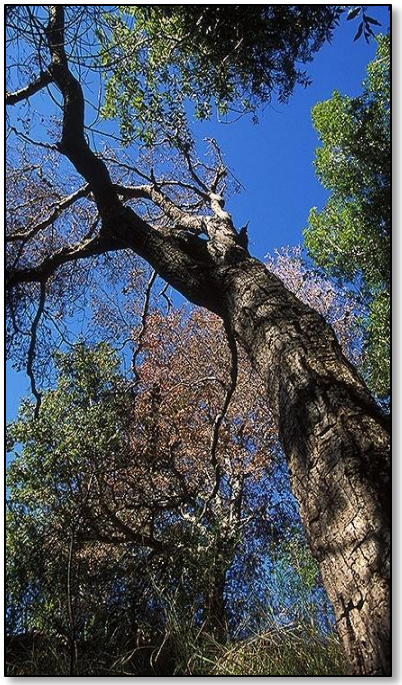
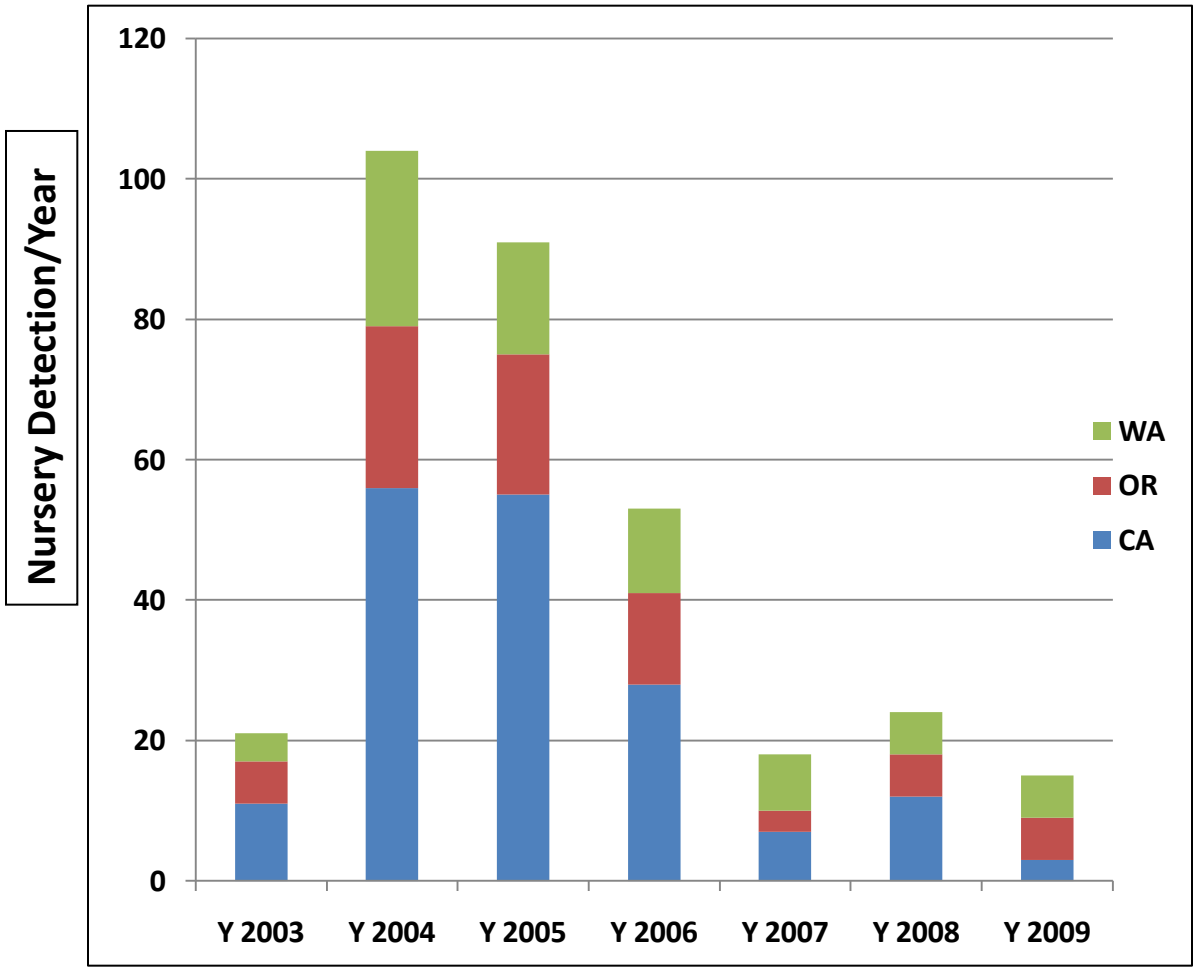
Phytophthora ramorum

COMTF

San Rafael, CA- June 9, 2010





- Reasons for steady decline since 2004 attributed to,

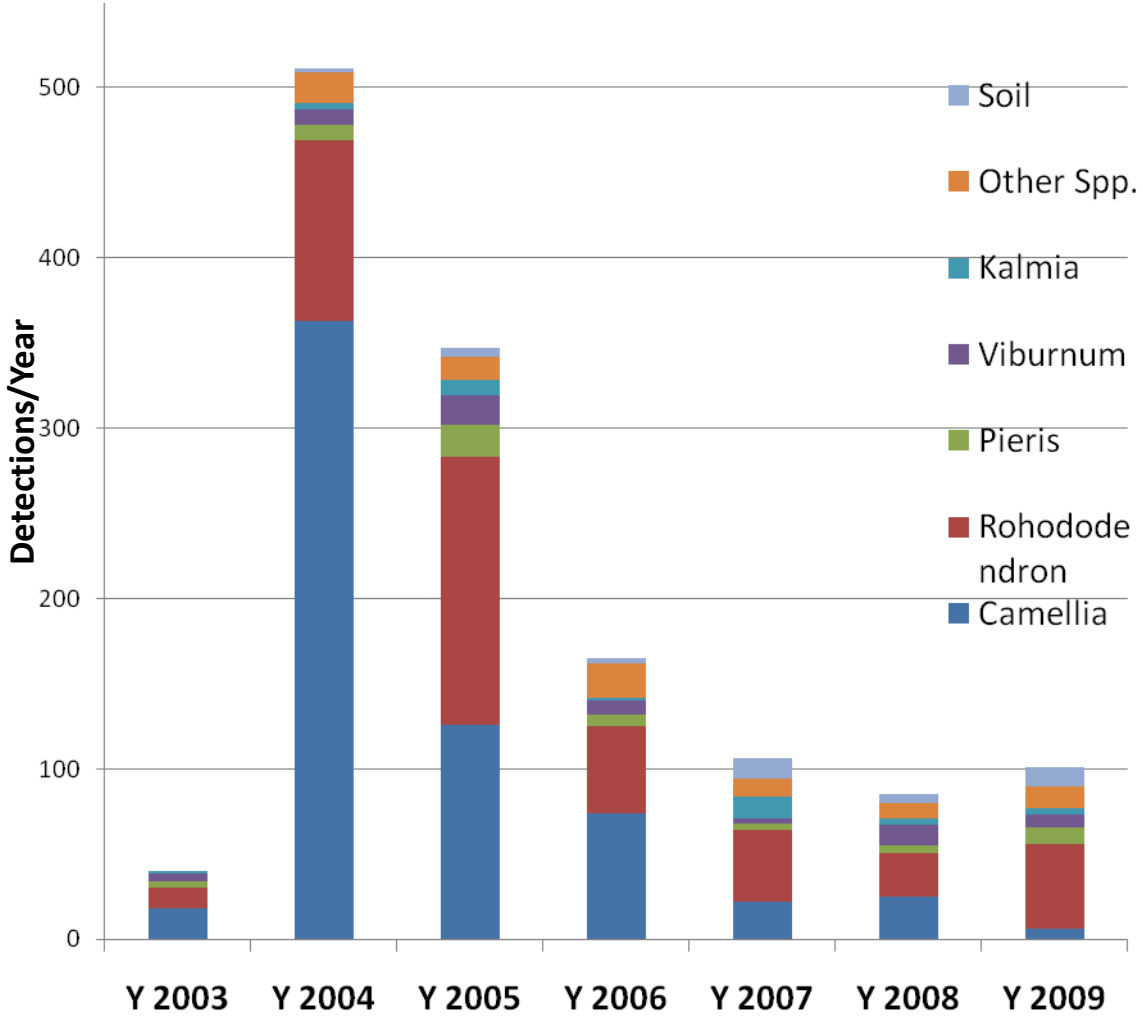
- Identification of the high risk plants

- Inspecting host plants when pathogen is most prevalent

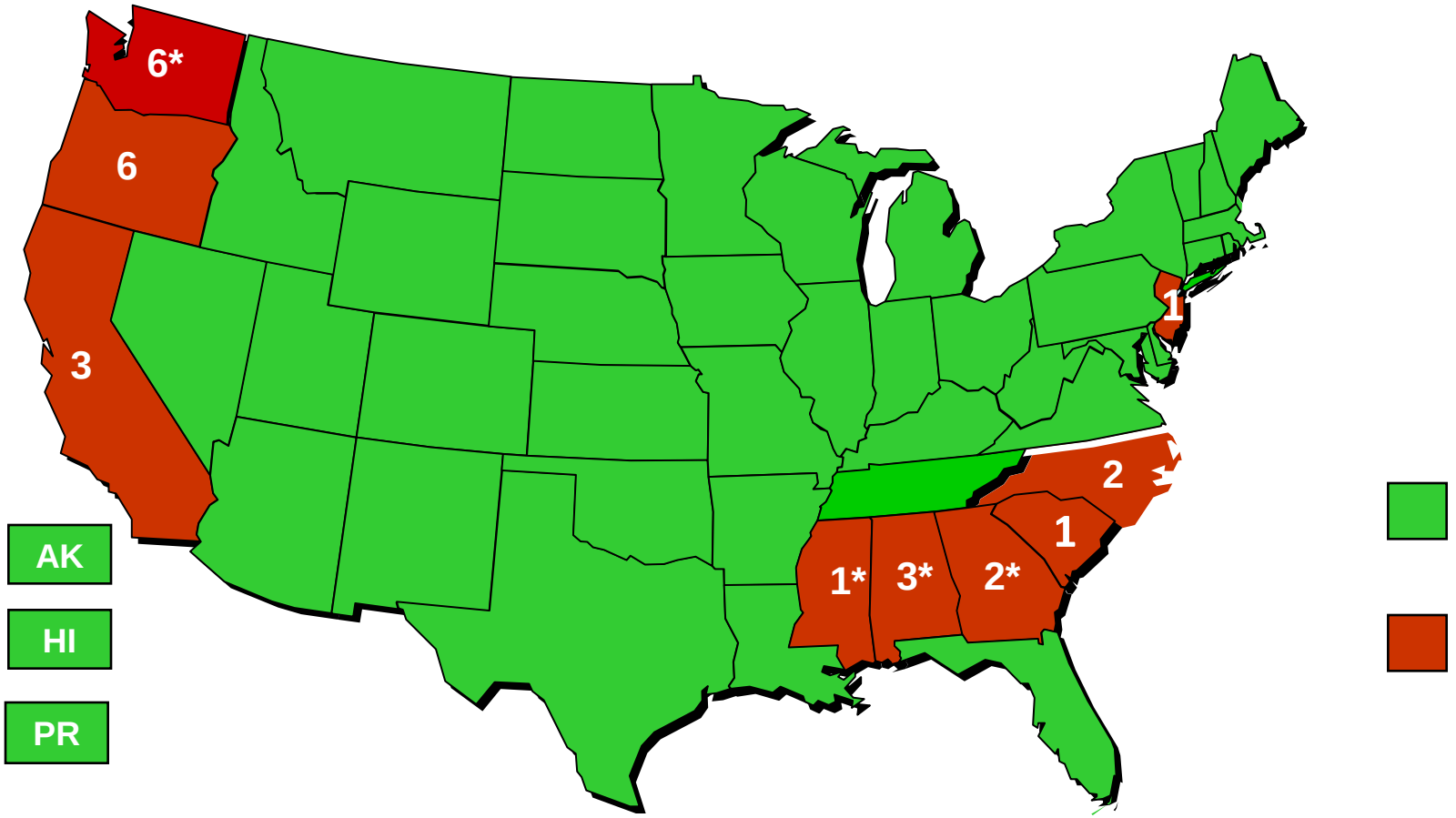
- 2-3x/yr inspection of high risk plants (in OR and CA)

- <u>Critical Questions:</u>
- Thoroughness of sampling
- Timing of sampling
- Sampling in quarantine vs. Regulated areas
- Training of field personnel

Nursery Detections of *P. ramorum* by Plant species and Year (2003-2009)



- Survey results agree with the ranking of the top 5 hosts.
- Soil detections still low
- <u>Critical Questions</u>:
- Does sampling bias (5 host plants) affect the results
- Does the sampling size affect the results
- Is the soil detection method robust enough to detect low levels of the pathogen



25 Positive Sites around the country in 2009

Nursery detections in : 2003 – March 2010 – R: Repeat Nursery; N: New Detection

STATE	Total Positive Nurseries (03-10)	2003	2004	2005	2006	2007	2008	2009	2010 (March)
California	124	11 (2R, 9N)	60 (4R, 56N)	55? (15R, 38N)	28?(18R, 9N)	7 (4R, 3N)	13? (7R, 5N)	4 (2R, 2N)	0
Oregon	61	6	23	20? (3R, 14N)	13? (3R, 9N)	3 (1R, 2N)	6? (2R, 3N)	6 (3R, 3N)	2 (1R, 1N)
Washington	45	2	25	16? (10N, 7R)	12 (9R, 3N)	8? (3R, 4N)	6? (1R, 4N)	6 (4R, 2N)	1 (R)
Alabama	5		3	-	1 (R)	-	-	3 (1 R, 2N)	-
Connecticut	2		2	-	1 (R)	-	-	-	-
Florida	6		6	-	2 (1R)	1	2 (1 R)	-	-
Georgia	20		16	4 (3R, 1N)	1 (N)	3 (N)	-	2 (1R)	-
Mississippi	1		-	-	1	1(R)	1 (R)	1 (R)	-
North Carolina	11		9	-	-	-	1 (N)	2 (1R, 1N)	1 (R)
South Carolina	6		4 ?	1 (N)	-	-	2 (N)	1 (R)	2 (1R, 1N)

Phytophthora ramorum National Program Review
* General Outcomes *

- Detailed analysis of APHIS data on host plants, positive finds, plant imports, risk analysis, and spread
- For nursery production, define, identify, and rank Critical Control Points (CCPs) and develop a systems approach or Best Management Practices (BMPs)
- Develop regulatory options that are timely and in alignment with BMPs/CCPs
- Research cost-effective soil and water remediation strategies at NORS-DUC
- Develop rapid diagnostic tools
- Review and revise the current nursery and Q37 protocols

P. ramorum National Review, December 09

- Action items identified
  - Short, Medium and Long-term
- Tasks
  - Developing and implementation of action items
- Creation of Working Groups
  - Regulatory, Research and Nursery Production Practices
- Composition of working groups
  - USDA (APHIS-PPQ, ARS, FS, NIFA), National Plant Board, NGOs, Nursery Industry, Universities

Regulatory Action Items

- Reviewing and revising regulatory protocols to take into account CCPs, high-risk plants, as well as soil and water positives.
- Conducting in-depth analysis of port-of-entry data and revising the current Q37 protocols.
- Conducting a national nursery survey for *P. ramorum* in 2010 as funded by Farm Bill (Section 10201).
- Developing clear guidelines (triggers) for regulation/deregulation.

Research Action Items

- Compiling and conducting an in-depth analysis of data to better understand the movement and extent of establishment of *P. ramorum* within the nursery industry.
- Developing rapid, sensitive field-based diagnostic tools that would aid in the production of clean plants.
- Determine risk of *P. ramorum* in soil and water and test cost-effective remediation methods.
- Update the environmental pest risk assessment.

Nursery Action Items

- Defining, identifying, and ranking critical control points and use them to develop a systems approach, incorporating best management practices in collaboration with Federal agencies, the NPB, universities, and industry.

  - Nursery Group beginning to be organized
  - HRI, CANGC, OAN BMP manuals
  - OAN developing a manual on **Production-based Systems Approach Program for Producing Nursery Stock**

- Evaluating the effectiveness and costs/benefits of ongoing initiatives such as the Oregon Grower Assisted Inspection Program and the U.S. Nursery Clean Stock Program as funded by Farm Bill (Section 10201). (Action initiated).

Status

- Several APHIS-PPQ, State Department of Agriculture personnel have volunteered to participate in the working groups.
- CPHST is in the process of forming the Research Coordination group.
- APHIS has completed several rounds of discussions with the Nursery industry

Regulatory Working Groups

- Co-chairs: Gray Haun, SPRO, TN and Prakash Hebbar, APHIS
- Sub-groups:
  - Q37 : M. Travis, MD; S. Nilakhe, TX
  - High Risk Plants: C. Pizzo CA; K. Kosta, CA -
  - Nursery Field teams: S. Whitesides, OR; J. Hedberg, OR
  - Critical Control Points/ Best Management Practices: C. Marzolf, FL; C. Holko, MD
  - Protocols: D. Givens/S. Scott, CO; V. Smith, CT
  - Regulatory Triggers: S. Miller, WA; G. Gibson, WV
  - Regulatory Surveys: A. Man-Son-Hing; NC; D. Barclift, AL

Process – Example – Regulatory
Q37 Host Plant Imports

- Objective: Ensure imports of host plants are free of *P. ramorum*

- Tasks for the Q37 sub-group
  - Need for detailed analysis of host plant import data (plant species, county of origin, arrival period)
  - Improve tracking host plants movement from ports of entry to nurseries
  - Monitor/report production practices at origin
  - Improve screening of imports for *P. ramorum* – rapid diagnostics

Implementation Strategies to be developed by the sub-group

Measure of success
Resources needed
Time lines

Other Ongoing Activities

- Final rule for *P. ramorum* is in final stages of completion
- APHIS has been having discussions with NPB leadership, Industry on mechanisms to improve traceability
- Rapid response for nursery positives through the use of on-site assessment teams/mobile labs
- Continued support to survey, mitigation research initiatives through farm bill funding

Acknowledgements

National Plant Board
State Plant Regulatory Officers
Nursery Industry – ANLA-HRI
USDA-ARS
USDA-FS
USDA-NIFA
National IPM Center
Universities: Davis, OSU, Berkeley, NORS-DOC,
California Oak Mortality Task Force
TNC
National Plant Diagnostics Network
CPHST
APHIS-PPQ Western / Eastern Regions
State Plant Health Directors
APHIS-PPQ: Plant Health Programs