surfaces. Shiny surfaces cause bright hot spots which can block out details of the object as well as play havoc with camera settings. Shadows can obstruct important features when using a direct lighting source.

We purchased a portable lighting tent for the diagnostic laboratory in 2008 after noticing other diagnosticians getting such even lighting, without any obstructive shadows, in their images of plant samples. After having personally experienced the high quality of images taken within the portable lighting tent, I went about trying to get the same effect for samples under the dissecting scope. Never wanting to reinvent the wheel, an internet search brought me to a work by Dr. Alexander Riedel (Museum of Natural History, Karlsruhe, Germany). The work showed filters made from a Styrofoam cup and vellum.

I used a Styrofoam cup and some tracing paper—cut the bottom out of a Styrofoam cup and placed the cup upside down over the object of which to take images. I did not cut small holes in the side of the cup, one for each fiber optic light arm, because the desired effect was achieved without the holes. As far as the tracing paper is concerned, you can construct a cylinder but I found a curved piece of the paper worked just as well. With bulkier samples you could make tracing paper cylinders (a lip balm stick or AA battery work well as patterns) adhered to the end of each fiber optic arm but I found the results were not nearly as desirable as with the cup or curved sheet of tracing paper.

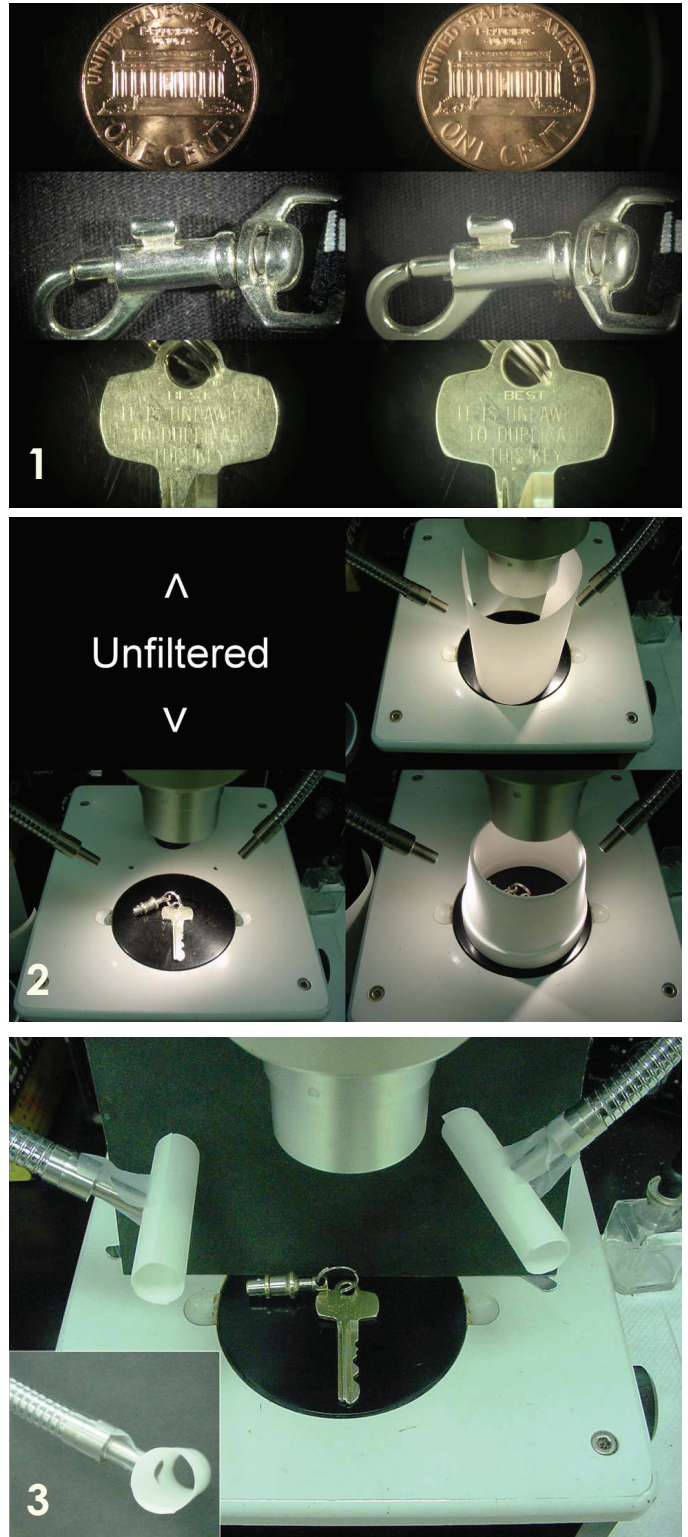
These images were taken with Nikon Coolpix 8800 digital camera set on aperture-priority auto mode. The light was provided by a fiber optic source with two arms set to the same output for each photo.

Try this the next time you cannot get rid of those blinding, shiny spots or obstructive shadows.

### References

1. Riedel, A. 2005: Digital imaging of beetles (Coleoptera) and other three-dimensional insects.
2. Longino, J. T. (2002): [www.notesfromunderground.org/archive/vol912/methods/pictures.html](http://www.notesfromunderground.org/archive/vol912/methods/pictures.html)

## TIP OF THE MONTH FROM THE ARCHIVES



### Diagnostics Committee

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

The Diagnostics Committee conducted a conference call on August 22, 2013, and the following agenda items were discussed:

- Committee membership: Sara is trying to balance membership from the different regions. Only one committee member from the WPDN and only two from the NCPDN. Melodie will solicit volunteers from the western region. Sara will talk with the north central folks to get leads on potential NCPDN members.
- Diagnostic training links: Gail Ruhl will be sending out an email to collect links from diagnosticians with the goal of collecting them on a website. Florida will be starting to put together some diagnostic training videos.
- Pythium web-based training: Sara is working with Gary Moorman on this. It will be geared toward diagnosticians.
- Diagnostician's Cookbook: Sara spoke with Joe LaForest and the protocols with a "stamp of approval" are on ones that were reviewed by individuals on this committee. Suggestion was made that there is a need for a periodic review process for protocol to edit and update them. Questions for an online survey were discussed.
- Other topics: update on Phytophthora kits

The next Diagnostics conference call is scheduled for October 17, 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 July 10, 2013, and the following agenda items were discussed:

Change submissions included:

- Request to include "Superficial fairy ring" was denied
- Request to add oak mistletoe as a host (plant ID) brought up that mistletoe list needs revision
- Request to add gray leaf spot (*Pyricularia oryzae*) which appears to have been removed. This is a taxonomic issue that needs to be settled before this committee can act.

Upload Guidelines: A list of definitions for the lab methods in the database was revised. RNA was added where DNA appears and "Sequencing" was added. These definitions are only guidelines and open to interpretation by each lab.

The next National Database call will be held September 18, 2013. ☺

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

### Training and Education

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

The Training and Education Committee conducted conference calls on July 15 & August 5, 2013, and the following items were discussed:

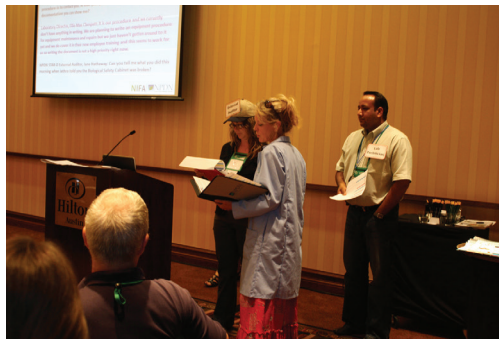
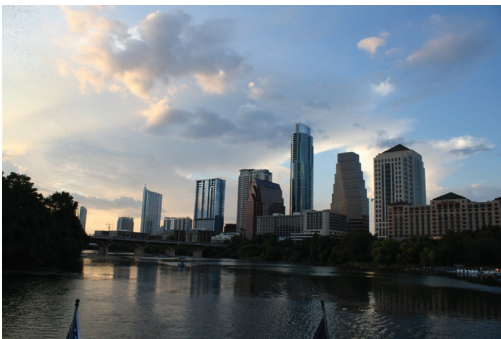
- Social media list: Everyone should review the social media list and make additions, also review and make suggestions as to how the T&E committee could adopt strategies to promote what we do. Purdue site has a button/graphic that takes visitors to the First Detector online training modules—this might be something all of us could look into putting on our own websites to help promote First Detector e-learning.
- Core module review: Everything has been reviewed but they have not been posted yet, possibly need one more call to finalize changes
- New EAB modules: These were done for NY state but could be adapted and modified for more regional or national use. They will be put on the First Detector site eventually. Rachel will post them for the module review committee to go over before final posting
- APS Training and Education committee flyer
- Other: continuing education credits, add T&E members to newsletter contributor lists, Healthy Trees-Healthy Cities initiative: utilizes invasives iPhone app

The next Training and Education call will be held September 9, 2013. ☺

**NPDN Town Hall (minutes)**  
**August 12, 2013, APS meeting, Austin, TX**

1. Reports from DC:
  - a. Jim Stack: The DC delegation of NPDN directors had very good comments from Sonny Ramaswamy this past spring and we are still a high priority for NIFA. Angela Records was an important part of the Washington delegation.
  - b. Marty Draper: Kitty Cardwell has been working on another task for the last 9 months of training. She was reassigned within NIFA (climate change and the environment). Marty is now our National Program Leader; Kitty will continue to be involved with the NPDN Advisory Committee. The database continues to be interesting and data continue to pour in. Another topic: Plant Health Progress could use some more submissions to the Diagnostics section. Our techniques documents would be perfect for this section, would get peer-reviewed and a wide audience. Another note, if you have interesting news on impacts of the network, pass them along and those will go up the chain to NIFA. Keep up the good work!
2. Data and Lab Management Systems:
  - a. Eileen: Lab Management Systems. We have several across the country that feed into the National Repository (DDDI, PDIS, Pclinic, in-house systems, online data entry system [direct entry, for entomology]). As of July 25<sup>th</sup>, we have 801,145 total sample records in the system (about 100,000 more than last year). The number of samples change year to year, sometimes due to things like regional drought. 10,125 unique pests, 3,200+ hosts. A new site for the repository was established/released 12/21/12. Reports are generated more quickly, and the system overall is more efficient, even at CERIS. A new report coming soon is the pest threshold report, which should be rolled out by December 2012.
  - b. The data that each lab has access to are their own data, and diagnosticians now have access to their region's data. What is the status of allowing the diagnosticians to see the national data? This is most important/relevant for bordering states from another region. The threshold report may be very useful for this, if you know what organism you are looking for. It will go by state (all samples that originated in a state, even if processed by another state).
  - c. One last item – CERIS group helped develop a Purdueplantdoctor.com. Eileen can show you how it works post-meeting on an ipad.
3. STARD: NPDN's Laboratory Accreditation Program—an update, scenarios, and how to get started in your laboratory (Karen Snover-Clift and Dawn Dailey O'Brien) ↗

Please visit [www.npdn.org/2013\\_aps\\_town\\_hall](http://www.npdn.org/2013_aps_town_hall) for the full minutes to this meeting



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Cornell University



Healthy Plants • Healthy World



## K-State Hires New Insect Diagnostician

*Eva Zurek, Department of Entomology, Kansas State University. Letter submitted by Sharon Dobesh, GPDN*

Hello my new colleagues,

I have been selected as the new Insect Diagnostician at the K-state Department of Entomology starting in the beginning of May 2013.

My education background is in General Agriculture (technical college) and later in Animal Science (BS from Mendel Agricultural University, and MS from the University of Alberta). Part of my training included courses in crop pest management, parasitology, general entomology, and apiculture. For the past thirteen years, I have worked with insects as a Research Assistant in Entomology departments. This includes 10 years in the Department of Entomology, IPM Center, North Carolina State University and three years in the Department of Entomology at K-State.

At NCSU, I have worked primarily as a database



analyst and webmaster and developed and maintained many IPM and pest alert related websites. I have also assisted with identification and image processing of many insects, primarily of those of public and veterinary importance (e.g. biting flies, bed bugs, cockroaches, and ticks). Recently, I have also worked as a contract database analyst for a company working with agriculture—based organizations and institutes. I have developed a weed identification key application for mobile devices provided for the Research and Extension at the University of Missouri. At K-State, I have been working as a par-time research assistant in the stored-product insect pest laboratory and maintained colonies of several insect pest species.

I am a horse owner, poultry keeper and also an avid gardener who grows more than 200 plant species on a limited space. My insect/arthropod experience therefore expands to identification of livestock and garden pests in the real life setting.

Looking forward to serve you,

Eva Zurek

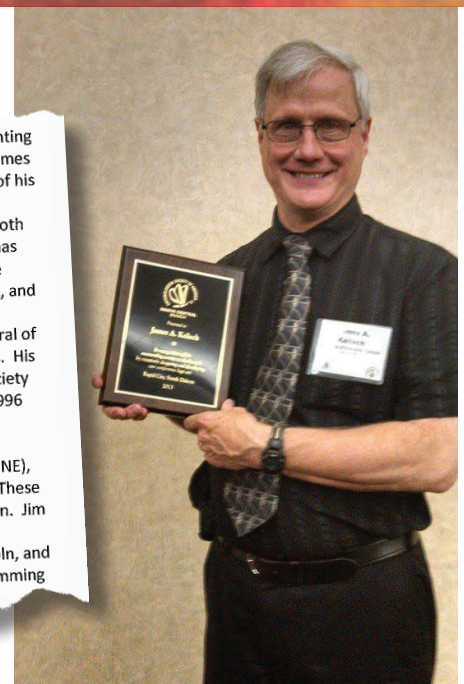
## Kudos! Jim Kalisch Receives ESA Award

*Submitted by Sharon Dobesh, Associate Director, GPDN, Kansas State University*

At the 68<sup>th</sup> Annual North Central Branch ESA meeting held June 16-19, 2013 in Rapid City, SD, Jim Kalisch, University of Nebraska-Lincoln, Entomology diagnostician, was presented with a Special Recognition Award for Outstanding Service to the NCB-ESA at the June 18<sup>th</sup> Awards Luncheon. 🍀



The North Central Branch is presenting a special appreciation plaque to James "Jim" Kalisch in acknowledgment of his dedicated service to create high-quality, professional logo art for both ESA and NCB-ESA meetings. Jim has served the Branch with his unique combination of scientific knowledge, artistic talent, and graphic arts proficiency to develop logos depicting regionally relevant entomological themes for several of our Society's conferences during the past 20 years. His many artistic works which have benefitted our society include images used at the following meetings: 1996 NCB-ESA Meeting (Omaha, NE), 2003 ESA Annual Meeting (Cincinnati, OH), 2007 NCB-ESA Meeting (Winnipeg, MB), 2012 NCB-ESA Meeting (Lincoln, NE), and the 2013 NCB-ESA Meeting (Rapid City, SD). These images will be shown during the Awards Luncheon. Jim is an Extension Associate in the Department of Entomology at the University of Nebraska – Lincoln, and has contributed to Extension educational programming for over 28 years.



## Destructive Tree Pest Found in Georgia

Georgia Department of Agriculture Press Releases

An invasive insect responsible for the death or decline of tens of millions of ash trees in 20 states has been detected in Georgia for the first time. According to USDA, suspect emerald ash borer beetles were removed from survey traps during routine monitoring in DeKalb and Fulton counties in July. Federal officials confirmed the specimens as EAB days later, setting in motion plans to prevent its spread and educate the public.

The Georgia Invasive Species Task force is working to execute the plan. This group consists of the Georgia Department of Agriculture, Georgia Forestry Commission, University of Georgia, Georgia Department of Natural Resources and USDA Animal and Plant Health Inspection Service.

“Forestry specialists have been monitoring the emerald ash borer for more than a decade, and have been surveying for the pest since 2005,” said Robert Farris, Georgia Forestry Commission Director. “We’ll need the public’s help in stopping it from spreading further.”

According to Agriculture Commissioner Gary Black, emerald ash borers “are hitch-hikers.” Black said emerald ash borer larvae live underneath the bark of ash firewood, hidden from view. People unknowingly give the pest a ride when they move emerald ash borer firewood between counties or from home to campsite. “Everyone can help by spreading the message, ‘Don’t move firewood,’” he said.

Farris explained that while only one percent of Georgia’s forested acres contain ash trees, the potential

destruction is significant. Some three million ash trees are in urban environments and another two million acres are in rural settings. Losses generated to the forest industry and the public could reach \$1 billion.

Because of known occurrences, DeKalb and Fulton counties are proposed to be quarantined to prevent potentially infested ash wood from spreading outside



© Mike Kelly via flickr

Emerald ash borer larval galleries in firewood.

this area. The Georgia Forestry Commission and Georgia Department of Agriculture are developing regulations in an effort to quell the spread of emerald ash borers. These rules are in draft form now and will be available for public comment soon. Both agencies will work with forest landowners, loggers, firewood producers, nurseries, municipalities and others to insure that commerce can still occur while safeguards are in place to prevent ash borer movement.

Visit [agr.georgia.gov/tree-pest-in-georgia.aspx](http://agr.georgia.gov/tree-pest-in-georgia.aspx) to read the full announcement at the Georgia Department of Agriculture website. 🌿

## NEW IN PLANT HEALTH PROGRESS

submitted by Jan Byrne, Associate Director, NCPDN

A Photographic Diagnostic Guide for Identification of the Principal Cranberry Fruit Rot Pathogens. L. D. Wells and P. S. McManus. 29 July 2013.

[Public Summary](#) | [Article](#)



# NATIONAL NEWS continued

continued from page 2...

served as laboratory members and the auditor in the scenario described how they handled the situation. Through questioning of the laboratory staff, the auditor found out that those test kits were only used by students to practice their techniques; the kits were not used for actual sample testing. In this situation, the auditor and the laboratory members should know exactly how the scope was defined and if the wording in the scope stated that the portion of the laboratory under accreditation only pertained to their processing of samples for clients rather than practice and student use which should fall outside of that scope of work. There was no testing being performed and no one was using these kits so this would not be a non-conformance issue but auditors are encouraged to ask staff members about how they would do procedures if they are not performing them at the time and if they didn't know where to go to get the active kits then it could be written up as a non-conformance in the staff member training area or in the testing procedures as not following the SOP. Auditors can't tell you how to run your lab but they might make an observation for a potential problem, in this case the expired kits are stored very close to the active kits and they could foresee someone easily grabbing the wrong kit. This could be a great opportunity for the lab to use their Preventive Action Report (PAR) system. The goal should be to write up this potential problem and go through the steps to change it before it becomes an issue. The take home message for this scenario was that each lab has diverse responsibilities and not everything will (nor should it) fall under the scope of the laboratory accreditation.

The final portion of the presentation focused on announcing a new tool to help diagnosticians begin implementing the STAR-D program in their laboratory. This new tool is a spiral bound booklet divided into eight steps. Each of the first seven steps provides tips for getting started, helpful hints and a place to schedule and track goals. The cover page is a map of walking through this process in your laboratory. The first page focuses on the things you should do before you start the process. The second page covers

getting the process started, followed by a page each for documents, personnel/training, equipment, sample handling, and corrective action reports (CARs) and preventive action reports (PARs). When all of these steps have been completed, the booklet has additional pages to list the other sections needing to be addressed before implementation can be completed, a suggestion for going back to review some of the earliest work, an area to jot down thoughts and ideas for improvements

and finally it concludes with a thank you to those that made significant contributions to this new tool. It was created at Cornell University by Karen Snover-Clift and Dawn Dailey O'Brien with a lot of help from our summer assistant, Katie Taylor but it could not have been done without all the hard work of the laboratory members that participated in the auditing exercises this past year and our colleagues at USDA-APHIS-PPQ-CPHST.

Our special thanks goes out to Kathy Burch, Pat Shiel, and Geoffrey Dennis, Judy O'Mara, Shouhua Wang, and Anne Vitoreli and to the Farm Bill and USDA-NIFA for financial support.

You can find the PowerPoint presentation on the NPDN webpage under "Meeting Information" and "2013 APS Town Hall" and an electronic copy of the "Getting Started" booklet on the STAR-D webpage under "Announcements". We only have a couple of the printed versions of the "Getting Started" booklet left but if you want to receive one, please contact us and we will determine if a second printing is needed. In the mean time you can print the booklet from the posting on the website. 📄



STAR-D scenario during the NPDN Town Hall.

© Dawn Dailey O'Brien, Cornell University



## UPCOMING EVENTS

### National Events

November 4–13, 2013

The 9<sup>th</sup> 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

Thousand cankers disease  
symptoms

*Walnut twig galleries and cankers  
in branch of hybrid walnut.  
Associated with walnut twig beetle.*



Ned Tisserat, Colorado State University,  
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)

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National Institute  
of Food and  
Agriculture