COUNTY OF LOS ANGELES

Department of
Agricultural Commissioner/
Weights and Measures

Kurt E. Floren
Agricultural Commissioner
Director of Weights and Measures

12300 Lower Azusa Road
Arcadia, California 91006-5872
http://acwm.lacounty.gov

Richard K. Iizuka
Chief Deputy

January 13, 2009

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

AGRICULTURAL COMMISSIONER/WEIGHTS AND MEASURES: APPROVAL OF AGREEMENT #08-0524 WITH THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE FOR SUDDEN OAK DEATH CONTROL AND STATEWIDE EMERGENCY RESPONSE ACTIVITIES (ALL DISTRICTS) (3-VOTES)

SUBJECT:

The Sudden Oak Death (SOD) Program provides for the detection, eradication, trace forward/trace back investigation, quarantine enforcement, administrative support, and training for the identification of Pyhtophthora ramorum, the fungus that causes SOD. Inspections are made at commercial nurseries. Early detection is the primary defense against the spread of the fungus that causes SOD. There is no County cost associated with this program.

IT IS RECOMMENDED THAT YOUR BOARD:

1. Approve and instruct the Agricultural Commissioner/Director of Weights and Measures (Commissioner) to sign the attached agreement #08-0524 in the amount of $225,240 with the California Department of Food and Agriculture (CDFA). This funding is to support the Department of Agricultural Commissioner/Weights and Measures' (ACWM) SOD Program.

2. Authorize the Commissioner to amend the agreement in an amount not to exceed 15 percent of the original contract, subject to review and approval by County Counsel and the Chief Executive Office and notification to the Board offices.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION:

Your Board has approved similar agreements with the CDFA since 2004. Approval of the recommended actions will enable the ACWM to continue the SOD Control Program to prevent the spread of SOD within and from Los Angeles County (County). The SOD Control Program, which calls for the inspection of nursery stock destined for interstate shipment, significantly affects plant growing nurseries, the County's number one agricultural industry. Without inspection and certification, nursery growers would be prohibited from shipping SOD host material interstate from California, resulting in a substantial financial loss to the County's plant producing nurseries.

ACWM has consulted and worked collaboratively with all the shipping nurseries to assist in controlling the spread of this disease.

Implementation of Strategic Plan Goals:

This agreement supports the Countywide Strategic Plan Goal 1: Service Excellence. The SOD Control Program significantly enhances ACWM's ability to certify nursery plants shipped from the County. The United States Department of Agriculture (USDA) requires inspection of commercial nurseries moving plants interstate from California. Our timely response to shipping requests benefits the County's agricultural industry.

FISCAL IMPACT/FINANCING:

Under this agreement, CDFA will provide funding in the amount of $225,240 for work performed by ACWM from July 1, 2008 through June 30, 2009. As the ACWM will use existing staff to perform the inspection work, which will be performed to the level of funding provided by the current agreement, the program will allow for full cost recovery and has no effect on net County cost.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS:

The agreement is for the period of July 1, 2008 through June 30, 2009.

Pursuant to the Plant Protection Act, the USDA issued a quarantine on April 9, 2004, to prevent the spread of SOD to non-infested areas of the United States. Nurseries may not ship regulated host plants interstate to uninfested areas until they have been inspected and it is determined there is no evidence of SOD infestation.

This agreement has been reviewed by County Counsel and is approved as to form.

IMPACT ON CURRENT SERVICES:

The recommended Board action will support the program services for the entire 2008-2009 fiscal year.

CONCLUSION:

Upon approval, it is requested that the Executive Office/Clerk of the Board return to the ACWM the original standard agreement #08-0524 and the minute order authorizing the Commissioner to sign. The ACWM will forward copies of the documents to the CDFA Contracts Office.

Respectfully submitted,

KURT E. FLOREN
Agricultural Commissioner
Director of Weights and Measures

KEF:RKI:PD:sl

Attachment

c: Maya Lee, County Counsel
Auditor Controller

STATE OF CALIFORNIA
STANDARD AGREEMENT
STD 213 (Rev 10/05)

AGREEMENT NUMBER
08-0524
REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:
   STATE AGENCY'S NAME
   DEPARTMENT OF FOOD AND AGRICULTURE
   CONTRACTOR'S NAME
   COUNTY OF LOS ANGELES
2. The term of this Agreement is: July 1, 2008 Through June 30, 2009
3. The maximum amount of this Agreement is: $225,240.54
   Two Hundred Twenty-five Thousand Two Hundred Forty Dollars and Fifty-four Cents
4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement:

Exhibit A – Scope of Work	1 Page(s)
Attachment 1	98 Page(s)
Exhibit B – Budget Detail and Payment Provision	1 Page(s)
Attachment 1	2 Page(s)
Exhibit C – General Terms and Conditions - GTC 307	3 Pages

Check mark one item below as Exhibit D:

☒ Exhibit D-Special Terms and Conditions (Attached hereto as part of this Agreement) — 1 Page(s)

☐ Exhibit D*-Special Terms and Conditions

APPROVED AS TO FORM
RAYMOND G FORTNER, JR., County Counsel
By Maya Nel
Deputy

5. Name of Program: Regulated County SOD activities

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR		California Department of General Services Use Only
CONTRACTOR'S NAME *(If other than an individual, state whether a corporation, partnership, etc.)* **COUNTY OF LOS ANGELES**		
BY *(Authorized Signature* —	DATE SIGNED)	
PRINTED NAME AND TITLE OF PERSON SIGNING		
ADDRESS 12300 Lower Azusa Road, Arcadia, CA 91006		
STATE OF CALIFORNIA		
AGENCY NAME **DEPARTMENT OF FOOD AND AGRICULTURE**		
BY (Authorized Signature) —	DATE SIGNED	
PRINTED NAME AND TITLE OF PERSON SIGNING JANICE L. PRICE, CONTRACTS MANAGER		
ADDRESS 1220 N STREET, ROOM 115, SACRAMENTO, CA 95814		☐ Exempt per:

STATE OF CALIFORNIA
STANDARD AGREEMENT
STD 213 (Rev 10/05)

AGREEMENT NUMBER
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☐ Exhibit D*-Special Terms and Conditions

APPROVED AS TO FORM
RAYMOND G FORTNER, JR., County Counsel
By Mary Chu
Deputy

5. Name of Program: Regulated County SOD activities

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CONTRACTOR'S NAME *(If other than an individual, state whether a corporation, partnership, etc.)* **COUNTY OF LOS ANGELES**		
BY *(Authorized Signature* –	DATE SIGNED)	
PRINTED NAME AND TITLE OF PERSON SIGNING		
ADDRESS 12300 Lower Azusa Road, Arcadia, CA 91006		
STATE OF CALIFORNIA		
AGENCY NAME **DEPARTMENT OF FOOD AND AGRICULTURE**		
BY (Authorized Signature) –	DATE SIGNED	
PRINTED NAME AND TITLE OF PERSON SIGNING JANICE L. PRICE, CONTRACTS MANAGER		
ADDRESS 1220 N STREET, ROOM 115, SACRAMENTO, CA 95814		☐ Exempt per:

EXHIBIT A
(County Agreement)

SCOPE OF WORK

1. Contractor agrees to provide the services described herein:

   Regulated County Sudden Oak Death (SOD) activities.

2. The program contract managers for this Agreement are:

FOR CDFA, THE PROGRAM CONTRACT MANAGER IS:		**FOR CONTRACTOR:**	
Name:	Courtney Albrecht	Name:	Kurt Floren
Section/Unit:	Pest Exclusion Branch	Section/Unit:	COUNTY OF LOS ANGELES
Address:	1220 N Street, Room A-372	Address:	12300 Lower Azusa Road
City/Zip:	Sacramento, CA 95814	City/Zip:	Arcadia, CA 91006
Phone:	916-654-0312	Phone:	626-575-5451

3. See Attachment 1 to this Scope of Work for a detailed description of work to be performed and duties of all parties.

Scope of Work

Sudden Oak Death Contract for Regulated Counties
July 1, 2008-June 30, 2009
FY 2008/2009

Contractor agrees to provide the services described herein:

The County agrees to perform the listed activities in order to:

- Implement Federal Domestic Quarantine 7 CFR 301.92
- Conduct emergency response activities as a result of detections of *Phytopthora ramorum* in nurseries

For each county, the scope of work will include, as appropriate, the activities described below:

1. Eradication
2. Trace-Forward/Trace-Back Investigation
3. Quarantine Enforcement
4. Other (communication, training, administrative support)

1) Eradication

All detections of *P. ramorum* in production/wholesale nurseries in regulated counties must be eradicated following the procedures outlined in the USDA Confirmed Nursery Protocol **(Appendix A** or most recent version**)**. Eradication activities include destruction, delimitation, and sanitation procedures, and trace-forward and trace-back record auditing. Trace-forward procedures and eradication procedures at *P. ramorum*-positive nurseries are outlined in Pest Exclusion Advisories 07-2008 and the USDA Trace Forward Protocol **(Appendix B and C** or most recent documents**)**.

2) Trace-Forward/Trace-Back Investigation

Whenever *P. ramorum* is detected in a nursery, county agricultural commissioners will be supplied with trace-back records in an effort to determine the source of the infection. Trace-back activities include inspection of source nurseries for symptomatic plants, collection and submission of samples, and any other regulatory activities, such as issuing hold notices and submitting inspection results to Sacramento Pest Exclusion. Trace-forward requirements are outlined in USDA Trace-Forward Protocol **(Appendix C** or most recent protocol**)**.

3) Quarantine Enforcement

The Federal Domestic Quarantine 7 CFR 301.92 **(Appendix D)** requires that all nurseries that ship plants interstate be inspected for symptoms of Sudden Oak Death (SOD) and, if shipping hosts and associated hosts, must be sampled and tested for *P. ramorum*. Regulatory activities associated with inspecting and sampling include issuing hold notices, processing samples for submission to the Plant Pest Diagnostics Laboratory through the Laboratory Reservation System (instructions contained in Pest Exclusion Advisory 33-2004, **Appendix E**) and entering data into PDR database.

Qualifying host shipping nurseries will be issued a compliance agreement to ship hosts and associated hosts interstate. Qualifying non-host shipping nurseries may be provided an informational document regarding their authorization to ship non-hosts interstate. All nursery information will be entered into the Nursery Inspection Survey Data System (NISDS). Instructions for entering nursery information are contained in Pest Exclusion Advisory 33-2004 **(Appendix E)**.

On-going compliance inspections and record monitoring will be necessary for all nurseries under a compliance agreement, and on-going monitoring will be required for all nurseries authorized to ship non-hosts interstate.

4) **Other (Communication, Training, and Reporting)**

County agricultural commissioners are responsible for providing training for their staff for all activities associated with the eradication of *P. ramorum* and the enforcement of 7 CFR 301.92. County agricultural commissioners are responsible for public outreach at the local level, communicating the federal restrictions to industry members in their county, and must attend conference calls with CDFA Pest Exclusion staff to learn of policy decisions and changes.

County agricultural commissioners must report the following three items on a monthly basis to CDFA:

a. Monthly Report (**Appendix F**). The county has the option of mailing the Monthly Report to the address below or entering monthly activity into the County Monthly Reporting on-line database at: https://secure.cdfa.ca.gov/egov/crs/login.aspx
b. Itemized invoice on county letterhead (**Appendix G**)
c. USDA/APHIS/PPQ Tracking Log (**Appendix H**) for each nursery operating under a compliance agreement

Submit to: The Department of Food and Agriculture
Attn: Carol Gentry
Strategic Services Unit
1220 N Street, Room A-316
Sacramento, CA 95814

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008-June 30, 2009
FY 2008/2009

Appendix A

USDA Confirmed Nursery Protocol

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Official Regulatory Protocol for Wholesale and Production Nurseries Containing Plants Infected with *Phytophthora ramorum*

Confirmed Nursery Protocol: Version 8.0
Revised: July 20, 2007
(Appendices 1, 3, 6 & 7 updated June 26, 2008)

United States Department of Agriculture (USDA)
Animal Plant Health Inspection Service (APHIS)
Plant Protection and Quarantine (PPQ)

Center for Plant Health Science and Technology (CPHST)
Emergency and Domestic Programs (EDP)
Eastern Region (ER)
Western Region (WR)

TABLE OF CONTENTS

INTENDED USE 2
DEFINITIONS 3
TRIGGER EVENTS FOR USE OF PROTOCOL 7
AUTHORITIES 8
COMMUNICATE AND NOTIFY 9
CONDUCT INVESTIGATIONS 10
SECURE THE NURSERY 11
SURVEY THE NURSERY AND PERIMETER 12
DISINFEST THE NURSERY 14
NINETY (90) DAY QUARANTINE ACTIVITIES 16
RELEASE THE NURSERY 18
POST ERADICATION MONITORING 19
CONFIRMED NURSERY PROTOCOL FLOWCHART 20

APPENDICES

APPENDIX 1: APHIS List of Hosts and Plants Associated with Phytophthora ramorum 21
APPENDIX 2: Schematic of Wholesale/Production Nursery with Infested Host Plant(s) 27
APPENDIX 3: Resource and Contact List 28
APPENDIX 4: Delimiting Survey Protocol 31
APPENDIX 5: Diagnostics 33
APPENDIX 6: Soil and Growing Medium Sampling and Testing Protocol 34
APPENDIX 7: Water Sampling Protocol 38
APPENDIX 8: Treatment and Disinfection 41
APPENDIX 9: Biosecurity Measures for Nurseries 46
APPENDIX 10: Confirmed Nursery Protocol Flowchart For First Time Positive Nurseries 50
APPENDIX 11: Mitigations for Wholesale/Production Nurseries Found with *P. ramorum* More Than Once 51

INTENDED USE

In February 2005, USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) published an interim rule revising federal domestic regulations for *Phytophthora ramorum* (7 CFR 301.92). The complete text and other information may be found at the USDA APHIS PPQ web site:
http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

Since the regulations were first published in 2002, *P. ramorum* has been detected in a significant number of nurseries. These detections prompted the need for a standard protocol for use by state and federal regulators to respond to finds of *P. ramorum* in nurseries. To ensure that there is consistency in responding to infestations of *P. ramorum*, this protocol describes the official activities performed within and around nurseries by USDA APHIS staff in cooperation with state agriculture regulatory officials.

The goal of this protocol is to ensure that any infestations of this serious pathogen are consistently and effectively addressed, mitigated, and eradicated. Cooperation by nursery management personnel is essential. Early detection and reporting of *P. ramorum* finds are critical to ensure that the infestation is contained and spread is minimized. The strategies employed in this protocol are consistent with those of the European Union, Canada, and other areas where eradications are being carried out with measures that ensure rapid suppression of infection, and which prevent the spread of the pathogen.

P. ramorum infestations in nurseries may be introduced via three critical pathways.

- The movement of infected plant material from one nursery to another;
- The natural environmental movement of spores from a nursery or infected wild plants to infect plants in a nursery;
- The transmission of the pathogen from non-plant pathways to plant material (e.g. the introduction of infested soil, water, growing media, equipment, etc.)

Other pathways are possible, but are not yet known.

Nurseries found with *P. ramorum* infestations more than once

P. ramorum infestations in nurseries may also be re-introduced by the above means, or the effort to eradicate the disease may fail. In the event that a nursery has *P. ramorum* detected on site after the initial release from the Emergency Action Notification (EAN) or state equivalent, it is necessary to implement additional measures to ensure that the risks associated with *P. ramorum* are properly mitigated. See **Appendix 11** for details of these additional measures.

GOAL

The goal of this protocol is to find and eradicate the pathogen in nurseries. Any interpretation of this protocol or its procedures that are not consistent with this goal is a misinterpretation of this protocol

DISCLAIMERS

FIELD GROWN STOCK: We have received comments that this protocol fails to adequately address situations found in nurseries with field grown stock. We recognize this limitation and leave it to field personnel to properly adapt this protocol to those situations when they occur until appropriate modifications can be incorporated.

RETAIL SITES: We recognize that we need a protocol for retail nurseries. Until that can be issued, regulatory officials must use this protocol and apply it to each situation.

CHALLENGES: *P. ramorum* is a microorganism. Thus it can be elusive and difficult to detect and difficult to eradicate. It can infect plants, infest media, soil and water and persist despite best intentions and best efforts. It can wash into nearby waterways and can be expected to do so and be present during eradication and monitoring procedures. Scientists continue to learn and report on basic biology and enhanced detection and eradication techniques. We continue to learn from science and our successes and failures and those will be reflected in updated protocols and regulations.

DEFINITIONS

Associated plants: Associated plants are those reported found naturally infected and from which *P. ramorum* has been cultured and/or detected using PCR (Polymerase Chain Reaction). For each of these, traditional Koch's postulates have not yet been completed or documented and reviewed. See Appendix 1.

Biosecurity measures: Actions taken to reduce or mitigate the potential introduction or spread of *Phytophthora ramorum* from one area or site to another area or site of a nursery. See Appendix 9.

Compost pile: A heap of mixture of decaying organic matter, as from leaves and manure, used to improve soil structure and provide nutrients.

Cull pile: An area where discarded plant material is deposited. Also known as a waste or trash pile.

Delimitation survey: A survey done to determine the extent of the infestation within a nursery site. The quarantine period begins when all delimitation sampling is completed.

Destruction block: Block of plants to be destroyed. Within a nursery, this is a contiguous block of HAP containing one or more plants known to be infected with *P. ramorum*. The block will be considered contiguous until there is a 2 meter break of either no plants or no HAP.

Emergency Action Notification (EAN): PPQ Form 523 or equivalent State document, is used to specify the regulatory actions to be taken within a nursery.

Free from: Without pests (or a specific pest) in numbers or quantities that can be detected by the application of phytosanitary procedures. (ISPM Pub. No. 10, 1999)

HAP: Host and associated host plants listed on the official APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*.

Hold block: This term no longer in use; See Quarantine Block.

Host plants: Naturally infected plants verified with completion, documentation, review and acceptance of traditional Koch's postulates and listed in the "APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*".

Infected plants: Plants officially confirmed as being infected with *P. ramorum,* based on the use of APHIS approved diagnostics, and following the PASS system.

Nursery/Facility: Any location where nursery stock is grown, propagated, stored, or sold; or any location from which nursery stock is distributed, including locations that grow trees to be sold without roots, such as Christmas trees.

Nursery block: A contiguous grouping of plants separated by at least two meters from other contiguous groupings of plants.

Nursery site: A geographically separate location of a Nursery/Facility that has a distinct physical address and appropriate biosecurity measures (See Appendix 9) to prevent the movement of *P. ramorum* between locations.

Nursery site quarantine: This is a period of time during which host plants and associated plants shall not be moved within or out of the quarantine block (see Appendix 2). This **quarantine period** begins when the Nursery Delimitation Survey is completed and lasts for 90 days during which proscribed activities must occur. During the quarantine period, inspection, sampling, and testing must reveal no further detection of *P. ramorum.* Conducive conditions exist when climatic conditions match optimum disease etiology and are likely to express disease symptoms 50% or more of the time.

Nursery stock: Any plants for planting, including houseplants, propagative material that are grown in a nursery and tree seedlings for reforestation.

Parallel quarantine: A quarantine or regulation imposed by a State or local plant regulatory authority that is essentially the same as a federally promulgated quarantine. These regulations can be more restrictive for intrastate movement and internal controls.

PASS (Potentially Actionable Suspect Sample): A presumptive positive *P. ramorum* sample diagnosed or identified by a provisionally approved laboratory or diagnostician with identification authority that would require confirmatory testing by an official APHIS Laboratory due to the nature of the plant sampled and the necessity for Federal confirmation. (For more information see: "PASS System Policy" at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/protocols.shtml

Presumptive positive: A preliminary diagnostic test result from a laboratory indicating *P. ramorum* is present.

Quarantine block: Area identified as a 10 meter radius around the destruction block (see Appendix 2) designed to determine if *P. ramorum* has spread beyond the destruction block. (Use of Quarantine block is an adaptation from the definition: "An area in which a specific pest does not occur, or occurs at a low level and is officially controlled, that either encloses or is adjacent to an infested area, an infested place of production, a pest-free area, a pest-free place of production or a pest-free production site, and in which phytosanitary measures are taken to prevent spread of the pest." [ISPM Pub. No. 10, 1999]).

Quarantine period: A minimum of 90 days that begins when the Nursery Delimitation Survey is completed and lasts until such time as both plant parts and climatic conditions conducive to disease expression have occurred. During the **quarantine period**, inspection, sampling, and testing must reveal no further detection of *P. ramorum.* Conducive conditions exist when climatic conditions match optimum disease etiology and are likely to express disease symptoms 50% or more of the time.

Quarantine release survey: This is the second quarantine period inspection that occurs near the end of the quarantine period. This survey includes visually inspecting all HAP genera within the nursery and sampling any unhealthy plant tissue, soil of destruction and quarantine block(s) and drainage or recirculated irrigation water, as per Appendices 4, 6 and 7, respectively. When the quarantine period is completed and all plant, soil and water samples taken are negative for *P. ramorum* the nursery can be released.

Regulated area: Any state, or portion of a state, in which only nurseries that ship HAP interstate are regulated to prevent the spread of *P. ramorum* and the only regulated article is nursery stock. These areas are detailed in the regulations posted at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

SPHD: The State Plant Health Director of a particular state. Lead APHIS contact in each state responsible for overseeing all Plant Protection and Quarantine activities in that state.

SPRO: The State Plant Regulatory Official in any given state's department of agriculture. This is the person primarily responsible for plant health programs in that state. SPROs can be found listed at: www.nationalplantboard.org/member/index.html

TRIGGER EVENTS FOR USE OF PROTOCOL

This protocol shall be implemented by APHIS-PPQ and/or its State Plant Regulatory cooperators when the presence of *P. ramorum* has been confirmed in a nursery from samples collected as part of a trace forward survey*, trace back survey*, *P. ramorum* nursery survey*, or found by other means. Confirmed samples must have been diagnosed using a methodology approved by USDA, APHIS, PPQ and consistent with the Potentially Actionable Suspect Sample (PASS) protocol*.

*See http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/ for links with details on trace forward survey, trace back survey, *P. ramorum* nursery survey, and the PASS protocol.

AUTHORITIES

- For states with quarantines equivalent to the Federal regulation, State personnel will conduct specific actions required by the protocol, within and around the nursery, under State authority with Federal support.

- For States without quarantines for *P. ramorum* equivalent to the Federal regulations, specific actions required by this protocol within and around the nursery will be conducted under Federal authority, in cooperation with State personnel.

COMMUNICATE AND NOTIFY

Communicate suspect finds using the bullets below as soon as one of the following has occurred:

1. A positive PCR determination
2. A culture that matches the morphology for *P. ramorum* (i.e. isolation of *P. ramorum*)

- Immediately notify the State Plant Health Director (SPHD) and the State Plant Regulatory Official (SPRO) of the State in which the nursery is located. The SPHD will notify the Regional Office and National Headquarters Office. See Appendix 3, Resource and Contact List.

- SPHD's and SPRO's, shall notify facilities within their states that are impacted by the trace backs and trace forwards and provide a list of these facilities to their PPQ Regional offices. See "Conduct Investigations" Section.

- Laboratories need to notify, the SPHD, and the SPRO, the Regional Office, National Program Manager, and the submitter. Ideally the SPRO should notify the owner of the nursery, but either the SPRO (if State authority is used) or the SPHD (if Federal authority is used) may notify the owner of the nursery.

- The SPRO and SPHD will use state channels, including public affairs offices to make any public announcements, as necessary. The SPHD will ensure that the USDA APHIS Office of Legislative and Public Affairs is aware of any pending release, via the Regional Office and National Headquarters Office.

CONDUCT INVESTIGATIONS

Trace Forward Investigation:

Initiate trace forward investigations. Identify all domestic and international HAP shipments within the 12 months prior to the first positive detection of *P. ramorum* at the nursery as per the protocol. [NOTE: For shipments to Canada provide a list of all HAP **genera** shipped within the 12 months prior to the first positive detection of *P. ramorum* at the nursery.] This information on shipments needs to be gathered, processed, and forwarded to Regional Office within 10 working days. If requested or necessary, Smuggling Interdiction and Trade Compliance (SITC) or Investigative and Enforcement Services (IES) may be asked to assist in the information gathering, as appropriate. The Regional Offices will forward these domestic lists to the States that have received plants. Headquarters will inform international trading partners of shipments to their countries. The plants sent to the receiving States need to be inspected at the receiving nurseries.

Use the Trace Forward Protocol posted at
http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

Trace Back Investigation:

Implement the current Trace Back Protocol present on the *Phytophthora ramorum* website located at
http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

Nursery Sites:

Determine whether additional locations (nursery sites) are maintained by the same nursery personnel, or if HAP move to other sites or between sites.

- **Equipment:** Determine if equipment used at the site is shared with other nursery sites or field areas. Document any shared equipment utilization in different nursery sites or field areas. Equipment movement without appropriate biosecurity measures (See Appendix 9) between nursery sites requires that all nursery sites utilizing the equipment be included under this protocol.

- **Plants:** Determine if HAP move between sites. If so, than all sites receiving HAPs must be included under this protocol.

SECURE THE NURSERY

When the presence of *Phytophthora ramorum* has been confirmed in a nursery:

- All plants (including non-host plants) in the destruction block shall remain under regulatory control as per the Emergency Action Notification (EAN) or State equivalent document. All plants within the destruction block shall be cordoned off with no unauthorized access until delimitation survey is complete and all destruction block(s) is(are) defined.

- All HAP genera in the nursery are to be placed under regulatory control as per EAN. This action may also include any item that an inspector determines to present a risk of spreading *P. ramorum* within or from the nursery; and,

- A delimitation survey will take place on the nursery site as per this protocol; and,

- All HAP genera must be held until delimitation within the nursery is complete, that is, until the samples taken have diagnoses reported that allow release of blocks of HAP. This hold may also include "any other product or article that an inspector determines to present a risk of spreading *Phytophthora ramorum,* if an inspector notifies the person in possession of the product or article that it is subject to the restrictions in the regulations" (7CFR part 301.92-2) within the infested nursery site; and,

- Secure the cull pile until all testing is complete.

- Ensure that equipment used on nursery site is not moved from the site without proper disinfestation.

- Any additional treatments and/or basic sanitary and precautionary measures shall be detailed on the EAN.

    - PPQ form 523, Emergency Action Notification will be used as the official Federal authorization of hold. The required treatments and/or basic sanitary and precautionary measures (e.g. bio-containment of suspected infected material, etc.) should be included in the PPQ form 523. If the State initiated action, then the appropriate State notification would be used. Stop Sales notices should be placed on the nursery by the appropriate State Regulatory Official.

- If any plants not on hold are showing symptoms consistent with diseases caused by *P. ramorum:*

    - These plants must be sampled and tested for the presence of *P. ramorum.*

SURVEY THE NURSERY AND PERIMETER

The goal of the survey is to locate *P. ramorum* in the nursery and perimeter. A detailed and thorough inspection should be conducted at the field level to determine the presence of *P. ramorum*. Samples should be collected from unhealthy looking plants, including any plants with any minute symptoms such as tiny leaf spots or brown leaf tips.

Delimiting Survey and Establishing Destruction and Quarantine Block(s):

- Inspect all plants held, for sale or propagation, of HAP genera in the nursery and decorative plants (permanent landscape plants within the nursery that are not for sale).
- Examine all HAP genera within 10 meters of the positive block(s) in the nursery as per Appendix 4. Sample any unhealthy tissue.
- All HAP genera within 10 meters of the positive block(s) shall be considered exposed to *Phytophthora ramorum* and shall be held for the quarantine period.
- Examine all plants within the nursery and sample any unhealthy plant tissue found.
- Samples must be analyzed using a methodology approved by APHIS (see Appendix 5).
- The destruction and quarantine block(s) is (are) established when diagnostic results from all delimiting samples have been reported. The 90 day quarantine period begins when the delimiting survey is complete.
- Establish destruction block(s) by flagging the perimeter of the block(s) of HAP containing one or more plants known to be infected with *P. ramorum*. The block is considered contiguous until there is a 2 meter break of either no plants or no HAP.
- Limit access to destruction block. Ensure that proper sanitation measures are applied (See Appendix 8).
- The HAP (note: not all plants nor all HAP genera) in the destruction block shall be destroyed in an appropriate manner (see Appendix 8)

Soil and Growing Media Sampling:

- Soil from within the destruction and quarantine block(s) must be sampled, and
- Growing media from non-HAP within the destruction block(s) and from all types of plants in the quarantine block(s) must be sampled, and
- Soil and growing medium from nursery blocks down slope from destruction and quarantine block(s) must also be sampled.
- Growing media from the plant potting area shall be sampled.

- Soil is the substrate underneath pots and growing medium is located within pots with the plants in the blocks.

- If reported positive, determine the content, origin, storage and handling of growing media used at the nursery site. See Appendix 6 for detailed soil and media sampling protocol. Keep soil samples separate from growing media samples.

Water Sampling:

Determine the source of water used at the nursery site and where drainage water flows. Note the type of irrigation system(s) in use, areas of standing water and any safeguards against water back flow in the irrigation system, as well as any water treatment practices if recirculated water is used. Water is to be sampled; See Appendix 7 for detailed water sampling protocol. Water sampling is not required for irrigation water from municipal water facilities that treat their water prior to release, but any retention pond or area where water collects at the nursery site must be sampled.

Cull Pile Sampling:

Record the location of any cull piles as these may be contaminated with infected plant material or associated soil and/or growing media. Check any cull piles for *P. ramorum* symptomatic plants and plant material and sample if observed. Determine how the nursery disposes of culled plant material. Sample and test soil at the down slope edge of the cull pile for the presence of *P. ramorum*.

Compost Pile Sampling:

Record the location of any compost piles as these may be contaminated with infected plant material or associated soil and/or growing media. Check any compost piles for *P. ramorum* symptomatic plants and plant material and sample if observed. Determine how the nursery disposes of composted plant material. Sample and test soil at the down slope edge of the compost pile for the presence of *P. ramorum*.

Perimeter Survey:

The purpose of the perimeter survey is twofold: (1) to ensure that *P. ramorum* has not spread from the infested nursery to the surrounding environment and (2) to verify that the infection in the nursery did not originate in the surrounding environment.. Conduct a survey concentrating on plants of all HAP genera located within 100-meters of the infested nursery for symptoms of disease caused by *P. ramorum*. Sample all plants with suspicious symptoms. Samples must be labeled and sent to a laboratory for testing using a method approved by APHIS (see Appendix 5). Detection of *P. ramorum* in the perimeter may be indicative of a more widespread infestation. In this case, notify your PPQ Regional Office immediately as further regulatory actions may be required depending on the quarantine status of the area.

DISINFEST THE NURSERY

Plant Destruction:

Where a *P. ramorum* infected plant(s) is found, all HAP and plant parts within a destruction block will be removed and destroyed using one or more of the techniques detailed in Appendix 8.

Debris Removal:

All plant debris including growth medium, leaves, stems, flowers, roots, and any other plant parts found within the destruction block will be removed and destroyed using one or more of the techniques detailed in Appendix 8.

Cull Pile Treatment:

If any plants, plant material, growing media or soil from a cull pile is positive for *P. ramorum*, all material in the cull pile shall be properly disposed. See Appendix 8 for recommended destruction/disinfestation options.

Compost Pile Treatment:

If any plants, plant material, growing media or soil from a compost pile is positive for *P. ramorum*, all material in the compost pile shall be properly disposed. See Appendix 8 for recommended destruction/disinfestation options.

Non-porous Surfaces:

Non-porous surfaces will be disinfested. See Appendix 8 for recommended disinfestation options.

Water Treatment:

If water tests positive for *P. ramorum*, treatment is required (see Appendix 8 for recommended disinfestation options) and an additional delimitation of the nursery must be completed. For nurseries with established quarantine block(s) undergoing a 90 day quarantine period, the 90 day quarantine period re-starts after the second delimiting survey is completed. Also, plants and growing media that may have been irrigated with infested water must also be resampled and retested within the new 90 day quarantine period.

Soil and Growing Media Treatment:

If soil, growing media or plant debris in a destruction or quarantine block test positive, soil treatment is required. The destruction block is the most likely area of soil or growing media infestation (underneath and around the diseased plants, and in containerized stock) and the most likely area where reinfestation of new host material would occur. See Appendix 8 for recommended destruction/ disinfestation options.

Equipment and Personnel:

See Appendix 8 for recommended disinfestation options.

Biosecurity Measures:

Biosecurity measures are designed to minimize the risk of introduction or, spread and survival of the pathogen in a nursery. See Appendix 9 for recommended biosecurity measures.

NINETY (90) DAY QUARANTINE ACTIVITIES

These concurrent activities follow completion of the delimiting survey:

- Any non-HAP that were present in a destruction block will be held in place, or moved under official supervision to a safeguarded area with a non-porous surface, during the quarantine period and be subject to the same conditions as the HAP in the quarantine block(s).

- For nurseries with HAP genera in the quarantine block(s) (see Appendix 2), these HAP genera shall not be moved within or out of the quarantine block(s) during the quarantine period. This quarantine period begins when the delimiting survey is completed (i.e. the last sample is taken and an EAN is issued) and lasts until such time as both plant parts and climatic conditions conducive to disease expression have occurred for at least 90 days. If the quarantine period (90 days) does not include climatic conditions conducive for disease development then the quarantine period shall be extended to an appropriate length to include conducive climatic conditions for a total of 90 days. During the quarantine period, inspection, sampling, and testing must reveal no further detection of *P. ramorum.*

- During the 90 day quarantine period within the 10 meter quarantine block(s):

    - No fungicides registered for *Phytophthora* control shall be applied.

    - Regulatory officials will visually inspect plants a minimum of two times, once about half-way through the anticipated quarantine period and once near enough to the end to have test results coincide with the end of the quarantine period, according to the protocol detailed in Appendix 4. This second visual inspection in the quarantine block(s) can be done at the same time as the quarantine release survey as described below.

    - Regulatory officials will collect water, soil, and media samples and test during the quarantine period according to the protocols detailed in Appendices 6 and 7.

    <u>If found positive:</u>

    - If a plant sample tests positive for *P. ramorum,* the destruction block(s) and 10 meter quarantine block(s) shall be redefined via sampling and the quarantine period reset.

    - If water, soil, and/or media samples tested positive for *P. ramorum* during the delimiting survey, it must be treated per Appendix 8. Once successfully treated, samples of the infested water, soil, and/or media material will be taken and tested during each of the two quarantine period nursery inspections per the protocols detailed in Appendices 6 and 7.

    - If irrigation water is found to be positive, then any portion of the nursery that has been irrigated with the *P. ramorum* infested water shall be placed on hold and the irrigated area re-delimited.

- If a soil sample is found to be positive, the soil shall be treated, then any plants in the block with the infested soil are placed on hold and the area re-delimited.
- The growing media in the potting shed must be tested. Any positives for *P. ramorum* from the media in the shed confer with the Regional Program Manager.

- **A quarantine release survey of the entire nursery must be completed near the end of the 90 day quarantine period.** This survey includes visually inspecting all HAP genera within the nursery and sampling any unhealthy plant tissue, soil of destruction and quarantine block(s) and drainage or recirculated irrigation water. When the quarantine period is completed and all plant, soil and water samples taken are negative for *P. ramorum* the nursery can be released.

RELEASE THE NURSERY

Nurseries and their plants that have been placed under regulatory control may be released from regulatory control by USDA-APHIS or its designated authority after the quarantine period if the following three conditions are met:

- There are no additional detections of *P. ramorum* in nursery stock based on USDA APHIS approved plant inspection, sampling and testing protocols for the preceding quarantine period; and
- Water, soil and growing media have also tested negative for *P. ramorum* based on USDA APHIS approved sampling and testing protocols for the preceding quarantine period; and
- The quarantine release survey is negative for *P. ramorum.*

Alternative Release Strategy:

A nursery may avoid a quarantine period, through a voluntary management decision, by:

- Destroying everything (all plants, pots, media, etc.) in the destruction block(s); and
- Destroying the HAP genera and plant parts in the quarantine block(s); and
- Visually inspecting all HAP genera within the nursery and sampling and testing any unhealthy plant tissue, soil of destruction and quarantine block(s) and drainage or recirculated irrigation water, as per Appendices 4, 6 and 7, respectively. If plant, soil and water samples taken are negative for *P. ramorum* the nursery can be released., and
- Revisit the nursery after approximately 90 days of conducive conditions and conduct at least a nation-wide survey level inspection to include sampling of the soil in the destruction block.

POST ERADICATION MONITORING

Nurseries that have been infested will continue to be monitored when disease expression is anticipated for the following two years at the nursery survey protocol levels. These nurseries are not under any quarantine or regulatory action, unless there are additional detections.

CONFIRMED NURSERY PROTOCOL FLOWCHART

A flow chart of these protocols is shown in Appendix 10.

APPENDIX 1

APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*

(Revision dated 5 May 2008 (corrected 30 May))

This list is updated often.

The most current version is posted at: http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

Proven Hosts Regulated for *Phytophthora ramorum*

Scientific Name (45)	Common Name(s)	Notes
Acer macrophyllum	Bigleaf maple	
*Acer pseudoplatanus**	Planetree maple	
Adiantum aleuticum	Western maidenhair fern	
Adiantum jordanii	California maidenhair fern	
Aesculus californica	California buckeye	
*Aesculus hippocastanum**	Horse chestnut	
Arbutus menziesii	Madrone	
Arctostaphylos manzanita	Manzanita	
Calluna vulgaris	Scotch heather	
Camellia spp.	Camellia - all species, hybrids and cultivars	
Castanea sativa	Sweet chestnut	
*Fagus sylvatica**	European beech	
Frangula californica (≡Rhamnus californica)	California coffeeberry	
Frangula purshiana (≡Rhamnus purshiana)	Cascara	
Fraxinus excelsior	European ash	
Griselinia littoralis	Griselinia	
Hamamelis virginiana	Witch hazel	
Heteromeles arbutifolia	Toyon	
Kalmia spp.	Mountain laurel - all species, hybrids and cultivars	
*Lithocarpus densiflorus**	Tanoak	
Lonicera hispidula	California honeysuckle	
Laurus nobilis	Bay laurel	
Magnolia doltsopa = Michelia doltsopa	Michelia	
Maianthemum racemosum (≡ Smilacina racemosa)	False Solomon's seal	
Parrotia persica	Persian ironwood	

Photinia fraseri	Red tip photinia	
Pieris spp.	Andromeda, Pieris - all species, hybrids and cultivars	
Pseudotsuga menziesii var. *menziesii*	Douglas fir	Also includes all other varieties and cultivars of nursery grown *P. menziesii*
*Quercus agrifolia**	Coast live oak	
*Quercus cerris**	European turkey oak	
*Quercus chrysolepis**	Canyon live oak	
*Quercus falcata**	Southern red oak	
Quercus ilex	Holm oak	
*Quercus kelloggii**	California black oak	
Quercus parvula var. *shrevei**	Shreve's oak	Also includes all other varieties and cultivars of nursery grown *Q. parvula*
Rhododendron spp.	Rhododendron (including azalea) – all species, hybrids and cultivars	
Rosa gymnocarpa	Wood rose	
Salix caprea	Goat willow	
Sequoia sempervirens	Coast redwood	
Syringa vulgaris	Lilac	
Taxus baccata	European yew	
Trientalis latifolia	Western starflower	
Umbellularia californica	California bay laurel, pepperwood, Oregon myrtle	
Vaccinium ovatum	Evergreen huckleberry	
Viburnum spp.	Viburnum – all species, hybrids and cultivars	

Plants Associated with *Phytophthora ramorum*

(These are regulated only as nursery stock)

Scientific Name (72)	Common Name, Date & Source of Report	Notes
Abies concolor	White fir – Oct 05 (1)	
Abies grandis	Grand fir – June 03 (1)	
Abies magnifica	Red fir – Jan 06 (7)	
Acer circinatum	Vine maple – Feb 06 (5)	
Acer davidii	Striped bark maple – Jan 06 (9)	
Acer laevigatum	Evergreen Maple – Aug 05 (3)	
Arbutus unedo	Strawberry tree – Dec 02 (7)	
Arctostaphylos columbiana	Manzanita – Feb 06 (5)	
Arctostaphylos uva-ursi	Kinnikinnick, bearberry – Jan 07 (10)	
Ardisia japonica	Ardisia – Jan 06 (9)	
Berberis diversifolia =Mahonia aquifolium	Oregon grape – Aug 07 (9)	
Calycanthus occidentalis	Spicebush – May 05 (5)	
Castanopsis orthacantha	Castanopsis - Aug 06 (3)	
Ceanothus thyrsiflorus	Blueblossom – April 06 (5)	
#Cercis chinensis	Chinese redbud – April 08 (9)	New report from Canada
Cinnamomum camphora	Camphor tree – May 06 (3)	
Clintonia andrewsiana	Andrew's clintonia bead lily – May 04 (5)	
Cornus kousa x Cornus capitata	Cornus Norman Haddon – Aug 06 (3)	
Corylopsis spicata	Spike witch hazel – Nov 07 (9)	
Corylus cornuta	California hazelnut – Dec 02 (5)	
Distylium myricoides	Myrtle-leafed Distylium – Jul 06 (9)	
Drimys winteri	Winter's bark – July 04 (3)	
Dryopteris arguta	California wood fern – May 04 (5)	
Eucalyptus haemastoma	Scribbly gum – Aug 06 (3)	
Euonymus kiautschovicus	Spreading euonymus – Jan 06 (9)	

Fraxinus latifolia	Oregon ash – Aug 05 (5)	
Garrya elliptica	Silk tassel tree , coast silktassel – Aug 07 (3)	
Gaultheria shallon	Salal, Oregon wintergreen – Jan 06 (9)	
Hamamelis x intermedia (H. mollis & H. japonica)	Hybrid witchhazel – Jan 06 (9)	
Hamamelis mollis	Chinese witchhazel – Jan 05 (3)	
Ilex purpurea	Oriental holly – Jul 06 (9)	
Leucothoe axillaris	Fetterbush, dog hobble – Jan 06 (9)	
Leucothoe fontanesiana	Drooping leucothoe - Oct 03 (3)	
Loropetalum chinense	Loropetalum – Jul 06 (9)	
Magnolia denudata x salicifolia	Magnolia – Feb 08 (3)	
Magnolia ernestii = Michelia wilsonii	Michelia – Jan 06 (9)	
Magnolia figo	Banana shrub – April 08 (1)	New report from California. Trade name is *Michelia figo*
Magnolia grandiflora	Southern magnolia – Jan 06 (9)	
Magnolia kobus	Kobus magnolia – Feb 08 (9)	
Magnolia liliiflora =Magnolia quinquepeta	Purple magnolia – Feb 08 (3)	
Magnolia x loebneri	Loebner magnolia – Jan 05 (3)	
Magnolia maudiae =Michelia maudiae	Michelia – Jan 06 (9)	
Magnolia salicifolia =Magnolia proctoriana	Anise magnolia – Feb 08 (3)	
Magnolia x soulangeana	Saucer magnolia – Jan 05 (3)	
Magnolia stellata	Star magnolia – Jan 05 (3)	
Magnolia x thompsoniana (M. tripetala and M. virginiana)	Magnolia – Feb 08 (3)	
Manglietia insignis	Red lotus tree – Aug 06 (9)	
Nerium oleander	Oleander – June 06 (1)	
Nothofagus obliqua	Roble beech – Dec 04 (3)	

Osmanthus decorus (=Phillyrea decora; =P. vilmoriniana)	Osmanthus – Jan 06 (9)	
Osmanthus delavayi	Delavay Osmanthus, Delavay tea olive – Jan 07 (10)	
Osmanthus fragrans	Sweet olive – June 06 (1)	
Osmanthus heterophyllus	Holly olive – June 06 (1)	
Osmorhiza berteroi	Sweet Cicely – Aug 05 (5)	
Parakmeria lotungensis	Eastern joy lotus tree – Jul 06 (9)	
Physocarpus opulifolius	Ninebark – Oct 07 (9)	
Pittosporum undulatum	Victorian box – Dec 02 (6)	
Prunus lusitanica	Portuguese laurel cherry – Jan 06 (9)	
Prunus laurocerasus	English laurel, cherry laurel – Jan 07 (10)	
Pyracantha koidzumii	Formosa firethorn – Apr 04 (9)	
Quercus acuta	Japanese evergreen oak – May 06 (3)	
Quercus petraea	Sessile oak – Aug 05 (3)	
Quercus rubra	Northern red oak – Nov 03 (8)	
Rosa (specific cultivars) Royal Bonica (tagged: "MEImodac") Pink Meidiland (tagged: "MEIpoque") Pink Sevillana (tagged: "MEIgeroka")	Hybrid roses – Jan 06 (9)	
Rosa rugosa	Rugosa rose – Jan 06 (9)	
Rubus spectabilis	Salmonberry – Dec 02 (4)	
Schima wallichii	Chinese guger tree, needlewood – Nov 06 (3)	
Taxus brevifolia	Pacific yew – May 03 (5)	
Taxus x media	Yew – June 05 (8)	
Torreya californica	California nutmeg – Aug 05 (5)	
Toxicodendron diversilobum	Poison oak – Dec 02 (4)	
Vancouveria planipetala	Redwood ivy – Aug05 (5)	

30 May 2008 Cercis chinense - redbud changed to correctly read Cercis chinensis – Chinese redbud

(From parentheses numbers above) – Sources of reports of detections and identifications

[1] California Department of Food and Agriculture, Sacramento, CA
[2] Oregon Department of Agriculture. Salem, OR
[3] Department for Environment, Food and Rural Affairs, UK
[4] Everett Hanson, Oregon State University, Corvallis, OR
[5] David Rizzo, University of California, Davis, CA
[6] Matteo Garbelotto, University of California, Berkeley, CA
[7] Gary Chastagner, Washington State University, Puyallup, WA
[8] Plant Protection Service, Wageningen, Netherlands
[9] Canadian Food Inspection Agency, Ottawa, Ontario, Canada
[10] Washington State Department of Agriculture, Olympia, WA

* Unmanufactured wood and wood products, including firewood, logs, and lumber of species listed above and marked with an asterisk (*) are regulated. See 7 CFR 301.92

Rationale for Lists:

Host Plants Regulated for *Phytophthora ramorum:*
Naturally infected associated plants are deemed host plants regulated for *P. ramorum* upon completion, documentation, review, and acceptance of traditional Koch's postulates. Details on regulated plants and articles can be found via links to "Phytophthora ramorum 7 CFR 301.92" and "Recent Modifications to Phytophthora ramorum Regulations" at:
http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/index.shtml

The plants listed in the original Interim Rule dated 14 February 2002 were adapted from a review and evaluation of lists of regulated plants from other regulatory agencies.

Plants Associated with *Phytophthora ramorum*:
Plants associated with *P. ramorum* are naturally infected plants from which *P. ramorum* has been cultured and/or detected using PCR (Polymerase Chain Reaction). Traditional Koch's postulates have not yet been completed nor documented and reviewed for each of these associated plants. These reports must be documented and reviewed by PPQ before they will be listed.

Regulation at the genus level:
Plants included in either of the above lists may be regulated at the genus level. This will ensure appropriate and effective inspection in quarantine areas, regulated nurseries, and regulated articles to mitigate the spread of *P. ramorum*. Examples of this include when the number of individual species, hybrids, or cultivars listed or to be listed are determined to hinder appropriate and effective inspection or regulation; or when sufficient numbers of member species of a genus are known susceptible to the disease causing organism, all members of that genus have a demonstrable risk of spreading that disease. Thus, to prevent the spread of disease, all members of that genus will be treated the same in our regulation.

Nomenclature:
We intend to have this list consistent with the listing in the Agricultural Research Service (ARS), Germplasm Resources Information Network (GRIN) database.
http://www.ars-grin.gov/npgs/aboutgrin.html

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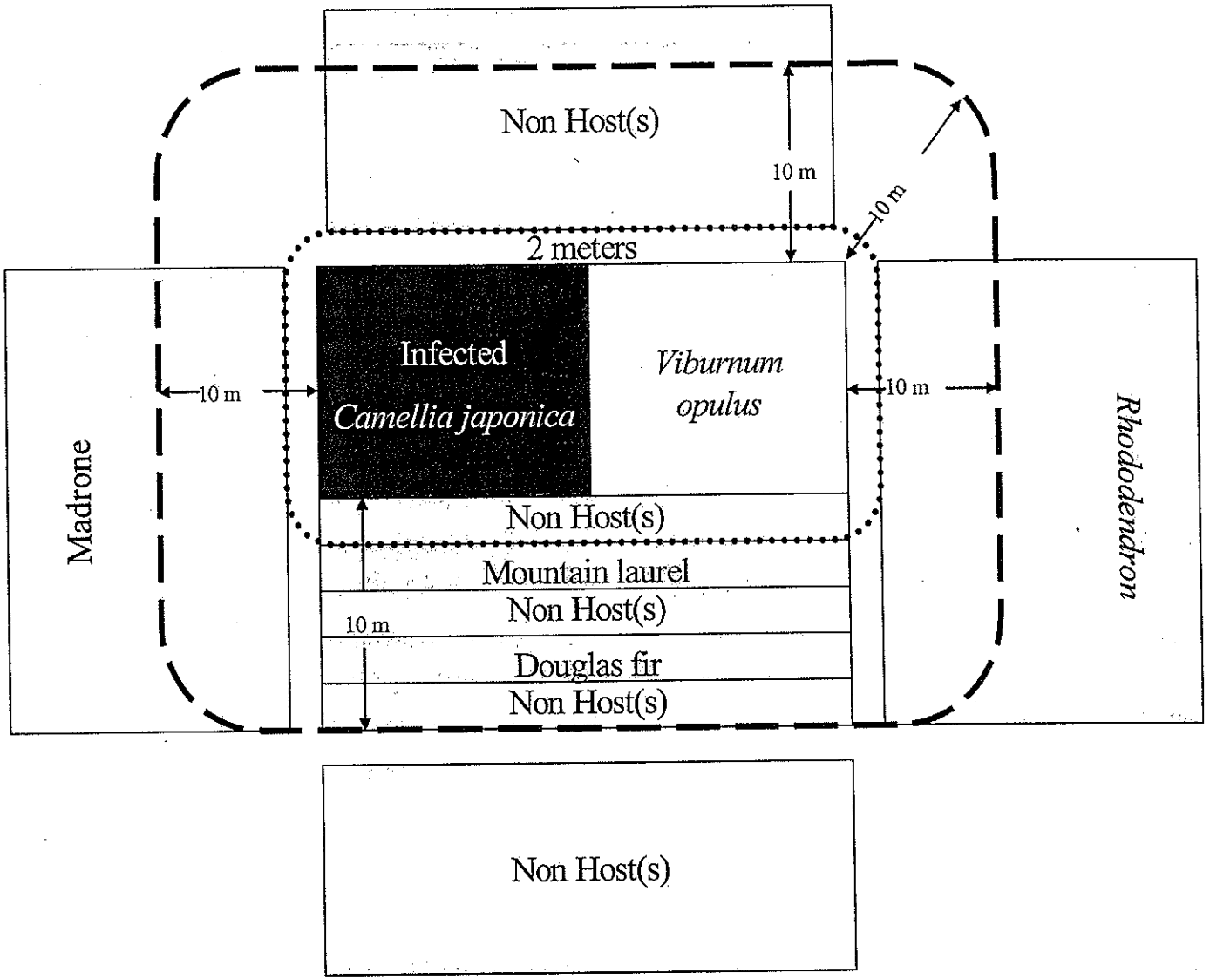
APPENDIX 2

Schematic of Wholesale/Production Nursery with Infected Host Plant(s)
Revised: August 31, 2006



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.

APPENDIX 3

Resource and Contact List
Revised: May 2007

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APPENDIX 4

Delimiting Survey Protocol

Delimiting Survey Protocol to Detect *Phytophthora ramorum*
In Plants at Confirmed Nurseries
Revised: July 19, 2007

Objective:

The objective of this document is to provide guidelines for the delimiting survey in nurseries where the regulated pathogen, *Phytophthora ramorum* has been confirmed. This survey method is designed using the best available scientific principles to determine apparent freedom from *P. ramorum* in nursery plants. In order to achieve this freedom from *P. ramorum*, accurate and successful inspection of HAP (genera for wholesale/production) must be accomplished at an appropriate confidence level to ensure detection of disease.

Sampling method:

The goal is targeted sampling of plant tissue to determine the presence of *P. ramorum* with a 95% confidence of finding the disease at a very low level (0.5% of plants are infected with *P. ramorum*) by inspecting a minimum of 850 HAP plants in each block (or all the plants if there are less than 850). A physical sample of the inspected plant is only to be taken if unhealthy plant tissue is present. Do not sample asymptomatic plants.

- Inspector should contact the nursery manager to set up the inspection and find out approximately how many HAP are present in each nursery block (i.e. a nursery map).

- These visually inspected plants should be chosen at random, but if certain areas of the block contain plants exhibiting unhealthy tissue or are more prone to disease development (such as low areas where water might puddle or places where mist or fog persists) these areas should be included in the sampling process.

- Disposable rubber gloves and tyvek booties should be worn and should be changed or disinfested using 10% bleach solution **or** a quaternary ammonium solution (at the labeled rate) between each block. Additionally, waterproof raingear and rubber boots may be used and disinfested between each block. Washtubs with ~ 1/2 inch of disinfectant to step in for booties and 3 inches in buckets to dip gloved hands should be sufficient.

- To visually inspect a plant, carefully lift the plant from surrounding plants, if possible, and carefully examine all plant leaves and stems for unhealthy tissue particularly for the presence of water-soaked or necrotic lesions consistent with *P. ramorum* infection, however all unhealthy tissue should be considered suspect. Take care to examine the leaves on the interior as they may exist in a microclimate more conducive to disease development and may be more likely to have disease symptoms. Be sure to properly disinfest booties and gloves between all nursery blocks. Because this is a confirmed nursery, proper use of sanitation is

imperative to reduce the potential for pathogen transport from an infested part of the nursery to an un-infested nursery block.

- Sample plant tissue from any and all visually inspected plants that appear unhealthy. Each sample should consist of a minimum of five leaves; for Vaccinium and other small leaf hosts collect the terminal last 3 inches of branch tips, if present, from each unhealthy plant. If, however, only one leaf is unhealthy include only the one leaf with lesions. Examine any other leaves on the plant for the presence of lesions, because chances are much smaller lesions may be present on other leaves of the same plant.

- Samples should be placed in a re-sealable leak proof plastic bag labeled with the appropriate nursery designation and sample number. Samples should be double-bagged in an additional re-sealable leak proof plastic bag with a completed PPQ391 form for each sample submitted.

- Keep the samples cool by placing them in a cooler (around 3° – 6° C or 37 – 43 F).

- Overnight mail or deliver the sample to the laboratory as soon as possible to preserve freshness.

- All samples must be analyzed following the APHIS diagnostic protocols.

- Continue inspecting 850 plants in each block that contains HAP (genera for wholesale/production).

- Examine all HAP (genera for wholesale/production) in cull piles for the presence of tissue symptomatic for *P. ramorum* and take symptomatic tissue from any and all plants with symptoms.

APPENDIX 5

Diagnostics

Revised: April 2007

Samples must be analyzed using a methodology approved by APHIS. See techniques posted at: http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

APPENDIX 6

Soil and Growing Medium Sampling Protocol

Revised April 22, 2008

See http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/ for latest approved protocol.

Soil and Growing Media Sampling:

- Infested soil or growing media will look exactly the same as un-infested soil or growing media. Therefore all soil and media must be handled carefully. All tools used to collect soil or media samples must be disinfected with 10% bleach solution, quaternary ammonium solution or flame-sterilized with a propane torch between blocks. All soil and organic material should be removed from the tools prior to disinfection. Care should also be taken not to transfer soil or growing media from one block to the next on shoes or clothing. All sampling equipment should be cleaned and disinfected prior to entering a new nursery block. Care must be taken to ensure that un-infested soil or growing media is not contaminated by infested soil or growing media. If the areas of soil/media infestation are known or suspected sample these quarantine block and work toward the destruction block(s).

Preparing for sampling:

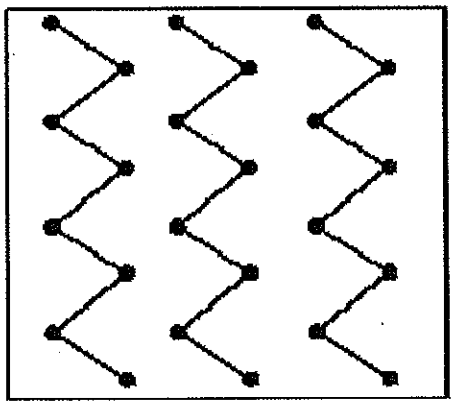
- Soil and growing media samples should be collected as composite samples. Composite samples of growing media should be kept separate from soil samples. A composite sample consists of a mixture of sub-samples. Sub-samples (See Figure 1) are small amounts of soil (or media) removed from the ground (or pot) and added together to form a composite sample. The use of sub-sampling increases the chances of finding *P. ramorum* if it is present. Samples should contain a maximum of 500-ml (volume) of soil and/or growing media (1/2 of a quart-size Ziploc bag). The number of composite samples collected will depend upon the size of the nursery block being sampled (see Table 1). There should be at least two samples, one for growing media and one for soil, unless all plants and associated growing media were destroyed or the plants are not on soil (e.g. on concrete or asphalt). If the surface of soil is covered with gravel take sub-samples from the soil beneath the gravel. If water permeable weed block is present, either covered with gravel or under gravel, the weed block should be removed prior to soil sampling.

Table 1: Number of composite samples collected based on nursery block size.

Size of Treated Site (acres)	Sq Ft	No. of Soil and Growing Media Samples Collected (total)
0.00< n < 0.25	n <10,890	5 (10)
0.25 < n <.0.5	10,890 <n < 21,780	10 (20)
0.50 < n < 1.0	21,780 <n < 43,560	20 (40)
n >1.0	n > 43,560	30 (60)

- Each composite sample will consist of at least five sub-samples collected from soil or growing media within the targeted area. While five is a minimum, it is preferable to take 24 sub-samples of soil or growing media for each sample, provided the area is large enough (for soil samples) and enough plants are present (for growing media samples). Sub-samples should be collected according the pattern in the diagram below (Figure 1). Alternatively, if fallen leaves or other debris from the infected plants are present; sub-sampling may be targeted towards those areas. The location of each composite sample should be maintained (preferably by GPS but at least by flagging) in case follow-up treatment of the soil or growing media for *P. ramorum* is required. Composite samples may also be collected from neighboring blocks of un-infested plants using the same steps. If you are collecting from blocks of un-infested plants, collect the composite soil/growing media samples from these blocks first to minimize the risk of contaminating un-infested soil/growing media. If all potentially-infested growing media has been destroyed with the infected plants, collect composite samples from the remaining host plants within 2- to 10-m of the originally infected plants that have been placed on hold. Preferentially target the growing media of those plants that are down slope (e.g., based on watering patterns) of the originally infected plants.

Figure 1: Recommended pattern for collection of sub-samples for composite soil and/or growing media samples.



Soil Baiting

It is possible to follow the below procedure and not successfully bait and culture *P. ramorum*. This may be due to *P. ramorum* not being present, but may be due to dormancy of *P. ramorum*. To address this dormancy potential and to better enable the diagnostician to detect *P. ramorum* when present, mix the soil well and split the soil samples when they arrive in the laboratory. Once the samples are well mixed and split, place one of the split sample halves into cold storage at approximately 4 degrees C <u>for one month</u>. Bring samples out from cold room after one month has passed, leave samples at room temperature for two days and repeat soil baiting process This baiting can be done in conjunction with the final baiting required fore the quarantine release survey. The samples should be processed as shown below.

To prepare soil bait, briefly soak the pears (select unripe green pears) or Rhododendron leaves in a mild detergent solution to remove any pesticide residues. Rinse the baits well and drain.

Leaving the soil in the Ziploc bag, add enough sterile deionized water to saturate and cover soil with about 2.5 cm (1") of water. Do not mix the soil and water.

Use two pears or leaves per soil sample. With a black sharpie pen, label one side of the pears or leaves with the soil sample number and date processed. The USDA Forest Service recommends the following bait selection criteria in *Stream Baiting Protocol: 2007 National Phytophthora ramorum Early Detection Survey of Forests*, issued March 20, 2007. See http://fhm.fs.fed.us/sp/sod/sod.shtm for latest approved protocol.

Bait Selection

- Use leaves from a population of native or naturalized rhododendrons, if possible. The population should be sufficiently large to supply needed leaves for the survey duration.

- Variation in Pr susceptibility among rhododendron species/cultivars in laboratory inoculation has been published, but field and lab studies have shown that leaves of common native and naturalized species perform acceptably as Pr bait.

- Leaf size can vary considerably among species and cultivars. If bait leaves are quite small (8 cm x 3 cm at the widest point or smaller), use 2 leaves in each pocket of the bait bag.

- If the source of leaves is nursery-grown or naturalized landscape plants, ensure that they have been free of fungicides and other pesticides for a minimum of 6 weeks before using as bait.

- Source plants should be mostly free of dieback and leaf symptoms. Use 1 year-old leaves as free as possible from leaf symptoms (spots, blight, chlorosis), insect damage, and mechanical damage. Do not use newly formed, succulent leaves. Leaves formed in the present year may be used after full leaf expansion and a period of hardening in summer.
- Bait leaves wrapped in paper towels moistened with chlorinated tap or sterile water and sealed in a plastic bag may be stored refrigerated for up to 1 week before use. Do not use well water or stream water for stored leaves.

Carefully push each pear or leaf into the wet soil and water until the bait is immersed halfway. Leave the labeled side of the bait out of the water. Seal the Ziploc bag and leave bait in the soil/water mixture for at least 48- hr at room temperature.

After 48-hr, remove the baits and wash off any clinging soil into Ziploc bag. Set the bait on a moistened paper towel in a sealed container at room temperature for 7-d to let any potential disease symptoms develop. The soil/water mixture must be autoclaved before disposal.

Examine the bait daily for developing symptoms. Pears infected with *P. ramorum* will display lesions that are round, brown, somewhat leathery in texture, with undefined edges. Colorless, watery, and/or soft lesions are generally caused by other pathogens (especially *Pythium* spp.).

Rhododendron leaves that have become infected with *P. ramorum* will exhibit 'diffuse' leaf spots usually with the midvein most affected.

Under the laminar flow hood, cut eight to 10 pieces of pear or leaf from the edge of the developing lesion or leaf spot and insert into the PARP medium. Write the sample number and date processed on the underside of the Petri dish. Seal the dish with parafilm and incubate and treat as described in the USDA approved *Guidelines for Isolation by Culture and Morphological Identification of Phytophthora ramorum* at:
http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/protocols.shtml

APPENDIX 7

Water Sampling Protocol
Revised April 2007

See http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/ for latest approved protocol.

Phytophthora ramorum is an oomycete, belonging to the group that includes *Pythium* species. Collectively these organisms are called "water molds" and are taxonomically related closer to algae than to fungi. For this reason, water collected from potentially infested nursery blocks must be tested for the presence of *P. ramorum*.

There are two potential methods provided here to detect *Phytophthora* species in water. The first uses rhododendron leaf baits in mesh bags followed by moist chamber incubation of the leaf baits. As of April 2007, research supports using leaves at least one year old, so that is recommended. Any suspect lesions that develop on the rhododendron leaves would be plated on PARP at 18-20°C (64-68°F). Any *Phytophthora* species growing on the PARP would need to be transferred to Corn meal agar or V8 agar for identification to species.

The second method uses water filtration. Water is removed from the pond, filtered with sterile filters and the filters placed on PARP. Once the filter is removed from PARP, any resultant *Phytophthora* colonies are transferred to Corn Meal Agar or V8 agar and identified to species.

In situ Water Sampling with Rhododendron Leaf Baits:

A control sample using a leaf bait in distilled water should be run simultaneously with the leaf bait sample in the nursery site water. The USDA Forest Service recommends the following bait selection criteria in *Stream Baiting Protocol: 2007 National Phytophthora ramorum Early Detection Survey of Forests*, issued March 20, 2007. See http://fhm.fs.fed.us/sp/sod/sod.shtm for latest approved protocol.

Bait Selection

- Use leaves from a population of native or naturalized rhododendrons, if possible. The population should be sufficiently large to supply needed leaves for the survey duration.

- Variation in Pr susceptibility among rhododendron species/cultivars in laboratory inoculation has been published, but field and lab studies have shown that leaves of common native and naturalized species perform acceptably as Pr bait.

- Leaf size can vary considerably among species and cultivars. If bait leaves are quite small (8 cm x 3 cm at the widest point or smaller), use 2 leaves in each pocket of the bait bag.

- If the source of leaves is nursery-grown or naturalized landscape plants, ensure that they have been free of fungicides and other pesticides for a minimum of 6 weeks before using as bait.
- Source plants should be mostly free of dieback and leaf symptoms. Use 1 year-old leaves as free as possible from leaf symptoms (spots, blight, and chlorosis), insect damage, and mechanical damage. Do not use newly formed, succulent leaves. Leaves formed in the present year may be used after full leaf expansion and a period of hardening in summer.

- Bait leaves wrapped in paper towels moistened with chlorinated tap or sterile water and sealed in a plastic bag may be stored refrigerated for up to 1 week before use. Do not use well water or stream water for stored leaves.

Prepare the rhododendron leaves as bait by trimming off the petiole end of each leaf. Place 3-4 cut leaves into a mesh bag. Label the bag with a plastic tag listing the date, water source (location), and nursery (i.e., nursery license number). Place the mesh bag into the water source for a minimum of 48-hours to 1-week (preferable). Do not leave the bait in the water source for longer than 1-week as the bait will begin to decompose. Place the bags such that the leaves will remain submerged the entire time (i.e., even if water levels fluctuate within the water source). If possible, place the bait near the influent coming from the area closest to or containing the infested plants.

Remove the bait from the water source and transfer to a sealable bag for transport to the laboratory. Label the bag with the information on the plastic tag, including the date collected. Log the leaf samples into the appropriate database. Assign a unique sample number to the bait(s) from each nursery.

Water Sampling for Filtration:

Water samples should be collected in a sterile wide-mouth bottle and kept at 5 – 10 C. Water samples should be taken from the surface to increase the likelihood of obtaining zoospores of *Phytophthora.*

Sample size should be approximately 1000 ml. Samples should be processed within 48 hours of collection or the samples should be discarded and new samples obtained and processed within 48 hours. Number of samples is determined by the size of the nursery pond to be sampled (Table 1)

Table 1: Number of composite samples collected based on pond size.

Size of pond (acres)	No. of water samples collected (liters)
0.00 - 0.25	5
0.26 - 0.5	10
0.50 - 1.0	20
>1.00	30

Note, if you have not used water filtration before and choose to do so, it is recommended you contact Dr. Steve Jeffers at Clemson University for further details on this technique.

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APPENDIX 8

Treatment and Disinfection

Revised April 2007

The following techniques are approved by USDA APHIS PPQ for control of *P. ramorum* in nurseries found to contain plants infected with *P. ramorum*.

Infected Plants:

Note: HAP material, including leaf litter, must not be placed in compost piles or be removed from the nursery site as trash or in debris removal. HAP material should be collected and incinerated or double bagged and deep buried in a site approved by USDA, APHIS or delegated regulatory authority.

- **Incineration (burning to ash):** Infected plants, associated growth media, associated containers (i.e. pots and trays), all leaf debris in and around the area where plants were stored may be disposed of by incineration at a facility or other location (e.g. on site) approved by USDA and permitted within state and municipal statutes or regulations. Off nursery movement must be properly safeguarded and every effort to prevent plant debris or soil from being dislodged from the plants prior to incineration should be taken. Burning may be through open burning or in an incinerator.

- **Deep burial:** Infected plants, associated growth media, associated containers (i.e. pots and trays), all leaf debris in and around the area where plants were stored must be double bagged using plastic bags of 2 mil thickness or greater and buried to a depth of no less than two meters. The material must be buried at a USDA approved site, onsite, or municipal landfill, which is expected to remain undisturbed. Every effort to prevent plant debris or soil from being dislodged from the plants should be taken.

- **Steam sterilization:** Dry heat or steam commonly heated to internal temperatures of 212° F (100° C) for 30 minutes followed by burial in a landfill, or as otherwise detailed in the USDA Treatment Manual for "insect pests and pathogens in garbage", Schedule T415b. http://www.aphis.usda.gov/ppq/manuals/port/Treatment_Chapters.htm

Non-Porous Surfaces:

Most disinfectants are not labeled for use in soil and are only useful for nonporous materials such as concrete floors, nursery pots, and plastic sheeting. A number of disinfectants are registered for use on nonporous surfaces that may effectively reduce populations of *Phytophthora* species. If it is practical, tools such as knives, pruners, water breakers, water wands and other implements used in the quarantine area should only be used in the quarantine area. If tools and other implements must be moved from the quarantine area, then regular disinfection using an appropriate disinfectant for the control of *P. ramorum* is recommended prior to removal from the

quarantine block. The following table modified from http://cpmcnet.columbia.edu/dept/ehs/decon.html examines the effects of different classes of disinfectants on microbial populations. This list is for explanation and information only. Few disinfectants are specifically labeled for *Phytophthora* species and are shown in **Bold**.

All labels for the disinfectants listed below must be strictly adhered to for maximum efficacy and environmental and worker safety.

Summary of Disinfectant Activities

Disinfectant	Trade names	Comments	Contact time
Alcohols (ethyl and isopropyl) 60-85%	Lysol Spray	Evaporates quickly so that adequate contact time may not be achieved, high concentrations of organic matter diminish effectiveness; flammable.	10-15 minutes
Phenolics (0.4%-5%)	**Pheno-cen**	Phenol penetrates latex gloves; eye/skin irritant; remains active upon contact with organic soil; may leave residue.	10-15 minutes
Quaternary Ammonium (0.5-1.5%)	**Consan Triple Action 20** **Physan 20** Green-Shield 20	Effective for non-porous surface sanitation (floors, walls, benches, pots). Low odor, irritation. Use according to labels.	10-15 minutes
Chlorine (100-1,000 ppm)	**10% Clorox** **10% Bleach**	Inactivated by organic matter; fresh solutions of hypochlorite (Clorox) should be prepared every 8 hours or more frequently if exposed to sunlight; corrosive; irritating to eyes and skin. **Exposure to sunlight further reduces hypochlorite efficacy. Keep solution in opaque container.**	10-15 minutes

Water:

- **For dust abatement, fire suppression, and equipment cleaning**: Clorox (sodium hypochlorite) is labeled (EPA Reg. No 5813-50) for treatment of water (~50 ppm available chlorine) for controlling the spread of *Phytophthora lateralis* via water used for dust abatement, fire suppression and equipment cleaning. The active ingredient level must be measured from water collected at the sprinkler head.

- **For irrigation:** Chlorine levels of 2ppm or 2mg/liter or greater has been correlated with the control of *Phytophthora* spp. in re-circulated irrigation systems. For irrigation purposes, recirculated, non-municipal water, must be chlorinated at an active chlorine concentration equal to or greater than 2 mg/liter of water; for facilities that recycle water, this chlorine level must be monitored.

Soil and Potting Media:

- **Potting media:** Potting media must be heated such that the temperature in the center of the load reaches at least 180 degrees F for 30 minutes. Treatment must be conducted in the presence of an inspector or treated with an approved fumigant as detailed below.

- **Soil:** Soil must be heated such that the temperature in the center of the load reaches at least 180 degrees F for 30 minutes. Treatment must be conducted in the presence of an inspector or treated with an approved fumigant as detailed below. Methyl bromide has been used for fumigating wood products, but the data on fungi and related organisms in wood are limited. However, methyl bromide has a long history of fumigation of soil in the field and greenhouse. It has commonly been used in combination with chloropicrin for control of *Phytophthora* spp. and other pests in strawberry beds. Methyl bromide has been used for soil treatment for the mitigation of *P. cinnamoni* in citrus groves. However, many of the compounds currently in use have been implicated in human and environmental risks. Solarization is not a consideration as a viable option for soil treatment.

All fumigants are restricted use and must be applied according to labels by a licensed applicator. Any use of pesticides in any manner not listed on the label is unlawful.

Summary of Labeled Soil Fumigants

Fumigant	Trade names	Comments
Chloropicrin	Chlor-O-Pic Metapicrin Timberfume Tri-Clor	Often used in combination with methyl bromide due to its ability to be detected in small quantities.
Dazomet	Basamid	Methyl isothyocyanate (MITC) breaks down into cyanide gas. Granular formulation that is water activated. Requires careful soil preparation and incorporation into soil. All application must be made in accordance with labeling.
Metam-sodium	Busan 1020 Busan 1180 Busan 1236 Metam	Metam can be applied through irrigation. Tarping can increase efficacy. All application must be made in accordance with labeling.

Fumigant	Trade names	Comments
	Vapam	
Methyl Bromide	Tri-Con Terr-O-Gas Preplant Soil Fumigant Pic-Brom	Colorless and odorless. Usually combined in various concentrations with Chloropicrin (tear gas). Use is restricted due to ozone depletion potential.

Physical Treatment of Soil:

- Mitigation of infested soil can also be achieved by installing permanent impermeable, non-porous barriers that consist of cement, concrete or asphalt. These barriers must be constructed so that no native soil within the destruction block is visible. The barriers should be graded such that no standing water can be observed.

Equipment and Personnel (Inspectors and employees):

- Access to infested areas and hold areas should be limited, as much as possible, to officials and necessary employees. Everyone entering and leaving the nursery site must scrape off loose pieces of soil into the destruction block. Those working with, or in contact with suspected infested material (including plants), must wash hands using soap or approved disinfectant immediately after completion of task. There are no products currently labeled for use on porous materials for *Phytophthora* control.

- Personnel should not have access to other production areas of the nursery after entering the destruction block on the same day.

- A disinfectant foot bath should be placed near the exit to the destruction blocks and quarantine blocks and used by all personnel entering and exiting the quarantine block and entering and exiting the destruction block at the infested nursery site, where the contact with potentially infested soil or plant debris by footwear is likely. The foot bath must be filled with fresh disinfectant at least on a daily basis or more frequently if contaminated with soil or organic debris, in accordance with label directions. Use of disposable shoe covers may be used in lieu of a footbath, if disposed of immediately upon exiting from the quarantine block or destruction block. The disposable shoe covers must be placed in bags and incinerated, deep-buried or properly disposed in a sanitary landfill.

- The tires (or other parts in contact with the soil or plants, such as the bed of trucks) of vehicles must be cleaned of loose soil and plant debris and disinfested with the appropriate labeled products before leaving the infested site. If at all possible, vehicles should not be allowed in the destruction blocks at all. Any efficacious product labeled for use on non-porous surfaces may be used on tires or vehicle undercarriages.

- Do not visit other nursery sites in potentially contaminated work clothing and footwear. Where it is necessary that visitors enter the nursery, the nursery should ensure that every precaution is taken to prevent the movement of infected plants, contaminated soil or debris by the visitor.

- Wood surfaces suspected of contamination with *P. ramorum* should be disposed of as stated above under "Infected Plants."

APPENDIX 9

Biosecurity Measures for Nurseries
April 2007

In the course of daily work, nursery personnel are frequently required to visit a number of different nurseries sites, greenhouses, fields, and facilities. These actions could potentially provide a pathway for transferring quarantine organisms from one work site to another during the work day. It should also be recognized that even if a single work site is visited per day, precautions must be taken to avoid contaminated clothing and equipment from being used at a new site the following day. Further, visitors to these same facilities present the same risks and additionally could vector disease-causing-organisms from other sites.

Biosecurity measures must be taken by nurseries and be required of nursery personnel and visitors to avoid and mitigate the spread of *P. ramorum*. The biosecurity measures described here are the minimum measures to be taken by the nursery.

Communications

All nursery personnel should be trained and visitors informed of these biosecurity requirements that have been put in place by the facility. As new scientific data and technology is learned, the facility needs to update their biosecurity requirements and retrain their personnel.

Vehicles

Vehicles can become contaminated with soil; a primary vector for quarantine pests. The following guidelines seek to reduce the likelihood of this pathway.

Avoidance:

Once at the inspection site, if possible, the vehicle should only be driven and parked on paved, concrete or gravel areas to avoid contact with soil and organic matter. Visitors should consider requesting a facility employee to drive them to their designated location with one of the nursery's vehicles. Loading of nursery stock onto other than the nursery's vehicles should be done in an area with concrete or asphalt pad located near the gate and not in the interior of the nursery.

Cleaning:

Interior of nursery vehicles should be cleaned to ensure no build-up of soil, debris or other items.

Where it is not possible to avoid the vehicle going onto the fields, the vehicle must be driven to the edge of the facility where the tires, wheel wells and accessible areas of the undercarriage of the vehicle must be cleaned of soil and organic matter with a brush or a water hose followed by a spray down with a suitable disinfectant. In situations where the undercarriage has been coated

with soil it is recommended that after cleaning and disinfecting at the work site an effort be made to go through a car wash that has the ability to clean the undercarriage before proceeding to another work site. If a car wash is not available, avoid driving onto the next work site. To ensure the entire surface of the tires are cleaned it will also be necessary to move the vehicle forward a foot or so to permit cleaning of the portion of the tire in contact with the ground.

The tires (or other parts in contact with the soil or plants, such as the bed of trucks) of vehicles must be cleaned of loose soil and plant debris and disinfested with the appropriate labeled products before leaving the infested site. Any efficacious product labeled for use on non-porous surfaces may be used on tires or vehicle undercarriages.

A portion of the vehicle must be designated as a "clean area" where clean work supplies and equipment can be kept. A designated "dirty area" of the vehicle such as the trunk of the car or a specified enclosed area of a truck bed must also be identified for use to hold double bagged clothes or dirty equipment that require cleaning. In situations where pool vehicles are used, the work site should adopt a set procedure for all personnel.

Nursery Personnel

Nursery personnel routinely come in contact with potentially contaminated soil, plants and organic matter and this requires the personnel to address a number of biosecurity measures. If the inspection site has distinct levels of biosecurity for different areas in the nursery, it is necessary to be aware of this situation. Work should always be completed working from the areas of lowest to highest risk.

Access:

Access to infested areas and hold areas should be limited, as much as possible, to personnel and employees. Everyone entering and leaving the nursery site must scrape off loose pieces of soil into the destruction block. Those working with, or in contact with suspected infested material (including plants), must wash hands using soap or approved disinfectant immediately after completion of task. There are no products currently labeled for use on porous materials for *Phytophthora* control.

- Personnel should not have access to production areas of the nursery after entering the destruction block on the same day.

- A disinfectant foot bath should be placed and used by personnel entering and exiting the quarantine area and entering and exiting the destruction block at the infested nursery site, where the movement of soil or plant debris on footwear is likely. The foot bath must be filled with fresh disinfectant at least on a daily basis or more frequently if contaminated with dirt or debris, in accordance with label directions. Use of disposable shoe covers may be used in lieu of a footbath, if disposed of immediately upon exiting from the quarantine area or destruction block. The disposable shoe covers must be placed in bags and incinerated or deep-buried.

- Do not visit other nursery sites in potentially contaminated work clothing and footwear.

Boots:

Rubber boots which can be disinfected should be worn and if they are not available disposable boot covers must be worn over work boots in any infested or possibly infested area. The rubber boots must be disinfected on arrival, even if this has been done at the time of departure from the last work site. At the conclusion of the inspection, the boots must be cleaned of soil and disinfected prior to placing into the vehicle area designated as a "clean area". Dispose of used boot covers by double bagging and place into the designated "dirty area" of the vehicle for proper disposal. After removing boot covers, the soles of the work boots must be inspected for soil and if present, must be cleaned of soil and treated with disinfectant.

Hands:

Thoroughly wash hands with soap and water before entering and after leaving the work site. Follow these four simple steps to keeping hands clean.

- Wet hands with warm running water.
- Add soap, and then rub hands together, making a soapy lather. Do this away from the running water for at least 20 seconds, being careful not to wash the lather away. Wash the front and back of hands, as well as between fingers and under nails.
- Rinse hands under warm running water. Let the water run back into the sink, not down the elbows. Turn off the water with a paper towel and dispose in a proper receptacle.
- Dry hands thoroughly with a clean towel

If a hand washing station is not available, antiseptic rubs/gels/rinses (containing a minimum of 70% ethyl alcohol and left on for 10 - 15 minutes) must be used. Follow these basic steps for using antiseptic rubs/gels/rinses.

- Remove soil from hands.
- If hands are wet, dry as much as possible.
- Apply enough disinfectant (amount about the size of a quarter) onto hands to cover all areas, including under the nails. Use a rubbing motion to evenly distribute the disinfectant product for about 15 seconds.

If antiseptic rubs/gels/rinses are used, avoid formulations with moisturizers as they leave a gummy residue. Disposable gloves may be used, however they have the tendency to rip and become uncomfortably wet after a short period. Rubber gloves which withstand more abuse than disposable gloves have the same drawbacks as disposable gloves, however will be more practical when handling materials that are sharp or jagged. If rubber gloves are used in cold weather it is recommended to purchase rubber gloves with cotton or acrylic liners. Both disposable and/or

rubber gloves must be double bagged after use if working in an infested area and placed into the "dirty area" of the vehicle for disposal or cleaning. If on-site disposal of the gloves are available this option should be chosen. After disposal of gloves, hands must be washed or sanitized. To avoid cross contamination, disinfection of hands must take place after handling any plants or other contaminated matter in the infested area.

Equipment

Any equipment used (pruners, measuring tapes, clipboards, pens, etc.) at a work site must be disinfected prior to leaving the work site. Where practical, equipment should be disinfected as frequently as possible at each work site. Where equipment must leave the work site for disinfection it must be double bagged and place in the designated "dirty area" of the vehicle.

Visitors:

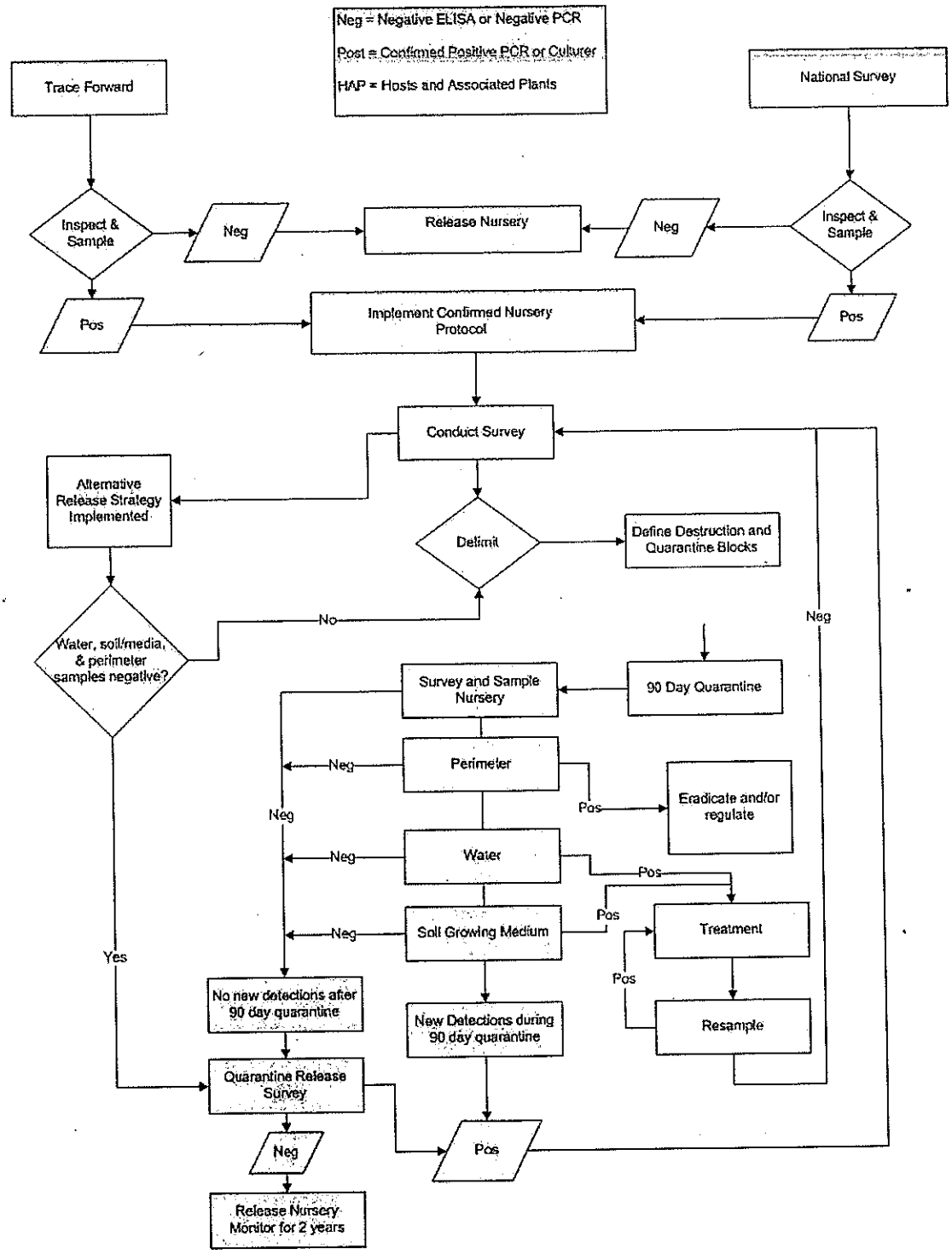
- Access to infested areas and hold areas should be limited, as much as possible, to personnel and employees. Everyone entering and leaving the nursery site must scrape off loose pieces of soil into the destruction block. Those working with, or in contact with suspected infested material (including plants), must wash hands using soap or approved disinfectant immediately after completion of task. There are no products currently labeled for use on porous materials for *Phytophthora* control.

- A disinfectant foot bath should be placed and used by all entering and exiting the nursery site. These should be placed at all entrances and exits. The foot bath must be filled with fresh disinfectant at least on a daily basis or more frequently if contaminated with dirt or debris, in accordance with label directions.

APPENDIX 10

Confirmed Nursery Protocol Flowchart for First Time Positive Nurseries

Revised: April 2007



APPENDIX 11

Mitigations for Wholesale/Production Nurseries Found with *P. ramorum* More Than Once

May 2007

These mitigations apply for nurseries detected as positive for *P. ramorum* within one year of release from an EAN or state equivalent. *P. ramorum* infestations in nurseries may be re-introduced or the effort to eradicate the disease may fail. In the event that a production or wholesale nursery has *P. ramorum* detected on site after the initial release from the EAN or state equivalent, it is necessary to implement additional measures to ensure that the risks associated with *P. ramorum* are properly mitigated. These additional measures are:

1. A regulatory inspection of all listed plants was conducted in the nursery. Conduct two additional inspections, during the two out of the three best remaining seasons, that are conducive to the development of symptoms for *P. ramorum*; or, if there is significant water runoff, conduct seasonal baiting of that water.

   Either official baiting of water draining from the nursery (and nursery inspections if found positive) or a nursery inspection of all plants within the nursery that are found on the "APHIS List of Regulated Proven Hosts and Plants Associated Plants with *Phytophthora ramorum*" are to be conducted in the three best remaining seasons, that are conducive to the development of symptoms for *P. ramorum*. Any plants observed with symptoms will be sampled sufficiently to represent the plants with symptoms being expressed and those samples are to be analyzed for *P. ramorum*.

2. Appropriate biosecurity measures are to be incorporated into the EAN or Compliance Agreement and remain in place until two years of negative survey are completed.

   See Appendix 9 for biosecurity measures. These contain practices which, if properly applied, can be expected to effectively mitigate risks associated with *P. ramorum* in a nursery. In areas not regulated these need to remain in place for two years via the EAN. In regulated and quarantine areas these practices are to be included as part of a Compliance Agreement. In all cases, appropriate and specific timelines for implementation will be established. Additionally, these will be periodically verified, perhaps best done at the seasonal re-inspections.

3. 45 days after implementation of the CNP, a series of soil samples will be taken in the destruction and quarantine blocks as well as any water drainage areas will be baited or sampled and analyzed for the presence of *P. ramorum*.

   The presence of *P. ramorum* in soil or water may contribute to the occurrence of disease in the nursery. Thus it is necessary to conduct these sampling and testing procedures and if found, eradication is to take place. See Appendices 6 and 7 for how to conduct sampling and Appendix 8 for details on treatment and eradication procedures.

4. Fallen leaves and plant debris will be removed from pots, soil and within the immediate area of Rhododendron and Camellia on a quarterly basis to the best ability of the nursery to prevent possibly infested dropped leaves from infesting the soil or other plants. Verify this at the seasonal inspections.

   Camellia and other hosts are known to shed infected and infested leaves. This may result in further infection and soil infestation with a potential for resultant spread of infection. To address this potential, it is important for these leaves and related debris be removed and destroyed or buried. The use of a blower to move these leaves away to a different location is not an appropriate mitigation.

5. Nurseries that ship interstate must undergo approved training in the risks, recognition and mitigation of *P. ramorum*.

   As of May 2007 we are still working to identify the content and delivery of approved training. Nonetheless, when made available, appropriate nursery personnel must complete that training and provide appropriate guidance to other nursery personnel as demonstrated by the training.

6. Nurseries are to inspect all *Rhododendron* and *Camellia* brought into the nursery. *P. ramorum* has been re-introduced to nurseries through customer returns. Therefore, neither of these two genera, nor any other taxa of plants found positive in the nursery, are to be returned to stock upon a customer's return. If you should accept nursery stock returns, based on the nursery's policy, then destroy those using appropriate methods.

   P. ramorum is occurring in these two genera at greater levels, as compared to other genera. It is essential that Rhododendron and Camellia be carefully examined for any signs of this disease and samples provided for analysis should any be detected. If customer returns, do not return members of these genera to stock but rather destroy them appropriately. Other taxa found positive in a nursery present the same risk.

7. A one year pre-shipment notification to the office of the SPRO of all shipments containing any plants of the genera, *Rhododendron*, *Camellia*, *Viburnum*, *Pieris*, and *Kalmia*.

   Upon being confirmed positive for *P. ramorum*, the nursery is required to notify the SPRO of any shipment containing these five hosts. This notification is expected to be a fax (or agreed upon equivalent) containing all the information needed to identify the shipper, receiver, contents of the shipment, expected arrival date and appropriate contact information. It is to be sent to the office of the SPRO and identified as "Pre-shipment notification of *P. ramorum* hosts as required by USDA-APHIS". SPRO contact information can be found at: www.nationalplantboard.org/member/index.html

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008-June 30, 2009
FY 2008/2009

Appendix B

Pest Exclusion Advisory 7-2008

STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND
AGRICULTURE
1220 N Street, Room A-372
Sacramento, CA 95814

PEST EXCLUSION ADVISORY

NO. 07-2008

DATE: March 3, 2008

TO: All County Agricultural Commissioners

FROM: Plant Health and Pest Prevention Services

SUBJECT: Actions at *Phytophthora ramorum* Positive Locations

Effective immediately, the United States Department of Agriculture has issued a Retail Confirmed Nursery Protocol and an amended version of the Trace Back Protocol for *Phytophthora ramorum*. Please visit the CDFA *P. ramorum* site (http://www.cdfa.ca.gov/phpps/pe/InteriorExclusion/SuddenOakDeath/) to view the documents in their entirety.

This advisory is being issued to clarify the actions that must take place at different types of nurseries confirmed positive for *Phytophthora ramorum* and replaces instructions outlined in Pest Exclusion Advisory 02-2006.

Production Nurseries/Wholesale Brokers

Interstate Shippers in All Counties (Quarantined and Regulated)
Nurseries that are under compliance, ship, or intend to ship plants interstate:

1. Compliance agreement (if issued) must be suspended.
2. The federal Confirmed Nursery Protocol (version 8.0) must be implemented.
3. Compliance agreements for interstate shipping will be re-issued after delimitation according to the Confirmed Nursery Protocol (version 8.0) including sampling and testing with negative results (see Phytosanitary Advisory 12-2006).

Intrastate Shippers in Regulated Counties
Nurseries that do not intend to ship plants interstate:

1. The Confirmed Nursery Protocol (version 8.0) must be implemented.

Intrastate Shippers in Quarantined Counties
Nurseries located within the 14 quarantined counties that **DO NOT SHIP OUT** of the quarantined area should be dealt with using the following nursery stock cleanliness standards:

1. The stock shall be kept "free of" *P. ramorum*, California Code of Regulations (CCR) Section 3060.2 (b)(2).
2. Such stock (the lot) is subject to disposal in a manner satisfactory to the county agricultural commissioner.
3. Stock may be sold under a written agreement between the buyer and seller in accordance with CCR Section 3060.4 (a)(1)(D).

Retail Nurseries/Garden Centers

Interstate Shippers in All Counties (Quarantined and Regulated)
Nurseries that are under compliance, ship, or intend to ship plants interstate:

1. Compliance agreement (if issued) must be suspended.
2. The federal RETAIL Confirmed Nursery Protocol (version 1.0) must be implemented.
3. Compliance agreements for interstate shipping will be re-issued after delimitation according to the RETAIL Confirmed Nursery Protocol (version 1.0) including sampling and testing with negative results (see Phytosanitary Advisory 12-2006).

Retail Nurseries/Garden Centers in Regulated Counties
Nurseries that do not intend to ship plants interstate:

1. The RETAIL Confirmed Nursery Protocol (version 1.0) must be implemented.

Retail Nurseries/Garden Centers in Quarantined Counties
Nurseries located within the 14 quarantined counties that **DO NOT SHIP OUT** of the quarantined area should be dealt with using the following nursery stock cleanliness standards:

1. The stock shall be kept "free of" *P. ramorum*, California Code of Regulations (CCR) Section 3060.2 (b)(2).
2. Such stock (the lot) is subject to disposal in a manner satisfactory to the county agricultural commissioner.
3. Stock may be sold under a written agreement between the buyer and seller in accordance with CCR Section 3060.4 (a)(1)(D).

Mixed Retail/Production Nurseries in All Counties

Nurseries that have a retail and production/wholesale component:

1. The appropriate actions must be applied to any portion of the nursery where *P. ramorum*-positive plants are grown or stored.
2. Inspectors should use their judgment in delineating the retail sales area from the production/wholesale area when implementing the appropriate actions.

For questions regarding this advisory, please contact Amber Morris at (916) 654-0312 or by e-mail at amorris@cdfa.ca.gov.

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008-June 30, 2009
FY 2008/2009

Appendix C

Trace Forward Protocol

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Trace Forward Protocol
For
Nurseries that Received Plant Material Shipped from a Confirmed *Phytophthora ramorum* infested nursery

6 June 2008
Version 2.1

Purpose

The purpose of this protocol is to establish a set of procedures that are to be used to determine if a nursery that received plants from a *Phytophthora ramorum* confirmed positive nursery has infected plants in their inventory, and thus has become infested themselves. *P. ramorum* is the plant pathogen that causes sudden oak death, ramorum blight, and ramorum die-back. By following the procedures in this protocol, we can ensure a consistent, science and risk based response to detections of *P. ramorum* in commercial nursery stock. For more information on this pathogen please visit the USDA, APHIS, PPQ web site at: http://www.aphis.usda.gov/plant_health/plant_pest_info/pram

Definitions

Associated plants: Associated plants are those reported found naturally infected and from which *P. ramorum* has been cultured and/or detected using PCR (Polymerase Chain Reaction). For each of these, traditional Koch's postulates have not yet been completed or documented and reviewed. See Appendix A

Block: Within a nursery, this is a contiguous block of HAP. The block will be considered contiguous until there is a 2 meter break of either no plants or no HAP.

Confirmed Positive: The test result on a presumptive positive that *P. ramorum* is present based on DNA testing or culture morphology. This confirmation would be conducted by APHIS in the case of PASS samples or by the provisionally approved lab or diagnosticians with identification authority in the case of non-PASS samples.

Cull Pile: An area where discarded plant material is deposited. This area may also be known as a waste pile.

Destruction block: Block of plants to be destroyed. For precise definitions of destruction block see the Confirmed Nursery Protocol for

	Wholesale and Production nurseries, and the Confirmed Nursery Protocol for Retail Nurseries.
Destruction radius:	Block of plants to be destroyed. Within a nursery, for purposes of the **retail protocol**, the destruction radius is defined as all *P. ramorum* infected HAP and all other HAP within 2 meters of any infected HAP.
HAP:	Host and associated host plants listed on the official APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum.*
High Priority Target Plants:	These are any HAP which originated in the destruction block at the infested (source) nursery. These plants are to be identified using the best available information and to the lowest available taxonomy, (for example, if high priority target plants can be identified to cultivar, then trace forward activities may be conducted at the cultivar level). Identify all domestic and international HAP shipments within the 12 months prior to the first positive detection of *P. ramorum* for only the infected plant species and for the five high risk host genera (*Rhododendron*, *Camellia*, *Viburnum*, *Pieris* and *Kalmia*)
Host plants:	Naturally infected plants verified with completion, documentation, review and acceptance of traditional Koch's postulates and listed in the "APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*". (Also see: "Associated Plants")
Infected plants:	Plants officially confirmed as being infected with *P. ramorum*, based on the use of APHIS approved diagnostics.
Medium Priority Target Plants:	Any HAP located in an infested nursery which did not originate in the destruction block.
Nursery/Facility:	Any location where nursery stock is grown, propagated, stored, or sold; or any location from which nursery stock is distributed. Locations that grow trees to be sold without roots (i.e. Christmas trees) and locations where such trees are stored or distributed are considered to be nurseries.
Quarantine Block:	Area identified as a 10 meter radius from the destruction block (see Appendix B) designed to determine if *P. ramorum* has spread beyond the destruction block.

Quarantine radius: Block of plants to be quarantined. Within a nursery for purposes of the **retail protocol** this is an area identified as a 2 meter radius beyond the destruction radius (see Appendix C) designed to determine if *P. ramorum* has spread beyond the destruction radius.

PASS (Potentially Actionable Suspect Sample): A presumptive positive *P. ramorum* sample diagnosed or identified by a provisionally approved laboratory or diagnostician with identification authority that would require confirmatory testing by an official APHIS Laboratory due to the nature of the plant sampled and the necessity for Federal confirmation. (For more information see: "PASS System Policy" at: http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

Retail nursery: A nursery whose business is the sale of plants to the end user, typically a home owner.

Suspected infected plants: These are plants with visible symptoms of *P. ramorum* infection; and/or HAP that are a part of an infested block or derived from an infested block or quarantine block; and/or plants that have tested positive using PCR or culturing, but have not been confirmed positive for *P. ramorum* by APHIS.

Trace Back (TB) Plants: All plants of the same taxon (such as genus, species, hybrid, variety, or cultivar) regardless of size, location or lot, back to the original propagation source if still existing.

Trace Back (TB) Site: Any location that shipped potentially infected plants to a confirmed infested nursery, residence or commercial landscape.

Trace Forward (TF) Plants: Plants identified on a trace forward list as being potentially infected with *P. ramorum*.

Trace Forward (TF) Site: Any location that received potentially infected plants from a confirmed infested source nursery; including residential or commercial landscapes.

Before inspection

1. Plan an inspection without delay. However, an inspection must be conducted when favorable climatic conditions, pathogen infectivity, and host susceptibility share an optimum time for disease development and symptoms are likely to be expressed. If conditions are not suitable for disease development when the initial inspection is

conducted, an additional inspection must be conducted when favorable climatic conditions are present.

2. For Federal inspectors, notify state officials of your plans to inspect.

3. Coordinate visit with State inspector.

4. Federal and State or County inspectors should contact the nursery owners/managers prior to the visit to determine how many plants are still in stock and to arrange for the inspection. This nursery contact would normally occur within 24 hours of the expected arrival time for the TB inspection.

5. If you are unable to visit the nursery within one day of your contact with the nursery owner/manage, send a PPQ form 523, an Emergency Action Notification (EAN) by fax to them and request that they sign and return it to you by fax.

Survey/Inspection Procedure

1. Identify yourself and agency to the nursery/facility owner/manager.

2. Explain to the nursery/facility owner/manager the purpose of your visit.

3. Obtain copies of the shipping documents that relate to the trace forward plants received from a confirmed *P. ramorum* infested nursery. Also obtain copies of those documents associated with trace forward plants that came from the confirmed positive nursery that have been shipped by the trace forward nursery to other nurseries or retail facilities.

4. Determine the presence or absence of any of the trace forward High Priority Target Plants and Medium Priority Target Plants at the trace forward site.
    - If the trace forward nursery received high priority target plants from the infested source nursery during the past 12 months, a trace forward investigation must be conducted, even if there is no longer any high priority target plants present on the trace forward nursery. If records are available, use them to determine if or what other hosts may have come in contact with the trace forward plants, and where in the nursery that contact occurred.
    - If the trace forward nursery received in the previous 12 months only medium priority target plants from the infested source nursery a trace forward investigation must be conducted if the plants are still present on the nursery.
    - If the trace forward nursery received in the previous 12 months only medium priority target plants from the infested source nursery a trace forward investigation may be conducted or the investigation may be deferred and the nursery placed on the target list for the next cycle of nursery surveys for *P. ramorum*, if the plants are no longer present on the nursery.

5. Ask owner/manager to fill out questionnaire (attached, Exhibit D), or complete with their input.

6. Complete an Emergency Action Notification (EAN, PPQ form 523) to place a hold on all the high and medium priority target trace forward plants from the infested (source)

nursery and other HAP, products or articles that present a risk of spreading *P. ramorum*. The *P. ramorum* host list is available at the APHIS *P. ramorum* Web site: http://www.aphis.usda.gov/plant_health/plant_pest_info/pram

Use this language in Section 16 of the PPQ 523 – Action Required:

- All plants of the following listed species received from [INSERT Name of Nursery] during the period from [INSERT dates, one year prior to current date. Example: March 1, 2007 to February 28, 2008] are prohibited from movement pending further notification by USDA, APHIS, PPQ. Access to these plants is limited to appropriate Regulatory Officials. These plants are not to be sampled, sold, or moved within the nursery, unless under the supervision of a Regulatory Official. In addition: [Select option a. or b. below]

  a. If this nursery is a production/wholesale nursery then add the following language to Section 16 of the EAN. The following shall also be prohibited from movement pending further notification by USDA, APHIS, PPQ:
    1. all high priority target host plants
    2. all other HAP located in the high priority target block
    3. all medium priority target plants

  OR

  b. If this nursery is a retail nursery then add the following language to Section 16 of the EAN. The following shall also be prohibited from movement pending further notification by USDA, APHIS, PPQ
    1. all high priority target and medium priority target plants in the nursery.
    2. all other HAP within 2 meters of the high priority target plants.

7. **Plants to be held**
   - For production/wholesale nurseries:
     a. Place a hold on all high priority target plants and all other HAP in the block where the high priority target plants have been located at the trace forward nursery.
     b. All medium priority target plants are to be held.
     c. All other HAP in the trace forward nursery is not required to be held under this protocol because risk of spread in non-TF blocks is low. Inspectors may place other plants and other HAP, products or articles that present a risk of spreading *P. ramorum* on hold at any time per Federal and State authorities.

   - For retail nurseries (because plant propagation does not occur on site risk is lower):
     a. Place a hold on all high priority target plants and all other HAP within a 2 meter radius of the high priority target plants located at the trace forward nursery.
     b. All Medium priority target plants are to be held.

c. All other HAP in the trace forward nursery that are not within a 2 meter radius of high priority target plants are **not** required to be held under this protocol, however inspectors may place HAP, plant products or articles that present a risk of spreading *P. ramorum* on hold at any time per Federal and State authorities (e.g. If plants from the TF nursery have been moved within the retail nursery or commingled with other HAP in that nursery, the additional HAP must also be held.)

d. Once inspection and sampling are complete, the held plants may be consolidated and segregated. If the plants are not consolidated and segregated, then the affected portion of the nursery must be closed to the public. With the approval of the regulatory officer, segregated plants may be moved to a site within the nursery or to a location away from the nursery. Any movement of the segregated plants must be done in a manner that will safeguard and prevent the spread of the disease at the nursery, and be conducted under the direction and oversight of a regulatory official. Segregation must include storage on a hard impermeable surface (e.g. a 45 mil thick pond liner or concrete or asphalt) and may not be within 2 meters of any other plant. The 2 meter requirement addresses the spread potential of P*hytophthora ramorum* should any TF plants be positive. The impermeable surface should ideally be situated to drain away from HAP.

8. **Determining number of plants to be inspected**

- Determine, if possible, all TF HAP genera at the receiving nursery and visually inspect all TF HAP genera at the receiving nursery. If TF HAP plants can not be determined, visually inspect at least 850 HAP plants of the same genera shipped from the TF nursery.

9. Visually inspect the appropriate number of HAP for unhealthy tissue. To visually inspect a plant, carefully lift the plant from surrounding plants and examine all plant leaves and stems for unhealthy tissue particularly for but not limited to the presence of water-soaked or necrotic lesions consistent with *P. ramorum* infection. Take care to examine the leaves on the interior as they may exist in a microclimate more conducive to disease development and may be more likely to have disease symptoms. Be sure to mark plant as visually inspected either with flagging with the appropriate sample number or a stake with the appropriate sample number. Also examine the leaves that have fallen off the plant for disease symptoms. A physical sample of the inspected plant is only to be taken if unhealthy plant tissue is present. **Do not sample asymptomatic plants**, but feel free to sample any and all plants exhibiting unusual or atypical plant tissue. Images of *P. ramorum* symptoms are available at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram. Keep in mind that these images should only be used as a reference, and should not be considered all inclusive for each species. Links to other sites such as http://www.cnr.berkeley.edu/comtf/, which provide nursery guides that describe and illustrate *P. ramorum* infections are also available at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram. These

nursery guides may be viewed and printed from these sites. Symptoms of *P. ramorum* may include:

- Leaf spots
- Twig dieback
- Stem cankers

Keep in mind that many other pathogens cause similar symptoms. Remember that other symptoms caused by *Phytophthora ramorum* as yet unseen may be detected, so sample any unusual or atypical plant symptoms.

10. ***SAMPLE PLANT TISSUE from any and all visually inspected plants that appear unhealthy.*** Each sample should consist of a minimum of five leaves; for vaccinium and other small leaf hosts collect the terminal last 3 inches of branch tips, if present, from each unhealthy plant. If, however, only one leaf is symptomatic include only the one leaf with lesions. Please examine any other leaves on the plant for the presence of lesions, because chances are much smaller lesions may be present on other leaves of the same plant. Take care to examine the leaves on the interior as they may exist in a microclimate more conducive to disease development and may be more likely to have disease symptoms, not forgetting the leaves that have fallen off. If certain areas of the nursery are more prone to disease development (such as low areas where water might puddle or places where mist or fog persists) these areas should be included in the sampling process.

For all samples:

- Fill out PPQ Form 391 (Name of host, variety, state code, facility code, etc.).
- Assign a unique sample number using the following conventions:
  XX-ABC-0001
  where XX is your two-letter state code, ABC is a three-letter, state-assigned facility code, and 0001 is the sample number for that facility.
- Log each sample according to the unique sample number.
- Double bag samples (e.g., symptomatic leaf tissue with associated twig intact) in plastic bags.
- Label with collection date, time, location, responsible party. Be sure to write sample number on the bag containing the sample.
- Be sure to mark sampled plants either with flagging with the appropriate sample number or a stake with the appropriate sample number.
- Refrigerate, but do not freeze specimen.
- Submit with minimal delay to your designated laboratory for analysis. All tissue samples must be analyzed by APHIS-approved or APHIS provisionally-approved Laboratory using the appropriate diagnostic protocols.
- Overnight the sample if necessary – do not send samples on Friday or the day before lab holidays – check with the lab – as they may not be received until the following Monday. Samples held in a shipper's warehouse without refrigeration may deteriorate and not be testable. Identify the sample(s) as Trace Forward (TF) Sample to distinguish the sample(s) from National Survey samples.

11. Ask owner/manager to identify cull or waste/refuse piles and compost piles. Check any piles for *P. ramorum* symptomatic plants and plant material and sample as above, if observed.

- Include appropriate sampling and testing of soil and water. Soil should be tested underneath piles. Water should be baited and sampled from downward slopes, as well as any collected or drained reservoirs from the site.

12. If the survey requires the inspector to move among multiple greenhouses, shade houses or discrete blocks, disinfect tools, hands and shoes (or wear disposable gloves and tyvek booties) to prevent pathogen spread between areas. If using disposable gloves and booties, be sure to dispose of these after each individual greenhouse/shade house/block inspection. Disposable rubber gloves and tyvek booties can also be disinfected using 10% bleach solution or a quaternary ammonium solution (at the labeled rate) between inspecting each area. See Exhibit E for details on disinfectants and fumigants for use in nurseries. (Washtubs with ~ 1/2 inch of disinfectant to step in for booties and 3 inches in buckets to dip gloved hands should be sufficient.) Be sure to properly disinfect booties and gloves between all nursery blocks. Disposable gloves and booties should be bagged and disposed by burial or incineration, or in a landfill upon completion of inspections.

13. Sanitize/disinfest tools and shoes before leaving premises, using an appropriate disinfectant for the control of *Phytophthora spp.* (such as a 10% solution of bleach or quaternary ammonium solution at labeled rates). See Exhibit E for details on disinfectants and fumigants for use in nurseries.

14. Advise the owner/manager –

- The plants will remain on hold until further notification from USDA, APHIS. OR
- For Production/Wholesale Nurseries:
  - **a.** Once plant samples are taken, the owner/manager may choose to voluntarily destroy all HAP in the nursery once sampling is completed. After the plants have been destroyed, the establishment can continue to do business without any regulatory restrictions. Destruction and disinfestation will be performed as per the APHIS, PPQ Confirmed Nursery Protocol. Destruction and disinfestation to be conducted under the supervision of a Federal or other appropriate regulatory official. If plant samples are found positive for *P. ramorum* whether the plants are remaining on the site or have been destroyed, the APHIS, PPQ Confirmed Nursery Protocol for Wholesale and Production Nurseries will be applied.
  - **b.** Where many samples have been taken, plants may be released on a block by block basis if *P. ramorum* has not been detected in the block after all test results for that block are available.
- For retail nurseries:
  - **a.** Once sampling is completed the owner/manager may choose to voluntary destroy the HAP received from the TF nursery and all other plants within 2 meters of the trace forward plants. After the

plants have been destroyed, the establishment can continue to do business without any regulatory restrictions. Destruction and disinfestation will be performed as per the PPQ Retail Confirmed Nursery Protocol. Destruction and disinfestation to be conducted under the supervision of a Federal or other appropriate regulatory official. If plant samples are found positive for *P. ramorum* whether the plants are remaining on the site or have been destroyed, the APHIS, PPQ Confirmed Nursery Protocol for retail nurseries will be applied

b. The high priority target plants and plants in the 2 meter quarantine radius may be treated as a quarantine block and plants may be released on a block by block basis if *P. ramorum* has not been detected in the block after all test results for that block are available.

- **If any plant samples are found positive for *P. ramorum* whether the plants are remaining on the site or have been destroyed, the APHIS, PPQ Confirmed Nursery Protocol for production/wholesale nurseries or the Confirmed Nursery Protocol for retail nurseries will be applied, whichever is applicable.**
- **If any samples associated with the cull piles are found positive for *P. ramorum*, the APHIS, PPQ Confirmed Nursery Protocol for production/wholesale nurseries or the Confirmed Nursery Protocol for retail nurseries will be applied whichever is applicable.**

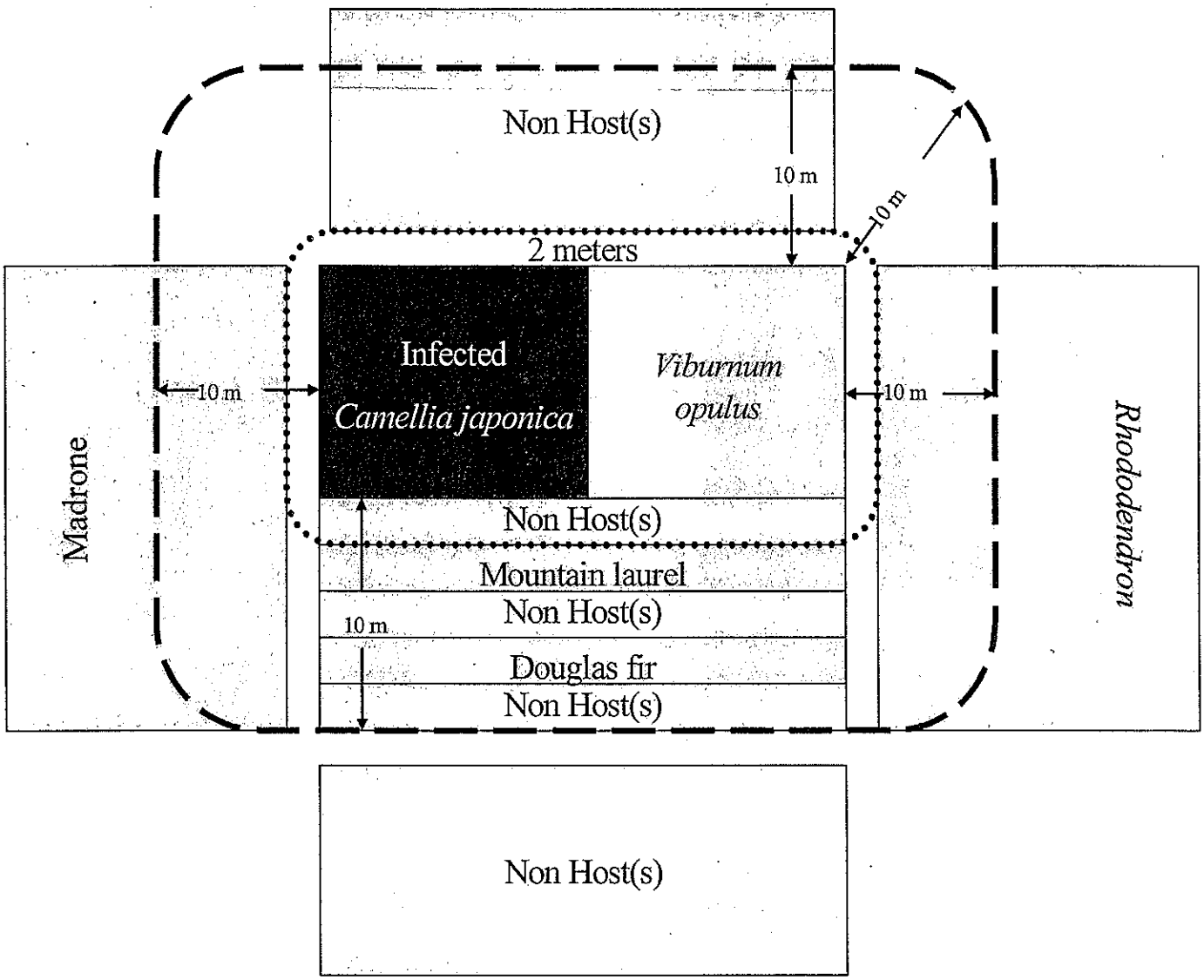
Appendix A

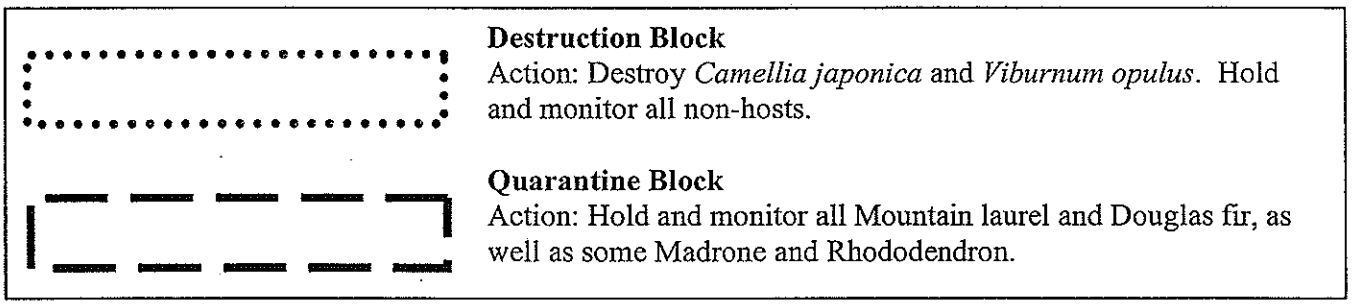
APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*

A current list may be found at the USDA APHIS PPQ website at
http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/

Appendix B

Schematic of Nursery with Infected Host Plant(s)

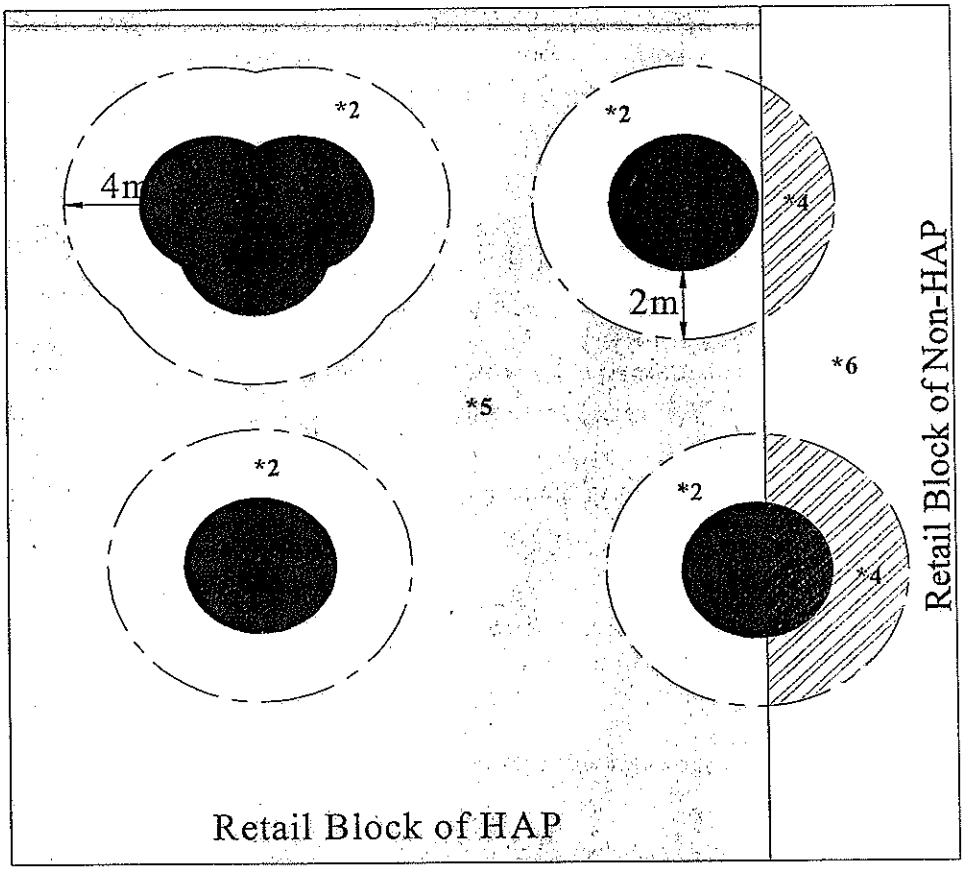




Appendix C

Schematic of Retail Nursery with Infected Host Plant(s)

July 9, 2007



Red (* 1)	Destruction block	Destroy infected plant and all HAP
Yellow (*2)	Quarantine block	Hold HAP from sale for 90 days
Hatch Over Red (*3)		Release non-HAP from sale
Hatch Over Yellow (*4)		Release non-HAP for sale
Green (*5)		Release HAP for sale
Blue Hatch (*6)		Release non-HAP for sale

Appendix D

***Phytophthora ramorum* Questionnaire (Property Owner or Manager): Part 1**

Name of Nursery or Garden Store: _____.

Name of Owner or Manager: _____

Address of Site: _____

City: _____, State: _____, Zip Code: _____

Contact Name: _____, Title: _____

Phone Number: _____, Fax Number: _____

GIS Coordinates (if available): _____

Type of Facility (circle): Nursery Greenhouse Wholesale Retailer
Other _____

1. Are you the owner or manager of the property or facility? If not please provide owner contact information._____

2. Did you purchase the plant(s) in question? (If "no", seek information on individual who planted material in question)_____

3. How long ago did you purchase the plant(s)? _____

4. Did you purchase any other plants from this same nursery? _____

5. Have you noticed any other problems with plants on your property? _____

6. Have you moved any plants, received from the infested nursery, from your primary retail location to a different location? _____

   a) What types and varieties were they? _____

   _____

   b) How long ago was that? _____

   c) What is the address of that location?

   _____

7. Did you move any plants here from a different location? _____

   a) What types and varieties were they?

   _____

   b) How long ago was that? _____

   c) What is the address of that location?

   _____

8. Do you have a landscape company that purchases plants from you?_____

9. What is the contact information for the landscape company? _____

   _____

10. What is your source of water? _____

***Phytophthora ramorum* Questionnaire (Property Owner or Manager): Part 2**

Information on suspect plant material for inspector visiting property:

1. What is the variety and number of plants? _____

2. What is the condition of the plant material? _____

3. Have the plants been trimmed or pruned? _____

4. How are the trimmings disposed of? _____

5. Did the plant material come in pots? _____.

   a) Did you dispose of the pots or re-use them? _____

6. If the pots were reused or stored, describe how the pots were handled?

_____

Appendix E

Treatment and Disinfection

The following techniques are approved by USDA APHIS PPQ for control of *P. ramorum* in nurseries found to contain plants infected with *P. ramorum*.

Infected Plants:

Note: HAP material, including leaf litter, must not be placed in compost piles or be removed from the nursery site as trash or in debris removal. HAP material should be collected and incinerated or double bagged and deep buried in a site approved by USDA, APHIS or delegated regulatory authority.

- **Incineration (burning to ash):** Infected plants, associated growth media, associated containers (i.e. pots and trays), all leaf debris in and around the area where plants were stored may be disposed of by incineration at a facility or other location (e.g. on site) approved by USDA and permitted within state and municipal statutes or regulations. Off nursery movement must be properly safeguarded and every effort to prevent plant debris or soil from being dislodged from the plants prior to incineration should be taken. Burning may be through open burning or in an incinerator.

- **Deep burial:** Infected plants, associated growth media, associated containers (i.e. pots and trays), all leaf debris in and around the area where plants were stored must be double bagged using plastic bags of 2 mil thickness or greater and buried to a depth of no less than two meters. The material must be buried at a USDA approved site, onsite, or municipal landfill, which is expected to remain undisturbed. Every effort to prevent plant debris or soil from being dislodged from the plants should be taken.

- **Steam sterilization:** Dry heat or steam commonly heated to internal temperatures of 212° F (100° C) for 30 minutes followed by burial in a landfill, or as otherwise detailed in the USDA Treatment Manual for "insect pests and pathogens in garbage", Schedule T415b (http://www.aphis.usda.gov/ppq/manuals/pdf_files/Treatment%20Chapters/05-05-T400-5.pdf).

Non-Porous Surfaces:

Most disinfectants are not labeled for use in soil and are only useful for nonporous materials such as concrete floors, nursery pots, and plastic sheeting. A number of disinfectants are registered for use on nonporous surfaces that may effectively reduce populations of *Phytophthora* species. If it is practical, tools such as knives, pruners, water breakers, water wands and other implements used in the quarantine area should only be used in the quarantine area. If tools and other implements must be moved from the quarantine area, then regular disinfection using an appropriate disinfectant for the control of *P. ramorum* is recommended prior to removal from the quarantine block. The following table modified from http://cpmcnet.columbia.edu/dept/ehs/decon.html examines the effects of different classes of disinfectants on microbial populations. This list is for explanation and information

only. Few disinfectants are specifically labeled for *Phytophthora* species and are shown in **Bold**.

All labels for the disinfectants listed below must be strictly adhered to for maximum efficacy and environmental and worker safety.

Summary of Disinfectant Activities

Disinfectant	Trade names	Comments	Contact time
Alcohols (ethyl and isopropyl) 60-85%	Lysol Spray	Evaporates quickly so that adequate contact time may not be achieved, high concentrations of organic matter diminish effectiveness; flammable.	10-15 minutes
Phenolics (0.4%-5%)	**Pheno-cen**	Phenol penetrates latex gloves; eye/skin irritant; remains active upon contact with organic soil; may leave residue.	10-15 minutes
Quaternary Ammonium (0.5-1.5%)	**Consan Triple Action 20** **Physan 20** Green-Shield 20	Effective for non-porous surface sanitation (floors, walls, benches, pots). Low odor, irritation. Use according to labels.	10-15 minutes
Chlorine (100-1,000 ppm)	**10% Clorox** **10% Bleach**	Inactivated by organic matter; fresh solutions of hypochlorite (Clorox) should be prepared every 8 hours or more frequently if exposed to sunlight; corrosive; irritating to eyes and skin. **Exposure to sunlight further reduces hypochlorite efficacy. Keep solution in opaque container.**	10-15 minutes

Water:

- **For dust abatement, fire suppression, and equipment cleaning**: Clorox (sodium hypochlorite) is labeled (EPA Reg. No 5813-50) for treatment of water (~50 ppm available chlorine) for controlling the spread of *Phytophthora lateralis* via water used for dust abatement, fire suppression and equipment cleaning. The active ingredient level must be measured from water collected at the sprinkler head.

- **For irrigation:** Chlorine levels of 2ppm or 2mg/liter or greater has been correlated with the control of *Phytophthora* spp. in re-circulated irrigation systems. For irrigation purposes, re-circulated, non-municipal water, must be chlorinated at an active chlorine concentration

equal to or greater than 2 mg/liter of water; for facilities that recycle water, this chlorine level must be monitored.

Soil and Potting Media:

- **Potting media:** Potting media must be heated such that the temperature in the center of the load reaches at least 180 degrees F for 30 minutes. Treatment must be conducted in the presence of an inspector or treated with an approved fumigant as detailed below.

- **Soil:** Soil must be heated such that the temperature in the center of the load reaches at least 180 degrees F for 30 minutes. Treatment must be conducted in the presence of an inspector or treated with an approved fumigant as detailed below. Methyl bromide has been used for fumigating wood products, but the data on fungi and related organisms in wood are limited. However, methyl bromide has a long history of fumigation of soil in the field and greenhouse. It has commonly been used in combination with chloropicrin for control of *Phytophthora* spp. and other pests in strawberry beds. Methyl bromide has been used for soil treatment for the mitigation of *P. cinnamoni* in citrus groves. However, many of the compounds currently in use have been implicated in human and environmental risks. Solarization is not a consideration as a viable option for soil treatment for *P. ramorum* due to insufficient data on treatment efficacy.

All fumigants are restricted use and must be applied according to labels by a licensed applicator. Any use of pesticides in any manner not listed on the label is unlawful.

Summary of Labeled Soil Fumigants

Fumigant	Trade names	Comments
Chloropicrin	Chlor-O-Pic Metapicrin Timberfume Tri-Clor	Often used in combination with methyl bromide due to its ability to be detected in small quantities.
Dazomet	Basamid	Methyl isothyocyanate (MITC) breaks down into cyanide gas. Granular formulation that is water activated.
Metam-sodium	Busan 1020 Busan 1180 Busan 1236 Metam Vapam	Metam can be applied through irrigation. Tarping can increase efficacy. All application must be made in accordance with labeling.
Methyl Bromide	Tri-Con Terr-O-Gas Preplant Soil Fumigant Pic-Brom	Colorless and odorless. Usually combined in various concentrations with Chloropicrin (tear gas). Use is restricted due to ozone depletion potential.

Physical Treatment of Soil:

- Mitigation of infested soil can also be achieved by installing permanent impermeable, non-porous barriers that consist of cement, concrete or asphalt. These barriers must be constructed so that no native soil within the destruction block is visible. The barriers should be graded such that no standing water can be observed.

Equipment and Personnel (Inspectors and employees):

- **Access to infested areas and hold areas should be limited, as much as possible, to officials and employees. Everyone entering and leaving the nursery site must scrape off loose pieces of soil into the destruction block. Those working with, or in contact with suspected infested material (including plants), must wash hands using soap or approved disinfectant immediately after completion of task. There are no products currently labeled for use on porous materials for *Phytophthora* control.**

- Personnel should not have access to other parts of the nursery after entering the destruction block on the same day. If entry is unavoidable, follow disinfection procedures in this section.

- A disinfectant foot bath should be placed near the exit to the destruction blocks and quarantine blocks and used by personnel entering and exiting the buffer zone and entering and exiting the quarantine block and entering and exiting the destruction block at the infested nursery site, where the contact with potentially infested soil or plant debris on footwear is likely. The foot bath must be filled with fresh disinfectant at least on a daily basis or more frequently if contaminated with filth, in accordance with label directions. Use of disposable shoe covers may be used in lieu of a footbath, if disposed of immediately upon exiting from the quarantine or destruction block. The disposable shoe covers must be placed in bags and incinerated, deep-buried or properly disposed in a sanitary landfill.

- The tires (or other parts in contact with the soil or plants, such as the bed of trucks) of vehicles must be cleaned of loose soil and plant debris and disinfested with the appropriate labeled products before leaving the infested site. If at all possible, vehicles should not be allowed in the destruction blocks at all. Any efficacious product labeled for use on non-porous surfaces may be used on tires or vehicle undercarriages.

- Do not visit other nursery sites in potentially contaminated work clothing and footwear. Where it is necessary that visitors enter the nursery, the nursery should ensure that every precaution is taken to prevent the movement of infected plants, contaminated soil or debris by the visitor.

Wood surfaces suspected of contamination with *P. ramorum* should be disposed of as stated above under "Infected Plants". There is no effective way to test or treat wood surfaces for contamination.

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008 - June 30, 2009
FY 2008/2009

Appendix D

Federal Domestic Quarantine 7 CFR 301.92

301.92 *Phytophthora ramorum*

Federal Domestic Quarantine

Sec. 301.92 Restrictions on interstate movement

(a) No person may move interstate from any quarantined area any regulated, restricted, or associated article or any other nursery stock except in accordance with this subpart.

(b) No person may move interstate from any nursery in any regulated area any nursery stock except in accordance with this subpart.

(c) No person may move interstate from any quarantined or regulated area any regulated restricted, or associated article or nursery stock that has been tested with a test approved by APHIS and found infected with *Phytophthora ramorum*, or that is part of a plant that was found infected with *Phytophthora ramorum*, unless such movement is in accordance with part 330 of this chapter.

Sec. 301.92-1 Definitions

Administrator. The Administrator, Animal and Plant Health Inspection Service, or any person authorized to act for the Administrator.

Animal and Plant Health Inspection Service. The Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture.

Associated article. Any article listed in 301.92-2(C) of this subpart.

Bark chips. Bark fragments broken or shredded from a log or tree.

Certificate. A document, stamp, or imprint by which an inspector or person operating under a compliance agreement affirms that a specified regulated or associated article meets applicable requirements of this subpart and may be moved interstate to any destination.

Compliance agreement. A written agreement between APHIS and a person engaged in growing, processing, handling, or moving regulated or associated articles, wherein the person agrees to comply with this subpart.

Duff. Decaying plant matter that includes leaf litter, green waste, stem material, bark, and any other plant material that, upon visual inspection, does not appear to have completely decomposed.

Firewood. Wood that has been cut, sawn, or chopped into a shape and size commonly used for fuel, or other wood intended for fuel.

Forest stock. All flowers, trees, shrubs, vines, scions, buds, or other plants that are wild-grown, backyard-grown, or naturally occurring.

From. An article is considered to be "from" a specific site or location for the purposes of this subpart if it was grown or propagated in, stored or sold, or distributed from the site or location.

Growing media. Any material in which plant roots are growing or intended for that purpose.

Inspector. Any employee of APHIS, the U.S. Department of Agriculture, or other person authorized by the Administrator to perform the duties required under this subpart.

Interstate. From any State into or through any other State.

Log. The bole of a tree; trimmed timber that has not been sawn further than to form cants.

Lot. A contiguous block of plants of the same species or cultivar, of the same container size and from the same source, if known.

Lumber. Logs that have been sawn into boards, planks, or structural members such as beams.

Moved (move, movement). Shipped, offered for shipment, received for transportation, transported, carried, or allowed to be moved, shipped, transported, or carried.

Mulch. Bark chips, wood chips, wood shavings, or sawdust, or a mixture thereof, that could be used as a protective or decorative ground cover or as part of a growing media mixture.

Non-host nursery stock. Any taxa of nursery stock not listed in 301.92-2 as a regulated or associated article.

Nursery. Any location where nursery stock is grown, propagated, stored, or sold, or any location from which nursery stock is distributed. Locations that grow trees for sale without roots (e.g., as Christmas trees) are considered to be nurseries for the purposes of this subpart.

Nursery stock. All plants for planting, including houseplants, propagative material that is grown in a nursery, and tree seedlings for reforestation, except the following: Seeds; turf or sod; bulbs, tubers, corms, or rhizomes; greenhouse grown cactus, succulents, and orchids; aquarium grown aquatic plants; greenhouse, container, or field grown palms; greenhouse, container, or field grown cycads, and tissue culture plants grown in vitro; and plants meeting the definition of forest stock.

Permit. A written authorization issued by APHIS to allow the interstate movement of restricted articles in accordance with part 330 of this chapter.

Person. Any association, company, corporation, firm, individual, joint stock company, partnership, society, or other entity.

Plant Protection and Quarantine. The Plant Protection and Quarantine program of the Animal and Plant Health Inspection Service, United States Department of Agriculture.

Quarantined area. Any State, or any portion of a State, listed in 301.92-3(A)(3) of this subpart or otherwise designated as a quarantined area in accordance with 301.92-3(A)(2) of this subpart.

Regulated area. Any area listed in 301.92-3(B) of this subpart.

Regulated article. Any article listed in 301.92-2(B) of this subpart.

Restricted article. Any article listed in 301.92-2(A) of this subpart.

Soil. The loose surface material of the earth in which plants grow, in most cases consisting of disintegrated rock with an admixture of organic material.

State. The District of Columbia, Puerto Rico, the Northern Mariana Islands, or any State, territory, or possession of the United States.

Sec. 301.92-2 Restricted, regulated, and associated articles; lists of proven hosts and associated plant taxa.

(A) Restricted articles. The following are restricted articles:

1. Bark chips or mulch located in a quarantined area that are proven host plant taxa listed without asterisks in 301.92-2 (D)
2. Forest stock located or grown in a quarantined area and that are proven host plant taxa or associated plant taxa listed in paragraph (D) or (E) of this section.
3. Any other product or article that an inspector determines to present a risk of spreading *Phytophthora ramorum*, if an inspector notifies the person in possession of the product or article that it is a restricted article.

(B) Regulated articles. The following are regulated articles:

1. Nursery stock, decorative trees without roots, unprocessed wood and wood products, and plant products, including firewood, logs, lumber **(firewood, logs and lumber of species listed in paragraph (d) of this section and that are marked with an asterisk* are not regulated articles)**, wreaths, garlands, and greenery of proven host plant taxa listed in paragraph (D) of this section.
2. Soil and growing media.
3. Any other product or article that an inspector determines to present a risk of spreading *Phytophthora ramorum* if an inspector notifies the person in possession of the product or article that it is subject to the restrictions in the regulations.

(C) Associated articles. The following are associated articles:

1. Nursery stock of associated plant taxa listed in paragraph (E) of this section.

(D) Proven host plant taxa. The following are proven hosts of *Phytophthora ramorum*:

* *Acer macrophyllum*- Bigleaf maple

Acer pseudoplatanus- Planetree maple

* *Adiantum aleuticum*- Western maidenhair fern

* *Adiantum jordanii*- California maidenhair fern

* *Aesculus californica*- California buckeye

Aesculus hippocastanum- Horse chestnut

* *Arbutus menziesii*- Madrone

* *Arctostaphylos manzanita*- Manzanita

* *Calluna vulgaris*- Scotch heather

* *Camellia* spp.- Camellia (all species, hybrids, cultivars)

* *Castanea sativa*- Sweet chestnut

Fagus sylvatica- European beech

* *Frangula californica* (=*Rhamnus californica*)- California coffeeberry

* *Frangula purshiana* (=*Rhamnus purshiana*)- Cascara

Fraxinus excelsior- European ash

* *Griselinia littoralis*- Griselinia

* *Hamamelis virginiana*- Witch hazel

* *Heteromeles arbutifolia*- Toyon

* *Kalmia* spp.- Kalmia (all species, hybrids, cultivars)

**Laurus nobilis*- Bay laurel

Lithocarpus densiflorus- Tanoak

**Lonicera hispidula*- California honeysuckle

**Magnolia doltsopa (=Michelia doltsopa)* (Michelia)

* *Maianthemum racemosum* (=*Smilacina racemosa*)- False Solomon's seal

* *Parrotia persica*- Persian ironwood

* *Photinia fraseri*- Red tip photinia

* *Pieris* spp.- Pieris (all species, hybrids, and cultivars)

* *Pseudotsuga menziesii* var. *menziesii* and all nursery-grown *P. menziesii*- Douglas fir

Quercus agrifolia- Coast live oak

Quercus cerris- European turkey oak

Quercus chrysolepis- Canyon live oak

Quercus falcata- Southern red oak

* *Quercus ilex*- Holm oak

Quercus kelloggii- California black oak

Quercus parvula var. *shrevei* and all nursery grown *Q. parvula*- Shreve's oak

* *Rhododendron* spp.- Rhododendron (including azalea) – includes all species, hybrids and cultivars

* *Rosa gymnocarpa*- Wood rose

* *Salix caprea*- Goat willow

* *Sequoia sempervirens*- Coast redwood

* *Syringa vulgaris*- Lilac

* *Taxus baccata*- European yew

* *Trientalis latifolia*- Western starflower

* *Umbellularia californica*- California bay laurel, pepperwood, Oregon myrtle

* *Vaccinium ovatum*- Evergreen huckleberry

* *Viburnum* spp-. Viburnum (all species, hybrids, and cultivars)

(E) Associated plant taxa. The following plant taxa are considered to associated with *Phytophthora ramorum*

Abies concolor- White fir

Abies grandis- Grand fir

Abies magnifica- Red fir

Acer circinatum- Vine maple

Acer davidii- Striped bark maple

Acer laevigatum- Evergreen maple

Arbutus unedo- Strawberry tree

Arctostaphylos columbiana- Manzanita

Arctostaphylos uva-ursi- Kinnikinnick, bearberry

Ardisia japónica- Ardisia

Berberis diversifolia (=Mahonia aquifolium) (Oregon grape)

Calycanthus occidentalis- Spicebush

Ceanothus thyrsiflorus- Blueblossom

***Cercis chinense* (Chinese redbud)**

Cinnamomum camphora- Camphor tree

Clintonia andrewsiana- Andrew's clintonia bead lily

Cornus kousa x *Cornus capitata*- Cornus Norman Haddon

Corylopsis spicata- Spike winter hazel

Corylus cornuta- California hazelnut

Drimys winteri- Winter's bark

Dryopteris arguta- California wood fern

Euonymus kiautschovicus- Spreading euonymus

Fraxinus latifolia- Oregon ash

Garrya elliptica- Silk tassel tree

Gaultheria shallon- Salal, Oregon wintergreen

Hamamelis mollis- Chinese witch-hazel

Hamamelis x *intermedia* (*H. mollis* & *H. japonica*)- Hybrid witchhazel

Ilex purpurea- Oriental holly

Leucothoe axillaris- Fetter-bush, dog hobble

Leucothoe fontanesiana- Drooping leucothoe

Loropetalum chinense- Lorapetalum

Magnolia denudata x salicifolia (magnolia)

Magnolia ernestii (=Michelia wilsonii) (Michelia)

***Magnolia figo (=Michelia figo)* (banana shrub)**

Magnolia grandiflora- Southern magnolia

Magnolia kobus (kobus magnolia)

Magnolia liliiflora (=M. quinquepeta) (purple magnolia)

Magnolia maudiae (=Michelia maudiae) (Michelia)

Magnolia salicifolia (=M. proctoriana) (anise magnolia)

Magnolia stellata- Star magnolia

Magnolia x *loebneri*- Loebner magnolia

Magnolia x *soulangeana*- Saucer magnolia

Magnolia x thompsoniana (M. tripetala and M. virginiana) (magnolia)

Manglietia insignis- Red lotus tree

Nerium oleander- Oleander

Nothofagus obliqua- Roble beech

Osmanthus decorus (*Phillyrea decora*; *P. vilmoriniana*)- Osmanthus

Osmanthus delavayi- Delavay Osmanthus, Delavay tea olive

Osmanthus fragrans- Sweet olive

Osmanthus heterophyllus- Holly olive

Osmorhiza berteroi- Sweet Cicely

Parakmeria lotungensis- Eastern joy lotus tree

Physocarpus opulifolius- Ninebark

Prunus laurocerasus- English laurel, cherry laurel

Prunus lusitanica- Portuguese laurel cherry

Pyracantha koidzumii- Formosa firethorn

Quercus acuta- Japanese evergreen oak

Quercus petraea- Sessile oak

Quercus rubra- Northern red oak

Rosa (specific cultivars)-

Royal Bonica (tagged: "MElmodac")

Pink Meidiland (tagged: "MElpoque")

Pink Sevillana (tagged: "MElgeroka")

Rosa rugosa- Rugosa rose

Rubus spectabilis- Salmonberry

Schima wallichii- Chinese guger tree

Taxus brevifolia- Pacific yew

Taxus x *media*- Yew

Torreya californica- California nutmeg

Toxicodendron diversilobum- Poison oak

Vancouveria planipetala- Redwood ivy

Sec. 301.92-3 Quarantined and regulated areas

(A) **Quarantined areas.** Except as otherwise provided in paragraph (A)(2) of this section, the Administrator will list as a quarantined area in paragraph (A)(3) of this section each State, or each portion of a State, in which *Phytophthora ramorum* has been confirmed by an inspector to be established in the natural environment, in which the Administrator has reason to believe that *Phytophthora ramorum* is present in the natural environment, or that the Administrator considers necessary to quarantine because of its inseparability for quarantine enforcement purposes from localities in which *Phytophthora ramorum* has been found in the natural environment. Less than an entire State will be designated as a quarantined area only if the Administrator determines that:

(i) The State has adopted and is enforcing restrictions on the intrastate movement of the regulated, restricted, and associated articles that are substantially the same as those imposed by this subpart on the interstate movement of regulated, restricted, and associated articles; and

(ii) The designation of less than the entire State as a quarantined area will prevent the interstate spread of *Phytophthora ramorum.*

2. The Administrator or an inspector may temporarily designate any nonquarantined area in a State as a quarantined area in accordance with paragraph (A)(1) of this section. The Administrator will give a copy of this regulation along with a written notice for the temporary designation to the owner or person in possession of the nonquarantined area. Thereafter, the interstate movement of any regulated, restricted, or associated article from an area temporarily designated as a quarantined area will be subject to this subpart. As soon as practicable, this area will be added to the list in paragraph (A)(3) of this section or the designation will be terminated by the Administrator or an inspector. The owner or person in possession of an area for which designation is terminated will be given notice of the termination as soon as practicable.

3. The following areas are designated as quarantined areas:

CALIFORNIA

Alameda County. The entire county.

Contra Costa County. The entire county.

Humboldt County. The entire county.

Lake County. The entire county.

Marin County. The entire county.

Mendocino County. The entire county.

Monterey County. The entire county.

Napa County. The entire county.

San Francisco County. The entire county.

San Mateo County. The entire county.

Santa Clara County. The entire county.

Santa Cruz County. The entire county.

Solano County. The entire county.

Sonoma County. The entire county.

OREGON

Curry County. That portion of the county as follows: In T. 39 S., R. 13 W., secs. 32,33 and 34; T. 40 S., R. 13 W., secs 3, 4, 5, 8, 9, 10, southeast quarter of sec 11, southwest quarter of sec. 12, northwest quarter of sec. 13, northeast quarter of secs. 14, 15, 16, and 17, east half of sec. 18, east half of secs. 19, 20, 21, 22, 28, and 29, northwest quarter of secs. 30, 32, 33 and 34; T. 40 S., R. 14 W., southeast quarter of sec.23, southwest quarter of 24, northwest quarter of sec. 25, and northeast quarter of sec. 26.

(B) Regulated areas. The following areas are designated as regulated areas:

CALIFORNIA

All counties in the State not listed in paragraph (A) of this section as quarantined areas.

OREGON

All areas in the State not listed in paragraph (A) of this section as quarantined areas.

WASHINGTON

The entire State.

Sec. 301.92-4 Conditions governing the interstate movement of regulated, restricted, and associated articles, and non-host nursery stock from quarantined and regulated areas.

Regulated, restricted and associated articles and non-host nursery stock may be moved interstate from quarantined and regulated areas only if moved in accordance with this section.

(A) Interstate movement of regulated and associated articles from quarantined areas. Regulated and associated articles may be moved interstate from a quarantined area only in accordance with this subpart.

1. With a certificate. Any regulated or associated article may be moved interstate from a quarantined area if accompanied by a certificate issued and attached in accordance with 301.92-5 and 301.92-8, and provided that the regulated or associated article is moved through the quarantined area without stopping except for refueling, rest stops, emergency repairs, and for traffic conditions, such as traffic lights or stop signs.
2. Without a certificate.
   (i) The regulated or associated article originated outside the quarantined area and the point of origin of the article is indicated on the waybill of the vehicle transporting the article; and
   (ii) The regulated or associated article is moved from outside the quarantined area through the quarantined area without stopping except for refueling or for traffic conditions, such as traffic lights or stop signs, and the article is not unpacked or unloaded in the quarantined area.

(B) Interstate movement of restricted articles from quarantined areas. Restricted articles may be moved interstate from a quarantined area only in accordance with this section.

1. With a permit. Any restricted article may be moved interstate from a quarantined area only if the article is moved pursuant to a permit issued by the Administrator in accordance with part 330 of this chapter.
2. Without a permit.
   (i) The restricted article originated outside the quarantined area and the point of origin of the article is indicated on the waybill of the vehicle transporting the article; and
   (ii) The restricted article is moved from outside the quarantined area through the quarantined area without stopping except for refueling or for traffic conditions, such as traffic lights or stop signs, and the article is not unpacked or unloaded in the quarantined area.

(C) Interstate movement of nursery stock from nurseries in quarantined areas.

1. Regulated articles of nursery stock and associated articles. Regulated articles of nursery stock and associated articles may only be moved interstate from nurseries in quarantined areas in accordance with paragraph (A) of this section
2. Non-host nursery stock. Any nursery stock of taxon not listed in 301.92-2 as a regulated or associated article may only be moved interstate from nurseries in quarantined areas as follows:
   (i) With a certificate. If the non-host nursery stock originates from a nursery in a quarantined area that contains regulated or associated articles, the nursery stock must be accompanied by a certificate issued and attached in accordance with 301.92-5 and 301.92-8, and be moved through the quarantined area without stopping except for refueling, rest stops, emergency repairs, and for traffic conditions, such as traffic lights or stop signs.
   (ii) Without a certificate. If the non-host nursery stock originates from a nursery in a quarantined area that does not contain regulated or associated articles, the nursery stock may be moved interstate without a certificate, provided that:
      (a) The nursery from which plants originate has been inspected and found free of evidence of *Phytophthora ramorum* in accordance with 301.92-11(B)(3), and
      (b) The nursery stock is not rooted in soil or growing media.

(D) Interstate movement of nursery stock from nurseries in regulated areas.

1. Regulated and associated articles of nursery stock. Regulated articles of nursery stock and associated articles may only be moved interstate from nurseries in regulated areas if accompanied by a certificate issued and attached in accordance with 301.92-5 and 301.92-8, and provided that, if moved through a quarantined area en route to another State, the regulated articles of nursery stock or associated articles are moved through the quarantined area without stopping except for refueling, rest stops, emergency repairs, and for traffic conditions, such as traffic lights or stop signs.
2. Non-host nursery stock. Any nursery stock of a taxon not listed in 301.92-2 as a regulated or associated article may only be moved interstate from nurseries in regulated areas as follows:
   (i) With a certificate. If non-host nursery stock originates from a nrusery in a regulated area that contains regulated or associated articles, the nursery stock must be accompanied by a certificate issued and attached in accordance with 301.92-5 and 301.92-8, and provided that, if moved through a quarantined area en route to another State, the nursery stock is moved through the quarantined area without stopping except for refueling, rest stops, emergency repairs, and for traffic conditions, such as traffic lights or stop signs.
   (ii) Without a certificate. If non-host nursery stock originates from a nursery in a regulated area that does not contain regulated or associated articles, the nursery stock may be moved interstate without a certificate, provided that the nursery from which plants originate has been inspected and found free of evidence of Phytophthora ramorum in accordance with 301.92-11(D)(3).

Sec. 301.92-5 Issuance and cancellation of certificates.

(A) Movements from quarantined areas.

1. An inspector may issue a certificate for the interstate movement of regulated articles, associated articles, or non-host nursery stock from a quarantined area if the inspector determines that:

   (i) The regulated articles have been treated under the direction of an inspector in accordance with Sec. 301.92-10 of this subpart or part 305 of this chapter; or

   (ii) The regulated articles are wood products such as regulated host species of firewood, logs, or lumber that are free of bark; or

   (iii) The regulated article is soil that has not been in direct physical contact with any article infected with *Phytophthora ramorum*, and from which all duff has been removed.

   (iv) The articles are nursery stock or regulated articles of decorative trees without roots, wreaths, garlands, or greenery that:

      (a) Are shipped from a nursery or premises in a quarantined area that has been inspected annually in accordance with the inspection and sampling protocol described in Sec. 301.92-11(A)(1) of this subpart, and that has been found free of *Phytophthora ramorum*; and

      (b) Are part of a shipment of nursery stock, decorative trees without roots, wreaths, garlands, or greenery that has been inspected prior to interstate movement in accordance with Sec. 301.92-11(A)(2) of this subpart, and that has been found free of *Phytophthora ramorum;* and

      (c) Have been kept separate from regulated and associated articles and non-host nursery stock not inspected between the time of the inspection and the time of interstate movement; and

      (d) Have not been grown in, or moved from, other areas within a quarantined area except nurseries that are annually inspected for *Phytophthora ramorum* in accordance with 301.92-11, and that have been found free of evidence of *Phytophthora ramorum* infestation, except that certified nurseries which receive articles from a non-certified nursery in a quarantined or regulated area may continue to ship other plants interstate, provided that the uncertified plants are safeguarded, segregated, and withheld from interstate movement until the plants are inspected and tested and found free of evidence of *Phytophthora ramorum.*

   (v) The regulated or associated article or non-host nursery stock is to be moved in compliance with any additional emergency conditions the Administrator may impose under section 414 of the Plant Protection Act (7 U.S.C. 7714) to prevent the spread of *Phytophthora ramorum*; and

   (vi) The regulated or associated article or non-host nursery stock is eligible for unrestricted movement under all other Federal domestic plant quarantines and regulations applicable to the regulated or associated article.

2. Reserved

(B) Movements from regulated areas.

1. An inspector may issue a certificate for the interstate movement of regulated articles of nursery stock, associated articles, or non-host nursery stock from a nursery in a regulated area if an inspector determines that:

   (i) The nursery from which the nursery stock originates has been inspected in accordance with 301.92-11(C) and found free of *Phytophthora ramorum* infestation; and

   (ii) All nursery stock in the nursery have not been grown in, or moved from, nurseries except those that have been inspected for *Phytophthora ramorum* in accordance with 301.92-11 (C) and that have been found free of evidence of *Phytophthora ramorum* infestation, except that certified nurseries which receive articles from a non-certified nursery in a quarantined or regulated area may continue to ship other plants interstate, provided that the uncertified plants are safeguarded, segregated, and withheld from interstate movement until the plants are inspected and tested and found free of evidence of *Phytophthora ramorum*; and

   (iii) The nursery stock is to be moved in compliance with any additional emergency conditions the Administrator may impose under section 414 of the Plant Protection Act (7 U.S.C. 7714) to prevent the spread of *Phytophthora ramorum*; and

   (iv) The nursery stock is eligible for unrestricted movement under all other Federal domestic plant quarantines and regulations applicable to the nursery stock.

2. Reserved.

(C) Certificates issued under paragraphs (A) and (B) of this section may be issued by any person engaged in the business of growing, processing, handling, or moving regulated or associated articles or nursery stock provided such person has entered into and is operating under a compliance agreement in accordance with 301.92-6. Any such person may execute and issue a certificate for the interstate movement of regulated or associated articles or nursery stock if an inspector has previously made the determination that the article is eligible for a certificate in accordance with any applicable section of this subpart.

(D) Any certificate that has been issued may be withdrawn, either orally or in writing, by an inspector if he or she determines that the holder of the certificate has not complied with all conditions in this subpart for the use of the certificate. If the withdrawal is oral, the withdrawal and the reasons for the withdrawal will be confirmed in writing as promptly as circumstances allow. Any person whose certificate has been withdrawn may appeal the decision in writing to the Administrator within 10 days after receiving the written notification of the withdrawal. The appeal must state all of the facts and reasons upon which the person relies to show that the certificate was wrongfully withdrawn. As promptly as circumstances allow, the Administrator will grant or deny the appeal, in writing, stating the reasons for the decision. A hearing will be held to resolve any conflict as to any material fact. Rules of practice concerning a hearing will be adopted by the Administrator.

Sec. 301.92-6 Compliance agreements and cancellation.

(A) Any person engaged in growing, processing, handling, or moving regulated articles, associate articles, or non-host nursery stock may enter into a compliance agreement when an inspector determines that the person understands this subpart, agrees to comply with its provisions, and agrees to comply with all the provisions contained in the compliance agreement.

(B) Any compliance agreement may be canceled, either orally or in writing, by an inspector whenever the inspector finds that the person who has entered into the compliance agreement

has failed to comply with this subpart. If the cancellation is oral, the cancellation and the reasons for the cancellation will be confirmed in writing as promptly as circumstances allow. Any person whose compliance agreement has been canceled may appeal the decision, in writing, within 10 days after receiving written notification of the cancellation. The appeal must state all of the facts and reasons upon which the person relies to show that the compliance agreement was wrongfully canceled. As promptly as circumstances allow, the Administrator will grant or deny the appeal, in writing, stating the reasons for the decision. A hearing will be held to resolve any conflict as to any material fact. Rules of practice concerning a hearing will be adopted by the Administrator.

Sec. 301.92-7 Availability of inspectors; assembly for inspection.

(A) Any person (other than a person authorized to issue certificates under Sec. 301.92-5(C) of this subpart) who desires to move a regulated or associated article or non-host nursery stock interstate accompanied by a certificate must notify an inspector as far in advance of the desired interstate movement as possible, but no less than 48 hours before the desired time of inspection.

(B) The regulated or associated article or non-host nursery stock must be assembled at the place and in the manner the inspector designates as necessary to comply with this subpart.

Sec. 301.92-8 Attachment and disposition of certificates and record keeping.

(A) A certificate required for the interstate movement of a regulated article, associated article, or non-host nursery stock must, at all times during the interstate movement, be:

1. Attached to the outside of the container containing the regulated article, associated article, or non-host nursery stock; or
2. Attached to the regulated article, associated article, or non-host nursery stock itself if not in a container; or
3. Attached to the consignee's copy of the accompanying waybill. If the certificate is attached to the consignee's copy of the waybill, the regulated article, associated article, or non-host nursery stock must be sufficiently described on the certificate and on the waybill to identify the regulated article, associated article, or non-host nursery stock.

(B) The certificate for the interstate movement of a regulated article, associated article, or non-host nursery stock must be furnished by the carrier to the consignee listed on the certificate upon arrival at the location provided on the certificate.

(C) All nurseries that are operating under compliance agreements must maintain records of all incoming shipments of plants for a minimum of 24 months and must make them available to inspectors upon request. In addition, all nurseries that are operating under compliance agreements, except retail dealers, must maintain records of outgoing shipments for a minimum of 24 months and must make them available to inspectors upon request.

Sec. 301.92-9 Costs and charges.

The services of the inspector during normal business hours (8 a.m. to 4:30 p.m., Monday through Friday, except holidays) will be furnished without cost. The user will be responsible for all costs and charges arising from inspection and other services provided outside normal business hours.

Sec. 301.92-10 Treatments.

Treatment schedules listed in part 305 of this chapter are authorized for use on certain regulated articles to prevent the spread of *Phytophthora ramorum*. The following treatments also may be used for the regulated articles indicated:

(A) Soil- Heat to a temperature of at least 180° F at the center of the load for 30 minutes in the presence of an inspector.

(B) Wreaths, garlands, and greenery of host material- Dip for 1 hour in water that is held at a temperature of at least 160° F.

(C) Bay leaves- Treat with vacuum heat in accordance with part 305 of this chapter.

Sec. 301.92-11 Inspection and sampling protocol.

(A) Nurseries in quarantined areas shipping regulated articles of nursery stock and associated articles interstate. To meet the requirements of 301.92-5(A)(1)(iv), nurseries located in quarantined areas and that move regulated articles of nursery stock, decorative trees without roots, wreaths, garlands, or greenery, associated articles, or non-host nursery stock interstate must meet the requirements in this section. Nurseries in quarantined areas that do not meet the requirements of this section are prohibited from moving regulated articles and associated articles interstate. Nurseries in quarantined areas that do not meet the requirements of this section or paragraph (B) of this section are prohibited from moving non-host nursery stock interstate.

1. **Annual inspection, sampling, and testing.**

   (i) Inspection. The nursery must be inspected annually for symptoms of *Phytophthora ramorum* by an inspector. Inspectors will visually inspect for symptomatic plants throughout the nursery, and inspection will focus on, but not be limited to, regulated articles and associated articles.

   (ii) Sampling. A minimum of 40 plant samples must be tested per nursery location. Samples must be taken from all symptomatic plants if symptomatic plants are present. If fewer than 40 symptomatic plants are present, each symptomatic plant must be sampled and the remainder of the 40-sample minimum must be taken from asymptomatic plants. If no symptomatic plants are present, 40 asymptomatic plants must be sampled; biased toward proven hosts. Each sample may contain more than one leaf, and may come from more than one plant, but all plants in the sample must be from the same lot. Asymptomatic samples, if collected, must be taken from regulated and associated articles and nearby plants. Inspectors must conduct inspections at times when the best expression of symptoms is anticipated and must take nursery fungicide programs into consideration. Nursery owners must keep records of fungicide applications for 2 years and must make them available to inspectors upon request.

   (iii) Testing. Samples must be labeled and sent for testing to a laboratory approved by APHIS and must be tested using a test method approved by APHIS, in accordance with 301.92-12.

   (iv) Annual certification. If all plant samples tested in accordance with this section and 301.92-12 return negative results for *Phytophthora ramorum*, an inspector may certify that the nursery is free of evidence of *Phytophthora ramorum* infestation at the time of inspection, and the nursery will be eligible to enter into a compliance agreement in accordance with 301.92-6.

2. **Pre-shipment inspection, sampling, and testing**

   (i) Inspection. During the 30 days prior to interstate

movement from a nursery in a quarantined area, regulated articles or associated articles intended for interstate movement must be inspected for symptoms of *Phytophthora ramorum* by an inspector. Inspection will focus on, but not be limited to, regulated articles and associated articles. No inspections of shipments will be conducted unless the nursery from which the shipment originates has a current and valid annual certification in accordance with paragraph (A)(1)(iv) of this section.

(a) If no symptomatic plants are found upon inspection, the shipment may be considered free of evidence of *Phytophthora ramorum* infection and is eligible for interstate movement, provided that the nursery is operating under a compliance agreement with APHIS in accordance with 301.92-6.

(b) If symptomatic plants are found upon inspection, the inspector will collect at least one sample per symptomatic plant, and one sample per regulated article or associated article that is in close proximity to, or that has had physical contact with, a symptomatic plant.

(ii) Testing and withholding from interstate movement. Samples taken in accordance with paragraph (A)(2)(i)(b) of this section must be labeled and sent for testing to a laboratory approved by APHIS and must be tested using a test method approved by APHIS, in accordance with 301.92-12. The interstate movement of plants in the shipment is prohibited until the plants in the shipment are determined to be free of evidence of *Phytophthora ramorum* infection in accordance with 301.92-12.

(B) Nurseries in quarantined areas shipping non-host nursery stock interstate. Nurseries located in quarantined areas and that move non-host nursery stock interstate must meet the requirements of this paragraph or the requirements of paragraph (A) of this section. If such nurseries contain any regulated or associated articles, the nursery must meet the requirements of paragraph (A). This paragraph (B) only applies if there are no regulated or associated articles of nursery stock in the nursery. Nurseries that do not meet the requirements of paragraphs (A) or (B) of this section are prohibited from moving non-host nursery stock interstate.

1. Annual visual inspection. The nursery must be visually inspected annually for symptoms of *Phytophthora ramorum*. Inspections and determinations of freedom from evidence of *Phytophthora ramorum* infestation must occur at the time when the best expression of symptoms is anticipated.

2. Sampling. All plants showing symptoms of infection with *Phytophthora ramorum* upon inspection will be sampled and tested in accordance with 301.92-12. If symptomatic plants are found upon inspection, the following plants must be withheld from interstate shipment until testing is completed and the nursery is found free of evidence of *Phytophthora ramorum* in accordance with this paragraph (B)(3) of this section and 301.92-12: All symptomatic plants, any plants located in the same lot as the suspect plant, and any plants located within 2 meters of this lot of plants.

3. Certification. If all plant samples tested in accordance with this section and 301.92-12 return negative results for *Phytophthora ramorum*, or if an inspector determines that plants in a nursery exhibit no signs of infection with *Phytophthora ramorum*, the inspector may certify that the nursery is free of evidence of *Phytophthora ramorum* infestation at the time of inspection. Certification is valid for 1 year and must be renewed each year to continue shipping plants interstate.

(C) Nurseries in regulated areas shipping regulated articles of nursery stock or associated articles interstate. To meet the conditions of 301.92-5(B), any nursery that is located in a regulated area and contains regulated articles of nursery stock or associated articles, and ships any nursery stock interstate must meet the following requirements:

1. Annual inspection. The nursery must be inspected annually for symptoms of *Phytophthora ramorum* by an inspector. Inspections will focus on, but not be limited to, regulated articles of nursery stock and associated articles.

2. Sampling. Samples must be taken from all symptomatic plants. If fewer than 40 symptomatic plants are present, each symptomatic plant must be sampled and additional samples must be taken from asymptomatic plants so that the minimum number of plants sampled is 40. If no symptomatic plants are present, 40 asymptomatic plants must be sampled. Each sample may contain more than one leaf, and may come from more than one plant, but all plants in the sample must be from the same lot. If samples are collected from asymptomatic plants, the samples must be taken from regulated and associated articles and nearby plants. Inspectors must conduct inspections at times when the best expression of symptoms is anticipated and must take nursery fungicide programs into consideration. Nursery owners must keep records of fungicide applications for 2 years and must make them available to inspectors upon request.

3. Annual certification. If all plant samples tested in accordance with this section and 301.92-12 return negative results for *Phytophthora ramorum*, the inspector may certify that the nursery is free of evidence of *Phytophthora ramorum* infestation at the time of inspection. Nurseries in a regulated area must have current and valid certification to ship regulated articles of nursery stock and associated articles interstate. If annual certification expires prior to reinspection, all plants in the nursery are prohibited interstate movement until the nursery is inspected, tested, and re-certified in accordance with this section and 301.92-12.

(D) Nurseries in regulated areas shipping non-host nursery stock interstate. Nurseries located in regulated areas and that move non-host nursery stock interstate must meet the requirements in this paragraph or the requirements of paragraph (C) of this section. If such nurseries contain any regulated or associated articles, the nursery must meet the requirements of paragraph (C). This paragraph (D) only applies if there are no regulated or associated articles in the nursery. Nurseries that do not meet the requirements of paragraphs (C) or (D) of this section are prohibited from moving non-host nursery stock interstate.

1. Annual visual inspection. The nursery must be visually inspected annually for symptoms of *Phytophthora ramorum*. Inspections and determinations of apparent pest freedom for such nurseries must occur at the time when the best expression of symptoms is anticipated.

2. Sampling. All plants showing symptoms infection with *Phytophthora ramorum* upon inspection will be sampled and tested in accordance with 301.92-12. If symptomatic plants are found upon inspection, the following plants must be withheld from interstate shipment until testing is completed and the nursery is found free of evidence of *Phytophthora ramorum* in accordance with 301.92-12: All symptomatic plants, any plants located in the same lot as the symptomatic

plant, and any plants located within 2 meters of that lot of plants.

3. Certification. If all plant samples tested in accordance with this section and 301.92-12 return negative results for *Phytophthora ramorum*, or if an inspector determines that plants in the nursery exhibit no signs of infection with *Phytophthora ramorum*, the inspector may certify that the nursery is free of evidence of *Phytophthora ramorum* infestation at the time of inspection. Certification is valid for 1 year and must be renewed each year to continue shipping plants interstate.

(E) Additions to the list of proven hosts and associated plants. In the event that APHIS informs a nursery owner that additional proven hosts or associated plants exist, but those taxa are not yet listed in this subpart, the following provisions apply:

1. Nurseries operating under a compliance agreement in accordance with 301.92-6 may continue to ship plants interstate in accordance with this subpart.
2. Nurseries that had not previously contained any regulated or associated articles, and that had been inspected in accordance with 301.92-11(B)(3) and allowed to ship plants interstate without certificate, but that contain a newly identified proven host or associated plant must cease interstate shipments of regulated articles and associated hosts until the nursery is reinspected and found free of evidence of *Phytophthora ramorum* in accordance with 301.92-11. Nurseries that come under regulation during winter dormancy periods and that are not able to be inspected in accordance with § 301.92-11 prior to desired shipments of non-host nursery stock may be allowed to ship non-host nursery stock interstate at the discretion of an inspector.

Sec. 301.92-12 Testing protocols.

Samples must be analyzed using a methodology approved by APHIS at a laboratory approved by APHIS. The following methodology is approved by APHIS.

(A) Optional ELISA Prescreening. An APHIS-approved ELISA may be used to prescreen plant samples to determine the presence of *Phytophthora* spp.

1. Negative prescreening results. If all samples from a single nursery are found to be negative through APHIS-approved ELISA prescreening, no further testing is required. The nursery may be considered free of evidence of *Phytophthora ramorum*, and plants in the nursery are eligible for interstate movement under certificate in accordance with 301.92-5.
2. Positive prescreening results. If ELISA prescreening reveals the presence of *Phytophthora* spp. in any plants, each sample that returns positive ELISA results must be tested as provided in paragraph (B) of this section.

(B) Mandatory testing procedures. If ELISA prescreening is not performed, or if results of ELISA prescreening are positive for *Phytophthora* spp. in any sample, the sample must be analyzed using an APHIS-approved test. Samples will be considered positive for *Phytophthora ramorum* based on positive results of any approved test. Positive PCR or other molecular tests do not require confirmatory culture tests, nor do positive culture tests require confirmatory PCR or other molecular tests; however, if culture tests return other than positive results, an APHIS-approved PCR or other molecular test must be conducted, as provided in paragraph (B)(1) of this section.

1. **PCR or other molecular tests.**
   - (i) Negative results. If the results of PCR or other molecular tests are negative for all samples in a nursery, no further testing is required. The nursery may be considered free of evidence of *Phytophthora ramorum* and plants in the nursery are eligible for interstate movement under certificate in accordance with 301.92-5.
   - (ii) Positive results. If any samples tested using PCR or other molecular tests return positive results for *Phytophthora ramorum*, the nursery from which they originate is prohibited from moving plants interstate. The nursery will be eligible to ship certain plants interstate when an inspector determines that those plants are free of evidence of *Phytophthora ramorum*.
2. **Culture Test.**
   - (i) **Negative results.** If the results of culture tests are other than positive for any samples taken from a single nursery, plants in the nursery must continue to be withheld from shipment in accordance with 301.92-11 and each plant sample must be tested again using a PCR or other molecular test, as described in this section.
   - (ii) **Positive results.** If any culture tests return positive results for *Phytophthora ramorum*, the nursery from which they originate is prohibited from moving plants interstate as directed by an inspector. The nursery will be eligible to ship certain plants interstate when an inspector determines that those plants are free of evidence of *Phytophthora ramorum*.

(C) Other test methods. Other test methods may be acceptable if approved by APHIS.

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008 - June 30, 2009
FY 2008/2009

Appendix E

Pest Exclusion Advisory 33-2004
Non-host Nursery List and Laboratory Reservation System

STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND
AGRICULTURE
1220 N Street, Room A-372
Sacramento, CA 95814

PEST EXCLUSION ADVISORY

NO. 33-2004

DATE: December 10, 2004

TO: All County Agricultural Commissioners

FROM: Plant Health and Pest Prevention Services

SUBJECT: *Phytophthora ramorum* – Non-host Nursery List and Laboratory Reservation System

This is to inform all County Agricultural Commissioners of two additions to the Sudden Oak Death, Nursery Inspection Survey Data System (*see* PEA 13-2004):

- Entering a nursery onto the list of *Phytophthora ramorum* Non-host Nursery Stock Shippers
- Using the Laboratory Reservation System for *P. ramorum* Samples

List of Non-host Nursery Stock Shippers

The revised draft of Federal Order and Quarantine for *P. ramorum* will require the California Department of Food and Agriculture (CDFA) to maintain a list of nurseries that ship non-host nursery stock interstate. The list will be maintained on the CDFA's Sudden Oak Death (SOD) website (http://www.cdfa.ca.gov/phpps/pe/sod_survey). This list will be automatically generated when County Agricultural Inspectors enter information on non-host shipping nurseries that have been inspected and found free of *P. ramorum* into the Nursery Inspection Survey Data System (NISDS) (see below). Selected information entered into the NISDS will be automatically posted onto CDFA's SOD website for public viewing.

Additionally, all host and associated host nurseries in non-infested counties that have entered a compliance agreement to ship interstate will be added to the list of non-host shipping nurseries.

Using the Laboratory Reservation System for *P. ramorum* samples

According to the draft federal order and quarantine, all nurseries in non-infested counties that intend to ship host and/or associated host nursery stock interstate must be inspected and found free of *P. ramorum* (*see* Phytosanitary Advisory 22-2004). At each inspection, a minimum of 40 samples must be collected per nursery.

The order is anticipated soon. However, the CDFA's Plant Pest Diagnostics Center (PPDC) is already receiving a large number of samples. To facilitate the orderly processing of samples by the PPDC, a Laboratory Reservation System is being implemented **effective December 20, 2004**. After that date, all samples from *P. ramorum* host and/or associated host-shipping nurseries must be submitted using the Laboratory Reservation System. The PPDC will accept reservations for up to 20 host and associated host shipping nurseries per week. The Laboratory Reservation System must not be used for samples collected from non-host shipping nurseries. Such samples may be submitted any time and will be processed in the order in which they are received. The Laboratory Reservation System will remain in place until 60 days after the issuance of the revised Federal order. Reservations may be made on the NISDS website.

Prepared by: Basil Ibewiro/Casey Estep

The NISDS website is located at http://phpps.cdfa.ca.gov. At this website you will be able to view and create lab reservations as well as input non-host nursery data. Access to the website requires a username and password. To obtain a username and password select the <sign up> link on the left side of the login page (*see* Figure 1). Enter your username/password and select <Login> on the page that looks similar to Figure 1.

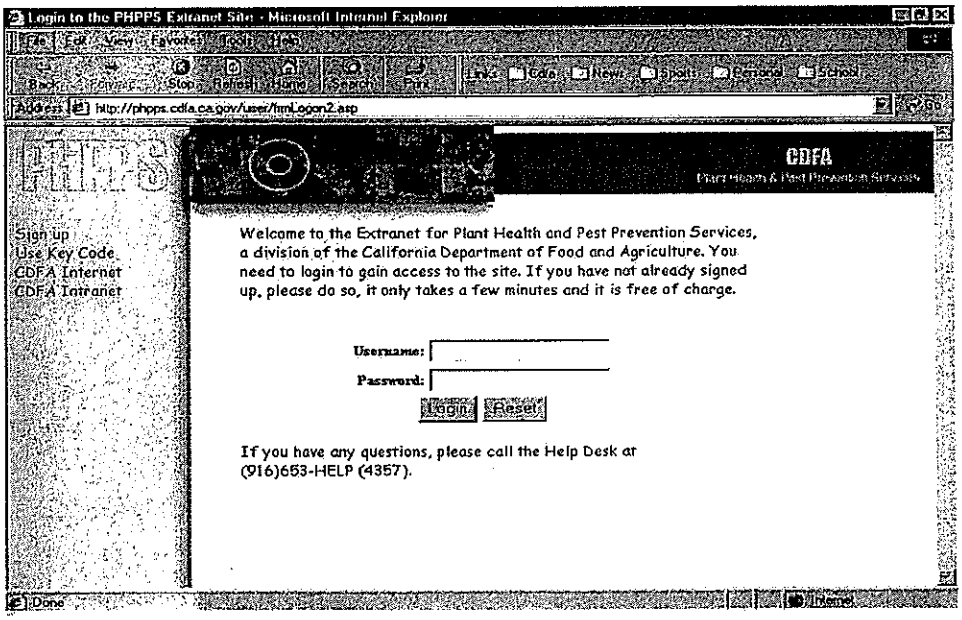


Figure 1 – Login Screen

To access the database, click <Databases> across the top of the 'Welcome' page. On the left side of the 'Databases' page, click <SOD Nursery Data Entry>. This will bring you to a page similar to *Figure* 2 below. All of the functions of this website can be accessed from this page. **You may begin entering data into the Laboratory Reservation System on December 13, 2004.**

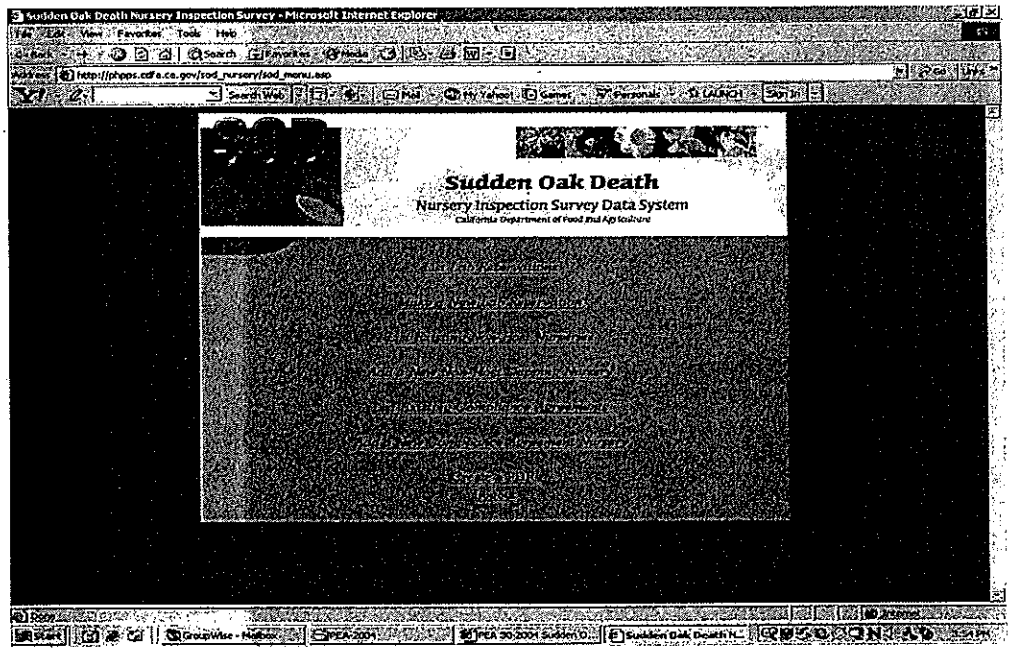


Figure 2 – SOD Nursery Inspection Survey Data System main

Please contact Casey Estep at (916) 653-1440, or by e-mail at cestep@cdfa.ca.gov, if you have any questions about entering data into the Nursery Inspection Survey Data System.

If you have any questions regarding this advisory, please contact Basil Ibewiro at (916) 653-0312, or by e-mail at bibewiro@cdfa.ca.gov

Prepared by: Basil Ibewiro/Casey Estep

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008 - June 30, 2009
FY 2008/2009

Appendix F

Monthly Report

Monthly Report for Sudden Oak Death
Statewide Emergency Response
FY 2008/2009
From July 1, 2008 through June 30, 2009

County: _____

Date: _____

ACTIVITY	NUMBER OF ACTIVITIES	HOURS (ALL ACTIVITIES)
Eradication		
Implementation of Confirmed Nursery Protocol	0	0
Implementation of Positive Retail Nursery Protocol	0	0
Trace-Forward/Trace Back Investigation		
Regulatory Activities for Trace Forward/Back Investigations	0	0
Quarantine Enforcement		
Regulatory Activities at Host Nurseries	0	0
Regulatory Activities at Non-Host Nurseries	0	0
High Risk Plant Inspections	0	0
OTHER		
Communication	0	0
Training	0	0
Administrative Support	0	0
TOTALS:	0	0
VEHICLE USAGE **TOTAL MILEAGE:**	0	

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008 - June 30, 2009
FY 2008/2009

Appendix G

Sample Invoice

California Department of Food and Agriculture
Attn: Carol Gentry
1220 N Street, Rm A-316
Sacramento, CA 95814

SOD Statewide Emergency Response in Regulated Counties
Contract #
Budget Display FY 2008/2009
Invoice for Period from 00/00/00 to 00/00/00

Personnel Services

Name/Classification	Hours	Hourly Rate	Total Salaries	Totals
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
	0.00	0.00	0.00	
Total Hours	0.00	Total Salaries	0.00	
			Total Personnel Services	0.00
			Indirect (up to 25% of Personnel Services)	0.00
			Total Personnel Costs:	0.00

Operating Expenses

Supplies			0.00
		Total Operating Expenses:	0.00

Vehicle Usage	**Miles**	**Rate**	
Vehicle Mileage =	0.00	0.000	0.00
58.5 cents - County owned or personal vehicles		Total Mileage Cost:	0.00
28.5 cents - State/Federal owned vehicles, rented or leased vehicles under the contract			

Total Operating Expenses	0.00
Grand Total:	0.00

Contract Amount	0.00
Billed to Date	0.00
Balance	0.00

Scope of Work for *Phytophthora ramorum*
(Sudden Oak Death)
In Regulated Counties
July 1, 2008 - June 30, 2009
FY 2008/2009

Appendix H

USDA/APHIS PPQ Tracking Log

Cooperative Sudden Oak Death (SOD) Program
SOD PPQ 527Certificate (Rubber Stamp or Sticker) Issuance Tracking Log

Date Issued	Invoice #	Listed Plant(s)	Number of Plants	Receiver Name	Receiver Address	Receiver State

EXHIBIT B
(County Agreement)

BUDGET DETAIL AND PAYMENT PROVISIONS

1. **Invoicing and Payment**

   A. For services satisfactorily rendered, and upon receipt and approval of the invoices, the State agrees to compensate the Contractor for actual expenditures incurred in accordance with the rates specified herein, which is attached hereto and made a part of this Agreement.

   B. Invoices shall include the Agreement Number and shall be submitted in triplicate not more frequently than monthly in arrears. Invoices shall be submitted to the designated CDFA Contract Manager for this Agreement.

2. **Budget Contingency Clause**

   A. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.

   B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an agreement amendment to Contractor to reflect the reduced amount.

3. **Funding Sources for County Contracts (If no Federal Funds, this Section is not applicable)**

   An annual report of expenditures, where county payments are supported by Federal funds, will be issued by CDFA Administrative Services, Financial Services Branch. This report will be issued by September 30th for invoices submitted prior to July 31st for services rendered in the prior State Fiscal Year.

   Federal and State Regulations - The County will comply with all Federal and State regulations and requirements. The County must ensure they have an adequate accounting system in place and appropriate internal controls to ensure expenditures are tracked and maintained.

   All sub-recipients of Federal awards shall comply with the Code of Federal Regulations (CFR) Title 2, Part 225 - Cost Principles for State and Local Governments and Title 7, Part 3016 – Uniform Administrative Requirements for Grants and Cooperative Agreements to state and local governments.

   Federal 2 CFR 225 (OMB Circular A-87) can be found at the following website:
   http://training.fws.gov/fedaid/toolkit/2cfr225.pdf

   Federal 7 CFR 3016 can be found at the following website:
   http://www.access.gpo.gov/nara/cfr/waisidx_01/7cfr3016_01.html

   The State's accounting standards and procedures for counties provided by the State Controller's Office are located at the following website: http://www.sco.ca.gov/ard/manual/cntyman.pdf

Workplan for Sudden Oak Death Statewide Emergency Response
Regulated Counties
FY 2008/2009
From July 1, 2008 through June 30, 2009

County: Los Angeles
Date: 24-Apr-08
*Cost Per Hour: $54.27

Activity	Number of Facilities Requiring Activity	Estimated Visits/Year/Facility	Estimated Hours/Visit	Total Est. Hours	Estimated Annual Cost
Eradication					
Implementation of Confirmed Nursery Protocol	2	10	10	200	$10,854.00
Implementation of Retail Confirmed Nursery Protocol				0	$0.00
Trace Forward/Trace Back Survey					
Regulatory Activity for Trace Forward/Back Investigations	20	1	5	100	$5,427.00
Quarantine Enforcement					
Regulatory Activities at Host Nurseries	86	4	5	1720	$93,344.40
Regulatory Activities at Non-Host Nurseries	30	1	2	60	$3,256.20
High Risk Plant Inspections	12	2	6	144	$7,814.88
Other					
Communication	N/A	N/A	N/A	110	$5,969.70
Training	N/A	N/A	N/A	25	$1,356.75
Administrative Support	N/A	N/A	N/A	850	$46,129.50
		TOTAL HOURS		3209	*
		TOTAL PERSONNEL COSTS			$174,152.43
Overhead (Indirect Costs)--- Not to exceed 25% of Total Personnel Costs					
Enter Overhead Percentage: 25%					$43,538.11
Miscellaneous					
Supplies					$2,500.00
Vehicle Usage					
Enter Estimated Miles: 10000	Rate Per Mile: $0.505				$5,050.00
				TOTAL COST:	$225,240.54

*Please complete and submit cost per hour worksheet

30

Title	Hourly Wage	Hourly Benefit Amount	Total Hourly Rate	Estimated Hours to be Worked	Total Cost
Senior Biologist	$43.31	$21.93	$65.24	1085	$70,785.40
ACWM Inspector I	$30.56	$15.47	$46.03	1062	$48,883.86
ACWM Inspector I	$34.06	$17.24	$51.30	1062	$54,480.60
			Total:	3209	$174,149.86

***Weighted Average Cost Per Hour:** $54.27

Note: Total "Estimated Hours to Be Worked" should match the "Total Hours" on the Work Plan and "Weighted Average Cost Per Hour" must be entered into "Cost Per Hour" box on Work Plan

EXHIBIT C
(County Agreement)

GENERAL TERMS AND CONDITIONS GTC 307

1. APPROVAL: This Agreement is of no force or effect until signed by both parties and approved by the Department of General Services, if required. Contractor may not commence performance until such approval has been obtained.

2. AMENDMENT: No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or Agreement not incorporated in the Agreement is binding on any of the parties.

3. ASSIGNMENT: This Agreement is not assignable by the Contractor, either in whole or in part, without the consent of the State in the form of a formal written amendment.

4. AUDIT: Contractor agrees that the awarding department, the Department of General Services, the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. Contractor agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of records retention is stipulated. Contractor agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, Contractor agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this Agreement. (Gov. Code §8546.7, Pub. Contract Code §10115 et seq., CCR Title 2, Section 1896).

5. INDEMNIFICATION: Contractor agrees to indemnify, defend and save harmless the State, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Contractor in the performance of this Agreement.

6. DISPUTES: Contractor shall continue with the responsibilities under this Agreement during any dispute.

7. TERMINATION FOR CAUSE: The State may terminate this Agreement and be relieved of any payments should the Contractor fail to perform the requirements of this Agreement at the time and in the manner herein provided. In the event of such termination the State may proceed with the work in any manner deemed proper by the State. All costs to the State shall be deducted from any sum due the Contractor under this Agreement and the balance, if any, shall be paid to the Contractor upon demand.

8. INDEPENDENT CONTRACTOR: Contractor, and the agents and employees of Contractor, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the State.

9. RECYCLING CERTIFICATION: The Contractor shall certify in writing under penalty of perjury, the minimum, if not exact, percentage of post consumer material as defined in the Public Contract Code Section 12200, in products, materials, goods, or supplies offered or sold to the State regardless of whether the product meets the requirements of Public Contract Code Section 12209. With respect to printer or duplication cartridges that comply with the requirements of Section 12156(e), the certification required by this subdivision shall specify that the cartridges so comply (Pub. Contract Code §12205).

10. NON-DISCRIMINATION CLAUSE: During the performance of this Agreement, Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. Contractor and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

11. CERTIFICATION CLAUSES: The CONTRACTOR CERTIFICATION CLAUSES contained in the document CCC 307 are hereby incorporated by reference and made a part of this Agreement by this reference as if attached hereto.

12. TIMELINESS: Time is of the essence in this Agreement.

13. COMPENSATION: The consideration to be paid Contractor, as provided herein, shall be in compensation for all of Contractor's expenses incurred in the performance hereof, including travel, per diem, and taxes, unless otherwise expressly so provided.

14. GOVERNING LAW: This contract is governed by and shall be interpreted in accordance with the laws of the State of California.

15. ANTITRUST CLAIMS: The Contractor by signing this agreement hereby certifies that if these services or goods are obtained by means of a competitive bid, the Contractor shall comply with the requirements of the Government Codes Sections set out below.
a. The Government Code Chapter on Antitrust claims contains the following definitions:
1). "Public purchase" means a purchase by means of competitive bids of goods, services, or materials by the State or any of its political subdivisions or public agencies on whose behalf the Attorney General may bring an action pursuant to subdivision (c) of Section 16750 of the Business and Professions Code.

2). "Public purchasing body" means the State or the subdivision or agency making a public purchase. Government Code Section 4550.

b. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. Government Code Section 4552.

c. If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. Government Code Section 4553.

d. Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

16. CHILD SUPPORT COMPLIANCE ACT: "For any Agreement in excess of $100,000, the contractor acknowledges in accordance with Public Contract Code 7110, that:

a). The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and

b) The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department."

17. UNENFORCEABLE PROVISION: In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

18. PRIORITY HIRING CONSIDERATIONS: If this Contract includes services in excess of $200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the Contract to qualified recipients of aid under Welfare and Institutions Code Section 11200 in accordance with Pub. Contract Code §10353.

EXHIBIT D
(County Agreement)

SPECIAL TERMS AND CONDITIONS

1. **Excise Tax**

The State of California is exempt from federal excise taxes and no payment will be made for any taxes levied on employees' wages. The State will pay for any applicable State of California or local sales or use taxes on the services rendered or equipment or parts supplied pursuant to this Agreement. California may pay any applicable sales and use tax imposed by another state.

2. **Settlement of Disputes**

In the event of a dispute, Contractor shall file a "Notice of Dispute" with the CDFA within ten (10) days of discovery of the problem. Such Notice of Dispute shall contain the Agreement number. Within ten (10) days of receipt of such Notice of Dispute, the Agency Secretary, or Designee, shall meet with the Contractor and the CDFA project manager for the purpose of resolving the dispute. The decision of the Agency Secretary or Designee shall be final. In the event of a dispute, the language contained within this Agreement shall prevail over any other language including that of the bid proposal.

3. **Agency Liability**

The Contractor warrants by execution of this Agreement, that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the State shall, in addition to other remedies provided by law, have the right to annul this Agreement without liability, paying only for the value of the work actually performed, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

4. **Potential Subcontractors**

If Contractor subcontracts out a portion of the work required by this Agreement, nothing contained in this Agreement or otherwise, shall create any contractual relation between the State and any subcontractors, and no subcontract shall relieve the Contractor of his responsibilities and obligations hereunder. The Contractor agrees to be as fully responsible to the State for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the Contractor. The Contractor's obligation to pay its subcontractors is an independent obligation from the State's obligation to make payments to the Contractor. As a result, the State shall have no obligation to pay or to enforce the payment of any moneys to any subcontractor.

5. **Right To Terminate**

The State reserves the right to terminate this Agreement without cause subject to 30 days written notice to the Contractor. However, this Agreement can be immediately terminated by the State for cause.

Contractor may terminate this Agreement for cause and be relieved of any further obligations subject to a 60-day written notice to the State, only if contractor can no longer perform its responsibilities or if the State fails to perform its responsibilities as provided herein. Upon such termination, the State shall be relieved of any further payments and this Agreement shall be cancelled.

EXECUTIVE OFFICE – BOARD OF SUPERVISOR

AGENDA ENTRY

DATE OF MEETING:	01/13/2009
DEPARTMENT NAME:	Agricultural Commissioner/Weights and Measures
BOARD LETTERHEAD	CHIEF EXECUTIVE OFFICE
SUPERVISORIAL DISTRICT AFFECTED	ALL DISTRICTS
VOTES REQUIRED	3-VOTES
CHIEF INFORMATION OFFICER'S RECOMMENDATION	APPROVE (X) APPROVE WITH MODIFICATION ( ) DISAPPROVE ( ) or NONE ( )

*** * * * *ENTRY MUST BE IN MICROSOFT WORD* * * * ***

Instructions: To comply with the Brown Act requirement the reader should fully understand what the department is asking the Board to approve. The recommendation must describe what the action is for; with whom the action is being taken; fiscal impact, including money amounts, funding sources, and effective dates. Also, include an instruction for the Chair(man) or Director to sign when such signature is required on a document.

Recommendation:

Approve and instruct the Chair and the Agricultural Commissioner/Director of Weights and Measures to execute contract #08-0524 with the California Department of Food and Agriculture in amount of $225,240, 100 percent State funded, for the County to continue the Sudden Oak Death Program to inspect nurseries for the period of July 1, 2008 through June 30, 2009; and authorize the Agricultural Commissioner/Director of Weights and Measures to amend the contract in an amount not to exceed 15 percent of the original contract amount.