

# Creation and Implementation of STAR-D, a Laboratory Accreditation Program for the National Plant Diagnostic Network (NPDN) Laboratories



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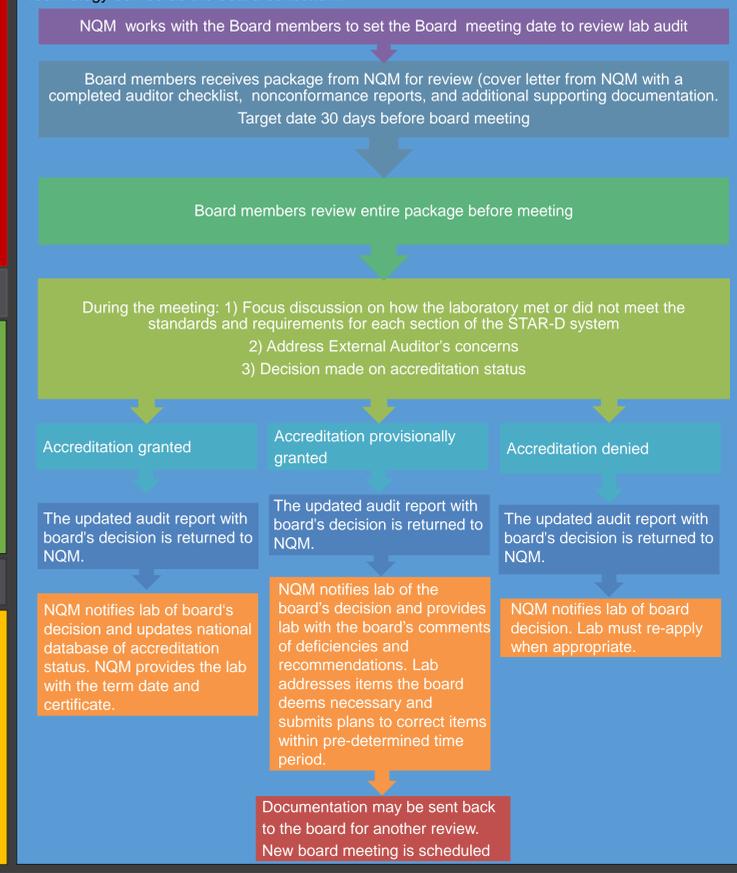
## Abstract

The System for Timely, Accurate and Reliable Diagnostics (STAR-D), Laboratory Accreditation Program is the result of an effort put forth by the National Plant Diagnostic Network (NPDN) and a collaboration with the USDA-APHIS-PPQ-S&T to establish and implement a laboratory accreditation system for the NPDN's Land Grant University and State Department of Agriculture plant diagnostic facilities. STAR-D was created using the ISO/IEC-17025 international laboratory standard and the American Association of Veterinarian Laboratory Diagnosticians (AAVLD) accreditation system as models. This program is improving many aspects of early pathogen and pest detection for the network members by establishing requirements and standards. The goal is to have STAR-D accredited diagnostic labs recognized by their clients as suppliers of superior lab services and as fully responsive to urgent sample surges. To attain that goal, trainings— Quality Management System (QMS) Workshops and Phase 2-Internal Auditor Workshops— have been utilized and developed to inform and guide the membership in implementing STAR-D in their laboratories. Additionally, two ISO/IEC-17025 Auditor Trainings were provided to members who will serve as External Auditors. The first laboratories were granted accreditation status May 2014 and to date three laboratories have gained accreditation with an additional seven laboratories completing the preliminary step of a gap audit. Implementation of STAR-D among NPDN laboratories is well underway with many labs incorporating the program's requirements and standards, with a trained auditor pool prepared to provide accreditation audits and with many labs preparing for the final step of an external accreditation audit.

## STAR-D Board Membership and Responsibilities

The STAR-D Board plays a critical role in evaluating whether a laboratory has met all the requirements needed to gain accreditation status. The board members work with the NPDN STAR-D National Quality Manager and Coordinator to evaluate the evidence collected by the External Audit Team. The evidence is often extensive and no small task given that the report and associated documents can reach over 80 pages of information.

In July of 2015, the board structure was changed to expand the diversity of the membership. Two NPDN directors, Jeff Jones and Ray Hammerschmidt (who served on the board since its establishment), stepped down to allow room for the new members. New members to the board include James Farrar, Western IPM Center; Pat Shiel, USDA-APHIS-PPQ Science & Technology; Georgios Vidalakis, National Clean Plant Network; and Ruth Welliver, Pennsylvania Department of Agriculture. Continuing board members include Rick Bostock, Marty Draper, Marc Fuchs, Eileen Luke, and Jim Stack. In addition, Kathy Burch from USDA-APHIS-PPQ Science & Technology serves as the board consultant.



## STAR-D Document Round-up Workshop



The NPDN STAR-D Pre-Conference Document Roundup was held preceding the 4<sup>th</sup> NPDN National Meeting on March 08, 2016. At the time of printing of this poster, 50 people were signed up for the workshop. The workshop was designed for NPDN members who were interested in developing their core STAR-D-documents.

Whether the laboratory had absolutely no STAR-D-QMS documents started or had numerous documents in place, they were encouraged to participate and benefit from interaction with member-instructors who had either gained accreditation, received their gap audit or were trained as External Auditors.

Our goal for participants was for them to leave the session having completed many documents and with the knowledge needed to tackle more. Participants were given a thumb drive containing the workshop materials, STAR-D document templates and numerous examples of documents created by other laboratories for use and comparison while creating their own.

## Completed Gap Audits/Awaiting Accreditation

- Texas A&M University
- Michigan State University
- New Mexico State University
- Kansas State University
- Oregon Department of Agriculture
- Iowa State University
- University of Puerto Rico

## Accredited Labs to Date

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- ✓ University of Florida as of May 01, 2014
  - ✓ Cornell University as of May 01, 2014
  - ✓ Nevada Department of Agriculture as of June 01, 2015

## Completed Training Workshops

### Phase 2 Internal Auditor Training Total NPDN Members Trained: 42

December 16-17, 2014 (12 Total Participants)  
First workshop: Texas A&M University



December 8-9, 2015 (10 Total Participants)  
Third workshop: Iowa State University



September 22-23, 2015 (10 Total Participants)  
Second workshop: Oregon Department of Agriculture

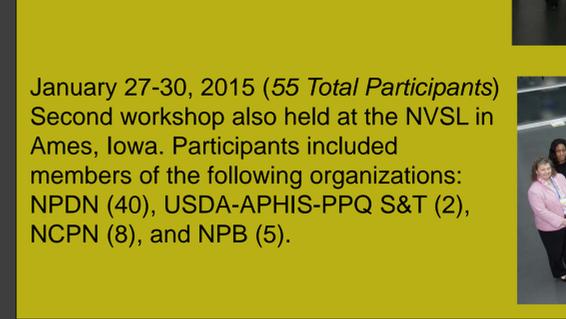


February 23-24, 2016 (10 Total Participants)  
Fourth workshop: University of Puerto Rico



### Quality Management System (QMS) Total NPDN Members Trained: 83

April 12-14, 2011 (28 Total Participants)  
First workshop held at the National Veterinary Services Laboratory (NVSL) in Iowa. Participants included members of the following organizations: NPDN (26) and USDA-APHIS-PPQ S&T (2).



January 27-30, 2015 (55 Total Participants)  
Second workshop also held at the NVSL in Ames, Iowa. Participants included members of the following organizations: NPDN (40), USDA-APHIS-PPQ S&T (2), NCPN (8), and NPB (5).



### ISO/IEC-17025 External Auditor Training Total NPDN Members Trained: 21

September 26-29, 2011 (12 Total Participants)  
First workshop held at the University of Florida.



February 24-27, 2015 (9 Total Participants)  
Second workshop held at New Mexico State University.



## Auditor Exercises for External Auditor Training Total Participants Trained: 53

Cornell University  
September 11-13, 2012

Nevada Department of Agriculture  
November 6-8, 2012

Kansas State University  
March 19-21, 2013

University of Florida  
February 19-21, 2013

Michigan State University  
July 8-10, 2014