89th Annual Meeting
August 2-6, 2015
Sedona, Arizona

Proceedings of 2015

Hosted by the Arizona Department of Agriculture
# National Plant Board 89th Annual Meeting
## August 2-7, 2015
### Sedona, AZ

## Sunday
### August 2, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 – 11:30 a.m.</td>
<td>Travel</td>
</tr>
<tr>
<td><em>Sedona</em></td>
<td><strong>National Plant Board - Board of Directors Meeting</strong></td>
</tr>
<tr>
<td>11:30 a.m. – 1:00 p.m.</td>
<td>Lunch on Your Own</td>
</tr>
<tr>
<td>1:00 - 5:00 p.m.</td>
<td>Registration</td>
</tr>
<tr>
<td>1:00 - 4:00 p.m.</td>
<td>Welcome Reception</td>
</tr>
<tr>
<td><em>Cottonwood</em></td>
<td><strong>Dinner on your own</strong></td>
</tr>
<tr>
<td>6:00 – 8:00 p.m.</td>
<td><strong>Hospitality / Discussion</strong></td>
</tr>
<tr>
<td><em>Canopy Patio</em></td>
<td><strong>Room 426</strong></td>
</tr>
</tbody>
</table>
### Monday, August 3, 2015

<table>
<thead>
<tr>
<th>Time and Room</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>7:00 a.m. - 5:00 p.m.</td>
<td>Registration</td>
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<tr>
<td>Conference Center Foyer</td>
<td></td>
</tr>
<tr>
<td>6:30 a.m. - 8:00 a.m.</td>
<td>Full Buffet Breakfast (provided)</td>
</tr>
<tr>
<td>T. Carl’s Restaurant</td>
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<tr>
<td><strong>MONDAY MORNING SESSION</strong></td>
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<tr>
<td>8:00 - 9:00 a.m.</td>
<td>National Plant Board Business Meeting - NPB Members only please</td>
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<tr>
<td>Phoenix</td>
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</tr>
<tr>
<td>8:00 a.m. - 12:00 p.m.</td>
<td>North American Plant Protection Organization (NAPPO) Meeting –</td>
</tr>
<tr>
<td>Cottonwood</td>
<td>Stephanie Bloem, Executive Director, North American Plant Protection</td>
</tr>
<tr>
<td></td>
<td>Organization</td>
</tr>
<tr>
<td>9:00 a.m. - 12:00 p.m.</td>
<td>United States Dept. Agriculture, Animal &amp; Plant Health Inspection</td>
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<tr>
<td>Tucson</td>
<td>Service, Plant Protection &amp; Quarantine Employee Meeting –</td>
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<tr>
<td></td>
<td>Osama El-Lissy, Deputy Administrator, United States Department of</td>
</tr>
<tr>
<td></td>
<td>Agriculture, Animal &amp; Plant Health Inspection Service, Plant Protection</td>
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<tr>
<td></td>
<td>&amp; Quarantine</td>
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<tr>
<td>9:00 a.m. - 12:00 p.m.</td>
<td>Department of Homeland Security, Customs &amp; Border Protection</td>
</tr>
<tr>
<td>Flagstaff</td>
<td>Meeting – Kevin Harriger, Executive Director, Office of Field Operations,</td>
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<tr>
<td></td>
<td>Agriculture Programs and Trade Liaison, US Department of Homeland</td>
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<tr>
<td></td>
<td>Security, Customs &amp; Border Protection</td>
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<tr>
<td>9:00 - 10:00 a.m.</td>
<td>National Plant Board Regional Breakout Groups</td>
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<tr>
<td></td>
<td>EPB - Sedona</td>
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<td>CPB - Phoenix</td>
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<td>SPB – Prescott</td>
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<td>WPB – T. Carl’s Rst.</td>
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<tr>
<td></td>
<td>(Regional Members Only)</td>
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<td></td>
<td><strong>Break at Poco Lounge</strong></td>
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<tr>
<td></td>
<td>10:00 - 10:15 a.m.</td>
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<tr>
<td>10:15 - 11:00 a.m.</td>
<td>National Plant Board Regional Breakout Groups (cont’d)</td>
</tr>
<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>National Plant Board Committee Representatives Report-Outs -</td>
</tr>
<tr>
<td>Phoenix</td>
<td>National Plant Board Members only</td>
</tr>
<tr>
<td>12:00 – 1:15 p.m.</td>
<td>Buffet Lunch (provided)</td>
</tr>
<tr>
<td>Canopy Patio</td>
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</tbody>
</table>
### MONDAY AFTERNOON SESSION

**Aurelio Posadas - Facilitator**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:15 - 1:30 p.m.</td>
<td>Welcome/Opening Remarks – Geir Friisoe, National Plant Board President, Minnesota Department of Agriculture</td>
</tr>
<tr>
<td>1:30 - 1:45 p.m.</td>
<td>Roll Call – Ann Gibbs, National Plant Board, Secretary-Treasurer, Maine Department of Agriculture, Conservation and Forestry</td>
</tr>
<tr>
<td>1:45 - 2:00 p.m.</td>
<td>State Welcome – Mark W. Killian, Director, Arizona Department of Agriculture</td>
</tr>
<tr>
<td>2:00 - 2:30 p.m.</td>
<td>State of the National Plant Board – Geir Friisoe, NPB President - MN</td>
</tr>
<tr>
<td>2:30 - 3:00 p.m.</td>
<td>Remarks by Plant Protection &amp; Quarantine Deputy Administrator - Osama El-Lissy, Deputy Administrator, United States Department of Agriculture, Animal &amp; Plant Health Inspection Service, Plant Protection &amp; Quarantine</td>
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</tbody>
</table>

**Break & Door Prizes at Poco Lounge**

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>3:00 - 3:20 p.m.</td>
<td><strong>North American Plant Protection Organization</strong> – Stephanie Bloem, Executive Director, North American Plant Protection Organization</td>
</tr>
<tr>
<td>3:20 - 3:50 p.m.</td>
<td><strong>Canadian Report</strong> – Grég Wolff, Director and Chief Plant Health Officer for Canada, Canadian Food Inspection Agency</td>
</tr>
<tr>
<td>3:50 - 4:20 p.m.</td>
<td><strong>Mexico Report</strong> – Javier Trujillo Arriaga, Director General de Sanidad Vegetal, Mexico</td>
</tr>
<tr>
<td>4:20 - 4:50 p.m.</td>
<td><strong>Even More Opportunities in the Regulatory Agriculture World:</strong> Medical Marijuana, Industrial Hemp Seed - Mitch Yergert, Director, Division of Plant Industry, Colorado Department of Agriculture</td>
</tr>
<tr>
<td>4:50 - 4:55 p.m.</td>
<td>Announcements</td>
</tr>
<tr>
<td>5:00 - 6:00 p.m.</td>
<td><strong>Dinner on your own</strong></td>
</tr>
<tr>
<td>7:00 - 9:00 p.m.</td>
<td><strong>Phoenix</strong></td>
</tr>
<tr>
<td>8:00 - 11:00 p.m.</td>
<td><strong>Room 426</strong></td>
</tr>
<tr>
<td>8:00 - 11:00 p.m.</td>
<td><strong>Resolution Committee Meeting</strong></td>
</tr>
<tr>
<td>8:00 - 11:00 p.m.</td>
<td><strong>Hospitality / Discussion</strong></td>
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<tr>
<td>Time and Room</td>
<td>Topic</td>
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**TUESDAY MORNING SESSION**
Ken Rauscher - Facilitating
8:00 am - 12:00 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td>8:00 – 8:30 a.m.</td>
<td>Plant Protection &amp; Quarantine Budget Update – Osama El-Lissy, Deputy Administrator, United States Department of Agriculture, Animal &amp; Plant Health Inspection Service, Plant Protection &amp; Quarantine</td>
</tr>
<tr>
<td>Conference Center</td>
<td></td>
</tr>
<tr>
<td>8:30 – 8:50 a.m.</td>
<td>Biotechnology Regulatory Services – Mike Firko, Deputy Administrator, United States Department of Agriculture, Animal &amp; Plant Health Inspection Service, Biotechnology Regulatory Services</td>
</tr>
<tr>
<td>8:50 – 9:10 a.m.</td>
<td>U. S. Forest Service – Monica Lear, Director, Forest Health Protection, United States Department of Agriculture, Forest Service</td>
</tr>
<tr>
<td>9:30 – 10:00 a.m.</td>
<td>The Arizona Produce Industry – Dennis Nuxol, Vice President, Federal Government Affairs; AnnaMarie Knorr, Arizona Government Affairs Manager, Western Growers Association</td>
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</tbody>
</table>

**Break & Door Prizes at Poco Lounge**
10:00 – 10:30 a.m.

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<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td>10:30 – 11:00 a.m.</td>
<td>Investigative Enforcement Services Updates – Bernadette Juarez, Deputy Director, United States Department of Agriculture, Animal &amp; Plant Health Inspection Service, Investigative Enforcement Services</td>
</tr>
<tr>
<td>11:00 – 11:20 a.m.</td>
<td>Society of American Florist - Lin Schmale, Senior Director, Government Relations, Society of American Florists</td>
</tr>
<tr>
<td>11:20 – 11:40 a.m.</td>
<td>AmericanHort Update - Craig Regelbrugge, Senior Vice President, Industry Advocacy &amp; Research, AmericanHort</td>
</tr>
<tr>
<td>11:40 a.m. – 12:00 p.m.</td>
<td>National Association of State Departments of Agriculture – Dudley Hoskins (tentative), Director, Regulatory and Legislative Affairs, National Association State Departments of Agriculture</td>
</tr>
<tr>
<td>12:00 – 1:30 p.m.</td>
<td>Buffet Lunch (provided)</td>
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<tr>
<td>Canopy Patio</td>
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## TUESDAY AFTERNOON

**Anni Self - Facilitator**

**1:30pm - 5:00pm**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 1:30 – 2:45 p.m. | **Conference Center**  
**System Approach to Nursery Certification (SANC):**  
- **Milestones in the Pilot Project** – Larry Nichols, Virginia Department of Agriculture and Consumer Services (Pilot Project)  
- **Industry Perspective** – John Rausch, Vice-President of Operations, Conard-Pyle Company  
- **Inspector’s Perspective** – Susan Ehlenbeck, Horticulturist, Missouri Department of Agriculture  
- **SPRO’s Perspective** – Dana Rhodes, Plant Inspection Program Specialist, Pennsylvania Department of Agriculture |
| 2:45 – 3:15 p.m. | **How to Prepare for an Audit of your Cooperative Agreement** – Heather Wilkie, Auditor/Suspension and Debarment Specialist and Earnest Smith, Auditor, Research and Analysis Branch, Marketing and Regulatory Programs, Business Services, United States Department of Agriculture, Animal & Plant Health Inspection Service, Plant Protection & Quarantine |
| 3:15 – 3:45 p.m. | **Break & Door Prizes at Poco Lounge** |
| 3:45 – 4:45 p.m. | **IT Updates:**  
- **ARM: What’s new, what information is available and how can it be used?** – Terry Morris, Director, Quarantine Policy, Analysis and Support, PPQ  
- **IPHIS: Governance and Enhancements** – Adam Brookbank, Director, Data Analysis, Risk, and Targeting, PPQ; Dave Kowalski, Data Manager, DART; Mike Wallace, Supervisory PPQ Officer, PPQ-Phoenix; Anthony Bocchino, Plant Health Safeguarding Specialist, PPQ-Phoenix  
- **CARPOL: Updates and NPB engagement** – Emily Pullins, Director, Regulation, Permits, and Manuals, Plant Health Programs  
  United States Department of Agriculture, Animal & Plant Health Inspection Service, Plant Protection & Quarantine |
| 5:30 p.m. | **Golf Course**  
**Tree Planting Ceremony & Group Photograph** |

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</table>
| 6:00 p.m. – 6:45 p.m. | **Canopy Patio/Rose Terrace**  
**Reception** |
| 7:00 – 9:00 p.m. | **Conference Center**  
**Awards Banquet** |
| 8:00 – 11:00 p.m. | **Rm 426**  
**Hospitality / Discussion** |
National Plant Board 89th Annual Meeting  
August 2-7, 2015  
Sedona, AZ

**WEDNESDAY**  
August 5, 2015

<table>
<thead>
<tr>
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</table>
| 7:00 – 11:00 a.m.  
Conference Center Foyer | Registration |
| 6:30 – 8:00 a.m.  
T. Carl’s Restaurant | Full Buffet Breakfast (provided) |

**WEDNESDAY MORNING SESSION**  
Ken Rauscher - Facilitator  
8:00 - 10:00 a.m.

<table>
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| 8:00 - 8:30 a.m.  
Conference Center | Spotted Lanternfly, *Lycorma delicatula*: Initiating a Program and Lessons Learned – Dana Rhodes, Plant Inspection Program Specialist, Pennsylvania Department of Agriculture |
| 8:30 - 9:00 a.m. | Biofuels and Regulatory Opportunities – Wayne Dixon, Consultant |
| 9:00 – 10:00 a.m. | Pollinator Protection Laws and Strategies  
*Dan Whitney, President, MN Honey-Producers Association  
Craig Regelbrugge, Senior Vice President, Industry Advocacy & Research, AmericanHort  
Geir Frisoe, NPB President – MN* |

**Break & Door Prizes at Poco Lounge**  
10:00-10:30 a.m.  
(Participants get ready for tour during break)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>11:15 a.m.</td>
<td>BOARD BUSES FOR VERDE CANYON RAILWAY AT MAIN LOBBY AREA</td>
</tr>
</tbody>
</table>
| 12:15 p.m. | ARRIVE VERDE CANYON RAILWAY CLARKDALE, AZ  
Box Lunch provided on Train |
| 1:00 p.m. – 5:00 p.m. | VERDE CANYON RAILWAY TOUR |
| 5:00 p.m. | Depart for Poco Diablo Resort |
| 6:30 – 8:30 p.m.  
Canopy/Rose Patios | BBQ Dinner Under the Stars at Poco Diablo Resort |
| 8:30 p.m. - ?  
Golf Course | Stargazing w/ professional astronomer |
| 8:00 – 11:00 p.m.  
Room 426 | Hospitality / Discussion |
## THURSDAY
**August 6, 2015**

<table>
<thead>
<tr>
<th>Time</th>
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<td>7:00 a.m. – 12:00 p.m.</td>
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<td>Full Buffet Breakfast (provided)</td>
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<td><strong>THURSDAY MORNING SESSION</strong></td>
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<tr>
<td>Anni Self – Facilitator</td>
<td>8:00 a.m. – 12:00 p.m.</td>
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<tr>
<td>8:00 – 8:45 a.m.</td>
<td>Strategic Alliance – Working Group Update:</td>
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<td></td>
<td>Training - Geir Friisoe (NPB BOD) and Alan Dowdy (APHIS PPQ)</td>
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<td></td>
<td>Evaluate Deregulation and Process to Close Programs – Mitch Yergert</td>
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<td></td>
<td>(NPB BOD) and Scott Pfister (APHIS:PPQ)</td>
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<tr>
<td></td>
<td>Funding – Brad White (NPB BOD) and Alan Dowdy (APHIS PPQ)</td>
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<td>Enforcement and Compliance - Dana Rhodes (NPB – BOD) and Paula</td>
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<td></td>
<td>Henstridge (APHIS PPQ)</td>
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<tr>
<td>8:45 – 9:00 a.m.</td>
<td>Firewood Scout – Leigh Greenwood, Don’t Move Firewood Program</td>
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<tr>
<td></td>
<td>Manager, The Nature Conservancy</td>
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<tr>
<td>9:00 – 9:30 a.m.</td>
<td>Exploring the Archaeology of the Verde Valley: Ken Zoll, Executive</td>
</tr>
<tr>
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<td>Director, Verde Valley Archaeological Center</td>
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<tr>
<td>9:30 – 10:00 a.m.</td>
<td>CGMMV; a Case for New Approaches to Phytosanitary Management in the</td>
</tr>
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<td>Seed Industry -- Ric Dunkle, Senior Director, Seed Health and Trade,</td>
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<td></td>
<td>American Seed Trade Association</td>
</tr>
<tr>
<td><strong>Break &amp; Door Prizes at Poco Lounge</strong></td>
<td>10:00 – 10:30 a.m.</td>
</tr>
<tr>
<td>10:30 – 11:00 a.m.</td>
<td>Pests on the Horizon and Defining a High-risk Pest: Scott Pfister,</td>
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<td>Pest Management Division Director, United States Department of</td>
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<td>Agriculture, Animal &amp; Plant Health Inspection Service, Plant</td>
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<td></td>
<td>Protection &amp; Quarantine</td>
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<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>General Business Session – Geir Friisoe, NPB President - MN</td>
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<tr>
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<td>NPB Members only please</td>
</tr>
<tr>
<td>12:00 p.m. – 1:30 p.m.</td>
<td>Lunch on your own</td>
</tr>
<tr>
<td>1:30 – 5:00 p.m.</td>
<td>NPB BOD Meeting</td>
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</tbody>
</table>
Welcome New NPB Members

- Western Plant Board
  - Andy Gray – Montana
  - Mia Kirk (acting) – Alaska
  - Helmuth Rogg – Oregon
  - Clark Burgess - Utah

Welcome New NPB Members

- Southern Plant Board
  - Trevor Smith – Florida
  - Christel Harden – Alabama
  - Kenny Naylor – Oklahoma
  - Reddy Palli – Kentucky
  - Sherry Aultman (acting) – So. Carolina

Welcome new NPB Members

Eastern Plant Board
  - Joseph Zoltowski – New Jersey

Central Plant Board
  - Brandon Beshears – South Dakota

Important Facts About Arizona

- The largest rose in the world is in Tombstone, Arizona. It was planted in 1885, has a 32 ft trunk circumference and covers 9,000 square feet.

Important Facts About Arizona

- Pluto was discovered from an observatory in Flagstaff, AZ.
- AZ has 5320 mountain peaks, more than any other mountainous state.
- AZ was the last state to join the union in the contiguous states. Became the 48th state in 1912. Was already been on Feb. 25th, however that is Lincoln birthday. February 15 was considered unlucky, so Feb. 14 was chosen. Thus the name the "Valentine state."
**EXECUTIVE COMMITTEE**
President – Geir Y. Friisoe (MN)
Vice President – Joe Collins (KY)
Secretary/Treasurer – Ann Gibbs (ME)
Past President – Mitch Yergert (CO)

**BOARD OF DIRECTORS**
Western Plant Board Representatives
- Mitch Yergert – CO
- Brad White – WA
- John Caravetta – AZ

**BOARD OF DIRECTORS**
Central Plant Board Representatives
- Julie Van Meter – NE
- Collin Wamsley – MO
- Geir Friisoe – MN
- Brian Kuhn – WI

**BOARD OF DIRECTORS**
Southern Plant Board Representatives
- Mike Evans – GA
- Larry Nichols – VA
- Joe Collins – KY

**BOARD OF DIRECTORS**
Eastern Plant Board Representatives
- Carol Holko – MD
- Dana Rhodes – PA
- Ann Gibbs – ME
- Faith Kuehn – DE

**NPB Contract Employees**
- Aurelio Posadas – Executive Secretary
- Ken Rauscher – Program Associate
- Tom Simm – Archive Asst.
- Mike Colvin – Temp. Associate
The SANC CORE Group

Gray Haun – TN
Dana Rhodes – PA
Aurelio Posadas – NPB
Ken Rauscher - NPB

SANC Committee Chairs

Collin Wamsley - MO
Joe Collins – KY
Wayne Dixon – FL
Ruth Welliver – PA
Carol Holko – MD
Dan Kenny – OH
Larry Nichols – VA
Brian Kuhn - WI

Key NPB Committees

Resolutions & Policy

Collin Wamsley – MO Chair
Ann Gibbs – ME
Eric Ewing – WV
Mitch Yergert – CO
Geir Friisoe - MN

Key NPB Committees

Awards and Recognition

Julie Van Meter – NE Chair
Ann Gibbs – ME
Joe Collins – KY
Mitch Yergert – CO

USDA BRS Steering Committee

Jeff Vogel – KS
Steve Malone – MN
Scott Bray – AR
Danny Turner – NC
Wayne Dixon - FL

APHIS PPQ Cooperative Agreements Working Group

Joe Zolowski – NJ
Richard Miranda – FL
Christel Harden – AL
Brian Kuhn – WI
Phil Marshall – IN
Brad Lewis – NM
John Caravetta - AZ
APHIS PPQ Export Certification
Working Group

Sarah Scally – ME
Mike Bryan – MI
Carl Harper – KY
Brad White - WA

USDA Biological Control Work Group

Carol Holko – MD
Monika Chandler – MN
Trevor Smith – FL
Mike Pitcairn - CA

APHIS PPQ Interagency
Relations Committee

Larry Nichols – VA
Mitch Yergert – CO
John Caravetta – AZ
Ann Gibbs – ME
Collin Wamsley – MO
Geir Friisoe - MN

APHIS PPQ National
CAPS Committee

Julie Van Meter – NE
Piera Siegert – NH
Joe Collins – KY
Brad Lewis – NM
Helmuth Rogg – OR
Saul Vaicunas – NJ
Dale Anderson – SD
Elizabeth Long - TN

APHIS PPQ P. ramorum
Regulatory Work Group

Vicky Smith – CT
Dana Rhodes – PA
Dan Kenny – OH
Collin Wamsley – MO
Christel Harden – SC - AL
Norman Dart – VA
Kathy Kosta – CA
Gary McAninch - OR

2015-NPB Farm Bill Reviewers

- Western Plant Board
  - Mitch Yergert – CO
  - Stephen Brown – CA
  - John Caravetta – AZ
- Central Plant Board
  - Kathy Kromroy - MN
  - Dan Kenny - OH
  - Carrie Larson - ND
2015-NPB Farm Bill Reviewers

- Eastern Plant Board
  - Christopher Logue – NY
  - Dana Rhodes – PN
  - Ann Gibbs – ME
  - Vicky Smith - CT

- Southern Plant Board
  - Tad Hardy – LA
  - Awinash Bhakkar – TX
  - Christel Harden – SC ... AL

COOPERATIVE AGREEMENTS

1. BRS Pilot Inspection
   4/28/15 - 4/27/16
   Amount: $33,680

2. Systems Approach to Nursery Certification
   9/30/14 – 9/29/15
   Amount: $224,894

3. Safeguarding
   11/13/14 – 11/12/15
   Amount: $219,925

National Plant Board and Plant Protection and Quarantine Strategic Alliance

- Goal to more fully utilize and align respective state and federal authorities and resources to better safeguard agriculture and environment.

- Four Priorities Identified
  - Evaluation of regulatory programs
  - Compliance and enforcement
  - Funding
  - Training

National Plant Board and Plant Protection and Quarantine Strategic Alliance

Evaluation of Regulatory Programs
Co-Leads: Mike Vergun and Scott Pfizer

Compliance and Enforcement
Co-Leads: Dana Rhodes and Paula Hembrick

Funding
Co-Leads: Brad White and Alan Dowdy

Training
Co-Leads: Cec Fanise and Kevin Waters

Selected NPB Accomplishments

- NPB-PPQ Strategic Alliance Initiation
- SANC
- Major update and rewrite of the Japanese Beetle Harmonization Plan
- 16 Federal Register Notices completed
  - 4 comment letters to Canada Food Inspection Agency
- Provided comments to support deregulation of 83 pests at ports of entry
Selected NPB Accomplishments

- Conducted and compiled a Hemp survey
- Completed and summarized a pollinator protection survey
- Updated/created NPB Travel guidance
- Expanded and improved a explanation regarding the value and importance of NPB
- Letters of concern – EAB and Gypsy moth funding
- Resolution in support of CAPs

Challenges, Needs, Issues

- Improved regulatory enforcement and consistency
- Communication
- Stable consistent funding
- Streamlining the agreements process
- Hemp – Pollinators – You name it
- Biological Control
- Make sure the Strategic Alliance is strong and Dynamic
Plant Protection and Quarantine
Osama El-Lissy
Deputy Administrator
National Plant Board 55th Annual Meeting
Sedona, Arizona

Topics
- Organizational Updates
- Safeguarding Agriculture and Facilitating Safe Trade
- Key Initiatives
- Strengthening the PPQ/NPPII Partnership

Organizational Updates

Organizational Structure
Continue to refine PPQ’s organizational structure
- Further flatten structure
- Increase efficient flow of information within the organization and between PPQ and key partners
- Increase effective delivery of programs
- Clarify roles and responsibilities and key points of contact

PPQ Management Team
Policy Management
Mike Wolans
Dennis Okawa
Deputy Administrator
Rebecca Sisk
Rita Segura
Molly Hedd (Acting)
Ginger Murphy
Matt Rayner
Phil Berger
State Plant Health Directors

Retirees
Scott Rodlin
Joseph Cawey
Joel Floyd
Richard Young
Kathy Hancy
Terrance DeLoose
Nora Lynch
Mark Michaelis
Joseph Cawey
Joel Floyd
Richard Young
Kathy Hancy
Terrance DeLoose
Nora Lynch
John Michaelis
Joseph Cawey
Joel Floyd
Richard Young
Kathy Hancy
Terrance DeLoose
Nora Lynch

Key Hires, Personnel Changes
Bruce O'Dell
Hesham Askawis
Pratish Neharke
Maiha Messenger
Yunkun Li
Mary Palas
Bill Thomas
Clarissa Mammon-Longo
Diane Schilke
Karen Anderson
Christopher Deegan
Stephen Louime
Carrie Baxley
Annexa Anderson
Cindy Smithwick

Safeguarding Agriculture
Facilitating Safe Trade

Strategic Focus
Missions:
We safeguard U.S. agriculture and natural resources against the entry, establishment, and spread of economically and environmentally significant pests, and we facilitate safe international trade of agricultural products.

Goals:
Integrate and streamline our safeguarding system
Optimize our pest management and eradication programs
Increase the safety of agricultural exports and imports

Safeguarding Agriculture
Disease Programs
Seed and Plant Programs
Regulatory Certification and Trade Compliance
Management Programs

10/7/2015
2
Case Study: Refusing Entity of Non-Compliant Shipments
- Shipment of 120,000 pounds of grapes from Spain seized and returned to sender, May 30, 2010
- Included in USDA's annual report
- Shipment refused, returned to sender, cited under Section 705 of the Food, Drug, and Cosmetic Act
- Sanctions not recommended for suspicious activities
- No violations found, no action taken
- Shipment shipped March 21, 2011

Case Study: Flag Smut
- Discovered in Kansas, May 2011
- Less than 1,000 infected plants (of 1,000) randomly tested
- Sample tested
- 10 plants tested negative
- U.S. export permit issued
- No regulatory response; isolated within President's Executive Office
- No need to detect new plant pathogen

Case Study: Old World Swallowtail
- Plastic
- 3 adults found in Florida, June 2010
- Not detected in any state
- Not transported to other states
- EPA issued an import permit
- Highest priority concern in the USDA Plant Protection Act for vector transmission from on movement to packaging materials

Facilitating Safe Trade
- Exporters $100,000
- Importers $100,000
- PPQ's role in facilitating safe trade
- International Standards Setting
- Regulatory Phytosanitary Export Regulation
- Export Certification

Key Initiatives, 2015-2016
- Adjusting AQI User Fees
- Setting a New Direction for the EAB Program
- Delivering Practical Tools to Combat Citrus Greening
- Strengthening Safeguarding
- Addressing State Issues through International Standards Setting
- Regional Harmonization
- Expanding Foreign Market Access for U.S. Exports

Adjusting AQI User Fees
- 148 comments received on the proposed rule
- Pending OMB review
- Will generate more than $100 million in revenue once enacted
**EAB Program: Setting a New Direction**

EAB distribution continues to expand
New strategic direction
- Biocontrol
- Development of EAB-resistant American ash species
Will pursue increased funding for 2017

**Delivering Tools to Combat Citrus Greening**

- Increased biocontrol production and release
- Thermotherapy available for individual trees; available soon for entire groves
- Using soil acidification in Florida commercial groves
- Field testing antimicrobials

**Strengthening Safeguarding**

- Risk modeling
- New diagnostic tools
- Offshore nursery certification approach
- Seed health

**International Standards Setting and the States**

- IPPC biannual call for topics to determine standard setting work for next few years
- Member consultations on draft ISPMs later this summer
- State participation is critical

**Regional Harmonization: NAPPO, RCC, BTB**

- Promote expansion of safe trade between United States, Mexico, Canada
- Continue to pursue regulatory cooperation, perimeter approach to security

**Expanding U.S. Access to Foreign Markets**

- Pursue new markets valued at $151 million
- Expand markets valued at $269 million
- Retain current markets valued at $2 billion
- Critical state role
Strengthening the PPQ/NPB Partnership

- Strengthening the PPQ/NPB Partnership
- Leverage expertise, perspectives, authorities, and resources of PPQ and NPB
- Identify, develop, collaborate, solutions to address shared priorities
  - Funding
  - Enforcement and compliance
  - Program evaluation
  - Training

Interagency Relations Committee: Improving Communication
- Originally established in 2008; reorganized in 2015
- Representatives from PPQ and NPB
- Evaluate needs of communications between PPQ and NPB
- Make recommendations to improve inter-organization communications and engagements

PPQ's Employees and Their Accomplishments

Beltville Lab Earns ISO 17025 Certification
- First U.S. regulatory plant diagnostic laboratory in the United States to be ISO 17025 accredited
- Accredited for confirmatory diagnostics of citrus greening, plum pox virus, and P. ramorum
- ISO 17025 standard assesses a laboratory's ability to produce precise, accurate test data
- Lab must complete annual audits to maintain accreditation

Dr. Mary Palm to Serve as APS President
- Member since 1977
- Active participant in Mycology, Regulatory, and Emerging Diseases Committees
- APS Policy Fellow - one year detail to White House Office of Science and Technology Policy, April 2018-May 2019
- APS Press Senior Editor 2008-2013
- Elected Councillor at Large, 2012-2015
- Elected Vice-President, 2015-2016
- Will serve as President, 2017-2018

Sandra Leal, PPQ Technician, Solves Serious Problem
- Sterile fruit flies suffering from nematode and bacterial infection; impacting health and development, causing higher mortality rates
- Identified pathogen associated with infection; identified source of infection
- Developed with ARS and CPB-ST, ground breaking protocol for chronic sterilization and detoxification of fertilized fruit fly eggs
- Effectively controls and prevents nematodes, parasites, and bacteria in sterile flies
- Can be implemented in other facilities; benefits SIT programs around the world
We can have the best vision, policies, organizational structure, processes, and protocols, but it's the people that matter most.

Thank you for your dedication, passion, commitment, perspective, expertise, creativity, innovation, and collaboration!
What is New with NAPPO?

Stephanie Bloem
NAPPO Executive Director
2015 National Plant Board Annual Meeting
Sedona, Arizona, Aug. 3-6, 2015

1. New NAPPO Executive Committee Member

- Osama El-Lissy replaced Rebecca Bech
  on the NAPPO EC in early 2015
- Osama is the current Chair of the
  NAPPO EC

2. New NAPPO Executive Director

- Started July 1, 2015
- 3-year contract
- My background
- What I bring to NAPPO

3. Searching for new NAPPO PPQ
   Technical Director / U.S. Working
   Group (WG) Member

- Acting – Stephanie Dubon
- Position advertised July 20-24, 2015
- Located in Riverdale, MD
- APHIS-PPQ International
  Phytosanitary Standards staff

4. Relocation of the Secretariat

- From Ottawa, Ontario, Canada to
  Raleigh, NC, USA
- At NCSU Centennial Campus
- Completely independent
- "a journey of discovery"
5. "Challenges" for NAPPO

• Transition of NAPPO Secretariat to the USA while maintaining continuity/productivity
• Staff relocation
• "Becoming" independent

6. Call for Project Proposals - 2016 NAPPO Work Program

• Posted on NAPPO website shortly after NPB meeting
• Proposals can be for:
  • Events or activity - training/implementation workshop, conference, educational activity
  • Other
  • Project duration - 1 or more years
6. Call for Project Proposals - 2016 NAPPO Work Program

- Available to stakeholders at the Annual meeting
- YOUR chance to contribute to harmonization of plant health concerns/activities for North America

7. 2013-15 Project (and Expert Group) Update

- Seeds - workshop
- Biological Control - workshop + RSPM revisions
- Forestry - AGM EG meeting
- Citrus - HLB, emerging pest template
- Communication - spotlight-on video
- other

2015 NAPPO Workshop on Seeds Assessment for regulatory support of the North American seed industry

Bring together stakeholders to define and prioritize the phytosanitary needs of the industry

8. New Strategic Plan

- Current plan ends in 2015
- New ED will take the lead in developing first draft
- Build on current objectives
  - Priority driven approach
  - Science-based
  - Harmonization
  - Continual improvement in our business practices, service and communication

9. Annual Meeting

39th NAPPO Annual Meeting
October 26 - 29, 2015
Sheraton Memphis Downtown Hotel
Memphis, Tennessee, USA

9. Annual Meeting

Symposium
Innovations in Pest Risk Management
10. Technical Consultation of Regional Plant Protection Organizations (RPOOs)

- Following NAPPO Annual Meeting - Memphis
- Discuss phytosanitary issues of mutual concern and identify areas where RPOOs can contribute/facilitate IPPC work program
- ID topics for scientific sessions (IPPC-CPM)
- Foster and improve regional cooperation
- Preparation for another ISPM 15 workshop led by RPOOs

10. Technical Consultation of Regional Plant Protection Organizations (RPOOs)

1. Asia and Pacific Plant Protection Commission (APPCC)
2. Comunidad Andina (CA)
3. Comité de Sanidad Vegetal del Cono Sur (COSAVE)
4. European and Mediterranean Plant Protection Organization (EPPO)
5. Inter-African Phytosanitary Council (IAPSC)
6. Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA)
7. Pacific Plant Protection Organization (PPO)
8. Near East Plant Protection Organization (NAPPO)
10. NAPPO

Thanks for your attention! hope to see you in Memphis
Regulatory Cooperation Council & Beyond the Border

Regulatory Cooperation Council (RCC)
- Signature of the Perimeter Approach to Plant Protection MOU
- Working towards finalization of phase one projects (e.g., Greenhouse Certification Program)
- New Projects under Phase 2 of RCC
  - ISPM 15
  - Post-Entry Quarantine
  - Electronic phyto sanitary certification (eCarf)

Beyond the Border
- Asian Gypsy Moth
- Wood packaging recommendations

NAPPO-APPPC ISPM 15 Workshop
- 10+ years since implementation of standard by most countries
- Compliance has improved to better than 90% in N. America
- Non-compliance continues to present serious pest risks
- Regional organizations delivered a collaborative workshop between NPIOs to:
  - Review the standard and processes used by countries to implement
  - Take stock of what has been achieved
  - Discuss how to improve compliance
  - Develop recommendations for IPPC

- Recommendations:
  - An international workshop (led by NPIOs);
  - Information sharing between NPIOs;
  - Development of Best Management Practices or improve ISPM 15

Program Updates: Asian Gypsy Moth
- AGM incursions in North America in 1990s
- Introduction into U.S. or Canada would likely result in spread to all North America
- CFIA and APHIS have agreed to a common perimeter approach
- Fully implemented vessel certification program in 2012 (Russia, Japan, China, Korea)
- Joint assessments in regulated countries
- Mexico engaged in assessment of feasibility of establishing an AGM vessel certification for a truly North American approach
- Canada, U.S. and Mexico met July 14 and 15, 2015 to discuss AGM program and proposed NAPPO AGM training workshop

Asian Gypsy Moth 2013-2014 National Inspection Summary

<table>
<thead>
<tr>
<th>Regulated Areas</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>China (parts of Shanghai)</td>
<td>1551</td>
<td>1558</td>
</tr>
<tr>
<td>Korea</td>
<td>1469</td>
<td>1469</td>
</tr>
<tr>
<td>Russia</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Total vessels visited</td>
<td>1551</td>
<td>1558</td>
</tr>
<tr>
<td>Certified vessels visited</td>
<td>1469</td>
<td>1469</td>
</tr>
<tr>
<td>Uncertified vessels visited</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Vessels inspected (non-certified + percentage of certified)</td>
<td>625</td>
<td>500</td>
</tr>
<tr>
<td>Vessels inspected</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>(5% of inspected vessels)</td>
<td>(5% of inspected vessels)</td>
<td></td>
</tr>
</tbody>
</table>
Pest Updates: Potato Wart

- Since 2000, CFIA has identified 25 potato wart index fields in PEI (412.64 ha)
- ~1.0% of land used annually for potato production in PEI
- In fall 2014, Potato Wart confirmed in a 14.1 ha field
- CFIA immediately placed regulatory restrictions on the infested and associated fields and conducted an extensive investigation
- 6 additional associated fields were determined to be infested, all except one were from the same farm unit
- 19,000 samples were tested (2014/15) and an additional 4,100 samples were taken this spring to complete this investigation
- Long Term Domestic Management Plan and The U.S. Federal Order to prevent the spread of Potato Wart and comply with US Import requirements

Potato Cyst Nematode

- 2014 Soil Sampling Survey
- 14,002 samples analysed
- More than 12,000 meet U.S. import requirements
- No positive detections
- Continuing incremental rise in confidence levels
- PCN Program of Saanich, BC regulated areas:
  - 5 year plan underway
  - 23,620 soil samples collected to date
  - Sampling exceeds PCN Guidelines’ requirements
  - Potential opportunity to amend existing regulated area
- Agreement reached on the interpretation of the field definition under the PCN Guidelines
- GPS coordinates can be used to define boundaries

Verticillium longisporum

Issue and Current Status

In November 2014, CFIA confirmed presence of Verticillium longisporum (Verticillium wilt) in Canada at a single location in Manitoba.

- Not previously reported in Canada
- Risk assessment indicates it as a pose potential economic significance
- Official controls implemented at the infested site
- Trading partners officially notified of the detection
- Surveillance and detection surveys being planned to determine its distribution

Considerations

- Decision on regulatory status will be made after determining its distribution
- V. longisporum is not known to be regulated by any trading partner
- Canada is the top producer of canola worldwide
- Canada’s canola industry contributes more than $19 billion to Canadian economy annually

Plum Pox Monitoring and Management Program

- Since 2011, CFIA has sampled the following areas on an annual basis for the Plum Pox Virus (PPV)
  - Orchards 1.5 km inside perimeter of Niagara quarantine area
  - Orchards 10 km outside perimeter of Niagara quarantine area
  - Residential areas 1.5 km inside and 1.5 km outside of Niagara quarantine area
- 2005 propagation ban on PPV susceptible species within the Niagara quarantine area remains in place
- Oil spray is available for use by producers to prevent aphid spread of PPV
- Regulatory controls prevent the movement of PPV susceptible species from the Niagara quarantine area
- 2015 sampling began in early June and to date all results are negative

Brown Spruce Longhorn Beetle

- Established in Nova Scotia
- Consulted with stakeholders on revised regulatory approach (zone expansion and predictable triggers)
- Revised regulated area to the entire province of Nova Scotia
- Goal remains to ‘Slow the Spread’
- Majority of exports heat-treated and risk-free
- Industry movement of regulated articles regulated through a facility compliance program
- 2015 survey results soon available
- Two detections in New Brunswick (NB)
- Further consultation on regulatory approach in NB in late fall

Emerald Ash Borer

Area affected

- Regulated Areas: ON = 184,065 km², QC = 28,874 km²

Impacts

- All North American and many exotic species of ash (Fraxinus spp.) are susceptible to EAB attack and infestation

Regulatory action

- No change in regulatory action (still slow the spread)
  - Ash and firewood cannot move within the regulated area
  - Cannot move outside regulated area without CFIA written permission
  - Firewood movement is discouraged within the regulated area
- Number of EAB/AFDs: ON = 14, QC = 19
- Increased communication efforts to convey slow the spread message
- Hopes for the future is to rely on biological control
Asian Long-horned Beetle

Area affected
- One small area affected: City of Mississauga and parts of the city of Toronto
- Regulated Areas: ON = 46 km²

Resource affected
- Four hosts (Maple, Poplar, Willow, Birch) were removed in 800 m removal buffer around suspect and infested trees
- Total of approximately 7,500 trees were removed

Regulatory action
- Infested place order in effect for affected areas in Toronto and Mississauga
- Eradication under way
- Next phase is surveys

Canadian In-transit Policy for Plant Health

- Development of comprehensive In-Transit Policy to outline the phytosanitary requirements for in-transit shipments
- In-transit: movement from a foreign country, through Canada, to a foreign country
- Applicable to all modes of transportation and all transit routes across Canada
- Appropriate risk measures depends on level of risk posed
- Key policy considerations include:
  - country of origin
  - conveyance type and condition
  - commodity
  - border crossing point
  - seasonality
  - measures available to mitigate any phytosanitary risks
- Continued bilateral Canada-U.S. engagement and collaboration essential for successful policy development and implementation

Thank you!

Questions?
AQL Appropriated
- Predeparture cargo, passenger, and mail inspection
- Prevent movement of fruit flies, other significant pests from Hawaii, Puerto Rico to U.S. mainland

Program Update
Cotton Pests

<table>
<thead>
<tr>
<th>Surface</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>% chg</th>
<th>FY 2015</th>
<th>% chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQL Appropriated</td>
<td>21,808</td>
<td>20,208</td>
<td>7%</td>
<td>19,400</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cotton Pests</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>% chg</th>
<th>FY 2015</th>
<th>% chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Insect</td>
<td>8,379</td>
<td>6,814</td>
<td>-20%</td>
<td>8,500</td>
<td>1%</td>
</tr>
<tr>
<td>Red Storm</td>
<td>25,821</td>
<td>27,627</td>
<td>6%</td>
<td>37,460</td>
<td>32%</td>
</tr>
<tr>
<td>Pink Storm</td>
<td>10,365</td>
<td>21,808</td>
<td>1%</td>
<td>150,900</td>
<td>3%</td>
</tr>
<tr>
<td>Pink Storm Piu</td>
<td>142,107</td>
<td>156,000</td>
<td>9%</td>
<td>156,000</td>
<td>3%</td>
</tr>
<tr>
<td>Pink Storm Piu</td>
<td>52,500</td>
<td>50,800</td>
<td>3%</td>
<td>54,000</td>
<td>4%</td>
</tr>
</tbody>
</table>

Program Update
Boll Weevil
- 9.5 million acres of cotton planted in U.S. in 2015
- Boll weevil eradicated from 99.5% of all cotton acreage
- Texas: 58,942 acres of cotton planted, Lower Rio Grande Valley
- 273 Boll weevil captured in 2015
- 205,000 acres sprayed

Program Update
Pink Bollworm
- No pink bollworm captured in last 3 years (2013-2016)
- "Confirmation of eradication" process takes 4 years
- All programs in year 3 of confirmation process
- Testing unmanned aircraft system to deliver targeted, rapid response to small-scale outbreaks, if needed

Program Update
Field Crop and Rangeland
- Grasshopper and Mormon cricket
  - Conducted suppressive treatments in AZ, ID, MT, MT, UT, WY, WA
  - Conducted suppressive treatments in AZ, ID, MT, MT, UT, WY, WA
- Imported Fire Ant
  - Developed 2 new treatment options for nursery growers, especially for bermudagrass and turfgrass
  - Developed 2 new treatment options for nursery growers, especially for bermudagrass and turfgrass
- Published Environmental Assessment covering all treatments
  - Published Environmental Assessment covering all treatments
  - Published Environmental Assessment covering all treatments
- Kernal Beetle
  - WD increased 54,670 acres in AZ from regulation (11,345 acres are Tribed lands)
  - Completed kernel beetle buffer distance analysis to determine regulated areas
  - Completed kernel beetle buffer distance analysis to determine regulated areas
- Wilted wheat
  - Reduced treatments from 440,000 acres (initial detection 1053) to 1,300 acres, protecting corn and soybean crops valued at $77 billion
  - Reduced treatments from 440,000 acres (initial detection 1053) to 1,300 acres, protecting corn and soybean crops valued at $77 billion

Field Crop and Rangeland
**Program Update**

### Pest Detection

<table>
<thead>
<tr>
<th>Line Item</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Chg</th>
<th>FY 2017</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Appropriated</td>
<td>52,325</td>
<td>29,184</td>
<td>44%</td>
<td>38,080</td>
<td>20%</td>
</tr>
<tr>
<td>Central Valley ALTs</td>
<td>22,504</td>
<td>20,362</td>
<td>10%</td>
<td>19,000</td>
<td>5%</td>
</tr>
<tr>
<td>Fungicide Development</td>
<td>8,584</td>
<td>4,830</td>
<td>44%</td>
<td>9,000</td>
<td>-3%</td>
</tr>
</tbody>
</table>

### Pest Detection

- Funding provides survey methods and protocols, cooperative agreements, survey supplies.
- Confirmed identification, initiated response for 17 new or re-introduced pests in 2014; 2 in 2015 (to date).
- In 2015, surveys target 231 pests.
- Survey strategy: multiple pest surveys involving pest risk pathways.

### Program Update

### Plant Protection Methods and Development

<table>
<thead>
<tr>
<th>Line Item</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Chg</th>
<th>FY 2017</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Appropriated</td>
<td>30,356</td>
<td>39,643</td>
<td>30%</td>
<td>39,643</td>
<td>0%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>14,700</td>
<td>22,504</td>
<td>53%</td>
<td>22,504</td>
<td>-1%</td>
</tr>
<tr>
<td>Pest Damage Management</td>
<td>8,584</td>
<td>4,830</td>
<td>44%</td>
<td>9,000</td>
<td>-3%</td>
</tr>
<tr>
<td>Pest Detection</td>
<td>5,991</td>
<td>5,991</td>
<td>0%</td>
<td>5,991</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Plant Protection Methods and Development

- Developed protocol for new GRB treatment on citrus plants (Diptera included).
- Developed control test to determine risk of HLB-managed trees to citrus pests.

### Program Update

### Specialty Crop Pests

<table>
<thead>
<tr>
<th>Line Item</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Chg</th>
<th>FY 2017</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Health Response</td>
<td>42,100</td>
<td>44,200</td>
<td>5%</td>
<td>44,200</td>
<td>0%</td>
</tr>
<tr>
<td>Critical Impacts/Response</td>
<td>13,600</td>
<td>20,000</td>
<td>55%</td>
<td>20,000</td>
<td>0%</td>
</tr>
<tr>
<td>Research/Development</td>
<td>3,500</td>
<td>5,000</td>
<td>43%</td>
<td>5,000</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Citrus Health Response Program

- ACP quarantine area in California and Texas expanded.
- HLB quarantine areas in Texas expanded; includes entire citrus-producing area.
- Four residential trees in California tested positive for HLB.
- Bionomic implemented in Arizona, California, Florida, Louisiana, and Texas.
- Implemented area-wide management in Florida and Texas.
- Will remove used from list of HLB-regulated articles.
Program Update

**European Grapevine Moth**
- No detections in 2015
- Quarantine area: 446 square miles in Napa and Sonoma counties
- Eradication is possible

<table>
<thead>
<tr>
<th>Year</th>
<th>Rich in Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>192,963</td>
</tr>
<tr>
<td>2011</td>
<td>40</td>
</tr>
<tr>
<td>2012</td>
<td>14</td>
</tr>
<tr>
<td>2013</td>
<td>1</td>
</tr>
<tr>
<td>2014</td>
<td>1</td>
</tr>
<tr>
<td>2015</td>
<td>1</td>
</tr>
</tbody>
</table>

Program Update

**Fruit Fly**
- California
  - Eradicated oriental fruit fly in LA County
  - Eradicated Medfly in Riverside, County
  - Established 6 Mexican fruit fly quarantine in Long Beach
  - Established 2 oriental fruit fly quarantines, one in LA County, one in Santa Clara County
- Texas
  - 3 Mexican fruit fly quarantines in the Lower Rio Grande Valley
- Florida
  - 2 guava fruit fly detections in May
- Puerto Rico
  - Eradicated Medfly

Program Update

**Potato Cyst Nematode**
- 10,313 PCN-regulated acres in Idaho
- 2,867 acres are infested fields
- Viable nematode cysts no longer detected in 13 of the 26 infested fields due to annual eradication treatments
- No PCN detections outside the 7.5 mile radius in the two Idaho counties
- Canada, Japan, Korea, Mexico re-opened export markets

Program Update

**Phytophthora ramorum**
- July 2013 – April 2015, refocused regulatory and eradication activities on highest risk areas and positive nurseries nationwide
- Proposing to revise P. ramorum regulations (U.S.C. § 301.62) to clarify Federal Order provisions
- Continue to work closely with nursery members on critical issues regarding the P. ramorum program
- July 2015 – confirmed P ramorum EU1 lineage in environment, Curry County, Oregon

Program Update

**Tree and Wood Pests**

<table>
<thead>
<tr>
<th>Pest</th>
<th>FY 2015</th>
<th>FY 2014</th>
<th>% DF</th>
<th>FY 2016</th>
<th>% DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian Longhorned Beetle</td>
<td>19,723</td>
<td>45,010</td>
<td>-58%</td>
<td>40,510</td>
<td>99%</td>
</tr>
<tr>
<td>Emerald Ash Borer</td>
<td>8,980</td>
<td>7,840</td>
<td>15%</td>
<td>7,840</td>
<td>70%</td>
</tr>
<tr>
<td>Gypsy Moth</td>
<td>3,950</td>
<td>4,550</td>
<td>-13%</td>
<td>4,550</td>
<td>95%</td>
</tr>
<tr>
<td>Subtotal</td>
<td>20,773</td>
<td>56,400</td>
<td>-65%</td>
<td>54,960</td>
<td>-7%</td>
</tr>
</tbody>
</table>

Program Update

**Asian Longhorned Beetle**
- All eradicated from Hills (2015), Idle (2014), New Jersey, St. Louis (2014), St. Louis (2014)
- Certified surveys completed in Vancouver, WA, Ventura in Tule Lake, CA, and Central Long Island, NY
- Final year of chemical treatments completed in 13 out of 26 quarantines with no new detections since 2013
- 2016 = complete four surveys in Northern California, NV; curtail surveys in Western Dakota and Montana, NV
**Program Update: Emerald Ash Borer**

**Program Overview**

<table>
<thead>
<tr>
<th>July 2014</th>
<th>July 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 states regulated</td>
<td>25 states regulated</td>
</tr>
<tr>
<td>528,834 mil</td>
<td>488,310 mil</td>
</tr>
<tr>
<td>quarantined</td>
<td>quarantined</td>
</tr>
<tr>
<td>26,600 traps</td>
<td>15,000 traps</td>
</tr>
</tbody>
</table>

**Biological Control**
- 2014 release season: 785,000 wasps, 19 states
- Current releases: 550,000 wasps, 14 states (to date)
- Releases continue through October, weather-dependent

---

**Program Update: Asian Gypsy Moth**

- National moth survey in eight states
  - AK, CA, MN, NC, OK, OR, UT, and WA
- Delimiting surveys in OK and SC
  - 216 square miles in McIntosh, OK
  - 77 square miles in Charleston, SC
- One moth caught in SC in 2015 roughly 4 miles from initial 2014 detection site
- No new detections in OK to date
- Piloting the use of mobile devices for data capture in OK and SC
- Pre-departure vessel inspection program continues with Canada, China, Japan, Russia, and South Korea
- Working on a comprehensive update of the Gypsy Moth Program Manual

---

**Farm Bill Section 10.007 Funding**

<table>
<thead>
<tr>
<th>Plant Protection and Biosecurity</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest Pest and Disease Management and Mitigation Programs</td>
<td>57,500</td>
<td>67,500</td>
<td>59,000</td>
<td>53,500</td>
</tr>
<tr>
<td>Federal EAB Control</td>
<td>9,000</td>
<td>9,000</td>
<td>5,500</td>
<td>5,500</td>
</tr>
<tr>
<td>Total</td>
<td>66,500</td>
<td>76,500</td>
<td>64,500</td>
<td>59,000</td>
</tr>
</tbody>
</table>

For FY 2016 as compared. See details on the Farm Bill for more information. Funding is subject to appropriation. Appropriations are subject to a five-year timeframe.

---

**Section 10.007 Plant Pest and Disease Management and Disaster Prevention Program**

- FY 2015 Agreements
  - 442 projects (387 with states/cooperators)
    - Projects help states and other partners continue to provide and strengthen protections against agricultural threats
    - Funds enable swift, coordinated response to new pest threats
- FY 2016 Open Period
  - August 3 to September 14, 2015
  - One month earlier than last year in an effort to get funds to cooperators in early 2016

---

**Section 10.307 Farm Bill at Work: Responding to New Pest Threats**

- Emerald ash borer
  - Detected in Wisconsin, September 2014
  - Current as of April 2015
- Spotted lanternfly
  - Detected in Pennsylvania, September 2017
  - Current as of April 2015
- Asian longhorned beetle
  - Detected in Illinois, December 2002
  - Current as of April 2015
- Gypsy moth
  - Current as of April 2015

---

**Thank you!**
Biotechnology Regulatory Services Update

Michael Firko
APHIS Deputy Administrator
Biotechnology Regulatory Services

National Plant Board
August 4, 2015

Authorizations for Regulated Activities, 2014

<table>
<thead>
<tr>
<th></th>
<th>Import Only</th>
<th>Interstate Only</th>
<th>Release (Field Trial)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received</td>
<td>322</td>
<td>395</td>
<td>436</td>
<td>1154</td>
</tr>
<tr>
<td>Notification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorized</td>
<td>317</td>
<td>368</td>
<td>391</td>
<td>1076</td>
</tr>
<tr>
<td>Permit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorized</td>
<td>49</td>
<td>116</td>
<td>195</td>
<td>360</td>
</tr>
<tr>
<td>Authorized</td>
<td>33</td>
<td>91</td>
<td>181</td>
<td>305</td>
</tr>
</tbody>
</table>

Authorizations for Regulated Activities, 2014

(2 of 2)

<table>
<thead>
<tr>
<th>Number of Release Authorizations</th>
<th>Number of Release Sites (authorized, not necessarily planted)</th>
<th>Number of Phenotypic Designations (crop-trait combination)</th>
</tr>
</thead>
<tbody>
<tr>
<td>572</td>
<td>11,938</td>
<td>49,552</td>
</tr>
</tbody>
</table>

Release Authorizations

Authorized Field Release Sites

USDA Biotech Inspections Completed in Fiscal Year 2014
Total = 797
### Inspection Partnership

2015 Participant States: Arkansas, Kansas, Florida, North Carolina, Minnesota, Wisconsin

<table>
<thead>
<tr>
<th>FY</th>
<th>States</th>
<th>Total Inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>AR, KS, FL, NC</td>
<td>59</td>
</tr>
<tr>
<td>11</td>
<td>AR, KS, FL, NC</td>
<td>84</td>
</tr>
<tr>
<td>13</td>
<td>AR, KS, FL, NC, MN</td>
<td>79</td>
</tr>
<tr>
<td>15</td>
<td>AR, KS, FL, NC, WI</td>
<td>22 (as of July 29, 2016)</td>
</tr>
</tbody>
</table>

### FY14 State Inspections

<table>
<thead>
<tr>
<th>State</th>
<th>Inspections conducted by State</th>
<th>Total Inspections</th>
<th>% Conducted by State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida</td>
<td>10</td>
<td>66</td>
<td>67%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>4</td>
<td>61</td>
<td>7%</td>
</tr>
<tr>
<td>Kansas</td>
<td>4</td>
<td>55</td>
<td>55%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>4</td>
<td>15</td>
<td>27%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>162</td>
<td>41%</td>
</tr>
</tbody>
</table>

### Who does Biotech Inspections?

<table>
<thead>
<tr>
<th>Year</th>
<th>% by BRS</th>
<th>% by State</th>
<th>% by PPQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>2015 *</td>
<td>20</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>2016 *</td>
<td>45</td>
<td>10</td>
<td>45</td>
</tr>
<tr>
<td>2017 *</td>
<td>65</td>
<td>10</td>
<td>25</td>
</tr>
</tbody>
</table>

* Values for 2015 and beyond are approximate
* Adding WI

### Wheat Field Trials

- Require permits (as opposed to notification)
  - For wheat field trials starting January 2016
- With permits... case-specific conditions
- Wheat seeds remain viable 1-4+ years
  - Monitoring for volunteers:
    - HI and PR: 2 years
    - Mainland: 4 years
- Equipment cleaning

### Improved Petition Process

- March 2012... 23 petitions
- Today... only 2 of those remain
- Currently we have 5 official, plus
  - 2 Extension requests
  - One petition being reviewed for completeness
  - Unofficial total = 8

### Current Petitions

1. Creeping Bentgrass: Glyphosate Resistant
2. Eucalyptus: Freeze Tolerant
3. Corn: Rootworm/Glyphosate Resistant
4. Potato: Late Blight Resistant, Low-Acrylamide Potential, Reduced Black Spot Bruising
5. Corn: Increased Ear Biomass

* Additional details on web page
The number of petitions we completed in the last year is greater than the number we have currently!

Since Last NPB Meeting...
10 Determinations (next slide)

GE Plants with Nonregulated Status
- Alfalfa – HT
- Canola – HT, AP, PQ
- Corn – HT, IR, AP, PQ
- Cotton – HT, IR
- Papaya – VR
- Soybean – HT, IR, AP, PQ
- Sugar Beet – HT
- Rose – PQ
- Squash – VR
- Tobacco – PQ
- Potato – IR, VR, PQ

Apple – PQ
Chicory – AP
Flax – HT
Plum – VR
Rice – HT
Tomato – PQ

Major Commercial Production
Major Commercial Production
No Commercial Production

APHIS Closed 2008 Proposed Rule
- FR Notice
- Workshops asking for input on next steps
  - Held May 6, 12 and 20, 2015
- Accepted Comments on Regulations.gov
  - 196 submissions, 221,000 commenters
- Two general categories
  - Seeking tighter regulations
  - Seeking regulations commensurate with risk

340 Regulations Going Forward
- Primary Goals
  - Implement Noxious Weed Authority
  - Use what we’ve learned over 28 years
  - Revise regulatory trigger
- Environmental Impact Statement (EIS)

Other APHIS Biotech Activities:
International Efforts
- OECD (Organization of Economic Cooperation and Development)
  - 40 countries
- GLI (Global Low Level Presence Initiative)
- Cartagena Protocol
- Country to Country meetings/briefings, focus on
  - Information exchange
  - Optimize harmonization
  - Scientific aspects of national regulatory systems
Other Biotech Activities

- OSTP-led effort to update Coordinated Framework
  - July 2 memo from Executive Office of the President (OSTP, OMB, USTR, and CEQ) to USDA, EPA, and FDA

- Labelling Act (Pompeo Bill)

For More Information

USDA-APHIS-BRS:
http://www.aphis.usda.gov/biotechnology/brs_main.shtml

Questions?
**Today’s Talk**

**Outline:**
- USDA Forest Service
- Forest Health Protection (S&PF)
- FHP Services
- Program Updates
- FS & APHIS Collaboration

---

**Forest Health Outlook and Program Updates**

Monica Lear, PhD  
Forest Health Protection, Director  
USDA Forest Service

---

**FS Mission**

"To sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations..."

---

**NFS / S&PF Lands**

Forest Ownership of the Conterminous United States

---

**Forest Health Protection**

- Unit within State & Private Forestry
- 250 Forest Health Professionals
- Partner with stakeholders across all 50 states, US holdings, including Puerto Rico
- Robust program dealing with insects, diseases, and invasive plants and their impact to the urban and forested landscapes

---

**FHP Budgets 2007 - 2016**
**Acres with Mortality**

![Graph showing total acres with mortality from forest health damage detection surveys from 2010 to 2014.](image)

**Acres Treated**

![Graph showing acres treated from 2012 to 2014.](image)

---

**Gypsy Moth**

- Early reports of defoliation in several states in northeast 2015
- Late season rains may have caused *Entomophaga* to impact late instar mortality and keep egg mass counts down for 2016
- Slow-the-Spread continues to treat 400,000+ acres/year and is effectively and economically reducing the rate of spread of GM

**Southern Pine Beetle**

- Populations have remained low for the past 10+ years across the South
- Analysis on National Forests in Mississippi demonstrate active infestations are in areas that were not thinned
- 2014 infestations were found on Long Island NY
- 2014 surveys also confirmed first detections in CT, MA, and RI

---

**EAB**

- Continue to support the website [emeraldashborer.info](http://emeraldashborer.info) and EAB University webinars as part of outreach and education efforts
- Funding to Regions supports EAB management activities and technical assistance
- FS Research & Development continues to work with APHIS and ARS on biocontrol efforts

**SOD**

- The EU1 clonal lineage of *P. quercus* was found in Curry Co. on tanoak in May 2015
- The EU1 lineage is the opposite mating type to NA1, increasing potential virulence in the pathogen population
- FWP continues to support SOD National Stream Baiting Surveys and management efforts in both CA & OR
**TCD**

- FS & APHIS work jointly to provide Thousand Cankers Disease Survey Guidelines for 2015
- FS Research & Development continues to work with APHIS on biology of the Walnut Twig Beetle and Geosmithia morbida
- FHP continues to support the website thousandcankers.com & technical assistance, methods development to treat TCD

**Invasive Plants**

- FHP provides assistance to states to combat invasive plants
- FHP encourages the development of cooperative weed management areas to pool resources and expertise addressing invasive plant problems cooperatively
- Invasive plant impacts can be significant to sensitive species, such as sage grouse, saguaro cacti, and other natives

**Collaboration**

[Table with various regions and their respective actions related to USDA efforts]

**Questions / Comments?**

[Image of a forested area with text: "Caring for the Land and Serving People"]
U.S. Customs and Border Protection
Office of Field Operations

National Plant Board Meeting
Agriculture Programs and Trade Liaison
August 3, 2015

CBP Agriculture Program Activities
• Inspection/Detection
• Training
• Partnership
• Outreach
• Business Transformation
• Targeting
• Enforcement/Penalties

Asian Gypsy Moth

CY11 – 21
CY12 – 44
CY13 – 42
CY14 – 76

Asian Gypsy Moth (continued)

2014 and 2015 AGM Interceptions
2014 Total= 76
2015 Total= 7

Automation Initiatives
• Vessel Risk List

Targeting and Facilitation
• National Agriculture Cargo Targeting Unit
Agriculture Pest Exclusion Coordinator

Technology for Facilitation
- Enforcement Link Mobile Operations

CERTS / ITDS
- Cargo Enforcement Reporting and Tracking System (CERTS)

Significant Seizure
- 42lbs of cocaine seized at JFK
  - Hidden under layers of rice and curry in food containers

Significant Seizure
- French beans inspected in cargo facility
  - 2,162lbs of marijuana comingle in cellophane packages

Significant Seizure
- Bundles disguised as watermelons
**Significant Seizure**

- Shipment of watermelons from Mexico
- 1,996lbs of marijuana concealed in the roof

**Significant Seizure**

- Passenger from Ghana via Amsterdam
- 18 packages of heroin concealed in fish bellies

**Significant Seizure**

- 83lbs cocaine hidden in peppers, cucumbers, and tomatoes

**Significant Seizure**

- Several bundles of crack cocaine discovered hidden in a loaf of bread

**Ag/Bio Terror Countermeasures**

- Advanced Screening of Cargo and Travelers using Targeting Rules in ATS
- Enhanced Inspection at Ports of Entry
  - SOP and Job Aid for Handling Biologics Interceptions
  - Fast Response, Sensitive Biosensing Triggers
  - Enhanced Non-Intrusive Inspection Procedure

**Enhancement of Inspection Capabilities**

- Biothreat imaging technology
Questions?
CBP Agriculture Program Activities
- Inspection/Detection
- Training
- Partnership
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- Business Transformation
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  - Enhanced Non-Intrusive Inspection Procedure

**Enhancement of Inspection Capabilities**

- Biothreat imaging technology
Questions?
The Arizona Produce Industry

Robert L. Shuler
The Shuler Law Firm PLC
rshuler@shulerlegal.com
602-509-8699

Arizona Produce Industry

- Arizona ranks second in the U.S. in head lettuce, leaf lettuce, romaine lettuce, cauliflower, broccoli, spinach and cantaloupe production.
- Direct value of sales is over $2 billion, the largest of any individual commodity group in Arizona.
- Over the past decade, the total direct sales value from produce crops in Arizona has continued to increase year over year.

Yuma County Arizona

- During the winter months, Yuma provides over 85% of the leafy greens consumed across the United States.
- Yuma ranks in the top 0.1 percent among U.S. counties in vegetable and melon sales.
- Yuma ranks in the top 0.1 percent among U.S. counties in vegetable acreage, the top 0.1 percent in lettuce acreage. Source: USDA-AMS 2012 Census of Agriculture

Industry Growth

- In Yuma acres planted to vegetables has increased nearly six-fold over the past 40 years while acreage committed to the perennial and full season crops has declined 43 percent.
- Nearly 70 percent of the irrigable acres now support multi-crop production systems that include a winter vegetable crop followed by durum wheat, melons, short season cotton or sudangrass.

Produce Water Usage

- The water requirements of multi-crop systems are typically less than the perennial and full season crops they replaced.
- Irrigation water diverted to farms has decreased 35 percent since 1990 (0.8 acre foot (AF)/acre) and nearly 16 percent since 1975 (1.0 AF/acre).
- Factors contributing to this reduction in water use include a reduction in irrigable acres and significant improvements in crop and irrigation management and infrastructure.
Produce Water Usage

- Most Yuma growers use highly efficient level furrow or level basin surface irrigation systems with average application efficiencies in the 80-85 percent range.
- Application efficiencies can approach 90 percent in finer textured valley soils and 55 to 60 percent on coarse textured mesa soils using these procedures.

Economic Contribution of Agriculture to Yuma County

- 1 in 4 Jobs
- $2.8 Billion in Total Output
- $1.5 Billion in Value Added
- $34 Million in State & Local Taxes

Produce Industry in the City of Nogales and Santa Cruz County

Produce from Mexico

Distribution by Port of Entry

- Nogales
- Pharr & Progreso
- Otay Mesa
- Others

Distribution by Port of Entry (cont'd)

Season 2012
<table>
<thead>
<tr>
<th></th>
<th>Million</th>
<th>%</th>
<th>Million</th>
<th>%</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nogales</td>
<td>2.5</td>
<td>14%</td>
<td>2.2</td>
<td>17%</td>
<td>0.3</td>
</tr>
<tr>
<td>Pharr &amp; Progreso</td>
<td>2.7</td>
<td>17%</td>
<td>2.2</td>
<td>17%</td>
<td>0.5</td>
</tr>
<tr>
<td>Otay Mesa</td>
<td>1.1</td>
<td>11%</td>
<td>1.3</td>
<td>11%</td>
<td>0.2</td>
</tr>
<tr>
<td>Others</td>
<td>2.8</td>
<td>25%</td>
<td>2.8</td>
<td>25%</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Mexico</td>
<td>10.5</td>
<td>100%</td>
<td>15.4</td>
<td>100%</td>
<td>4.9</td>
</tr>
</tbody>
</table>
Fresh Produce Industry in Santa Cruz County

Direct Economic Contribution in Millions of Dollars

- Shipping/distribution/sales brokerage $225.9
- Custom brokerage/freight forwarding $14.0
- Truck transport to warehouses $16.8
- Warehousing & storage $24.8
- Gas station (diesel fuel) $15.0
- Truck crossing permits $3.0
- Border inspection (CBP) $3.8

*Fresh Produce and Produce-Sharing Foundations and Opportunities for Regulators and Santa Cruz County* [pdf]
[NCLE_011_08_Report_Final_081815.pdf]

Fresh Produce Industry in Santa Cruz County

Direct Plus Indirect Impacts:

- 4,020 jobs (23.3% of jobs in County)
- $190 million in wages (24.8%)
- $437.7 million output (33.5%)
- $415 million in state and local tax revenues

*Fresh Produce and Produce-Sharing Foundations and Opportunities for Regulators and Santa Cruz County* [pdf]
[NCLE_011_08_Report_Final_081815.pdf]

Issues

YUMA AND CENTRAL ARIZONA

- Market
  - A Legal, Reliable Labor Force
  - New Technologies
  - Increased Regulation
  - Endangered Species Act
  - Waters of the US Rule
- Inputs
  - Crop protection
  - Water availability
- ROGALES
  - Personnel at Port of Entry
  - Increasing capacity (new lanes)
  - Increasing trade (produce and other goods)
  - Adequate Highway Infrastructure

Contact Information

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The Shuler Law Firm PLC
rshuler@shulerlegal.com
602.509.8699
IES' Mission

"To protect the health and value of American animal, plant, and natural resources through effective and efficient investigative and enforcement services."

Investigative and Enforcement Process

Primary Statutes in Plant Health and Border Protection Enforcement:
- Plants and plant products

Investigative and Enforcement Process

Animal Health Protection Act, 7 U.S.C. § 8301 et seq. and associated regulations in Title 9, C.F.R.
- Animal products and articles

Agenda
- About Us
  - Our Role in Supporting the APHIS Plant Health Mission
  - Investigative and Enforcement Process
- Recent Activities
  - Outreach and Building Customer Service
  - Enhancing Transparency
  - Other Developments
  - Key Actions

Who are we? IES

Office of the Director
Director and Deputy Director

Natural Training Coordinator

Technical Manuals Writer

Western Regional Office (Fl. Cello)

Eastern Regional Office (Raleigh)

Enforcement Branches
Animal Health and Hemp Inspection
Animal Welfare
Plant Health and Border Protection (Riversdale)

Western Region Area Directors and Investigation
Eastern Region Area Directors and Investigation

Investigative and Enforcement Process

IES' work is divided between two groups:
- Field Investigators conduct investigations and produce Reports of Investigation (ROIs).
- Headquarters Enforcement staff members review completed ROIs for evidentiary sufficiency.

When the evidence gathered during an investigation supports the finding of a violation, APHIS may pursue enforcement action against the person or entity that violated APHIS' regulatory requirements.
Investigation
When APHIS or Customs and Border Protection (CBP) personnel discover a potential violation of APHIS regulations, they may request a formal investigation by IES.

- The investigation is a fact finding mission which may include collecting documents; taking photographs; and interviewing witnesses, including the alleged violator.
- As part of its investigative process, IES provides alleged violators with the opportunity to submit evidence that may clear them of wrongdoing.

Enforcement – Evidence Review
- Once the investigation is complete, the IES Investigator prepares an ROI summarizing the investigative findings and then sends the ROI and all evidence to IES' Enforcement staff for review.
- An Enforcement Specialist analyzes the information to determine if the violation is substantiated by the evidence provided.
- If the evidence shows a violation occurred, Enforcement prepares an enforcement recommendation.
- Before carrying out any enforcement action, IES consults with the referring program.

Enforcement – OIG
A note on the USDA Office of Inspector General (OIG):
- If IES believes an alleged violation may involve criminal activities, IES will consult with the U.S. Department of Agriculture, OIG.
- Consultation can occur at any time during investigation or enforcement review.
- OIG may investigate or pursue criminal action

Enforcement – Options
The enforcement action taken depends on the seriousness of the issue and the number of alleged violations, among other things.

- Official Warning
- Settlement Agreement offer
- Referral to the Office of the General Counsel (OGC) for administrative action
- Referral to the U.S. Department of Justice for civil or criminal action (most serious)

Enforcement – Settlement Agreements

- Discretionary
- Include a monetary penalty based on guidelines
- Generally contain more favorable terms

If the alleged violator accepts the settlement agreement, IES closes its investigative file.

If the alleged violator does not accept the settlement agreement, IES refers to OGC for administrative action, generally seeking a more serious sanction.

Enforcement – Policy Change for First Time Violations
IES is expanding the use of monetary penalties for first time, substantiated violations. If the totality of evidence in the case file demonstrates that the alleged violator likely knew or should have known of the regulation, Enforcement Specialists generally issue monetary penalties unless other circumstances make other action (e.g., a warning) more appropriate.
Recent Activities

- Outreach and Building Customer Service
- Enhancing Transparency
- Other Developments
- Key Actions

Outreach and Building Customer Service

- Focus on most serious allegations, highest risk to American agriculture.
- Reduced time to complete average investigation and enforcement action.
  - **Target:** 365 days
  - **Results:**
    - 449 days in FY 2013
    - 327 days in FY 2014
    - 340 days in FY 2015 (midyear)

Outreach and Building Customer Service – Within IES

IES obtained Partnership Organization status at the Federal Law Enforcement Training Center (FLETC) to continue to build and refine its investigative and enforcement activities. To this end, in FY 2015, IES invested in 66 training seats at FLETC.

- The greatest number of seats in training classes in the history of the organization.
- IES is projected to make similar investments in training in FY 2016 through FY 2021.

Outreach and Building Customer Service – Collaboration

- Strengthen collaboration and working relationships with CBP and Plant Protection and Quarantine (PPQ) to optimize the case referral process by delivering training to CBP on preparing and submitting referrals to IES and providing an overview of the enforcement process.
- So far, in FY 2015, IES has delivered training and/or met with CBP and PPQ officials in more than 20 locations across the country.

Enhancing Transparency

Investigation and Enforcement Services (IES)

Plant Protection and Quarantine (PPQ) Enforcement

Summary

- A screenshot of the Investigation and Enforcement Services (IES) and Plant Protection and Quarantine (PPQ) Enforcement summary pages.
Other Developments – Combating Wildlife Trafficking
- In 2013, a Presidential Executive Order (EO) established a Task Force on Wildlife Trafficking comprised of 13 federal agencies.
- Targets connection between wildlife trafficking (animal and plant species) and organized crime and calls for a "whole of government" solution.
- USDA – through Forest Service, Foreign Agriculture Service, OIG, andAPHIS – supports the Task Force.
- Primary focus on illegally harvested timber, plant, and plant products.
- Assessing authorities and tools (under the Lacey Act), prioritizing wildlife trafficking enforcement, building interagency cooperation, and strengthening interdiction and investigative activities.

Key Actions – Plant Health – Wood Packaging Materials (WPM) (Export)
American Pallet Recycling (APR), LLC, pleaded guilty to one felony count of applying counterfeit IPPC ISPM 15 marks to WPM, fraudulently certifying that the wood was heat treated to mitigate pest risk. APR’s former president and owner, Viola, pleaded guilty to a misdemeanor count. APR will pay a fine of $100,000, and Viola will pay a $1,000 fine and serve 3 years of probation. This is the highest monetary penalty assessed for falsified use of a counterfeit mark related to WPM under the Plant Protection Act (PPA). (NY)
Julio Alvarez pleaded guilty to one misdemeanor count of making a false statement to a federal official. Alvarez was employed by American Pallet & Recycling, Inc., and he falsified documents in connection with the exportation of WPM. (CA)

Key Actions – Plant Health – Greer Gardens, Inc.
- In January 2015, Greer was assessed a $10,750 civil penalty (corrected decision) to resolve alleged violations involving interstate movement of plants in violation of P. ramorum Federal regulations and orders and movement of plant material not in compliance with PPQ’s inspection regulations in 2014.
- In February 2015, APHIS initiated an investigation involving Greer and the plant material not in compliance with PPQ’s inspection regulations in 2014.
- All tested samples are negative, except the samples from LA shipments.
- APHIS continues to investigate the evidence and is currently reviewing materials Greer produced after APHIS issued an investigative subpoena.
- APHIS also investigated movement of plant materials from Greer to PA.
- APHIS investigation is based on Greer’s failure to pay the $10,750 assessed civil penalty.
- APHIS has consulted with counsel about legal options and investigative tools.
Key Actions – Border Protection

Failing to Abide by Agriculture Hold Orders:

Port America Chesapeake, LLC, paid $5,875 to resolve alleged violations related to its release of three containers on hold prior to CBP release. (MD)

United Parcel Service, Inc., paid $49,668 to resolve 51 alleged violations related to its failure to hold shipments for agriculture inspection. (CA, FL, KY)

Price Transfer, Inc., paid $16,500 to resolve alleged violations involving its delivery of 6 shipping containers manifested as containing a total of 7,060 boxes of cantaloupes from Honduras and Guatemala while the containers were on hold for agriculture inspection. (CA)

Loblaws Companies, Ltd., (Seals) paid $2,500 to resolve alleged violations related to its failure to ensure that a seal on a transit and export shipment remained intact. (NY)

Key Actions – Border Protection

U.S. Airways (Notice of Arrival) paid $6,000 to resolve alleged violations occurring when it moved two shipments of fresh vegetables from the Dominican Republic into Philadelphia, PA and did not make the airway bill available to CBP immediately upon arrival of the shipment into the United States. (PA)

L365 Sky Charters (Regulated Garbage) paid $63,000 to resolve alleged violations involving its failure to handle, safeguard, and dispose of regulated garbage in accordance with the terms of its compliance agreement. (CA, CO, FL, MO, NC, NY)

Lamont Airlines Group, S.A., (Regulated Garbage, Hold) paid $3,500 to resolve alleged violations involving failure to handle, safeguard, and dispose of regulated garbage in accordance with the terms of its compliance agreement and released a shipment of flowers from Columbia containing an actionable pest without CBP authorization, approval, or treatment. (CA/FL)
AmericanHort and SAF
Report to National Plant Board
August 4, 2015
Sedona, AZ

Craig Stieffelweg
Senior Vice President, AmericanHort
CraigS@AmericanHort.com

Lyn Schmale, in absentia
Senior Director, Society of American Foresters
LynSchmale@safore.org

The Race for the Presidency

May you live in interesting times

State of the Industry

- General sense of things
- By the numbers (2013*):
  - Nursery, greenhouse production: $16.77 B
  - All output: $227.9 B
  - Total employment: 1.86 M
  - Full Economic Impact study – fall?
- Ongoing challenges
  - Water
  - Labor
  - Demographics
AmericanHort

• 1.5 years old!
• Columbus OH / Washington DC
• Cultivate'15 a great success
• Horticultural Research Institute funded
  ~$525,000 in research this year
• Some staff transitions...

Farm Bill

• Things for which to give thanks:
  • #1: We are not negotiating a new one!

  • Progress Reports
    • Sec. 10007/Plant Pest
    • Nat’l Clean Plant Network
    • Specialty Crop Research Initiative
    • Specialty Crop Block Grant

Systems Approach to Nursery Certification (SANC)
**Boxwood Blight**
- Voluntary BMP's/compliance agreement were model for collaboration
- Generally quiet since, until...
- Lessons from this year's incidents
  - At origin
  - At destination

**Plum Pox**
- Ontario, Canada situation — concerns persist in US
- Propagation, tree removal, buffer
- Resolution undermined by Canadian industry's view of the threat (low)
- Creative options?

**Japanese Beetle**
- Harmonization revisions — "many moons in the making"
- A handful of challenges
  - Example: "compost"
- Technical/research opportunities?
Xylella fastidiosa / EU

- June 1, new EU measures to restrict importation of ~160 plant taxa
- US Impacts
  - Commercial volume trade
  - Variety development, protection
- Options
  - Pest Free Area
  - Pest Free Place of Production
  - Other strategies?

Divine Intervention?

Where's Lin Schmale!?  

RUFF!

Lin says Hello!
GLADIOLUS RUST...

First found in US in 2006

Very costly for growers — and for states (FL, Ca)

May 21, 2015 — APHIS revises response to domestic detections

Welcome news to California producers, who were being severely economically penalized with no hope of full eradication (widespread in environment)

GLADIOLUS RUST... APHIS MAY 21 ANNOUNCEMENT, AFTER EXTENSIVE CONSULTATION

“Based on distribution of the disease and known biology and plant hardiness zones in the United States, the pathogen has spread to the limits of its natural range... APHIS will no longer take domestic action, or require action, when GR is found...”.

“APHIS will initiate rule-making to update the import requirements for GR. APHIS will continue to regulate other gladiolus pathogens that are not known to occur in the United States...”.

Puccinia horiana
Chrysanthemum White Rust
CWR

Chrysanthemum Growing and CWR: Then & Now

Then (1940-80)
- Cut mums dominated
- MANY small growers across country
- Greenhouse production
- Self propagation
- Limited control options

Now
- Garden and pot mums dominate
- MANY growers (small & large) across country
- Outdoor production for garden mums
- LESS self propagation
- Good fungicides available
- Growers more aware

MARKET DYNAMICS

TODAY, DOMESTIC PRODUCTION OF GARDEN MUMS DOMINATES IN US

- Mums as cut flowers: about 90% from Colombia; smaller quantities from Costa Rica, Ecuador. Mexico gearing up for higher production.

- US production of cuts: small % - mostly California

- Hardy garden mums: $109 million wholesale value of sales 2009 (for the 15 NASS survey states).
APHIS MOVING FORWARD...

- Chrysanthemums were proposed as NAPPRA (Round 2). SAF and ANLA comments opposed the NAPPRA listing, would just add huge risk assessment burden (and delay) for import of cuttings from any offshore location.
- Final NAPPRA-Round 2 regulation not yet published but on the way.
- We hope that APHIS has listened to our concerns.
- Industry most concerned about timing of regulatory changes, rather than the changes themselves. Will take time to get set up to bring cuttings from offshore locations.

The Regulations – OPTIONS?

If APHIS were to decide to deregulate CWR, the industry would adapt.

Industry input is being gathered on other diseases which might travel on mum cuttings (viruses, etc.)

In general, industry believes that those other diseases could better be handled as "quality pests" rather than via regulation.

Farm Bill-funded project on overwintering is nearing completion, will provide valuable input.

Q-37 Rewrite...’Plants for Planting’

- A lengthy process.....an understatement

- Industry: What's Next?

- It seems that other regulatory decision-making is stalling due to "Wait, it will be covered under the new Plants for Planting regulations".

RISK-BASED SAMPLING AT THE PORTS HOW'S IT GOING?

- "Plants for Planting" imports continue to increase... but "Plants for Planting" are still considered (by many) to be a high-risk pathway.

- RBS: Computer-driven formula selects boxes from incoming shipments for inspection.

- APHIS believes that RBS will (eventually) allow APHIS to sort incoming plant material into "low, medium, high" risk and inspect accordingly.

- Accurate recordkeeping at the ports of genera/pests will be key to success.

RISK-BASED SAMPLING AT THE PORTS HOW’S IT GOING?

- APHIS, ports have been very collaborative. Adjustments have been made to address industry concerns.

- If we can get accurate records on real-world problems associated with import of Plants for Planting, we believe it will go a long way toward answering our critics... AND help build a safer system.

Risk-Based Sampling...

Identification to genus is inadequate ... some genera are so large that the information collected will not be helpful or indicative of real risk.

Increased rates at high-volume ports could cause slowdowns that would impact product quality, cost us $.$$
Q-BIOTYPE WHITEFLY...

When first found in U.S., recognition that quarantines would lead to over-spraying by growers.

U.S. industry (cotton, vegetables, ornamentals), scientists, State and Federal regulators agreed to a new approach.

Worked together to develop....

NEONICOTINOIDS ARE VERY IMPORTANT IN THE WHITEFLY MANAGEMENT PLAN...

APHIS is helping to fund a new project through the FY 2015 Farm Bill to identify alternative chemicals. Obviously, this is of key importance.

Stay tuned....

If it’s Not One Thing, It’s Another!

- USDA Research
  - Rep. Matt Salmon (R-AZ)
  - His bill would prohibit USDA spending any funds on rose rosette disease
- Transportation debate (and threats)
  - H.R.2606, 2609 (Rep. Vicki Hartzler, R-MO)
  - "Roads Not Roses" Act
RIDING OFF INTO THE SUNSET?
WE WILL MISS YOU...
National Association of State Departments of Agriculture (NASDA): Overview

National Plant Board Annual Meeting
August 4, 2015

What is NASDA?
- Founded in 1916
- Non-profit, non-partisan association (501c6)
- Washington office opened in 1968
- NASDA Research Foundation founded in 1981 (501c3)

NASDAQ Mission Statement
Our mission is to represent the state departments of agriculture in the development, implementation, and communication of sound public policy and programs which support and promote the American agricultural industry, while protecting consumers and the environment.

NASDAQ Members
- Commissioners, Secretaries, and Directors of Agriculture in all 50 states and 4 U.S. territories
- 12 are elected, all others are appointed

NASDAQ Regions

NASDAQ Affiliates
- Twenty-three Active Affiliate Organizations
- NPB: 46 States & PR
NASDA Meetings

- Winter Policy Conference held in Washington D.C. in February to focus on legislative issues
- Regional Meetings held in June and July
- Annual Meeting hosted by the NASDA President in September
- Tri-National Accord held annually in the fall and hosted by the US every three years

NASDA Communications

- NASDA News
- NASDA website
  - www.nasda.org
- Twitter
  - @NASDAnews
- Facebook
  - https://www.facebook.com/NASDADC

Partners

USDA-NASS

- Cooperative Agreement since 1972
- 3,400 enumerators around the country

USDA- FAS

- Cooperative Agreement since 1982
- Promote exports of U.S.-made, high-value food products

Partners

FDA

- Cooperative Agreement since 2014
- Determine the current foundation of state law
- Determine the resources needed by states to implement the produce safety rule
- Develop a timeline for successful implementation once the rule is finalized

EPA

- NASDARF Cooperative Agreement (FY2011-15) to enhance Pesticide Safety Programs
- Personal Protective Equipment
- Ag & Non Ag Safety for Workers and Pesticide Handlers
- Applicator Certification and Training
- Pesticide Safety for Health Care Providers
NASDA Policy Committees
1. Animal & Plant Industries
2. Food Regulation
3. Marketing & International Trade
4. Natural Resources, Pesticide Management & Environment
5. Rural Development & Financial Security

NASDA Policy Priorities
- Tiered Issues
- Emerging Issues
- Strategic Plan
  "You are either at the table or on the menu."

The Appropriations & Budget Process

Thank you & Questions?
NASDA Contact Information
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Phone: 202-296-9680

Staff Contact
Dudley Hoskins
Public Policy Counsel
dudley@nasda.org
Systems Approach to Nursery Certification

John Rausch, Conard-Pyle
Dana Rhodes, Pennsylvania Department of Agriculture
Susan Ehltenbeck, Missouri Department of Agriculture
Larry Nichols, Virginia Department of Agriculture

Steps to implementing SANC
- Risk Assessment
  - Identifies hazards and mitigation strategies (BMPs) for hazards (risks)
- Development of SANC Manual
  - Formalizes and documents facility's procedures
  - Pest Management Plan (BMPs and Scouting)
- Approval of SANC Manual
  - Ensures facility's plan meets SANC Standard
- Implementation of components in SANC Manual
  - Recordkeeping, training, BMPs, etc.
- Audits
  - Ensures facility's plan is being implemented as described in SANC Manual

SANC Pilot Nursery/Greenhouse Operations

Pilot Project

<table>
<thead>
<tr>
<th>Grower</th>
<th>State</th>
<th>Initial Date</th>
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</thead>
<tbody>
<tr>
<td>Conard-Pyle</td>
<td>PA</td>
<td>November, 2014</td>
</tr>
<tr>
<td>Forrest Keeling</td>
<td>MO</td>
<td>December, 2014</td>
</tr>
<tr>
<td>Walla Walla Nursery</td>
<td>WA</td>
<td>April, 2015</td>
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<tr>
<td>Lucas Greenhouses</td>
<td>NJ</td>
<td>May, 2015</td>
</tr>
<tr>
<td>Oregon Pride Nursery</td>
<td>OR</td>
<td>June, 2015</td>
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<tr>
<td>Greenleaf Nursery</td>
<td>OK</td>
<td>August, 2015</td>
</tr>
<tr>
<td>McKay Nursery</td>
<td>WI</td>
<td>September, 2015</td>
</tr>
<tr>
<td>Southeastern Growers</td>
<td>GA</td>
<td>September, 2015</td>
</tr>
</tbody>
</table>

Pilot Timeline

For more information:

http://sanc.nationalplantboard.org/
How to Prepare for an Audit of your Cooperative Agreement

Heather Wilkie
Earnest Smith

Animal and Plant Health Inspection Service (APHIS)
Financial Management Division (FMD)
Review and Analysis Branch (RAB)

APHIS-FMD-RAB

• Cooperative Agreement Reviews
• Trust Fund Reviews
• Reimbursable Agreement Reviews
• Agency's Management Control A-123
• User Fees
• Liaison for OIG/GAO Audits
• Suspension and Debarment
• Special Projects

Cooperative Agreement Reviews

APHIS and the recipients of Cooperative Agreements share responsibility for compliance and oversight to ensure good stewardship of Federal funds.

Uniform Guidance
(2 CFR Part 200)

Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards

2 CFR Part 200

Contents
• Subpart A - Acronyms and Definitions
• Subpart B - General Provisions
• Subpart C - Pre-award Requirements and Contents of Federal Awards
• Subpart D - Post-Award Requirements
• Subpart E - Cost Principles
• Subpart F - Audit Requirements

Review v. Audit

Is there a difference?
CA Lifecycle

Steps in a RAB review:
- Planning
- Notification
- Entrance Conference
- Fieldwork
- Draft Report
- Comment Period
- Exit Conference
- Final Report with Approvals

Review Selection – Risk Assessment
- Type of Funding
- Program
- Organization
- Location
- Dollar value
- RAB review findings
- Previous reviews conducted

Transaction Testing
GOAL is between 25% to 33% of Total Funding

RAB Reviews FY15
- 22 Funded Agreements
- Representing 15.7 Million Dollars

How to Prepare for a Review...
- Review should be transparent process
- document, document, document
- Ask Questions - Uniform Guidance
- document, document, document
- Work with your ADODR, Program Staff, etc.
- document, document, document
- Disclose
Digital Accountability and Transparency Act (DATA Act)

Data + Use = Value

Questions?
ARM: Agriculture Risk Management

- What's New?
- What Information is Available and How Can It Be Used?

Terry A Morris
National Plant Board 86th Annual Meeting
August 4, 2015

The Agricultural Risk Management (ARM) System is an integrated application that supports Agricultural Quarantine Inspection (AQI) activities by tracking identification of pest interceptions and the execution of regulatory safeguarding actions.

Benefits:
- Program Improvements
- Expanded Analysis Capabilities
- Management Oversight

What's New?

- Authorities
- Scope expansion
- Testing, Piloting and Training

What Information is Available?

-APHIS Partnering Government Agency Requirements
- Timelines
- Outreach locations

How Can the Information Be Used?

- Business Process Changes
- Software Adjustments
Future ARM Implementation

Training August - October

Pilot Integration September

Deployment November
Recent Development
Web Application

- 3 releases in FY15
  - User requested enhancements
  - Performance enhancements
  - Features needed to support AIR

Recent Development
Mobile

- IPHIS Mobile 1.0 (iOS)
  - Publication to USDA App Store in progress
  - Unknown date when it will be available
- IPHIS Mobile 1.0 (Windows 8.1)
  - In progress
  - Ready for testing: Mid-August (estimate)

Tablet landscape

- 3 Tablets currently in use by Field Ops
  - Dell Venue
  - iPad (iPad mini)
  - Panasonic Toughpad

Programs in the field currently testing
and using mobile applications

- The Asian Gypsy Moth is testing iPads using the ESRN collector application in South Carolina and Oklahoma.
- Old World Bollworm able to use Dell Venues with MIST.

MIST

- Mobile IPHIS Spreadsheet Translator
- Working to utilize IPHIS web service to eliminate/reduce need for desktop conversion application
- Great stopgap solution for all of the old Windows Mobile devices out in the field
- Successfully tested & utilized by Citrus Health Response Program in Florida, Coconut Rhinosaurus Beetle in Hawaii and Old World Bollworm in Puerto Rico.
Challenges

- Publishing mobile applications to USDA application store is difficult due to lack of procedures.
- Some states may utilize Android products which APHIS-PPQ currently does not have an application for.
- Issue with multiple users assigned one tablet to share.

Governance and Communication

  - Achieving a balance between governance and innovation
  - Exporting data more by reducing citizen science
  - Enabling consistent development of approved mobile solutions
  - Researching emerging technologies to determine value to PPQ

- Mobile Solutions Governance team
  - Provide a resource for how mobile solutions are ordered
  - Work with programs on testing mobile solutions

Governance and Communication

- Piloted mobile applications need to have solution for getting information back into PPQ systems.
- Need to ensure that all Core Functional Areas (Policy, Deputy, Field and Science & Tech) are involved with business data needs.
- Standardization of data elements needs to be established to improve overall data quality.
Spotted Lanternfly

Initiating A Program and Lessons Learned

Update

Life Cycle Completed in PA

Fourth Instar

Death Count As of July 27, 2015
- Egg Mass Scraping: 25,500
- Trunk Banding: 99365
- Total: 125,065
Lessons Learned

Remember You Are Not Alone

Things to Consider
- SPHD
- New Pest Advisory Group
- Technical Working Group
- NPB Members
- Initiate ICS
- State Quarantine – let Federal Partners know

Work With The Community
- Regular communications with local officials
- Contact other agencies
- Involve the Community
- Web Pages
- Seasonal Workers
- Outreach
Web Page

Seasonal Workers
- Letter mailed to quarantine area
- Explained how to identify survey workers
- Hired seasonal from the local area
- Posted pictures of the workers on web page

Outreach
- Town hall Meetings
- Mailing
- TV, Radio, Paper
- Extension Programs
- Farm Show
- FDA/USDA Press Event

A Visit From PPQ

New Pest
Everyone wants to save it.
Film workshops. Thank them for participating in the eradication effort.

Start Them Young
New 4-H program for campers.
Create lessons for classrooms.
Hope to move this into classrooms for classroom lessons.
Learn The Local Businesses in The Quarantine

The Community
- Community very engaged
- Cooperative effort between township supervisors, county commissioners, conservation foresters, extension educators, state and federal partners
- Training sessions for egg mass identification and scraping ongoing during winter months

Actions Taken
- New Pest Advisory Group
- Work group for PFQ and FRA
- Technical Working Group formed for research questions
- Forest Pest Task Force
- Plant Health Resource Center
- Quarantine Restrictive Movement
- Compliance Agreements for business
- Postemergence Certificates
- Residential Compliance Checklist
- Logs, equipment, firewood, outdoor household items, vehicles, campers, trailers, hardware

Farm Bill
- Farm Bill: Funding for research, outreach, eradication efforts
- Try to be specific in what you need or direction for actions to be taken
- Hope that you have more than 2-3 days before the suggestion period ends

Perspective
- Hurry but don't rush
- Patience
- Step back periodically
- Know the course may change!
- Sometimes what you did not do is a great opportunity
- Keep your sense of humor
Thanks

- USDA – APHIS-PPQ
- USFS
- Dept. Conservation and Natural Resources – PA
- Penn State University
- Penn State Extension
- PA Game Commission
- Berks County Commissioners
- Berks County Conservation
- Township Supervisors Price, District, Hereford, Earl, Washington
- Area Businesses and Residents
- PA Plant Resource Center
- PA Forest Pest Task Force

Questions?

Thank You!

Dana Rhodes
Pennsylvania Department of Agriculture
Email: dana.rhodes@pa.gov
Phone: 717-772-5105
Biofuels and Regulatory Opportunities

Wayne N. Dixon

Definitions

- **Biofuel or Bioenergy** is renewable energy made available from materials derived from biological sources.

- **Biomass** is any organic material which has stored sunlight in the form of chemical energy and available on a renewable basis, such as forest and mill residues, agricultural crops and residues, wood and wood residues, animal wastes, livestock operation residues, aquatic plants, and the organic portion of urban wastes.
  - grows fast and produces readily material that can be easily burned, such as switchgrass, switchgrass and miscanthus
  - plants that produce oil that is high in caloric value, such as soy, palm, sunflower, rapeseed, and canola oil
  - or plants with a high content of sugar that can be fermented

Stats

- In 2010, worldwide biofuel production reached 28 billion gallons US and biofuels provided 2.7% of the world’s fuels for road transport, a contribution largely made up of ethanol and biodiesel.
- 35 GW of globally installed bioenergy capacity for electricity generation, of which 7 GW was in the US.

Ethanol

- **Ethyl alcohol** is produced by fermenting sugars from any feedstock containing natural sugars or starches.
  - Ethanol, or a blend of ethanol and gasoline, can be used as a fuel.
  - Corn is the primary feedstock used to produce ethanol in the United States today, but small ethanol plants can use sugars for its ethanol production.

- Cellulosic biomass refers to a wide variety of plentiful materials obtained from plants—excluding certain forest-related resources (mill residues, pre-commercial thinning, slash and brush); many types of solid waste materials; and certain agricultural wastes (corn stover)—as well as plants that are specifically grown as fuel for generating electricity.

- Some next-generation biofuels, such as **biobutanol**, green gasoline, and green diesel are made from traditional feedstocks, such as sugar beets, corn, and sugarcane, or from other sources like algae.

Biodiesel

- A transesterification process involves mixing methanol with sodium hydroxide, then mixing that with a vegetable oil. The final products are methyl esters (biodiesel) and glycerine. Good for compression engines like diesels.

Ethanol

- Methyl esters can be produced from vegetable and tree oils, animal fats, or used oils and fats. Soybeans are the dominant feedstock for producing biodiesel in the United States.
US Department of Energy Awards $18 Million

Some projects include:
- Arizona State University, Mesa, AZ — Up to $1 million for atmospheric carbon dioxide capture, enrichment and delivery to increase biomass productivity
- Marine Algae Industrialization Consortium (MAGIC), Duke University, Durham, NC — $5.2 million to lead a consortium including University of Hawaii, Cornell University, Cellena and others to produce hydrothermal algal oil extract

US Department of Energy Awards $18 Million

Algae Limitation and Scripps Institute:
- Low algal biomass yields mean high capital investment to achieve commercial scale volumes
- Algae typically overproduce lipid oil — energy-storing fat redoxes used in biofuel production — when they are starved for nutrients, but this starvation also limits their growth and multiplication
- Metabolically engineer a disruption in fat-reducing enzymes, called lipases, to allow for an increase in lipids while maintaining productive growth

USDA Energy Research Service

Information available from many sources

Biomass – Wood Waste Plants

- Southern Company’s 300 MW Nicerganches Generating Facility (Texas)
- The Gainesville Renewable Energy Center 100 MW biomass power facility (Florida)
  - Both estimated to power 30,000 homes
  - Both 1 million tons per year feedstock
- There are about 132 waste-to-energy plants in California, with a total capacity of almost 1,000 megawatts
  - Sawdust or other wood and wood waste, forest waste, pre-commercial thinning, cellulose forest, and industrial wood waste, other non-commercial tree species, urban wood waste, tree limbs and branches produced by storms and other non-commercial logging-derived biomass

Biomass – Wood Waste Plants
**Biomass - Mississippi**

- Poplar
- Eucalyptus

**Bioenergy - Minnesota**

- Willow, Poplar, Switchgrass, Corngrass

- Legislation pending in Minnesota aims to establish state production incentives for advanced biofuels, renewable chemicals and biomass utilization.

**Milestones in Federal and State Energy Policy**

- Energy Policy Act of 2005
- The Energy Independence and Security Act of 2007
- The Food, Conservation and Energy Act of 2008
- Florida Farm to Fuel Initiative (2005-2006)
- Florida's Energy Plan, January 2006

**Florida Farm To Fuel Initiative**

- 2006: The department may develop a farm-to-fuel initiative to enhance the market for and promote the production and distribution of renewable energy from Florida-grown crops, agricultural wastes and residues, and other biomass and to enhance the value of agricultural products or expand ag business in the state.

- The goal is to make Florida a leader in the national effort to utilize biofuels.
- Florida’s agricultural resources, climate and geographic location are logical for biomass production.
- The Division of Plant Industry regulates biomass plantings.
Florida Statutes, Non-Native Species Plantings

583.083 Introduction or release of plant pests, noxious weeds, or organisms affecting plant life; cultivation of nonnative plants; special permit and security required.

1. The introduction into or release within this state of any plant pest, noxious weed, genetically engineered plant or plant pest, or any other organism which may directly or indirectly affect the plant life ______ is prohibited, except under special permit issued by the department through the division, which shall be the sole issuing agency for such special permits.

2. Each application for a special permit... accompanied by a fee... not to exceed $50.

Florida Rules

- Rule 58-57.011 Non-Native Species Planting Permits (formerly Biomass Rule): permit required or exemption by rule (October 2006)
- Major amendment in January 2013
  - Closed loophole for industrial oils, pharmaceuticals by creating the "non-native species" designation rather than "biomass"
  - Added algae and blue-green algae

Florida: Purpose of the Rule

- To control the introduction and movement of non-native plant species intended for non-traditional agricultural purposes
- Establish procedures to safeguard against the escape of said plants from cultivation providing the maximum public and environmental protection

Florida: Non-Native Species Planting Rule

- SB-57.011 Non-Native Species Planting Permits.
- A person may not cultivate nonnative plants, algae, or blue-green algae, including genetically engineered plants, algae, or blue-green algae in plantings greater than two contiguous acres, except under a Non-Native Species Permit

- A separate application shall be required for each noncontiguous growing location and must include a complete description of the non-native species to be grown and an estimated cost of removing and destroying the non-native species planting including the basis for calculating or determining that estimate.

- A new application will be required if a new or additional planting contiguous or not contiguous exceeds five percent (5%) of the acreage covered by a previous permit

Florida: Rule Outline

- Non-Native Species Planting Permit Requirements
  - Plantings greater than 2 contiguous acres must be permitted
  - Noxious weeds (State or Federal Lists) will not be permitted
  - Application information
  - Safeguarding information
  - Compliance Agreements
  - Surety Bond Information
  - Abandoned Biomass Planting Information

- Exemptions