

Report on the Second APS/USDA Workshop on the National Plant Disease Recovery System

April 23-24, 2007
St. Louis, Missouri
Hilton Ball Park Hotel

Homeland Security Presidential Directive No. 9 (HSPD-9) directed the Secretary of Agriculture to establish a National Plant Disease Recovery System (NPDRS) that assures resiliency in our crop production systems in the face of accidentally- or intentionally-introduced diseases of high consequence. Responsibility for working with the relevant agencies in USDA and developing the plans was assigned to the Office of Pest Management Policy (OPMP). The main goals of this meeting were to once again bring together representatives of the various agencies of USDA, scientists from land grant universities, and representatives of industry to: (1) review the draft strategic plan for NPDRS; (2) discuss the essential elements that would comprise a “template” recovery plan; (3) review completed drafts of three plant disease recovery plans; and (4) identify the potential diseases of high consequence that should be the next focus for plan development.

The meeting was convened at 8:00 AM on April 23, and adjourned mid-afternoon April 24. The meeting was attended by approximately 45 people. Following is a summary of the meeting highlights:

Sunday, April 22

The evening before the meeting, there was a reception to greet participants sponsored by Syngenta Crop Protection, Pioneer Hi-Bred International, Inc./ DuPont, and The American Phytopathological Society. There were approximately 45 participants in the meeting, and many of them were able to attend the welcome reception.

Monday, April 23

The meeting was convened at 8:00 AM with brief welcoming and orientation comments from Jim MacDonald (APS) and Al Jennings (OPMP). Then there were a series of presentations given to update the audience on HSPD-9 relevant activities within the USDA, EPA and DHS.

- Matt Royer (USDA APHIS PPQ): National Crop Biosecurity: Role of APHIS-PPQ in Prevention, Preparedness, Response, and Recovery (See **attachment 1**)
- Richard Nolan (USDA APHIS Veterinary Services): The National Veterinary Stockpile (see **attachment 2**)
- Kitty Cardwell (USDA CSREES): The Role of ICLN, NPDN, RIPM and PIPE in NPDRS (see **attachment 3**)
- Dan Rosenblatt (EPA OPP): The U.S. EPA Role in HSPD #9 (see **attachment 4**)
- Rick Bennett (USDA ARS): ARS Research In Support of the NPDRS (see **attachment 5**)

- Heyward Baker (USDA RMA): The Role of the Risk Management Agency in HSPD-9 (see **attachment 6**)
- Larry McDaniel U.S. Customs and Border Protection – Ag / Bio-Terrorism Countermeasures (see **attachment 7**)

These updates were followed by three presentations that focused on the purpose of NPDRS

- Al Jennings (USDA ARS): Strategic plan for NPDRS (see **attachment 8**)
- Rick Bennett (USDA ARS): Nature and scope of recovery (see **attachment 9**)
- Kent Smith (USDA ARS): Guidelines to authors and plans for updates of recovery plans (see **attachment 10**)

We then had presentations that reported on draft recovery plans for three diseases. All meeting participants had received copies of the draft plans prior to the meeting, so the presentations were intended to review key points before the meeting participants divided into breakout groups to provide specific feedback. We also had a presentation on the role of forensics in recovery plans. The specific presentations were:

- Tim Momol (University of Florida): *Ralstonia solanacearum* (see **attachment 11**)
- Lynnae Jess (Michigan State University): Potato wart (see **attachment 12**)
- Jim Travis (Pennsylvania State University): Plum Pox (see **attachment 13**)
- Jacque Fletcher (Oklahoma State University): Forensic plant pathology in recovery plans (see **attachment 14**)

Meeting participants were then divided up into seven breakout groups, with each group assigned to review either a recovery plan (*Ralstonia*, potato wart, or plum pox) or a subject area (strategic plan, recovery, guidelines & updates, or forensics). After approximately one hour (which included a working lunch), a second round of breakout groups were organized so that each meeting participant would have the opportunity to engage in two of the breakout topics. At each breakout session, the participants were asked to address the following issues:

- For the strategic plan: Is the strategic plan complete? What suggestions or corrections should be included?
- For recovery: Define recovery. Does it fit the goal of HSPD-9 to respond to the disease with pest control measures in a single growing season to sustain a reasonable level of production?
- For the author guidelines & plan updates: Are the guidelines for developing of recovery plans adequate? What procedure should be followed for updates to recovery plans?
- For each of the three recovery plans, what corrections or additions are suggested?
 - Is the recommendation in the executive summary focused enough?
 - Are the subject categories in this plan adequate?
 - Are the research, extension, and education priorities on target?
 - Define recovery for this plan.
 - How can forensics play a role in this plan?

- For forensics: What is the role of forensic plant pathology in the recovery plans?

The facilitators and recorders remained the same during each of the two breakout sessions so that the suggestions of participants could be easily consolidated. After the second breakout session, there was a short break in the meeting so that recorders could prepare reports. When the meeting re-convened, each recorder presented a consolidated report:

- Strategic Plan: (see **attachment 15**)
- Definition of Recovery: (see **attachment 16**)
- Author guidelines: (This was done as an edit to the draft document. Proposed edits are indicated in blue font) (see **attachment 17**)
- Ralstonia: (see **attachment 18**)
- Plum Pox: (see **attachment 19**)
- Potato Wart: (see **attachment 20**)
- Forensics: (see **attachment 21**)

After presentation of the reports, the meeting was adjourned for the day, to re-convene at 8:00 AM the next morning.

Tuesday, April 24

The meeting was re-opened with Doug Luster giving a summary of the outcomes of the 2006 meeting and the deliberations over the past year of his APS committee on “Emerging Diseases and Pathogens,” and how those efforts have helped identify a list of potentially high-consequence diseases. Working with that list to prioritize diseases for recovery plan development is the intended focus of the day’s workshop efforts. Before starting that effort however, Doug introduced a series of speakers to provide background and context:

- Gary Bergstrom (Cornell University): APS Biosecurity Activities (see **attachment 22**)
- Amy Rossman (USDA ARS): ITAP (see **attachment 23**)
- Kim Schwartzburg (USDA APHIS PPQ): 2007 CAPS –pathogen list (see **attachment 24**)
- Greg Pompelli (USDA ERS): Economic data needed for prioritization (see **attachment 25**)
- Gwen Burnett (USDA APHIS PPQ): APHIS Select Agent List revision (see **attachment 26**)

Doug Luster then introduced the materials he prepared to guide the disease ranking effort. These included:

- A disease list sorted by host type (see **attachment 27**)

- A compilation of fact sheets listing what is known at present for each of the selected diseases (see **attachment 28**)
- The criteria for evaluating each disease (see **attachment 29**)
- A rating sheet for each disease-by-host type (see **attachment 30**)
- And a list of points to be evaluated (with a rating and comments) for each disease (e.g., see **attachment 31**)

Meeting participants were then organized into four breakout groups (citrus crops, fruit & vegetable crops, forest trees, and grain crops) to discuss and rate each of the diseases using the fact sheets and evaluation criteria. As the groups completed their evaluations, the results were entered onto a master rating sheet and rank-ordered (see **attachment 32**).

Following this exercise, Ray Martyn addressed the group to propose principles for development of “generic” plans that would group diseases by common features of their epidemiology (see **attachment 33**).

The information from the rating exercise, and the principles espoused by Ray Martyn are currently being used to identify the top candidates for future recovery plans.

At the end of the meeting, APS President Jan Leach (Colorado State University) addressed the group to describe what she detected over the course of the meeting as research priorities that need to get into the competitive programs arena (see **attachment 34**)

The meeting adjourned at approximately 3:00 PM.