THE THIRD NP DN LABORATORY E ARNS STAR-D LABORATORY ACCREDITATION Karen Sno ver-Clift and Dawn Dailey O’Brian, NEPDN, Plant Pathology and Plant-Microbe Biology Section, Cornell University

We are very pleased to announce that the third NP DN laboratory, the Nevada Department of Agriculture Plant Pathology Laboratory (NDA-PPL), has received STAR-D laboratory accreditation! On March 2–3 2015, the laboratory staff members opened their doors and hosted external auditors for an intensive review of their procedures and materials. The NP DN STAR-D Board met in May to review the extensive, very detailed, External Audit Team report and based on that information provided, granted STAR-D accreditation to the NDA-PPL as of June 1, 2015. The term of accreditation is for a five year period with required written annual updates.

Our congratulations go to all the members of this laboratory who have worked so diligently to earn this honor, especially Rachel Bomberger and Shouhua Wang. This accreditation is the fruit of many hours of their hard work and is an opportunity for continual quality improvement of plant diagnostic services to their customers. This is a significant event for all of us as this is the first Department of Agriculture laboratory to gain accreditation. Both Rachel and Shouhua are trained STAR-D External Auditors which have allowed them to observe other labs’ STAR-D systems. Rachel began working for the Nevada Department of Agriculture in 2013. She told us, “As a developing professional, STAR-D has made a huge impact on my career. It has made it easy to be a new employee in the lab!”

STAR-D was created to provide an assessment of laboratories within the NP DN system. Accreditation through the STAR-D program signifies that a laboratory has met essential requirement and standards by demonstrating technical competence to perform testing, using reliable methodologies and equipment, and having both qualified staff and appropriate facilities. Accreditation to STAR-D is
currently a voluntary process whereby a laboratory’s quality management system is periodically reviewed in detail to ensure continued technical competence and compliance with the NPDN STAR-D requirements and standard. The goal is for all NPDN laboratories to become STAR-D accredited!

Of course, we need to mention the role of the STAR-D external auditors in the accreditation process. We can’t say enough about the integrity, dedication and time commitment put in by ALL of the STAR-D external auditors. Their commitment to ensuring that STAR-D is a quality program is truly remarkable! This audit team consisted of Dawn Dailey O’Brien and Karen Snover-Clift, both of Cornell University (NEPDN) and Kathy Burch of USDA-APHIS-PPQ Science & Technology.

Future plans for the STAR-D program include three upcoming training opportunities for all NPDN members. Phase 2/Gap Audit Workshops are in the planning stages for the Oregon Department of Agriculture (September 22–23, 2015), Iowa State University (December 8–9, 2015, and the University of Puerto Rico (February 23–24, 2016). We have a spot available for one more Phase 2/Gap Audit. If you have begun implementing STAR-D or plan to very soon and are interested in receiving a Gap Audit in 2016, please let us know as soon as possible. We also plan to conduct three more accreditation audits in the remainder of 2015 and through 2016, so we may possibly double our accredited labs in the next year.

The NPDN 2016 4th National Meeting agenda is now online. Please visit http://conference.ifas.ufl.edu/npdn/ for more information including registration and program details.

**Early Registration Deadline**
October 30, 2015

**Hotel Reservation Deadline**
January 31, 2016

- Tuesday, March 8, 2016: Regional meetings for NEPDN, SPDN & WPDN
- Wednesday and Thursday, March 9–10, 2016: meeting program
- Friday, March 11, 2016: field trips
- Saturday, March 12, 2016: workshops

2016 NATIONAL MEETING

**Symposia Topics**

- Advancing Diagnostics to Meet Plant Health Needs: NPDN Partnerships
- Advancing Diagnostics for Emerging Pathogens and Pests Affected by Global Trade and Climate Change
- NPDN’s Role in Advancing Diagnostics: Increasing Capacity for Increased Food Security and Economic Stability
- Advancing Diagnostics Using Novel Methods to Improve Prevention, Detection and Diagnosis for Food Security and Trade
How to add ‘STAR-D accredited logo’ on report/invoice

Judy Dizon, PDIS, Department of Plant Pathology, Kansas State University and Karen Snover-Clift, Plant Pathology and Plant-Microbe Biology Section, Cornell University

As laboratories start implementing STAR-D, we need a way of allowing the labs to advertise their accreditation status on their reporting materials generated by the lab management systems. PDIS was approached by the Cornell University staff to begin this process since they are PDIS users. Other lab management systems will be given the information at the upcoming IT-diagnosticians meeting. The PDIS programming staff developed a method for “pasting” the STAR-D accredited logo into the reports generated for sample submissions. A PDIS programmer will need to turn on the feature and the laboratory needs to change the settings in their laboratory set up.

If your laboratory has gained accreditation from NPDN, you have the option to display the STAR-D accredited logo on your PDF reports/invoices. NOTE: At this time, this feature can only be turned on by a PDIS programming team member with authorization from the STAR-D staff.

1. Select Laboratory Accounts from the Administration Menu
2. Select a lab and click on the pencil icon then go to the ‘Advanced Lab Info’ tab
Diagnostic workshop in East Lansing
Jan Byrne, Diagnostic Services, Michigan State University

Prior to the North Central APS meeting a molecular diagnostics workshop was hosted by the Chilvers lab at Michigan State University in East Lansing as part of the NIFA OSCAP project and North Central Plant Diagnostic Network (NCPDN). Attendees from across the region were trained in the implementation and interpretation of real-time quantitative PCR techniques including assays for *Fusarium virguliforme* and a multiplex *Phytophthora* genus and a species specific assay for *P. sojae* and *P. sansomeana*. The workshop also introduced participants to Recombinase Polymerase Amplification (RPA), an isothermal amplification method, which allows for rapid in-field diagnostics in just 30 minutes including sample preparation. The trainers included Jie Wang, Alejandro Rojas, Mitch Roth and Janette Jacobs from the Chilvers lab, who were able to provide insight into development and application of the assays. Also participating as trainers were Jan Byrne from the MSU Diagnostic Services lab, Timothy Miles from California State University Monterey Bay who has been working with Frank Martin of USDA-ARS in development of *Phytophthora* assays and Paul Russell from Agdia Inc. ✦
Sentinel Plant Network diagnostic workshop in Minneapolis, MN
Rachel McCarthy, NPDN-SPN, Plant Pathology and Plant-Microbe Biology, Cornell University

On June 22, the Sentinel Plant Network (SPN) sponsored a special diagnostic workshop at the University of Minnesota as part of the 2015 American Public Gardens Association (APGA) annual conference in Minneapolis. Eighteen people participated in the workshop which featured lectures, demonstrations, and field and laboratory exercises. This was SPN’s first workshop that focused solely on plant diagnostics for SPN members and other public garden professionals.

The diagnostic workshop was marketed to SPN members looking to improve their diagnostic skills of basic plant problems in their collections. Michelle Grabowski (UMN Extension plant pathologist) and Jeff Hahn (UMN Extension entomologist) lectured on diagnosing plant problems then alternated between lecture and laboratory exercises on signs and symptoms. After lunch, Ray Hammerschmidt (NPDN Executive Director, NCPDN Director) provided an overview of the NPDN and spoke of the importance of the SPN program and the NPDN/APGA partnership. He also encouraged SPN members to send more samples to NPDN labs!

The group was divided into two for the remainder of the afternoon to allow for more intensive hands on laboratory exercises with Brett Arenz (UMN Plant Disease Clinic director) and a signs and symptoms walk around campus with Michelle and Jeff. In the lab, Brett reviewed how to use a compound microscope and then demonstrated common lab procedures including an ELIZA test and how to make slide mounts. Following each demonstration participants were able to practice the procedures on their own. Each participant was excited to witness bacterial streaming on a slide they prepared as well as view and draw spores of powdery and downy mildews from their tape mounts. Awesome!

The walk was just as great! Participants were able to test out what they learned that morning by putting their diagnostic skills to work in the field. At each stop, Michelle and Jeff encouraged participants to work through the diagnostic process to identify symptoms and signs and thereby diagnose the problem.

Upcoming SPN workshops this fall!
SPN will be holding two professional development workshops this fall: September 22–23 in Washington DC and October 5–6 in Madison, WI. If you are interested in attending please contact Rachel McCarthy at rachel.mccarthy@cornell.edu.
Grapevine virus problems in CA grapes
Maher Al Rwahnih, Foundation Plant Services, University of California at Davis

Times are changing in the Napa Valley. The picturesque vineyards still grow their renowned varietal grapes, and the world-class wineries there producing their famous vintages. But growers are now challenged with a leafroll virus epidemic that has been slowly spreading across the valley for the last hundred years. The virus is prevalent in older established vineyards, but the infections there can be asymptomatic. However, new vines on more modern rootstocks, which when planted were free of the virus, are now becoming diseased.

In the past tending the vines was simpler. The growers could grow their own replacement stock by grafting cuttings of their choice cultivars, and use that material to renew their vineyards and maximize productivity. But latent leafroll Grapevine leafroll-associated virus 3 (GLRaV-3) infection can become symptomatic and damaging if grafted onto some of the modern rootstocks. Healthy-looking, home-grafted propagation stock may turn up infected after the plantings have become established.

Foliage of red grape varieties turn red between the veins in the fall (white grape varieties turn chlorotic) and the edges of the leaves roll under. Those vines prematurely loose vigor and suffer a reduction in yield, irregular ripening, and lower berry sugar content. Furthermore, an infected plant among the rows is a source of disease proliferation. Mealybug larval instars crawl or blow from one vine to the next carrying the virus. The focal point of the disease expands, spreading to ruin the productivity of the vineyard.

Leafroll disease is caused by old-world viruses that came to the U.S. in imported propagative plant material of the classic European varietal selections —material that showed no symptoms when it was planted. When the infected propagation material was transplanted to California vineyards, the insect vectors of the disease picked up the virus and carried it into the hills overlooking the valleys. There it established further asymptomatic presence in the native wild Vitis californica grapevines. Now the disease is endemic across the area.

There are five main recognized GLRaV species. GLRaV-1, GLRaV-3, and GLRaV-4, are transmitted by mealybugs and scale insects in California. There is no known vector for GLRaV-2, so despite its adverse effect on grapevine health and wine quality, is not considered to be as much of a threat because it has not been seen to spread on its own. GLRaV-7 is a mild form of the virus, the potential of which is still under study. Among these, GLRaV-3 is the major concern, due to its wider distribution in our grape growing regions.

This is an excerpt from an article published in the spring 2015 edition of the Western Plant Diagnostic First Detector News. To read the full article visit http://www.wpdn.org/newsletters.

### JOB OPPORTUNITIES

**Plant Pest & Disease Manager, Plant Protection**
Department of Agriculture, Trade & Consumer Protection, Wisconsin

The Division of Agricultural Resource Management has decided to re-announce this position in order to ensure that all available candidate pools have been reached. If you applied to the original posting for this position you do not need to reapply at this time. Please see the link below for further information.

http://wisc.jobs/public/job_view.asp?annoid=82832&jobid=82346&org=115&class=56250&index=true

If you have difficulty with the link above, please go to the state job website www.wisc.jobs and search by our agency (DATCP) to view our active recruitments and to preview the applicable exam.

Application deadline is **Sunday, July 12, 2015.**
UPCOMING EVENTS

Meetings

August 1–5, 2015
2015 APS Annual Meeting
Pasadena, CA

August 2–6, 2015
National Plant Board 2015 Annual Meeting
Sedona, AZ

November 15–18, 2015
Entomology 2015
Minneapolis, MN

March 8–12, 2016
NPDN 4th National Meeting
Washington DC

PHOTO OF THE MONTH

Elm leafminer (Kaliofenusa ulmi) larval tunneling on American elm (Ulmus americana)

Whitney Cranshaw, Colorado State University, 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