



# Nursery Regulations for *Phytophthora ramorum*

California Department of Food & Agriculture  
Interior Pest Exclusion Staff



# THIS PRESENTATION COVERS

- Quarantined vs. Regulated Counties
- *P. ramorum* Nursery Regulations
- Compliance Agreement and Survey
- Positive Nursery Activities



# STATEWIDE NURSERY SURVEY

- In 2004, the California Department of Food and Agriculture (CDFA) conducted a statewide survey to identify all *P. ramorum*-infested nurseries
  - *P. ramorum* was detected in nurseries both within and outside of the naturally infested 14 CA counties
  - Findings led to separate nursery regulations for infested and non-infested areas of California

# Quarantined vs. Regulated County

## ❖ QUARANTINED COUNTY

*P. ramorum* is found in the environment  
AND is regulated in the nurseries



## ❖ REGULATED COUNTY

*P. ramorum* is not found in the environment  
but is regulated in the nurseries





## Quarantined County Nursery Regulations

- **7 CFR 301.92 - Federal Regulation**
  - Addresses INTERstate movement of host and associated host material, soil, and non-hosts
- **CCR 3700 Oak Mortality Disease Control - State Regulation**
  - Addresses INTRAstimate shipments from a nursery in a **quarantined county** shipping to a **regulated county**



# QUARANTINED COUNTY

## Regulations for Nurseries

### Shipping Interstate

- **Nurseries Containing Host or Associated Host Plants (HAP) Must**
  - Undergo an annual compliance agreement inspection & sampling
  - Sign a compliance agreement
  - Undergo monthly inspections
  - Ship with the Federal Shield
- **Nurseries Containing Non-HAP in Soil Must**
  - Undergo an annual compliance agreement inspection & sampling
  - Sign a compliance agreement
  - Remove HAP duff from pots before shipping
  - Ship with the Federal Shield





## REGULATED COUNTY Nursery Regulations

- 7 CFR 301.92 - Federal Regulation
  - In February 2007, the USDA rolled regulations for **regulated counties** into 7 CFR 301.92
  - Covers INTERstate shipments of nursery stock
  - 7 CFR 301.92 supercedes the December 2004 Emergency Federal Order



# REGULATED COUNTY Regulations for Nurseries Shipping Interstate

- Nurseries Containing HAP
  - Undergo an annual compliance agreement inspection and sampling
  - Sign a compliance agreement
  - Ship with the Federal Shield
- Interstate Non-HAP Shippers
  - Undergo an annual nursery survey
  - Appear on CDFA’s official “Approved Non-Host Shippers List”



**SOD** Approved Non-Host Shipping Nurseries

CDFA List of Nurseries Authorized to Ship Non-Host Nursery Stock Interstate  
The following nurseries have been inspected and it has been determined there is no evidence of *P. ramorum* according to the process described in the Emergency Federal Order Restricting Movement of Nursery Stock from California, Oregon, and Washington Nurseries, December 21, 2004, and are authorized to ship non-host nursery stock interstate.  
For additional information regarding this list OR TO REMOVE A NURSERY, please contact Amber Morris at (916)653-1440 or via email at [amorris@cdfa.ca.gov](mailto:amorris@cdfa.ca.gov).

A · B · C · D · E · G · H · I · J · K · L · M · N · O · P · Q · R · S · T · U · V · W · X · Y · Z · Entire List

Nursery Name	Address	City	County
B Way Farms	Volta And I-5	Los Banos	MERCED
A & B Nursery	4827 North Peck Road	El Monte	LOS ANGELES
A & F Growers	1803 Adams Street	Riverside	RIVERSIDE
A & R Nursery	7950 Graves Avenue	Rosemead	LOS ANGELES
A and A Cycads	11801 Stagg Street	North Hollywood	LOS ANGELES
A Water Nursery	105-555 Avenue 74	North Shore	RIVERSIDE
A Water Nursery	96493 Highway 111	Mecca	RIVERSIDE
A Y Nursery Inc	2035 John Street	Riverside	RIVERSIDE
A Y Nursery Inc	10475 Dufferin Avenue	Riverside	RIVERSIDE
A.Y.J. Wholesale Nursery	13156 Pipeline Avenue	Chino	SAN BERNARDINO
ABC Nursery Inc	18601 Yukon Avenue	Torrance	LOS ANGELES
ABC Nursery Inc	14725 West Barstow Avenue	Kerman	FRESNO
ABC Nursery Inc	6221 Clark Avenue	Lakewood	LOS ANGELES



# WHAT IS A COMPLIANCE AGREEMENT?

It is a written agreement between regulators and industry personnel that covers the details of the *P. ramorum* regulatory program as it applies to a given nursery.

## A Compliance Agreement Covers

- Nursery obligations and responsibilities
- Inspection, sampling, and testing procedures
- Record keeping
- Penalties
- Time period nursery is covered under the agreement
- Audits
- Certification



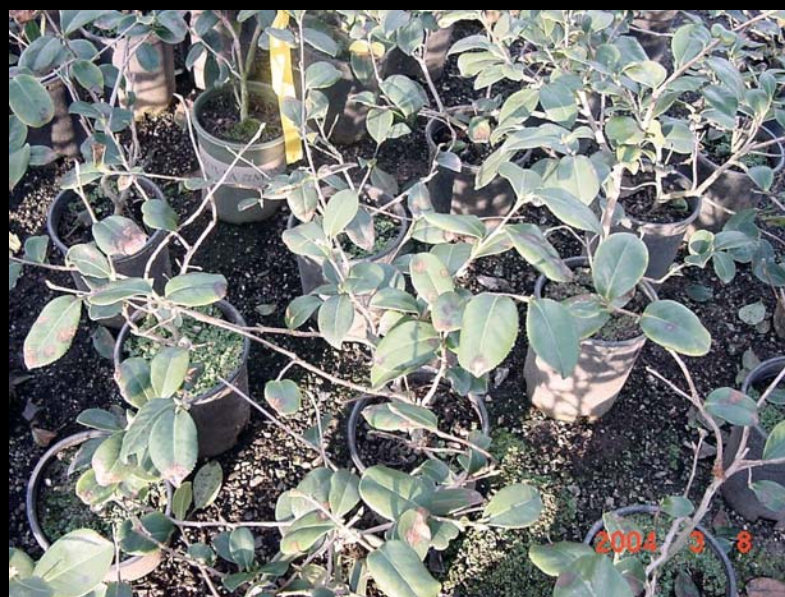


# SAMPLING FOR COMPLIANCE AGREEMENT

- Minimum of 40 samples per nursery
  - 40 separate bags
- One bag may contain more than one leaf, and be from more than one plant, but each bag/sample must have plant material from the same lot
- Samples taken from symptomatic plants
- If no symptomatic plants, samples should be taken from asymptomatic HAP



# CONFIRMED NURSERY PROTOCOL (CNP)



Actions Required at a *P. ramorum*-Positive Nursery  
- for both **Quarantined** and **Regulated** Counties



# GOAL OF CNP

To ensure that all infestations of  
*P. ramorum* are  
consistently and effectively  
addressed, mitigated, and eradicated



# CNP Requirements

1. Notify Nursery of *P. ramorum* Confirmation
2. Trace-Forward/Trace-Back Investigations
3. Secure the Nursery
4. Establish Destruction and Quarantine Block
5. Delimitation and Perimeter Survey
6. Soil, Growing Media, Water, Cull Pile Sampling
7. Disinfest the Nursery
8. 90-Day Hold Quarantine Activities
9. Positive Samples
10. Releasing the Nursery
11. Post Eradication Monitoring



# TRACE FORWARD/BACK

- County will collect shipping records for all HAP sent from positive nursery within one year (trace forward)
- Lists must be sent to CDFA who must forward them to USDA Regional Office within 10 working days
- County will also work with positive nursery to determine origin of positive plant (trace back)



# SECURE THE NURSERY

- All plants in destruction block are placed on hold and the area cordoned off to prevent unauthorized access
- All HAP genera in nursery are placed on hold until delimitation is complete
- Secure cull pile until sample results are available
- Ensure equipment is not moved from the site without proper disinfestation



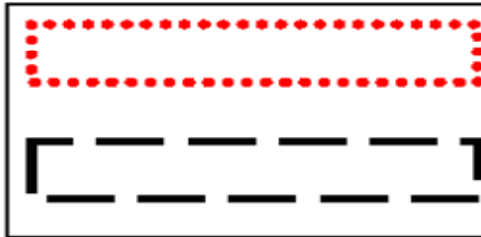
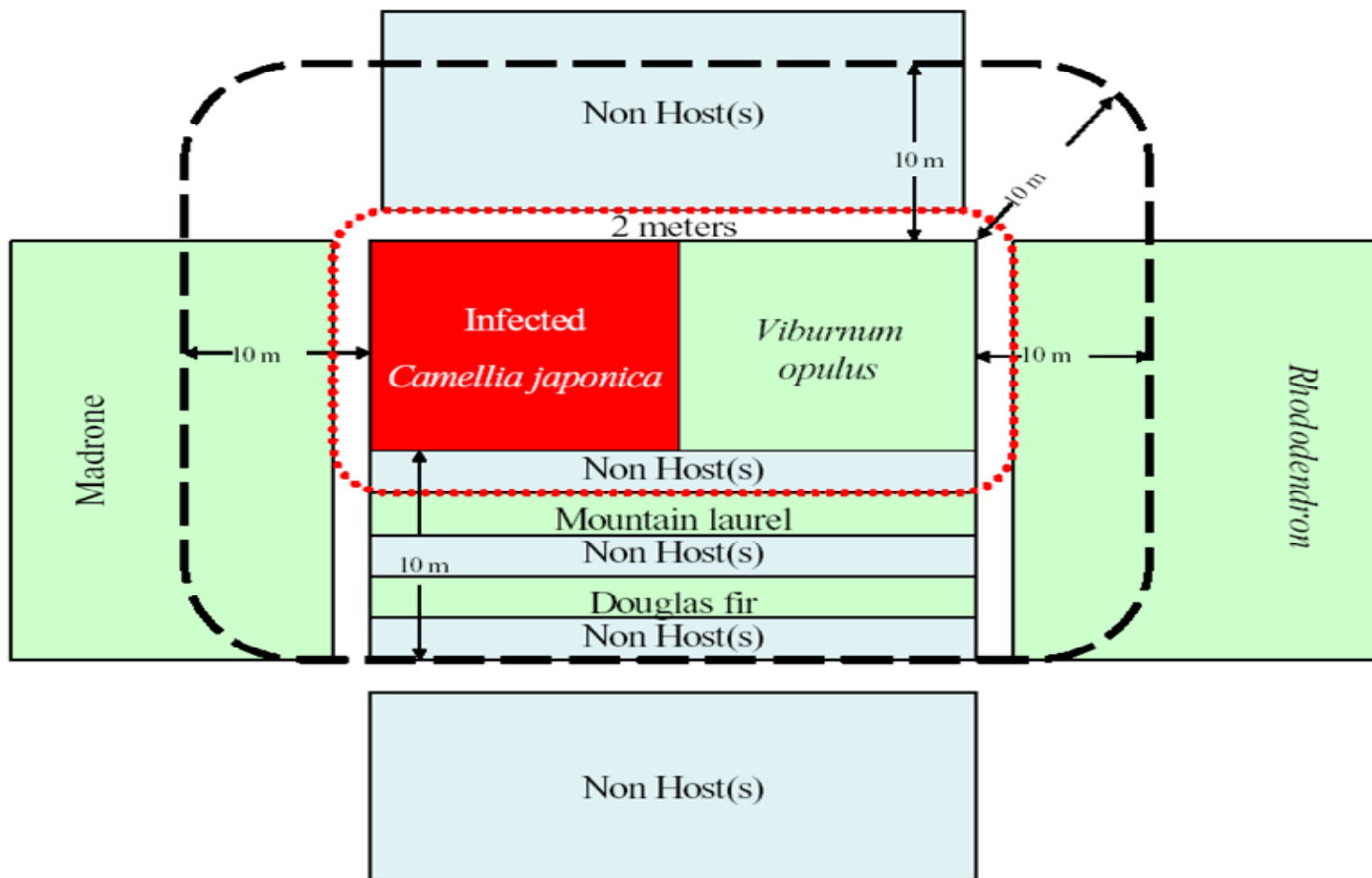
# ESTABLISH DESTRUCTION & QUARANTINE BLOCK

## Destruction Block

- Contiguous block of HAP containing one or more plants known to be infected with *P. ramorum*
  - A block is considered contiguous until there is a 2-meter break of either no plants or no HAP
    - Establishing 2-meter breaks (leaf to leaf) for large blocks of HAP is highly recommended

## Quarantine Block

- 10 meters beyond the outside boundary of the destruction block
- All HAP are held for 90 days



**Destruction Block**  
Action: Destroy *Camellia japonica* and *Viburnum opulus*. Hold and monitor all non-hosts.

**Quarantine Block**  
Action: Hold and monitor all Mountain laurel and Douglas fir, as well as some Madrone and Rhododendron.



# 90-DAY HOLD QUARANTINE ACTIVITIES

- All non-HAP in destruction block are held
- HAP genera in quarantine block are not moved within or out of quarantine block
- No fungicide registered for *Phytophthora* can be used
- Plants must be visually inspected twice
- Plants with *P. ramorum* symptoms are sampled
- Soil, growing media, and water samples are taken



# DELIMITATION & PERIMETER SURVEY

## DELIMITATION SURVEY

- ALL plants within the nursery, including landscaped HAP genera, are inspected
- Any unhealthy plant tissue found is sampled

## PERIMETER SURVEY

- All plants (with a focus on HAP genera) within 100 meters of the infested nursery are inspected
- Plants with suspicious symptoms are sampled



# ADDITIONAL SAMPLING REQUIRED

- Soil - Samples will be collected in the destruction and quarantine block (ground and media) and growing media pile
- Water - Nurseries using municipal or well water are exempt from sampling irrigation water; however, standing water will need to be sampled
- Cull Pile - Symptomatic plants and soil down slope from cull piles must be sampled



# DISINFEST THE NURSERY

- Destroy all HAP within the destruction block
- Remove and destroy all plant debris within the destruction block
- Non-porous surfaces will be disinfected according to recommendations
- If soil, growing media, or water samples test positive, treatment is required



# POSITIVE SAMPLES

- If any sample (plant, water, soil, or growing media) taken during the CNP results in a *P. ramorum* positive, the CNP and 90-day hold period are reset and start over



# RELEASING THE NURSERY

- Nurseries may be released after the 90-day quarantine period if
  - There are no additional detections of *P. ramorum*
  - Water, soil, and growing media have tested negative
- Nurseries may opt not to wait the 90 days and may be released if
  - There are no additional plant detections of *P. ramorum*,
  - AND water, soil, and growing media have tested negative,
  - AND all plant material in destruction block is destroyed,
  - AND all HAP genera in quarantine block is destroyed



# MITIGATIONS FOR NURSERIES FOUND WITH *P. RAMORUM* MORE THAN ONCE

In the event that a nursery has *P. ramorum* detected within one year of release from an EAN or state equivalent, it is now necessary to implement additional mitigation measures, specified in the new Confirmed Nursery Protocol v8[1].0.



## California Oak Mortality Task Force

[www.suddenoakdeath.org](http://www.suddenoakdeath.org)

California Department of Food & Agriculture

[www.cdfa.ca.gov](http://www.cdfa.ca.gov)

[www.cdfa.ca.gov/phpps/pe/InteriorExclusion/SuddenOakDeath/](http://www.cdfa.ca.gov/phpps/pe/InteriorExclusion/SuddenOakDeath/)

USDA/APHIS/PPQ

[www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram)