SECOND STAR-D DOCUMENT ROUNDUP HELD AT CORNELL UNIVERSITY

The STAR-D Document Roundup 2 (DRU2) was held on November 15–17, 2016 at Cornell University in Ithaca, NY. This workshop was created because we understood that setting aside a block of time to create these documents can be difficult with all the other demands at the office and the laboratory. In addition, questions may arise as people begin customizing the templates for their situation, potentially making them feel stuck in the process. So…we decided to offer a block of time with access to those who can provide answers.

This subsequent meeting to the Document Roundup provided three days of focused work on creating the laboratory specific, STAR-D documentation with time periods for discussions about questions and suggestions that arise. Because the agenda was focused on document creation and didn’t include any formal presentations, participants had the option to stay for one, two or all three days. Thirteen people made the trip to Ithaca and were rewarded with some unusually warm temperatures for mid-November. Most opted to stay for all three days. Participants were at different stages of their document creation process…some had not started working on documents, a few had numerous documents in place and most were somewhere in between. Three instructors, Karen Snover-Clift, Dawn Dailey O’Brien and Kathy Burch (USDA-APHIS-PPQ-S&T) were present to help answer individual questions during the document creation process. If the instructors thought the question and answer would be beneficial for all to hear, it was noted and discussed during one of the discussion periods each day.

Questions involving the STAR-D templates seemed to be the most common topic during the workshop. The main confusion when using the templates is when can you just use it and when do you need to make it your own form if you plan to use it. The STAR-D templates were created to give users a starting point, an example of what a form may look like, and to serve as a guide for your current documentation. You are not required to use them! You have options. For example, use what already works for you. If you have a form that keeps your laboratory equipment inventory and you like it, this may be used for your Equipment Master List as long as it fulfills the STAR-D requirements. Check the STAR-D Requirements & Standards document to be sure, maybe no modifications will be needed or only minor changes will need to be made, either way this will be an easy transition and you get to keep what has been working for you. The main issue that comes up when using pre-existing documents, be sure they are uniquely identified and follows the formatting you outline in your document format procedure.

One discussion period began with the participants sharing with each other how they decided to begin

Issue Highlights

- Ninth IPM symposium
- NPDN/USDA-APHIS advanced diagnostic workshops
- Sentinel Plant Network year end survey
- Pea leaf weevil detected in North Dakota
- PDIS feature changes
- Social media tips
the process. Some had decided to lay out the entire number system up front so as documents were created they could complete them and would not have to return to the document until changes were needed. Another decided to create all the documents and then go back and add their numbering system once they were completed so they had a better idea of how to group them and which should share certain numbers or letters. Additional topics discussed during the discussion sections included the STAR-D process; the timetable for lab’s implementing to becoming accredited; defining newer terms and procedures such as CARs and PARs, Internal Audits, Management Reviews and non-conformances; who can authorize the documents and showing a method for saving and storing the documents in electronic folders.

The participants included Joan Allen, (University of Connecticut), Tim Burks, (Louisiana State University Agricultural Center), Elizabeth Bush, (Virginia Tech University), Ricky Corder, (University of Arkansas), Jennifer Flynn, (University of Minnesota), Colette Gabriel, (The Ohio State University), Mary Ann Hansen, (Virginia Tech University), Yonghao Li, (The Connecticut Agricultural Experiment Station), Sam Livingston, (Sunburst Plant Disease Clinic Inc.), Gabriella Maia, (The University of Vermont), David McCann, (Ohio Department of Agriculture), Connie Tande, (South Dakota State University), and Meg Williamson (Clemson University).

The goal of this workshop was to provide NPDN members a block of time to focus on STAR-D document creation and we think we succeeded. One participant said “Having…the time to focus on organizing and preparing the necessary documentation for STAR-D helped to make some real head way in getting the accreditation process completed.” Another said “The workshop gave me a space to work and concentrate on making my documents while also having access to the “experts” to answer my questions as they came up. After attending I feel much more confident and informed about the process and confident that we can get our documents done for a gap audit.” Mary Ann Hansen went on to tell us that she found this time very helpful and that she and Elizabeth Bush were thinking of scheduling a time every month when they would leave the lab and their offices and go to an isolated spot to work on their documents.

Future STAR-D training opportunities will be advertised in the NPDN News, on NPDN’s website and through postings to the regional listservs.

The Ninth International Integrated Pest Management (IPM) Symposium
March 19–22, 2018 | Renaissance Baltimore Harborplace Hotel, Baltimore, Maryland USA

The International IPM Symposium is your premier global event for professional development, networking with colleagues and leading scientists, and learning the latest research and strategies for effectively managing pests in agriculture communities, and natural areas. In 2018, we will organize around an important theme, IPM: Improving Health, Environment and Global Sustainability.

Plans for 2018 include mini-symposia featuring international experts addressing hot topics including management solutions for newly introduced pests, as well as sessions for agricultural and food company leaders, and increased opportunities for student participation and recognition. Also new in 2018 will be a coordinated opportunity to visit policymakers on Capitol Hill to educate them on IPM needs and benefits for your sector and clientele.

Participants will also enjoy the very best activities of previous symposia including concurrent sessions, posters, awards, exhibits, and plenty of opportunities to meet with cooperators and potential collaborators. Sessions will address IPM across disciplines, internationally, and in the market place, urban settings, greenhouses and more.

Past participants at this premier international IPM event have included researchers, teachers, Extension educators, independent consultants, the agriculture and food community, IPM practitioners, academics, government scientists and administrators, employees of non-governmental organizations, students, and business professionals from the U.S. and more than 30 countries.
Announcing the 2017 NPDN/USDA-APHIS advanced diagnostic workshops
Karen L. Snover-Clift, Cornell University and Mark Nakhla, USDA-APHIS-PPQ-S&T, Beltsville Laboratory

The NPDN Diagnostics Program Area Committee and members of USDA-APHIS-PPQ-Science & Technology Beltsville Laboratory are pleased to announce the 2017 advanced diagnostic workshops. These workshops have been a great collaborative effort that benefits all involved. Those of you that attended the NPDN national meeting in March of 2016 may remember that the instructors of these workshops were recognized for their outstanding contributions to the NPDN mission and to protecting US agriculture and natural systems.

The workshops will begin this year with a new workshop developed by the NPDN STAR-D planning team; Pat Shiel, Kathy Burch, Dawn Dailey O’Brien and Karen Snover-Clift. “The STAR-D Introduction to Quality Management Systems” workshop was created based on feedback from NPDN members from previous STAR-D events which indicated using the STAR-D documents throughout the training would improve the participants’ experience. The USDA-APPIS-PPQ-S&T and NPDN leadership recommended that training could take place at the CPHST Beltsville Laboratory in conjunction with other NPDN training events occurring there. In response to this feedback, the STAR-D planning team members developed modules that cover all the key topics of STAR-D and common concepts of quality systems. This workshop will be similar to the previous QMS workshops held in Ames, Iowa in 2011 and 2015 but will be based on the STAR-D documents and will focus on plant diagnostics. The instruction for the new STAR-D QMS workshop will be provided by the planning team members as well as Jason French of New Mexico State University (NMSU) and Deric Picton of the USDA-APHIS-PPQ Beltsville Laboratory. Jason has a lot of experience to offer the participants, with years of extensive training in quality management to become a STAR-D external auditor and experience serving as a lead auditor on external site visits. He manages the NMSU diagnostic laboratory, which achieved STAR-D accreditation earlier this year. Deric is the CPHST Beltsville Laboratory operational diagnostics manager and is currently serving as the Beltsville Laboratory quality manager and he too has extensive training in quality management systems. His expertise was an important contribution to the laboratory successfully gaining ISO-17025 Accreditation in August of 2015.

In total, 10 workshops will be offered during a six week time period between February 28 and April 5, 2017. These workshops are held consecutively so the Beltsville staff can focus on these sessions during this six week period and then devote the rest of the year to other activities. As has been the case for the past six years; expenses for travel, lodging and meals will be covered by a supplemental grant for diagnostician training so you WILL NOT need to use your funds from this year’s NPDN allocation. All expenses will be processed through Cornell University. There is no registration charge for the workshops or for meeting materials. These expenses are covered by our colleagues at the Beltsville Laboratory.

During the spring of 2017, the following topics will be offered (refer to the calendar as well):

- **Week 1**: STAR-D Introduction to Quality Management Systems, February 28–March 2, 2017, 3 days
- **Week 2**: (first half), Phytophthora 101 Workshop-Session #1, March 6–8, 2017, 3 days
- **Week 2**: (second half), Phytoplasmas Workshop-Session #1, March 9–10, 2017, 2 days
- **Week 3**: (first half), Potato Cyst Nematode Workshop, March 14–15, 2017, 2 days
- **Week 3**: (second half), Plum Pox Virus Workshop, March 16–17, 2017, 2 days
- **Week 4**: (first half), Bioinformatics Workshop-Session #1, March 20–22, 2017, 3 days
- **Week 4**: (second half), Phytoplasmas Workshop-Session #2, March 23–24, 2017, 2 days
- **Week 5**: (first half), Phytophthora 101 Workshop-Session #2, March 27–29, 2017, 3 days
- **Week 5**: (second half), Citrus Greening-HLB Workshop, March 30–31, 2017, 2 days
- **Week 6**: Bioinformatics Workshop-Session #2, April 3–5, 2017, 3 days

A description of each workshop follows on the next page. It is provided here for those of you that are interested in learning more about the workshop before signing up and because some participants need this level of detail to request permission to attend.
**Week 1: STAR-D Introduction to Quality Management Systems, February 28–March 2**
The STAR-D Introduction to Quality Management Systems workshop is the first workshop recommended for those members who want to learn the basics of quality management systems and the NPDN’s laboratory accreditation program, STAR-D. This 3-day workshop was developed as an introduction to quality management systems, similar to the training provided by the AAVLD quality managers previously conducted at the National Veterinary Services Laboratory in Ames, Iowa, but specifically designed for plant diagnosticians and based on the STAR-D Standard. The agenda includes two days of lecture and review in the form of fun, competitive games and a third day of that will have participants performing a mock audit at the Beltsville Laboratory followed by a review of the findings and how to write nonconformances. The workshop will cover management and technical requirements to include organization and management, subcontracting, document control, records, purchasing, corrective and preventative actions, nonconformances, internal audits, management reviews, facilities, equipment, training, sample handling, test methods and test results and will use the STAR-D Requirements and Standard as the reference required for compliance to this system.

**Week 2 (M–W): Phytophthora 101-session #1, March 6–8 and Week 5 (M–W): Phytophthora 101-session #2, March 27–29**
The Phytophthora 101 workshop is most likely the most requested workshop we offer each year. We often fill the available spaces very quickly and often have a waitlist. Because of this, we will again offer the Phytophthora 101 training session twice during the 2017 workshop time period. The session is 3 days long and covers ELISA, DNA extraction, conventional PCR (nested and multiplex) using *Phytophthora ramorum* as the target, real-time PCR (ITS and Elicitin) using *P. ramorum* and *Phytophthora kernoviae* as the target, and interpretation of results.

**Week 2 (Th–F): Phytoplasmas workshop-session #1, March 9–10 and week 4 (Th–F): Phytoplasmas workshop-session #2, March 23–24**
The phytoplasmas workshop was a new topic offered for the first time in the spring of 2015. It was so popular, we needed three sessions and we needed to expand
the number of places from 8 to 9 in each of those sessions to provide a spot for everyone interested in attending. The interest continued in 2016 and again this year, so we are offering two sessions in 2017 to accommodate those that hope to attend this workshop. The workshop will use apple proliferation as a model for phytoplasma disease analysis. It is a 2 day session that includes lecture and hands on training on DNA extraction, conventional and real-time PCR, and sequence analysis.

**Week 3 (T–W): Potato Cyst Nematode workshop, March 14–15**
The Potato Cyst Nematode workshop has not been offered since the fall of 2009. At that time, there was so much interest, we needed to hold three sessions in order to accommodate all the interested diagnosticians. The workshop will provide a very detailed morphological characteristic lecture that will include numerous images of various nematode anatomy and molecular technique lecture and laboratory practice.

**Week 3 (Th–F): Plum Pox Virus, March 16–17**
The Plum Pox Virus workshop was offered in 2015 for the first time in a few years and then again in 2016. Our survey requesting topics indicated that it is needed again in 2017. It is a 2 day session that includes lecture and DAS ELISA instruction for PPV screening.

**Week 4 (M–W): Bioinformatics workshop-session #1, March 20–22, and week 6 (M–W): Bioinformatics workshop-session #2, April 3–5**
In previous years this workshop has been offered as a part I and a part II and then as a combination of the two parts. This year it will include a new section on next generation sequencing. This 3 day workshop includes detailed guidance on sequencing PCR amplified fragments either directly or after cloning. The session will cover analysis of obtained sequences from both plus and minus strands, editing sequences, blasting sequences, understanding blast results based on size and gene target, when to directly sequence PCR products or clones, which genes are used for sequence analysis for fungi, bacteria, and viruses, what sequence analysis programs are available commercially or as freeware, and hands-on use of sequence analysis programs using sequences from case studies for different pathogen types, and allowing the participants to work with their own sequences.

**Week 5 (Th–F): Citrus Greening-HLB workshop, March 30–31**
The Citrus Greening-HLB workshop will be offered again this year because of the continued disease presence and spread which provides the need for Citrus Greening-HLB training. This session will be done over a 3 day period and will include lecture, DNA extraction and real-time PCR for screening.

More specifics about travel and lodging will be sent directly to participants before the end of December so that they can make their travel plans. Travel expense reimbursement will be covered by a supplemental grant but funds for reimbursement of travel expenses are limited. Priority will be given on a first come, first served basis in order by request received until funds are exhausted. Please sign-up as soon as possible to ensure your spot in the workshop and your expense coverage! If you are interested in participating in any of these workshops listed here please contact Mary Ann Karp at mah31@cornell.edu and copy Karen Snover-Clift at kls13@cornell.edu. Thank you!

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**Sentinel Plant Network announcements**

The NPDN Sentinel Plant Network year end survey will be sent out in December. SPN’s sample submission protocol as well as articles from the NPDN newsletter on how to enter and retrieve SPN data in the National Repository is available on NPDN’s Sentinel Plant Network page on the NPDN website. (login required)

Calling interested diagnosticians! We are planning three Sentinel Plant Network professional development workshops for 2017. If you would like to participate in one of the workshops or are interested in more information please contact Rachel McCarthy at rachel.mccarthy@cornell.edu.

**Middle Atlantic gardens——Spring 2017**
**Northwest gardens and Midwest gardens——Summer of 2017**
Pea leaf weevil detected in North Dakota
Patrick Beauzay, Janet Knodel and Jesse Ostrander, North Dakota State University Extension Service, North Dakota State University

Pea leaf weevil, *Sitona lineatus* (L.), has been confirmed from Golden Valley Co., North Dakota. A pea producer noticed large numbers of insects on his combine while harvesting green peas near Beach, ND, and collected 18 specimens from the combine at clean-out. The sample was collected on September 13 and received by the North Dakota State University Plant Diagnostic Lab on September 30. All specimens in the sample were positively identified as pea leaf weevil by Patrick Beauzay, NDSU Extension Entomology Research Specialist. Pea leaf weevil is recognized by having the anterior margins of the procoxal cavities touching or very nearly touching the transverse furrow on the prosternum (see red arrow in photo)—no other North American *Sitona* species has this characteristic (Bright 1994).

Pea leaf weevil is a serious economic pest of peas. This adventive European species is established in the Pacific Northwest, and its range has expanded eastward into southwestern Saskatchewan as far east as Moose Jaw, and central Montana near Lewiston (Saskatchewan Ministry of Agriculture 2015, Wanner 2016). The North Dakota detection represents a significant range expansion of approximately 250 miles into a pea-producing area in western North Dakota and possibly eastern Montana.

References cited

NPDN–WPDN nematology workshop
June 20–22, 2017
University of California, Davis

Registration will open in January.
For information contact Dick Hoenisch at rwhoenisch@ucdavis.edu, or phone 530-754-2255.
PDIS feature changes

Judy Dizon, Plant Diagnostic Information System (PDIS), Kansas State University

I. Diagnosticians now have the option of editing an existing Prepared Report from the Diagnostics Module.

1. Select the Prepared Report to edit by clicking on the import button.

2. Edit the report content then click on the save button.

NOTE: Change the keyword to save the report as a new Prepared Report.
II. When doing an advanced search, ‘Contact/submitter Name’, ‘Diagnosis/ID’, ‘Host/Habitat’, and ‘Submit Date’ criteria are selected by default.

*Note: All these fields are optional and may be left blank.*

III. When opening a completed sample up, the default task selected in the Sample Dashboard page is the ‘Diagnosis & NPDN Upload’ task.
IV. Time Period Report – Table 10. Number Sample Submission and Diagnosis/ID by Host/Habitat

The total number of host is now included together with the total number of diagnoses.

<table>
<thead>
<tr>
<th>Host/Habitat</th>
<th>Diagnosis/ID</th>
<th>Confirmed</th>
<th>Not Detected</th>
<th>Suspected</th>
<th>Inconclusive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abnormal fruit development (Abiotic Disorder)</td>
<td>Wheat yellow mosaic (WYMV)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Absinth wormwood (Artemisia absinthium)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lance nematode (Aphanomyces euteiches straturatus)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Abelia (Abelia sp./spp.) (Host, Diagnosis/ID) (2,4)</td>
<td></td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Acacia pseud (Acacia n.r.)</td>
<td></td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Acacia rust (Ravenelia sp./spp.)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Awi nematode (Dolichoderus pulvinus)</td>
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<td>1</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Lance nematode (Aphanomyces euteiches straturatus)</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Adzuki Bean (Vigna angularis) (Host, Diagnosis/ID) (2,4)</td>
<td></td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Abnormal root development (Unidentified Agent)</td>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
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<tr>
<td>African Acacia (Faidherbia albida) (Host, Diagnosis/ID) (11,11)</td>
<td></td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
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<tr>
<td>African Rhizoma (Ravenelia thorieniana)</td>
<td></td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
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<tr>
<td>African Blue basil (Ocimum idilmansparcium) (Host, Diagnosis/ID) (1,1)</td>
<td></td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
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</table>

...end PDIS feature changes
Are you getting the most of your social media?
Lina Rodriguez Salamanca, Plant and Insect Diagnostic Clinic, Iowa State University
@Linaplantdoc, www.facebook.com/ISUPIDC

Regardless if you are into social media or feel complete apathy about it, social media is here to stay! And it is an opportunity for our network of diagnosticians to be involved with our stakeholders. I hope all of you who attended the Kanuga Ornamentals conference were as inspired as I was by Alan Windham’s social media presentation—all the points he made, how he connects with people and shows not only his followers in Tennessee but nationally, the importance of pathogens and pests in our landscapes.

If you have tips to share, please do! The newsletter is a great place for it.

SOME TIPS TO GET YOU STARTED

1. Follow @NPDN (https://twitter.com/NPDN) and National Plant Diagnostic Network, Training and Education Page (www.facebook.com/NPDNFirstDetector/)

2. People engage with photos and videos, and you can amplify the reach of your post by tagging a colleague and/or adding a hashtag. What are hashtags? They work as keywords or trends to keep tweets and posts connected. If posting something about an invasive species, pest or disease include hashtags such as #invasives, #FirstDetector, #EDRR, #GetInvolved, etc. so your NPDN colleagues on social media can amplify your post.

3. Not sure where to start? You could follow colleagues or clinics, below are some examples.

Invasive pests and diseases
NPDN First Detector @NPDN
Don’t Move Firewood @dntmovefirewood
HungryPests @HungryPests

Professional societies
APS @plantdisease
Entomology Society @EntsocAmerica

Diagnosticians & colleagues
Alan Windham @UTPlantDoc
Brian Hudelson @UWPDDC
Carrie L Harmon @flplantdr
Nancy Gregory @Nangreg
Tom Creswell @tomcreswell

Some clinics
PPDL @PurduePPDL
Plant Disease Clinic @plantclinic
TX Plant Clinic @txplantclinic
PDIDL @OSUsickplants

USDA
USDA @USDA
USDA-APHIS @USDA_APHIS
NIFA @USDA_NIFA
USDA-ARS @USDA_ARS

Do you have any accounts you recommend to follow? Tweet me at @Linaplantdoc or send me an email lina@iastate.edu.
UPCOMING EVENTS

Meetings

August 5–9, 2017
2017 APS Annual Meeting
San Antonio, Texas

August 12–17, 2017
National Plant Board 2017 Annual Meeting
Savannah, Georgia

November 5–8, 2017
Entomology 2017
Denver, Colorado

March 19–22, 2018
Ninth International Integrated Pest Management (IPM) Symposium
Baltimore, Maryland

PHOTO OF THE MONTH

Balsam fir Christmas trees damaged in early spring. Plantation was in a cold air pocket and winter injury was the likely culprit. Photo taken near Antigo, Wisconsin (NE Wisconsin).

© Steven Katovich, USDA Forest Service, 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

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