

# National Plant Diagnostic Network

## Chain of Communication and Custody Exercises

Carla Thomas <sup>1</sup>, Mary McKellar <sup>2</sup>, Carrie Harmon <sup>3</sup>, Marietta Ryba-White <sup>4</sup>, Sandy Perry <sup>5</sup>, Will Baldwin <sup>3</sup>, Eileen Luke <sup>6</sup>, Michael Stubbs <sup>7</sup>, Sherry Sanderson <sup>7</sup>, James Stack <sup>4</sup>



### Introduction

The activity surrounding a plant pest event has two principal aspects: (a) rapid detection, diagnosis and notification of the pest occurrence, the primary role of the NPDN; and (b) response and regulatory action, which is the coordinated role of the State Plant Regulatory Official (SPRO) and the APHIS-PPQ State Plant Health Director (SPHD) in each state as mandated by regulatory statutes. The NPDN has developed an Exercise Scenario in order to train relevant participants on how to manage secure communications during the initial discovery and confirmatory diagnosis of such an event.

Goals of NPDN exercises include:

- 1) To help all exercise participants (local, extension, state and federal) understand their roles and responsibilities, and how their efforts coordinate with those of the others while practicing standard operating procedures (SOPs) in a non-critical environment.
- 2) To improve the SOPs by identifying and removing ambiguity in the protocols as well as gaps in the procedures.

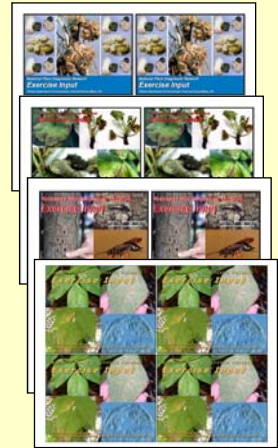
### Exercise Method

An exercise is composed of three phases:

- 1) a pre-exercise training session via conference call for all participants.
- 2) the exercise scenario where participants use the NPDN exercise SOP.
- 3) a post-exercise debriefing session via conference call to evaluate the exercise and the NPDN exercise SOP.

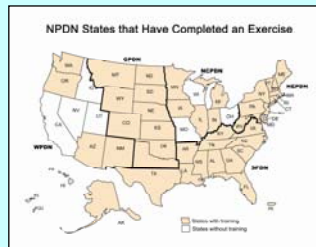
Key participants involved in exercises include extension, land grant university personnel, state department of agriculture personnel and federal regulatory agency personnel.

Future efforts for First Detector Exercises will include the use of an online exercise module.



## NPDN Exercises 2003 to Present

Since 2003, forty-two exercises have been conducted in 44 states and two US territories. Nine states and one territory have completed two exercises, and one state has completed three. Two states have conducted First Detector Exercises.



The NPDN exercise committee has partnered with other exercise programs including: APHIS, NAHLN and the Border Governor's Ag Work Table.



NPDN members participated in APHIS Full Scale Exercises in Colorado and Texas in 2006.

Exercise Focus Based on APHIS Pest/Pathogen of Concern by NPDN State

Disease/Pathogen	State or U.S. Territory
Soybean Rust	NJ, PA, IN, WV, MT, N, TX, ND, SD, CO, OK, MN, DE, MD, NY, LA, AL, S, TX, VA, GA, KY, SC, FL, IL, IA, TN, AR, MS, NE, KS
Ralstonia solanacearum Race 3 Biovar 2	MI, MA, MD, NY, VA, VT, NH, RI, CT, MA, AK
Citrus Canker	AZ, S, TX
Potato Wart	OR, ME
Yellow Scutella	PR
Novel Pathogen	MT, NM
Phytophthora ramorum	PR, AK
Insect	
Asian Longhorned beetle	AK
Sirex Woodwasp	NJ
Glassy Winged Sharpshooter	HI, GU

Exercises have focused on APHIS pests and pathogens of concern including Sirex woodwasp, soybean rust, *Phytophthora ramorum*, citrus greening, *Ralstonia solanacearum* Race 3 Biovar 2, potato wart and citrus canker.

### NPDN Standard Operating Procedure for APHIS Pest of Concern

This protocol was the first of its kind to integrate chain of communication and chain of custody procedures from university extension, diagnostic labs at land grant universities and state departments of agriculture, federal confirming diagnostic labs, and state and federal department of agriculture response personnel. This SOP is a living document and undergoes revisions regularly on the basis of lessons learned during exercises and actual events.

### Plant Diagnostics Information System

A secure website module for monitoring and documenting exercise activities was created within PDIS. The website provides critical contact information for the participants, a copy of the SOP to be exercised, an activity log, goals and objectives of the exercise and the photo sheet file that is used as a "plant sample". The exercise module has been used for all NPDN exercises conducted to date.



<sup>1</sup> WPDN, University of California Davis, <sup>2</sup> NEPDN, Cornell University, <sup>3</sup> SPDN, University of Florida, <sup>4</sup> GPDN, Kansas State University, <sup>5</sup> NCPDN, Michigan State University, <sup>6</sup> CERIS, Purdue University, <sup>7</sup> APHIS-WR-PPQ