*COUNTY OF LOS ANGELES*

*Department of*
*Agricultural Commissioner/*
*Weights and Measures*

***Kurt E. Floren***
*Agricultural Commissioner*
*Director of Weights and Measures*

*http://acwm.co.la.ca.us*

*12300 Lower Azusa Road*
*Arcadia, California 91006-5872*

May 8, 2007

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

Dear Supervisors:

**APPROVAL OF AGREEMENT #06-0287 WITH THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE FOR THE SUPPORT OF THE SUDDEN OAK DEATH STATEWIDE EMERGENCY RESPONSE (ALL DISTRICTS)(3-VOTES)**

**IT IS RECOMMENDED THAT YOUR BOARD:**

1. Authorize the Agricultural Commissioner/Director of Weights and Measures (ACWM) to execute the terms of contract #06-0287 in the amount of $191,247.80, with the California Department of Food and Agriculture (CDFA) in the detection, eradication, trace forward/trace back investigation, quarantine enforcement, administrative support, and training for the identification of Phytophthora ramorum, the fungus that causes Sudden Oak Death (SOD).

2. Approve and instruct the Commissioner, on behalf of the Chairman, to sign the attached agreement #06-0287 with CDFA to continue the SOD Control Program effective July 1, 2006 through June 30, 2007.

3. Authorize the ACWM to amend the contract agreement in an amount not to exceed 15% of the original contract.

**PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION:**

Your Board has approved similar agreements with CDFA since 2004. Approval of the recommended actions will enable ACWM to continue the SOD Program to prevent the spread of SOD within and from Los Angeles County. The SOD Program significantly affects plant growing nurseries, Los Angeles County's number one agricultural industry. The program calls for the inspection of nursery stock destined for interstate shipment.

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

Awarding this contract meets Los Angeles County's Strategic Plan Goal of Service Excellence. The SOD Control Program significantly enhances the ACWM's ability to certify nursery plants shipped from Los Angeles County. The United States Department of Agriculture 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 $191,247.80 for work performed by ACWM from July 1, 2006 through June 30, 2007. As ACWM will perform inspection work 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:**

This contract is for the period July 1, 2006 through June 30, 2007.

Pursuant to the Plant Protection Act, the United States Department of Agriculture 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.

The Contract has been reviewed by County Counsel and is approved as to form.

**IMPACT OF CURRENT SERVICES (OR PROJECTS):**

The recommended Board action will support the program services for the entire 2006-2007 Fiscal Year.

**CONCLUSION:**

When approved, please return to this Department the standard agreement #06-0287 and the minute order authorizing the Agricultural Commissioner/Director of Weights and Measures to sign. My Department will forward copies of the documents to the CDFA Contracts Office.

Respectfully submitted,

Kurt E. Floren
Agricultural Commissioner/
Director of Weights and Measures

RGA:PJD:pd

Attachments

c: Chief Administrative Officer
County Counsel

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

SOD 06-07

| AGREEMENT NUMBER |
|---|
| **06-0287** |
| 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, 2006 Through June 30, 2007

3. The maximum amount of this Agreement is: $191,247.80
One Hundred Ninety-one Thousand Two Hundred Forty-seven Dollars and Eighty 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<br>Attachment 1 - 62 pages | 1 Page(s) |
| Exhibit B – Budget Detail and Payment Provision<br>Attachment 1 - 1 page | 1 Page(s) |
| Exhibit C – General Terms and Conditions - GTC 306 | 3 Pages |
| Check mark one item below as Exhibit D:<br>☒ Exhibit D-Special Terms and Conditions (Attached hereto as part of this Agreement)<br>☐ Exhibit D*-Special Terms and Conditions | 1 Page(s) |

APPROVED AS TO FORM
RAYMOND G FORTNER, JR., County Counsel

5. Name of Program: Sudden Oak Death - Regulated Counties

By _____ Deputy

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

**CONTRACTOR**

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 91005

**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, ACQUISITIONS MANAGER

ADDRESS
1220 N STREET, ROOM 115, SACRAMENTO, CA 95814

***California Department of General Services Use Only***

☐ Exempt per:

# EXHIBIT A
## (County Agreement)

## SCOPE OF WORK

1. Contractor agrees to provide the services described herein:

Cooperative agreement between CDFA and affected counties for the purpose of reimbursing the counties for cost incurred during the statewide emergency response to the detection of Sudden Oak death in Oak trees throughout California.

AB 1896 is hereby incorporated by reference, and a Contractor's failure to comply shall be deemed a failure of consideration.

2. The contract managers for this Agreement are:

| FOR CDFA: | | FOR CONTRACTOR: | |
|---|---|---|---|
| Name: | Marcie MacFarland | Name: | Kurt Floren |
| Section/Unit: | Pest Exclusion Branch | Section/Unit: | Agricultural Commissioner |
| Address: | 1220 -N- Street, 3rd Floor | Address: | 12300 Lower Azusa Road |
| City/Zip: | Sacramento, CA 95814 | City/Zip: | Arcadia, CA 91005 |
| Phone: | 916/ 654-0317 | 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.

Agreement No. 06-0287
Exhibit A
Attachment 1
Page 1 of 62

# Scope of Work

## Sudden Oak Death Contracts for Regulated Counties
## July 1, 2006-June 30, 2007
## FY 2006/2007

Contractor agrees to provide the services described herein:

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

- Implement the Emergency Federal Order Restricting Interstate Movement of Nursery Stock; and
- 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)**. 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 02-2006 and 05-2006 **(Appendix B and C)**.

### 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 procedures are outlined in Pest Exclusion Advisory 5-2006 **(Appendix C)**.

### 3) Quarantine Enforcement

The Emergency Federal Order Restricting the Interstate Movement of Nursery Stock **(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 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-hosts 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 eradication of *P. ramorum* and the enforcement of the Emergency Federal Order Restricting the Interstate Movement of Nursery Stock. 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 Work Report **(Appendix F)**
b. Itemized invoice on county letterhead **(Appendix H)**
c. USDA/APHIS PPQ Tracking Log **(Appendix G)** for each nursery operating under a compliance agreement.

Submit to: The Department of Food and Agriculture
Attn: Marcie MacFarland
Plant Health Administration
1220 N Street, Room A-316,
Sacramento, CA 95814

**Scope of Work for *Phytophthora ramorum***
**(Sudden Oak Death)**
**In Regulated Counties**
**July 1, 2006-June 30, 2007**
**FY 2006/2007**

# Appendix A

# USDA Confirmed Nursery Protocol

Agreement No. 06-0287
Exhibit A Attachment 1
Page 4 of 62

# Official Regulatory Protocol for Nurseries Containing Plants Infected with *Phytophthora ramorum* (Sudden Oak Death)

**Revised 15 October 2004**

**Intended Use:**

In February 2002, USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) issued a federal domestic regulation for interstate movement of *Phytophthora ramorum* (7 CFR 301.92). The complete text and other information may be found at the USDA APHIS PPQ web site: www.aphis.usda.gov/ppq/ispm/sod/

Since the regulations were first published, *P. ramorum* has been detected in several nurseries outside the quarantined area. These detections catalyzed the need for a standard protocol for use by state and federal regulators to respond to new finds of *P. ramorum* in nurseries outside of the quarantine area. To ensure that there is consistency in responding to new infections of *P. ramorum*, this protocol describes the official activities performed within and surrounding 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 potential *P. ramorum* infections are critical to ensure that spread is contained. The strategies employed in this protocol are similar to those of the European Union and of 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 disease from non-plant pathways to plant material (e.g. the introduction of infested soil, water, potting media, equipment, etc.)

**Definitions:**

**Associated plants:** Plants listed in the "APHIS List of Plants and Associated Plants" as "associated plants". These have been reported associated with *P. ramorum* and have not had Koch's Postulates completed, reviewed and accepted by APHIS. These plants are also referred to in the regulations as "associated articles."

**Buffer Zone:** Area identified as a 10 meter radius from the destruction block (see Appendix 10).
(Use of this term is an adaptation from a FAO 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])

**Destruction block:** Block of plants to be destroyed. Within a nursery, this is a contiguous block of host plants and/or associated plants 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 hosts or associated plants.

**Federal Order:** A signed Order of an emergency nature issued to address a pest situation requiring immediate attention. These are intended to be quickly replaced by an interim rule. To date, Orders have been issued in April and September of 2004. These are posted and may be viewed at: http://www.aphis.usda.gov/ppq/ispm/sod

**Free from:** Of a consignment, field or place of production, without pests (or a specific pest) in numbers or quantities that can be detected by the application of phytosanitary procedures. (FAO, 1990), FAO-CEPM, 1994..

**Host plants:** Plants listed in the "APHIS List of Plants and Associated Plants" which have been found associated with *P. ramorum* and have had Koch's Postulates completed, reviewed and accepted by APHIS.

**Infected plants:** Plants with or without soil verified as being infected with *P. ramorum* based on the use of APHIS approved diagnostics.

**Nursery/Facility:** Any location where nursery stock is grown, propagated, stored, or sold; or any location from which nursery stock is distributed to a customer.

**Nursery site quarantine:** For nurseries with host plants or associated plants in the buffer zone. This is a period of time during which host plants and associated plants are prohibited movement within or out of the "buffer zone" (see Appendix 10). This quarantine period begins when the Nursery Delimitation Survey is completed and lasts until such time as both plant parts and environmental conditions conducive to disease expression have occurred for at least 90 days, and inspection, sampling, and testing reveals no further detection of *P. ramorum* within the hold block. Conducive environmental conditions exist when climate conditions match optimum disease etiology and are likely to express disease symptoms 50% or more of the time (see Addendum III in the National Nursery Survey Manual for monthly climatic maps).

| | |
|---|---|
| **Occurrence:** | The presence in an area of a pest, officially reported to be indigenous or introduced, and not officially reported to have been eradicated. (FAO, 1990), FAO-CEPM, 1994. (compare: Outbreak) |
| **Outbreak:** | An isolated pest population recently detected and expected to survive for the immediate future. FAO-CEPM, 1994. (compare: Occurrence) |
| **Parallel Quarantine:** | A quarantine imposed by a State or local plant regulatory authority that is substantially the same as a federally promulgated quarantine. |
| **Quarantine Area:** | Any State, or any portion of a State, listed in § 301.92-3(c) or otherwise designated as a quarantined (infested) area in accordance with § 301.92-3(b). Articles may be restricted (prohibited) or regulated (conditionally certifiable) from a quarantine area. |
| **Regulated Area:** | Any State, or portion of a state, in which only nurseries that ship hosts or associated plants interstate are affected and the only affected article is nursery stock. These areas are detailed in the Federal Order posted at http://www.aphis.usda.gov/ppq/ispm/sod |
| **Suspected infected plants:** | These are plants with visible symptoms of *P. ramorum* infection; and/or host and associated plants that are a part of an infested block or derived from an infested block or buffer zone; and/or plants that have tested postitive using PCR or culturing, but have not been confirmed positive for *P. ramorum* by APHIS. |

**Trigger Events for Use of Protocol**

This protocol should be implemented by APHIS-PPQ and/or its State Plant Regulatory cooperators when the presence of *P. ramorum* has been confirmed in a U.S. nursery from samples collected as part of a trace forward survey*, National *P. ramorum* survey*, or found by other means. Confirmed samples must have been analyzed using a methodology approved by APHIS at an APHIS laboratory.

*See www.aphis.usda.gov/ppq/ispm/sod for links with details on trace forward surveys and the National *P. ramorum* survey.

**Authorities**

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

**Communication/Notification**

- Communicate suspect finds as soon as one of the following has occurred:
  1. a positive PCR find
  2. a culture that matches the morphology for *P. ramorum* (i.e. isolation of *P. ramorum*)
  3. A discussion with a nursery that positive stock may have been shipped to a neighboring state.

- Immediately provide notification to the owner. Notification details are provided under "Secure the Nursery" section.

- Immediately notify the State Plant Health Director (SPHD) and the State Regulatory Official (SPRO) of the State in which the nursery is located.

- APHIS, PPQ Regional Office and National Headquarters Office shall be notified. See Appendix 7, Resource and Contact List.

- Notify state plant regulatory officials (SPHD's and SPRO's). If possible, SPROs should notify facilities that are impacted by the trace backs and trace forwards. See Survey and Investigate Section.

- **Notification of laboratory results:** Laboratories need to notify the submitter, the SPHD, and the SPRO, the Regional Office and National Program Manager. 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.

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

**Secure the Nursery**

- If plants not on hold are showing symptoms indicative of *P. ramorum*, they may not be removed from the nursery, from any holding area in the nursery, or moved within the nursery until they are found free of *P. ramorum* or the nursery is officially declared free-from *P. ramorum* and removed from quarantine status or unless approved by a State or Federal Regulatory Official. Any plants confirmed by APHIS to be infected with *P. ramorum* will be destroyed as per this protocol;
- When samples collected from suspected infected plants during trace forward survey, national SOD survey, or other surveys are first confirmed to be infected with *P. ramorum* using diagnostic protocols approved by USDA APHIS PPQ;
  - In the case of nurseries that **DO SHIP** interstate, all genera of host plants and associated host plants must be held until delimitation within the nursery is complete. (Note: The hold on genera makes this protocol consistent with the PPQ's Federal Order). 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 facility.

- In the case of nurseries that **DO NOT SHIP** interstate, only host plants and associated plants need be placed on hold until delimitation within the nursery is complete. This hold will also include growth media and "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 facility.
- 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.

- Following completion of a Nursery Delimitation Survey:
  - For nurseries with host plants or associated plants in the "buffer zone" (see Appendix 10), these host plants and associated plants are prohibited movement within or out of the buffer zone during the quarantine period. This quarantine period begins when the Nursery Delimitation Survey is completed and lasts until such time as both plant parts and environmental conditions conducive to disease expression have occurred for at least 90 days, and inspection, sampling, and testing reveals no further detection of *P. ramorum* within the hold block. Conducive environmental conditions exist when climate conditions match optimum disease etiology and are likely to express disease symptoms 50% or more of the time (see Addendum III in the National Nursery Survey Manual (can be found at: http://www.aphis.usda.gov/ppq/ispm/sod ) for monthly climatic maps).

  - During the quarantine period within the 10 meter buffer zone:
    - Growers will discontinue applications of fungicides for *Phytophthora* control.
    - Plants will be visually inspected 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.
    - Plant samples will be collected according to the protocol detailed in Appendix 4 (Plant Sampling Protocol).
    - If water, soil, and/or media samples tested positive for *P. ramorum* during the delimiting survey, samples of the infested water, soil, and/or media material will be resampled and tested during each of the two quarantine period plant inspections.

- If a plant sample tests positive for *P. ramorum*, both the 10 meter buffer zone and quarantine period must be re-determined, that is the nursery must be re-delimited and the quarantine period must be reset.
- If water is found to be positive, then any portion of the nursery that has been irrigated with *P. ramorum* infested water is placed on hold.
- If a soil sample or media sample is found to be positive, then any plants in the block with the infested soil is placed on hold.

**Survey and Investigate**

- **Delimiting Survey**. Inspect all decorative (established plants within the nursery) and plants (held, for sale or under propagation) of host and associated host genera in the nursery. Plant samples will be collected according to the protocol detailed in Appendix 4 (Plant Sampling Protocol).
- Samples must be analyzed using a methodology approved by APHIS (see Appendix 3). Samples for official confirmation should be submitted to United States Department of Agriculture, National Plant Germplasm Laboratory (NPGPL) in Beltsville, MD (see Appendix 7, Dr. Mary Palm).
- **Trace Forward Investigation.** Initiate trace forward investigations. Identify shipments made prior to the discovery of *P. ramorum*. Notify your PPQ Regional Office of all shipments made within the 12 months prior to the first positive detection of *P. ramorum* at the nursery. This includes ALL hosts and associated plants in the nursery, not just those found infected. Suspect infected plants identified through trace forwards, that have been moved into a landscape environ, should be inspected and tested during optimal conditions for growth and development of *P. ramorum* symptoms.
- **Trace Back Investigation.** Determine the origin of all infected plants through trace backs. Trace back the plants to point of origin (propagator). The goal is to determine the site of infection. Wholesale nurseries and other places the plants were located should be inspected going back all the way to the propagation site. **Forward this information to your PPQ Regional Office.** After traces are completed, examine all plants received from trace back sources.
- **Soil and Potting Media Sampling.** Determine if infected plant material may have contaminated soil or potting media used at the nursery. Soil from within the destruction block, the 10 meter buffer zone and any downhill blocks must be sampled. Determine the content, origin (constituency), storage and handling of soil or potting media used in the facility. See Appendix 5 for detailed soil and potting media sampling protocol. Keep soil samples separate from potting media samples.
- **Water Sampling.** Determine the source of water used at the facility. Note source of irrigation water 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, and any water treatment practices. See Appendix 6 for detailed water media sampling protocol.
- **Cull piles.** Record the location of any cull piles that may be contaminated with infected plant material or associated soil and/or potting media. Check any cull piles for *P. ramorum* symptomatic plants, and plant material and sample if detected. Determine how the nursery disposes of culled plant material. Soil under the cull pile should also be tested for the presence of *P. ramorum*.

- **Equipment**. Determine if equipment used at the facility is shared with other facilities or field areas.
- **Fungicides.** Determine if fungicides are used on the plants at the nursery. If fungicides were used, then record the date, material, amount and application rate. Determine if any other type of treatments (soil amendments, fertilizers) are applied to the plants, soil or growth media.
- **Perimeter survey.** Conduct (initiate and complete) during the nursery site quarantine period, a survey concentrated on plants of all host and associated host genera located within 100-meters of the infested nursery for symptoms of disease caused by *P. ramorum*.
    - Sample all *P. ramorum* symptomatic plants. Samples must be labeled and sent to a laboratory for testing using a method approved by APHIS as stated in Appendix 3.
    - 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.

**Disinfest the Nursery**

- **Plant Destruction:** Where a *P. ramorum* infected plant(s) is found, all host and associated plants and plant parts within a destruction block will be removed and destroyed using one or more of the techniques detailed in Appendix 1.
- **Non-porous Surfaces:** See Appendix 1 for recommended destruction options.
- **Water Treatment:** If water is contaminated, treatment is imposed (see Appendix 1 for recommended destruction options). The 90 day quarantine period re-starts when water treatment is initiated. Potting media and water must be retested within the new 90 day quarantine period.
- **Soil and Potting Media Treatment**: See Appendix 1 for recommended destruction options. Soil and or potting media should be sampled within the destruction block and, if either are found infested, treat if necessary. This is the most likely area of soil or potting media infestation (underneath and around the diseased plants, and in containized stock) and the most likely area where reinfestation of new host material would occur at a future date.
- **Equipment and Personnel:** See Appendix 1 for recommended destruction options.
- **Best Management Practices:** See Appendix 2 for recommended management practices designed to control or eliminate the diseases caused by *P. ramorum*.

**Release the Nursery**

If water and soil and media and perimeter sampling is negative for *P. ramorum*, a nursery may avoid a quarantine period, through a management decision, by voluntarily destroying all hosts and associated host plants and plant parts in the destruction block and the buffer zone.

Nurseries and their plants that have been placed under regulatory control may be released from regulatory control by USDA, APHIS or designated authority after the nursery site quarantine period:

- There are no additional detections of *P. ramorum* in nursery stock based on USDA APHIS approved plant inspection, sampling and testing protocols.

- Water, soil, and potting media have also tested negative for *P. ramorum* based on USDA APHIS approved sampling and testing protocols.

**Post eradication monitoring.**

Nurseries that have been infested will continue to be monitored for the following two spring seasons as part of the national survey. These nurseries are not under any quarantine or regulatory action, unless additional outbreaks are detected.

**Appendix 1**

## Treatments and Disinfections

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*: host material, including leaf litter, must not be placed in compost piles or be removed from the facility as trash or in debris removal. Host 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).

- **Composting:** Currently **not** approved by regulation and **not** approved for use in the Confirmed Nursery Protocol or in the Federal Regulations. Recent research shows this to be an efficacious treatment. The procedures tested are codified in California Integrated Waste Management Board regulations (Title 7, Division 7, Chapter 3.1 Article 7, Section 17868.3 (b) and (c)). (See http://www.ciwmb.ca.gov/Regulations/Title14/ch31a5.htm#article7)

**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, plastic sheeting. A number of disinfectants are registered for use on nonporous surfaces that may effectively reduce populations of *Phytophthora* species. If it is practicable, tools such as knives, pruners, water breakers, water wands and other implements used in the buffer area should only be used in the buffer area. If tools and other implements must be moved from the buffer area, then regular disinfection using an appropriate disinfectant for the control of *P. ramorum* is recommended prior to removal from the buffer zone. 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 |
| Peroxides (0.1-2%) | **Zerotol Oxidate TerraClean** | Inactivated by organic matter, no residual activity. Photosensitive. Use according to labels. | Soil treatment |

**Water:**

- **For dust abatement, fire suppression, and equipment cleaning**: Chlorox (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 at the sprinkler head; otherwise the treatment is not effective.

- **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.

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

**Summary of Labeled Soil Fumigants**

| Fumigant | Trade names | Comments |
|---|---|---|
| Chloropicrin | Chlor-O-Pic<br>Metapicrin<br>Timberfume<br>Tri-Clor | Chlorinated hydrocarbon used as a tear gas. Often used in combination with methyl bromide due to its ability to be detected in small quantities. In use as soils fumigant for more that 75 years. |
| Dazomet | Basamid | Methyl isothyocyanate (MITC) breaks down into cyanide gas. Granular formulation that is water activated. |
| Metam-sodium | Busan 1020<br>Busan 1180<br>Busan 1236<br>Basamid<br>Vapam | Township caps in California make judicious use of this product a necessity. Limitations in California also include proximity to public places. All applicable labels must be observed. |

| Fumigant | Trade names | Comments |
|---|---|---|
| Methyl Bromide | Tri-Con<br>Terr-O-Gas<br>Preplant Soil Fumigant<br>Pic-Brom | Colorless and odorless. Usually combined in various concentrations with Chloropicrin (tear gas). Use is restricted due to ozone depletion potential. Use to be discontinued in 2005 except for quarantine exemption in accordance with the Montreal Protocol of 1989. Current production of methyl bromide limited to 25% of 1991 levels. |

**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 facility must scrape off loose pieces of soil. Those working with, or in contact with suspected infested material (including plants), must wash hands using soap or disinfectant immediately after completion of task.

- A disinfectant foot bath should be placed and used by personnel entering and exiting the buffer area at the infested facility, where the movement of soil or plant debris on footwear is likely. The foot bath must be filled with fresh disinfectant on a daily basis. Use of disposable shoe covers may be used in lieu of a footbath, if disposed of immediately upon exit from the buffer. The disposable shoe covers must be placed in bags and incinerated or deep-buried.

- The tires (or other parts in contact with the soil) of vehicles must be cleaned of loose soil before leaving the infested facility.

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

- Wood surfaces suspected of contamination with *P. ramorum* should be treated with copper naphthenate (Erwin and Ribeiro, 1996).

## Appendix 2
## Best Management Practices for Nurseries

These Best Management Practices (BMP's) are designed to control or eliminate the diseases caused by *Phytophthora ramorum*.

The control of *P. ramorum* spread is based on the establishment of multiple hurdles or barriers to the pathogen with a purpose of minimizing the risk of introduction or survival of the SOD pathogen in a nursery. The BMP's assure the monitoring of the functionality of the process controls for the pathogen.

Each nursery facility is expected to review these and employ some or all of these practices depending upon their physical location and plant products that are handled. Nurseries are encouraged to incorporate these BMP's into their Standard Operating Procedures.

The BMP's have been divided into three categories:

- Exclusion
- Prevention
- Monitoring

**The following BMPs should be considered for preventing the establishment or spread of diseases caused by *P. ramorum*:**

**Exclusion:**

- No over story or under story of known *P. ramorum* hosts on nursery grounds unless there is regular monitoring of those hosts.
- Confirm host stock is propagated from materials originating on site or is received from shipping nurseries (in SOD-quarantined or regulated areas) under compliance agreements.
- All incoming host plants (buy-ins, transfers ...), regardless of origin, should be visually inspected for symptoms of *P. ramorum* by trained nursery personnel prior to being incorporated into the production facility.

**Prevention:**

- Effective fungicide program for the control of *Phytophthora* on susceptible host plants (research in progress, results pending.).
- Off load incoming shipments to an area that can be cleaned of the leafy debris. Sweep debris from the receiving pad and the delivery truck; collect debris and bag for disposal.
- Avoid product returns of nursery stock from a receiver in a quarantined area. If unavoidable, contact your State Regulatory Official (if in California your County Agricultural Commissioner) prior to accepting the nursery stock return.

**Monitoring:**

- Nursery personnel should attend one or more SOD trainings. Training is available through the California Oak Mortality Task Force, USDA Forest Service, California Department of Food and Agriculture, California County Agricultural Commissioners, and

other qualified personnel. SOD training may also be available through State Agriculture Departments, and Universities in other States.

- All host buy-ins should be maintained separately from other hosts plants and periodically inspected for symptoms of the disease over the course of a growing season.
- Monitor host and associated plants in surrounding area for symptoms of *P. ramorum* in Spring and Fall
- Identify sources of disease recognition fact sheets, and/or develop and distribute disease recognition fact sheets on host plants to educate all field nursery personnel.
- Record Keeping: Maintain accurate shipping documentation identifying product, amount, date and origin or receiver for the purpose of identifying trace backs and trace forwards.

**If the disease is found in the environs surrounding a nursery, these BMPs should be followed:**

- Install diversion burms to prevent soil and water movement, during storm-related events, from hillsides populated with *P. ramorum* host plants.
- Place containers/pots on a soil barrier, such as 6 inches gravel on plastic or other impermeable weed-block or on raised benches.
- Irrigation water from any source other than well or municipal water supplies should be monitored to confirm that it is free from the pathogen.
- Avoid overhead irrigation of host plants where practical. When using overhead irrigation, irrigate in the morning to allow the foliage to dry before nightfall.

## Appendix 3
## Diagnostics

Samples must be analyzed using a methodology approved by APHIS. See techniques posted at: http://www.aphis.usda.gov/ppq/ispm/sod/survey.htm.

a. **Recommended prescreening.** ELISA prescreening of plant samples is highly recommended to determine the presence of *Phytophthora* spp. The approved ELISA is the test produced by Agdia, Inc.
   1. **Negative prescreening results.** If all samples from a single nursery are found to be negative through ELISA prescreening, no further testing is required. The nursery may be considered free of evidence of *Phytophthora ramorum*.
   2. **Positive prescreening results.** If ELISA prescreening reveals the presence of *Phytophthora* in any plants, each sample that returns positive ELISA results must be tested according to paragraph (b) of this section.

**Testing procedures.** If ELISA prescreening is not performed, or if results of ELISA prescreening are positive for *Phytophthora* in any sample, the sample must be analyzed using an APHIS-approved nested polymerase chain reaction (PCR) or culture test. Samples are considered positive for *Phytophthora ramorum* based on positive results of a nested PCR test. Positive nested PCR tests do not require confirmatory culture tests, nor do positive culture tests require confirmatory nested PCR tests. Note, however, that if culture tests do not return positive results, a nested PCR test must be conducted, as described below. No culture test is required if a nested PCR test returns negative results.

1. **Nested PCR test.**
   i. **Negative results.** If the results of nested PCR tests are reported negative by APHIS for all samples from a nursery or single shipment, no further testing is required. The nursery or shipment sampled may be considered free of evidence of *Phytophthora ramorum*.
   ii. **Positive results.** If any samples tested using the nested PCR protocol are reported by APHIS as positive results for *Phytophthora ramorum*, the nursery is considered infested.
2. **Culture Test.**
   i. **Negative results.** If the results of culture tests are not positive for *P. ramorum* for any samples taken from a nursery or a single shipment, each plant sample that returns such culture results must be tested again using a nested PCR test, and plants from the nursery or shipment are only eligible for interstate movement in accordance with paragraph (b)(1) of this section.
   ii. **Positive results.** If any culture tests return positive results for *Phytophthora ramorum*, and those results verified by APHIS, the nursery from which they originate is subject to the procedures in this protocol.

## Appendix 4
## Plant Sampling Protocol

All symptomatic plants must be sampled, collecting and testing a minimum of 40 plant samples per nursery. Samples must be taken from symptomatic plants unless no symptomatic plants are present; if less than 40 symptomatic plants are present, up to 40 asymptomatic plants (or 100% of plants, whichever is less) must be sampled. One sample may contain more than one leaf, but no more than one sample may be taken from a single plant. Samples should be taken from host and associated plants and nearby plants. (or as detailed in 7 CFR 301.92-11(b)(2).)

## Appendix 5
## Soil and Potting Medium Sampling Protocol

(see http://www.aphis.usda.gov/ppq/ispm/sod/soilsamplingprotocol.html for latest approved protocol)

### Soil and Potting Media Sampling

- Infested soil or potting media will look exactly the same as un-infested soil or potting 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, 70% ethanol, 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 potting 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 potting media is not contaminated by infested soil or potting media.

### Preparing for sampling.

- Soil and potting media samples should be collected as composite 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 potting media (½ 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). Composite samples of potting media should be kept separate from soil samples. There should be at least two samples, one for potting media and one for soil, unless all plants and associated potting 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 week block should be removed prior to soil sampling.

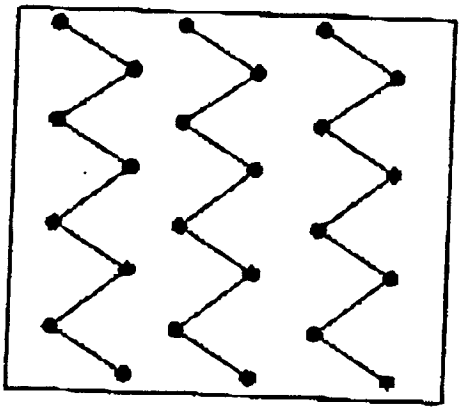
Table 1. Number of composite samples collected based on nursery block size.

| Size of Treated Site (acres) | No. of Soil and Potting Media Samples Collected (total) |
|---|---|
| 0.00 - 0.25 | 1 (2) |
| 0.26 - 0.5 | 2 (4) |
| 0.50 - 1.0 | 4 (8) |
| 1.01 - 2.50 | 8(16) |
| >2.51 | 12 (24) |

- Each composite sample will consist of at least five sub-samples collected from soil or potting media within the targeted area. While five is a minimum, it is preferable to take 24 sub-samples of soil or potting media for each sample, provided the area is large enough (for soil samples) and enough plants are present (for potting 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 potting 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/potting media samples from these blocks first to minimize the risk of contaminating un-infested soil/potting media. If all potentially-infested potting 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 potting media of those plants that are "downstream" (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 potting media samples.



## Appendix 6
## Water Sampling Protocol for Retention Ponds

(see http://www.aphis.usda.gov/ppq/ispm/sod/watersamplingprotocol.html 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. 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 simultaneous with the leaf bait sample in the facility water.

  Prepare the rhododendron leaves as bait by cutting the leaves in a herringbone pattern into (but not through) the mid-vein or 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. Sample should be processed within 48 hours of collection. 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 | 1 |
| 0.26 - 0.5 | 2 |
| 0.50 - 1.0 | 4 |
| 1.01 - 2.50 | 8 |
| >2.51 | 12 |

# Appendix 7
# Resource and Contact List

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# Appendix 8

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

(Revision dated 02 August 2004) This list is constantly being updated.
The most current version is posted at: http://www.aphis.usda.gov/ppq/ispm/sod

### Proven Hosts for *Phytophthora ramorum*

(These may be regulated in whole or in part – see "Updates" at: http://www.aphis.usda.gov/ppq/ispm/sod)

| Scientific Name (28) | Common Name |
|---|---|
| *Acer macrophyllum* | Bigleaf maple |
| *Aesculus californica* | California buckeye |
| *Arbutus menziesii* | Madrone |
| *Arctostaphylos manzanita* | Manzanita |
| *Camellia spp.* | Camellia - all species, hybrids and cultivars |
| *Hamamelis virginiana* | Witch hazel |
| *Heteromeles arbutifolia* | Toyon |
| *Lithocarpus densiflorus* | Tanoak |
| *Lonicera hispidula* | California honeysuckle |
| *Pieris formosa* | Himalaya Pieris |
| *Pieris formosa x japonica* | Pieris 'Forest Flame', forest flame andromeda |
| *Pieris floribunda x japonica* | Pieris 'Brouwer's Beauty', Brouwer's beauty andromeda |
| *Pieris japonica* | Japanese Pieris |
| *Pseudotsuga menziesii* var. *menziesii* | Douglas-fir |
| *Quercus agrifolia* | Coast live oak |
| *Quercus chrysolepis* | Canyon live oak |
| *Quercus kelloggii* | California black oak |
| *Quercus parvula* v. *shrevei* | Shreve's oak |
| *Rhamnus californica* | California coffeeberry |
| *Rhododendron spp.* | Rhododendron (including azalea) – includes all species, hybrids and cultivars |
| *Rosa gymnocarpa* | Wood rose |
| *Sequoia sempervirens* | Coast redwood |
| *Trientalis latifolia* | Western starflower |
| *Umbellularia californica* | California bay laurel, pepperwood, Oregon myrtle |
| *Vaccinium ovatum* | Evergreen huckleberry |
| *Viburnum x bodnantense* | Bodnant Viburnum |

| | |
|---|---|
| *Viburnum plicatum* var. *tomentosum* | Doublefile Viburnum |
| *Viburnum tinus* | Laurustinus |

**Plants Associated with *Phytophthora ramorum***

(Until proven as a host by Koch's postulates, there are only regulated as nursery stock and not in other forms. Sec 7 CFR 301.92 http://www.aphis.usda.gov/ppq/ispm/sod)

| Scientific Name (36) | Common Name, Date & Source of Report |
|---|---|
| *Abies grandis* | Grand fir – June 03 (1) |
| *Aesculus hippocastanum* | Horse-chestnut – Dec 03 (3) |
| *Arbutus unedo* | Strawberry tree – Dec 02 (7) |
| *Calluna vulgaris* | Heath – June 04 (11) |
| *Clintonia andrewsiana* | Andrew's clintonia bead lily – May 04 (5) |
| *Castanoa sativa* | Sweet chestnut – Feb 04 (3) |
| *Corylus comuta* | California hazelnut – Dec 02 (5) |
| *Drimys winteri* | Winter's bark – July 04 (3) |
| *Dryopteris arguta* | California wood fern – May 04 (5) |
| *Fagus sylvatica* | European beech – Dec 03 (3) |
| *Kalmia latifolia* | Mountain laurel – Fall 02 (3) |
| *Laurus nobilis* | Bay laurel – July 04 (3) |
| *Leucothoe fontanesiana* | Drooping leucothoe - Oct 03 (3) |
| *Pieris formosa var. forrestii* | Chinese Pieris – Oct 03 (3) |
| *Pieris formosa var. forrestii x Pieris japonica* | Pieris – Oct 03 (3) |
| *Pittosporum undulatum* | Victorian box – Dec 02 (6) |
| *Pyracantha koidzumli* | Formosa firethorn – Apr 04 (9) |
| *Quercus cerris* | European turkey oak - Feb 04 (3) |
| *Quercus falcata* | Southern red oak – Nov 03 (3) |
| *Quercus ilex* | Holm oak – Dec 03 (3) |
| *Quercus rubra* | Northern red oak – Nov 03 (8) |
| *Rhamnus purshiana* | Cascara – Dec 02 (4) |
| *Rubus spectabilis* | Salmonberry – Dec 02 (4) |
| *Salix caprea* | Goat willow – July 04 (3) |
| *Smilacina racemosa* | False Solomon's seal – June 04 (10) |
| *Syringa vulgaris* | Lilac – 2003 (3) updated Oct 03 |
| *Taxus baccata* | European yew – Aug 03 (3) |
| *Taxus brevifolia* | Pacific yew – May 03 (5) |
| *Toxicodendron diversiloba* | Poison oak – Dec 02 (4) |
| *Viburnum davidii* | David Viburnum - Oct 03 (3) |

| | |
|---|---|
| *Viburnum farreri (=V. fragrans)* | Fragrant Viburnum – Oct 03 (3) |
| *Viburnum lantana* | Wayfaringtree Viburnum – Oct 03 (3) |
| *Viburnum opulus* | European cranberrybush Viburnum – Oct 03(3) |
| *Viburnum x burkwoodii* | Burkwood Viburnum – Oct 03 (3) |
| *Viburnum x carlcephalum x V. utile* | Viburnum – Oct 03 (3) |
| *Viburnum x pragense* | Prague Viburnum – Oct 03 (3) |

[1] California Department of Food and Agriculture
[2] Oregon Department of Agriculture
[3] Department for Environment, Food, and Rural Affairs, UK
[4] Everett Hanson, Oregon State University
[5] David Rizzo, University of California – Davis
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[7] Eduardo Moralejo, Instituto Mediterráneo de Estudios Avanzados, IMEDEA (CSIC-UIB) - Balearic Islands, Spain
[8] Plant Protection Service, Wageningen, Netherlands
[9] Canadian Food Inspection Agency, Canada
[10] Daniel Hüberli, University of California – Berkeley
[11] Adam Zych, Plant Protection and Seed Service – Poland

**Rationale for Lists:**

**Host Plants for *Phytophthora ramorum*:**
Host plants are naturally infected associated plants added upon completion, documentation, review and acceptance of traditional Koch's postulates. Some are regulated in part (such as redwood and Douglas fir); others are regulated in their entirety (such as tanoak and western star flower). 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/ppq/ispm/sod

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*:**
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. These reports must be documented and reviewed by PPQ before they will be listed.

**Regulation at the genus level:**
For either list, a listed plant may be revised to regulate at the genus level to ensure appropriate and effective inspection in quarantine areas, regulated nurseries, and regulated articles to mitigate the spread of *P. ramorum*. An example is when the number of individual species, hybrids, or cultivars listed or to be listed is determined to prevent appropriate and effective inspection or regulation.

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Exhibit A Attachment 1
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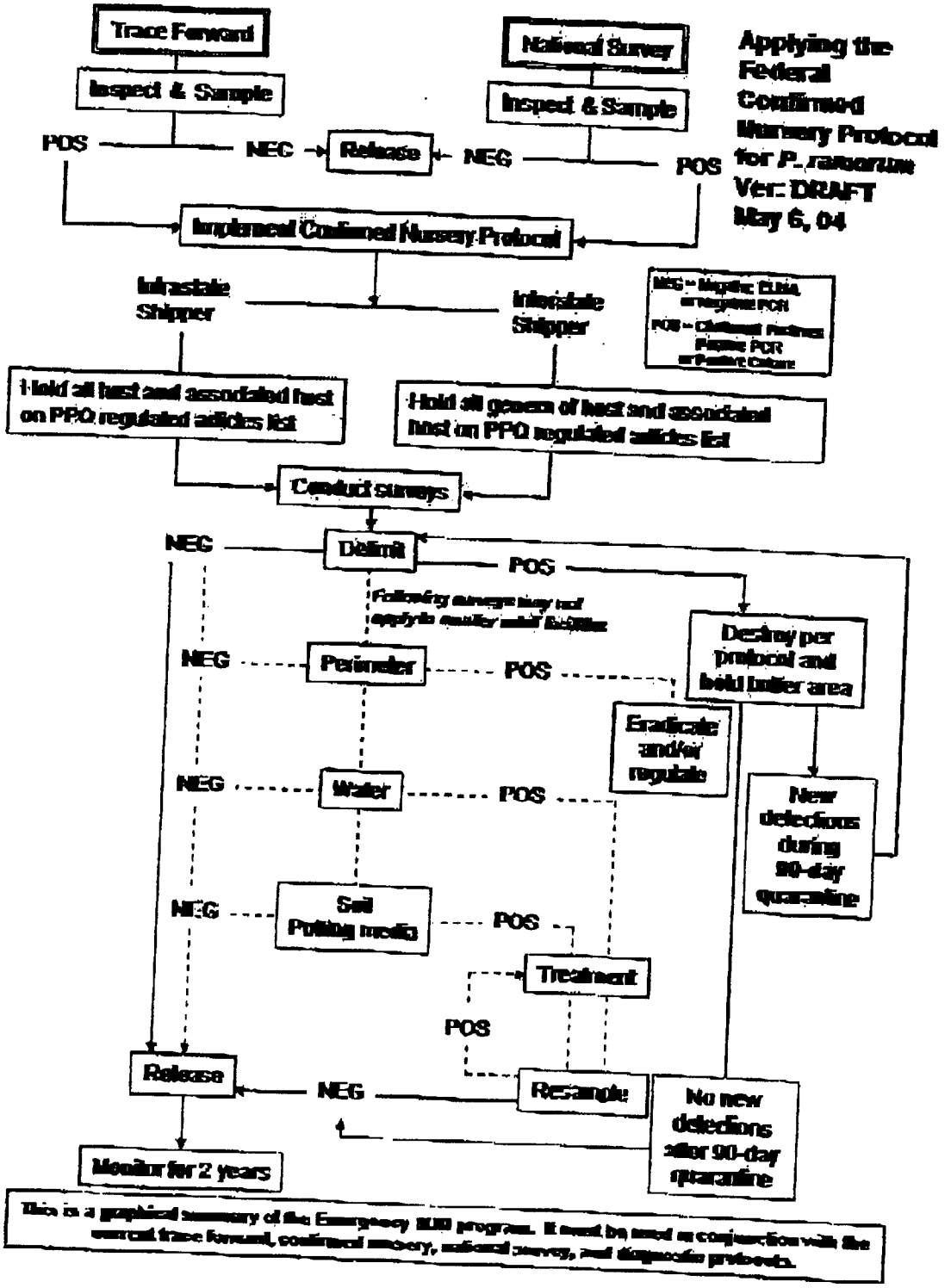
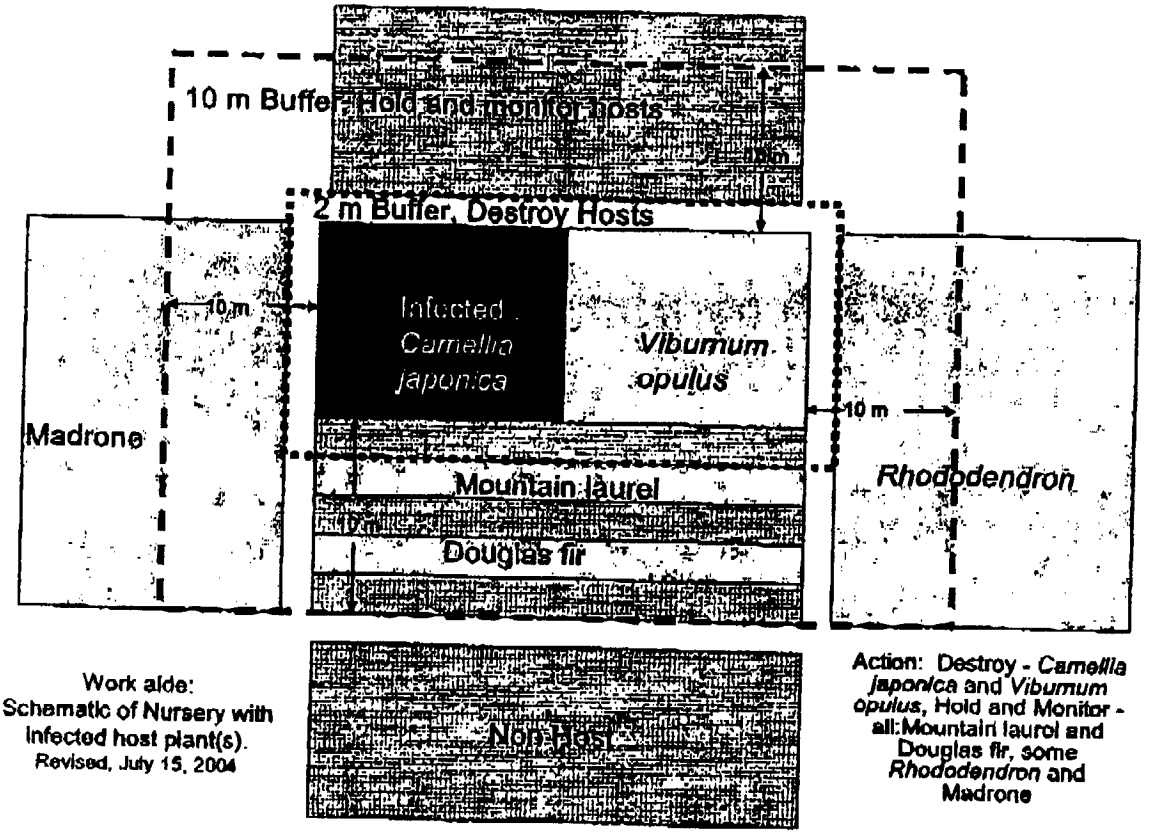
## Appendix 9
## Protocol Schematic



## Appendix 10
## Work Aide – Schematic of Nursery with Infected Host Plant(s).




Work aide:
Schematic of Nursery with Infected host plant(s).
Revised, July 15, 2004

Action: Destroy - *Camellia japonica* and *Viburnum opulus*, Hold and Monitor - all:Mountain laurel and Douglas fir, some *Rhododendron* and Madrone

**Scope of Work for *Phytophthora ramorum***
**(Sudden Oak Death)**
**In Regulated Counties**
**July 1, 2006 - June 30, 2007**
**FY 2006/2007**

# Appendix B

# Pest Exclusion Advisory 2-2006

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

# PEST EXCLUSION ADVISORY

NO. 02-2006

DATE: March 7, 2006

TO: All County Agricultural Commissioners

FROM: Plant Health and Pest Prevention Services

SUBJECT: Actions at *Phytophthora ramorum*-Positive Locations

This advisory is being issued to clarify the actions that must take place at different types of nurseries confirmed positive for *Phytophthora ramorum*.

## Production Nurseries/Wholesale Brokers

**Interstate Shippers in All Counties**
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 must be implemented.
3. Compliance agreements for interstate shipping will be re-issued after delimitation according to the Confirmed Nursery Protocol including sampling, testing, and re-inspection with negative results.

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

1. The Confirmed Nursery Protocol 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**
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 must be implemented.

3. Compliance agreements for interstate shipping will be re-issued after delimitation according to the Confirmed Nursery Protocol including sampling, testing, and re-inspection with negative results.

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

1. Infected lot(s) must be destroyed.
2. All host and associated host plants (HAP) at the nursery must be inspected for symptoms of SOD.
3. Take samples from all visually inspected plants that appear unhealthy, up to a maximum of 40 samples.
4. Symptomatic plants must be placed under nursery stock non-compliance hold.
5. All plants that test positive, and the respective lots, must be destroyed.

**Retail Nurseries/Garden Centers in Quarantined Counties**
Nurseries located within the 14 quarantined counties that do not ship out of the quarantined area:

1. Detection of *P. ramorum* at such retail nurseries should be dealt with following the nursery stock standard of cleanliness (CCR 3060).

**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, 2006 - June 30, 2007**
**FY 2006/2007**

# Appendix C

# Pest Exclusion Advisory 5-2006

Agreement No. 06-0287
Exhibit A
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STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND
AGRICULTURE
1220 N Street, Room A-372
Sacramento, CA 95814

# PEST EXCLUSION ADVISORY

NO. 05-2006

\TE: March 17, 2006

): All County Agricultural Commissioners

:OM: Plant Health and Pest Prevention Services

IBJECT: Amended Trace Forward Protocol for *Phytophthora ramorum*

Effective immediately, the attached *P. ramorum* Trace Forward Protocol is to be implemented at California nurseries that have received host or associated host plants (HAP) from a nursery confirmed positive for *P. ramorum*. This advisory supercedes the activities outlined in Pest Exclusion Advisories 02-2005, 04-2005 and 05-2005.

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

# Trace Forward Protocol
## For
*California Nurseries that Received Plant Material Shipped from a Confirmed*
## *Phytophthora ramorum*-Infested Nursery

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/ppq/ispm/pramorum/.

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.

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

**Buffer Zone:** Area identified as a 10-meter radius from the destruction block designed to determine if *P. ramorum* has spread beyond the destruction block. This zone is also known as the quarantine block. (Use of buffer zone 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])

**Confirmed Positive:** A *P. ramorum* sample diagnosed or identified by an APHIS Reference Laboratory as positive for *P. ramorum*.

**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 two-meter break of either no plants or no HAP.

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

**High-Risk Plants:** These are any HAP that 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-risk plants can be identified to cultivar, then trace forward activities may be conducted at the cultivar level). All plants shipped from the infested nursery in the past 12 months that match the description of plants that were in the destruction block are considered to be high-risk.

**fected Plants:** Plants officially confirmed as being infected with *P. ramorum*, based on the use of APHIS-approved diagnostics.

**edium-Risk Plants:** These are any HAP that originated from the infested (source) nursery that did not originate in the destruction block. All plants shipped from the infested nursery in the past 12 months that did not originate in the destruction block are considered to be medium-risk.

**ırsery/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.

**spected 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 buffer zone; and/or plants that have tested positive using PCR or culturing, but have not been confirmed positive for *P. ramorum* by APHIS.

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

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

Before Inspection

ıre inspection is conducted when favorable climatic conditions, pathogen infectivity, and host susceptibility e an optimum time for disease development and symptoms are likely to be expressed. If conditions are not ıble for disease development, an additional inspection must be conducted when favorable climatic conditions ›resent.

urvey/Inspection Procedure

- Identify yourself and agency to the nursery/facility owner/manager.
- Explain to the nursery/facility owner/manager the purpose of your visit.
- 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.

Determine the presence or absence of any of the trace forward high-risk plants and medium-risk plants at the trace forward site.

a) If the trace forward nursery received high-risk plants from the infested source nursery during the past 12 months, a trace forward investigation must be conducted, even if there are no longer any high-risk 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.
b) If the trace forward nursery received in the previous 12 months only medium-risk plants from the infested source nursery, a trace forward investigation must be conducted if the plants are still present on the nursery.
c) If the trace forward nursery received in the previous 12 months only medium-risk 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 the National Survey for *P. ramorum*, if the plants are no longer present on the nursery.

i) If the trace forward nursery is a retail nursery in a quarantined county and does not ship out of the quarantined area, the nursery is exempt from regulatory trace forward actions.

ii) County agricultural commissioners in the quarantined counties may choose to hold, inspect, and sample *P. ramorum* trace forward plants at retail nurseries that do not ship plants out of the quarantined area.

5. Place a hold on all the high-risk and medium-risk trace forward plants from the infested (source) nursery.

## III. Plants to be Held

1. For production/wholesale nurseries:
   a) Place a hold on all high-risk plants and all other HAP in the block where the high-risk plants have been located at the trace forward nursery.
   b) All medium-risk plants are to be held.
   c) Hold all other plants that have been sampled.
   d) All other HAP in the trace forward nursery are **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.
2. For retail nurseries (because plant propagation does not occur on-site, risk is lower):
   a) Place a hold on all high-risk plants.
   b) All medium-risk plants are to be held.
   c) Hold all other plants that have been sampled.
   d) Once inspection and sampling are complete, the held plants shall be consolidated and segregated. If the plants are not, ensure that the plants are not accessible 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. Segregation must include storage on a hard impermeable surface (e.g. concrete or asphalt).
   e) When segregating plants, ensure that a two-meter buffer is set up between lots to prevent the destruction of all segregated plants if one is found positive.

## V. Determine the Number of Plants to be Inspected

1. 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 cannot be determined, visually inspect at least 850 HAP plants of the same genera shipped from the TF nursery.
2. 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 (up to 40 samples). Images of *P. ramorum* symptoms are available at http://www.aphis.usda.gov/ppq/ispm/pramorum/. 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.suddenoakdeath.org, which provide nursery guides that describe and illustrate *P. ramorum* infections, are also available at http://www.aphis.usda.gov/ppq/ispm/pramorum/. These nursery guides may be viewed and printed from these sites. Symptoms of *P. ramorum* may include:

a) Leaf spots
b) Twig dieback
c) Stem cankers

3. 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.

**Sample**

**nple plant tissue from any and all visually inspected plants that appear unhealthy (up to 40 samples).**

**Identify Cull Piles**

eck cull piles for *P. ramorum*-symptomatic plant material and sample if observed.

**Inspect Greenhouse/Nursery Waste and Refuse Piles**

ect greenhouse/nursery waste and refuse pile for symptomatic plants and sample if observed.

**I. Sanitize/Disinfect**

ore leaving premises, sanitize/disinfect tools and shoes using an appropriate disinfectant for the control of *tophthora spp.* (e.g. a 10% solution of bleach or quaternary ammonium solution at labeled rates).

**Option to Destroy**

. 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. If there are positive *P. ramorum* results, the Confirmed Nursery Protocol will be implemented as appropriate.
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 voluntarily destroy the HAP received from the TF nursery and all other HAP in the same lot as 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 conducted under the supervision of a Federal or other appropriate regulatory official.
b) The high-risk plants and HAP plants in the associated lot may be treated as a hold 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.

**plant samples are found positive for *P. ramorum*, whether the plants are remaining on the site or been destroyed, the actions outlined in Pest Exclusion Advisory 02-2006 will be followed.**

**samples associated with the cull piles are found positive for *P. ramorum*, the actions outlined in Pest sion Advisory 02-2006 will be followed.**

**Scope of Work for *Phytophthora ramorum***
**(Sudden Oak Death)**
**In Regulated Counties**
**July 1, 2006 - June 30, 2007**
**FY 2006/2007**

# Appendix D

## Federal Order Restricting Interstate Movement of Nursery Stock from California, Oregon, and Washington Nurseries December 21, 2004

# EMERGENCY FEDERAL ORDER
# RESTRICTING MOVEMENT OF NURSERY STOCK
# FROM CALIFORNIA, OREGON, AND WASHINGTON NURSERIES
December 21, 2004

This emergency Order replaces ORDER RESTRICTING MOVEMENT OF NURSERY STOCK FROM CALIFORNIA NURSERIES, dated April 22, 2004 and the April 23, 2004 CLARIFICATION.

The purpose and goal of this Order is to prevent the spread of *Phytophthora ramorum* through regulatory authority provided for in Sections 412 and 414 of the Plant Protection Act, (7 U.S.C. 7712, 7714).

This Order is effective on January 10, 2005.

The Administrator of the Animal and Plant Health Inspection Service (APHIS) considers it necessary, in order to prevent the dissemination of *P. ramorum*, to establish restrictions on the interstate movement of nursery stock from nurseries in California, Oregon, and Washington as described in this Order.

Under "Subpart–Phytophthora Ramorum" (7 CFR 301.92 through 301.92-11, referred to below as the regulations), APHIS restricts the interstate movement of certain regulated and restricted articles from quarantined areas in California and Oregon to prevent the artificial spread of *P. ramorum*. The requirements established by this Order supersede any requirements contained in 7 CFR 301.92 through 301.92-11 that are inconsistent with this Order. Note that all other requirements of 7 CFR 301.92 through 301.92-11 remain in force.

**Definitions of key terms used in this Order:**

Dormancy: A seasonal absence of plant parts, such as leaves. In dormancy, foliar *P. ramorum* symptoms would not be observable.

Compliance Agreement: AN APHIS or APHIS/State written agreement made with industry covering the details of the *P. ramorum* program as applies to that entity. Would include obligations, responsibilities, procedures, record keeping, penalties, time period covered, audits, and certification.

Lot (of plants): A lot is defined as a contiguous block of plants of the same species or variety, of the same container size and from the same source, if known.

Nursery: Any location where nursery stock is grown, propagated, stored, or sold; or any location from which nursery stock is distributed to a customer.

Nursery Stock: All plants for planting, including houseplants and propagative material. The following nursery stock is exempted from the requirements of this Order in both quarantined and regulated areas:

- Seeds
- Turf or sod
- Bulbs, tubers, corms, or rhizomes (except those plants listed in Attachment I and II)
- Greenhouse grown cactus
- Greenhouse grown succulents
- Greenhouse grown orchids
- Aquarium grown aquatic plants
- Greenhouse, container, or field grown palms
- Greenhouse, container, or field grown cycads
- Tissue culture plants grown in vitro

Quarantined Area: An area within which a quarantine pest occurs and is being officially controlled." (NAPPO, 1985) FAO-WG, 1995. For this Order, a county or part of a county where P. ramorum has been established in the natural environment and has come under the provisions of 7CFR301.92.

Regulated Area: An area into which, within which, and/or from which plants, plant products and other regulated articles, are subjected to phytosanitary measures in order to prevent the introduction and/or spread of quarantine pests." (NAPPO, 1994c) FAQ, 1990. For this Order, any county or part of a county in California, Oregon, and Washington not quarantined under the provisions of 7CFR301.92.

Succulents: plants having thick, fleshy, water-storing leaves or stems.

Turf or sod: a surface layer of earth containing a dense growth of grass and its matted roots.

"When symptoms are anticipated": Period generally 30-60 days after bud-break (usually in the spring). For some plants or locations, may be in fall, winter, or earlier in the spring. To be determined at the discretion of the State Department of Agriculture, but can be determined for species with consultation with CPHST.

**Rationale for this Order**

This Order addresses the discovery of *P. ramorum* in nurseries in California, Oregon, and Washington that are outside quarantined areas (such areas are referred to as regulated areas in this Order). Since nurseries in regulated areas are not covered by the current regulations in 7 CFR 301.92 through 301.92-11, we are requiring inspection and certification of freedom from *P. ramorum* of all nurseries in California, Oregon and Washington that ship plants interstate, and are implementing restrictions on the interstate movement of nursery stock from all nurseries in regulated areas under this Order. This

action is necessary on an emergency basis to prevent the potential spread of *P. ramorum* to non-infested areas of the United States.

## REQUIREMENTS

### I. Restrictions on California and Oregon Nurseries in Quarantined Areas

Under the regulations in §301.92-11(a), nurseries in quarantined areas must be inspected for symptoms of *P. ramorum* annually. In addition, each shipment of regulated articles of nursery stock must be inspected and found free of *P. ramorum* prior to their interstate movement.

This Order restricts the interstate movement of associated articles (see Attachment II). Under this Order, the provisions of § 301.92-11 are applied to associated articles that are being moved interstate from quarantined areas The provisions of § 301.92-11 include requirements that nurseries where host nursery stock and associated articles are grown be inspected and tested for the presence of *P. ramorum* in advance of the interstate movement of regulated nursery stock.

Testing of nursery stock required under 301.92-11 of the regulations must be in accordance with the testing protocol described in Section V of this Order.

Additionally, under this Order, any nursery in a quarantined area that ships plants interstate, but that does not contain or ship plants listed in Attachments I and II, must be visually inspected annually for *P. ramorum*-like symptoms. The initial inspection and determination of pest-freedom for such nurseries must occur within 60 days of the effective date of this Order for the nursery to be eligible to continue shipping plants interstate after that date. The sixty day inspection requirement is postponed if plants have entered dormancy at the time this Order is issued. In those cases, this Order will go into effect sixty days following the time when the best expression of symptoms is anticipated but no later than July 1, 2005. Plants showing symptoms of *P. ramorum*-like infection upon inspection will be sampled and tested. 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 *P. ramorum* as described below under Section V: (1) all symptomatic plants; (2) any plants located in the same lot as the suspect plant; and 3) any plants located within 2 meters of this lot of plants.

### II. Initial Restrictions on California, Oregon, and Washington Nurseries Located in Regulated Areas

The detections of *P. ramorum* in Washington and the regulated areas of California and Oregon are limited to commercially produced plants inside nurseries. In the quarantined counties in California and Oregon, *P. ramorum* is known to be established in the natural environment. The disease has not been detected in the environment outside the quarantined area. Therefore, we are regulating the interstate movement of nursery stock from nurseries in regulated areas in California, Oregon, and Washington, but we are not

regulating the interstate movement of any other articles from regulated areas in California, Oregon, and Washington.

*Effective January 10, 2005*, nurseries in regulated areas in California, Oregon, and Washington that ship host or associated plant nursery stock listed in Attachments I and II of this Order interstate may not ship nursery stock interstate until the nursery has been inspected, sampled and tested, and we determine there is no evidence of *P. ramorum* infestation according to the process described in this Order.

Nurseries that have been inspected, sampled and certified free of *P. ramorum* consistent with standards set forth in this Order no more than one year prior to the date of signature of this Order may continue to ship interstate for up to one year after certification, after which date they must be re-inspected as per this Order.

*Effective sixty days after January 10, 2005 (effective date of Order)*, any nursery in California, Oregon, and Washington that ships plants interstate, but that does not contain or ship plants listed in Attachments I and II may not ship nursery stock interstate until the nursery has been inspected and we determine there is no evidence of *P. ramorum* infestation according to the process described in this Order. The sixty day inspection requirement is postponed if plants have entered dormancy at the time this Order is issued. In those cases, this Order will go into effect sixty days following the time when the best expression of symptoms is anticipated but no later than July 1, 2005.

States shall maintain lists of nurseries approved for shipping under this Order.

**III. Annual Inspection and Restrictions on Movement of Plants.**

Nurseries in regulated areas in California, Oregon, and Washington that ship host or associated plant nursery stock listed in Attachments I and II of this Order interstate must be inspected, sampled, and tested annually in accordance with Sections IV and V of this Order by an APHIS, State, or County inspector for *P. ramorum*. Inspectors should conduct inspections at times when the best expression of symptoms are anticipated. In addition, the inspector should take nursery fungicide programs into consideration.

All genera of plants are subject to inspection. Alternately, such nurseries may be inspected sampled, and tested through an official "State Nursery Stock Cleanliness Program" (SNSCP), which documents inspection of all nursery stock for the presence of *P. ramorum*, at the appropriate time of the year. The SNSCP inspection, sampling, and testing program must be approved by APHIS. Until testing is completed and the nursery is found free of evidence of *P. ramorum* as described below under Section V the following plants must be withheld from interstate shipment: (1) All host nursery stock and associated plants; (2) all plants within same genus as any host or associated plant; and (3) any plants located within 10 meters of a host or associated plant.

Nurseries in regulated or quarantined areas that ship plants interstate, but that do not contain or ship plants listed in Attachments I and II, must be visually inspected annually

for *P. ramorum*-like symptoms. Inspectors should conduct inspections at times when the best expression of symptoms are anticipated. In addition, the inspector should take nursery fungicide programs into consideration. All genera of plants are subject to inspection. Plants showing symptoms of *P. ramorum* infection upon inspection will be sampled and tested. 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 *P. ramorum* as described below under Section V: (1) all symptomatic plants; (2) any plants located in the same lot as the suspect plant; and 3) any plants located within 2 meters of this lot of plants.

Nurseries in California, Oregon, or Washington that are operating under compliance agreements and that receive plants from sources in California, Oregon, or Washington may only receive host and associated host plants from nurseries also under an APHIS approved compliance agreement or nonlisted plants from nurseries that have been inspected and are on a list maintained by state agriculture officials. Otherwise, the receiving nurseries must have an official inspector inspect and test such plants for *P. ramorum* and these plants must be safeguarded, segregated and held from sale until test results are complete.

Nurseries in California, Oregon, or Washington that are operating under compliance agreements may be inspected, sampled, and tested anytime prior to the expiration of their current agreement. Should symptomatic plants be found during the inspection, the following plants must be withheld from interstate shipment until testing is completed and the nursery is found free of evidence of *P. ramorum* as described below under Section V: (1) all symptomatic plants; (2) any plants located in the same lot as the suspect plant; and (3) any plants located within 2 meters of this lot of plants. Should the compliance agreement expire before testing is completed and the nursery has not been found free of evidence of *P. ramorum* as described below under Section V then the following plants must be withheld from interstate shipment: (1) All host nursery stock and associated plants; (2) all plants within same genus as any host or associated plant; and (3) any plants located within 10 meters of a host or associated plant.

All nurseries that are operating under compliance agreements, except retail outlets, must maintain records of all incoming and outgoing shipments of plants for a minimum of 24 months. Retail dealers that are operating under compliance agreements must maintain records of incoming shipments for a minimum of 24 months.

**IV. Sampling.**

For nurseries that ship host or associated plants all symptomatic plants must be sampled with a minimum of 40 samples being tested per nursery location. One sample may contain more than one leaf and may come from more than one plant but all plants in the sample must from the same lot. Samples will be taken from symptomatic plants unless no symptomatic plants are present. In that case, asymptomatic plants will be sampled. Sampling shall be biased to hosts, associated plants, and nearby plants.

For nurseries that do not ship plants listed in Attachment I or II, only symptomatic material must be sampled.

**V. Testing procedures and protocols.**

Whenever testing is required by this Order or by the regulations in 301.92 through 301.92-11, such testing must be conducted in accordance with the following protocol:

Samples collected at nurseries in the quarantined and regulated areas must be analyzed using a methodology approved by APHIS at a laboratory approved by APHIS.

ELISA prescreening of plant samples may be used to determine the presence of *Phytophthora*.

- If all samples from a single nursery are found to be negative through ELISA prescreening, no further testing is required. The nursery may be considered free of evidence of *P. ramorum*, and the nursery is eligible to issue certificates for the interstate movement of plants provided that it is operating under an APHIS approved compliance agreement in accordance with 7 CFR 301.92-6.
- If ELISA prescreening reveals the presence of *Phytophthora* in any plants, plants must continue to be held as described above in Sections I, II or III and each sample that returns positive ELISA results must be tested using the test protocol described below.

If ELISA prescreening is not performed, or if results of ELISA prescreening are positive for *Phytophthora*, plant samples must be analyzed using either the APHIS approved nested PCR or culture test. Samples will be considered positive for *P. ramorum* based on positive results of a nested PCR test or positive results of a culture test. Positive nested PCR tests do not require confirmatory culture tests, nor do positive culture tests require confirmatory nested PCR tests. Note, however, that if culture tests do not return positive results, a nested PCR test must be conducted, as described below. No culture test is required if a nested PCR test returns negative results.

Nested PCR Test

- If the results of nested PCR tests are negative for all samples in a nursery, no further testing is required. The nursery may be considered free of evidence of *P. ramorum* and the nursery is eligible to issue certificates for the interstate movement of plants provided that it is operating under an APHIS approved compliance agreement in accordance with 7 CFR 301.92-6.
- If any samples tested using the nested PCR protocol return positive results for *P. ramorum*, the nursery from which they originate is prohibited from moving (1) All host nursery stock and associated plants; (2) all plants within same genus as any listed host or associated plant; (3) any plants located within 10 meters of a host or associated plant; and (4) any genera of other plants found infected until the conditions of the USDA Confirmed Nursery Protocol are met. At that time, the nursery will be eligible to ship plants interstate provided that it is operating under an APHIS approved compliance agreement in accordance with 7 CFR 301.92-6.

Culture Test

- If the results of culture tests are not positive for any samples taken from a single nursery, plants in the nursery must continue to be held as described above in Section I, II or III and each plant sample must be tested again using the nested PCR test, as described above.
- If any culture tests return positive results for *P. ramorum*, the nursery from which they originate is prohibited from moving (1) All host nursery stock and associated plants; (2) all plants within same genus as any listed host or associated plant; (3) any plants located within 10 meters of a host or associated plant; and (4) any genera of other plants found infected until the conditions of the USDA Confirmed Nursery Protocol are met. At that time, the nursery will be eligible to ship plants interstate provided that it is operating under an APHIS approved compliance agreement in accordance with 7 CFR 301.92-6.

These testing protocols are described in detail at:
www.aphis.usda.gov/ppq/ispm/sod/survey.html
Additional test methods may be approved by APHIS in the future.

**VI. Certification of Compliance**

All host nursery stock and associated plants shipped interstate originating in California, Oregon, and Washington must be accompanied by appropriate Federal certification issued under an APHIS approved compliance agreement.

**VII. Sunset Clause**

Unless renewed, revised, re-issued, or superseded by a rule published in the Federal Register this Order shall be considered revoked 3 years from the effective date.

**VIII. Designation of Quarantine and Regulated Areas for *P. ramorum*.**

The following Counties or portions of Counties in California and Oregon are designated as *quarantined areas*:

California: Alameda, Contra Costa[1], Humboldt[1], Lake[1], Marin, Mendocino, Monterey, Napa, San Francisco[1], San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma.

Oregon: That portion of Curry County as follows: In T. 40 S., R. 13 W., secs. 5, 8, 16, 17, 20, 21, 28, 29, 32, and 33; southeast quarter of sec. 19; west half of sec. 9; west half of sec. 4; and northeast quarter of sec. 30.

[1] Formally added by this Order.

All areas of California, Oregon, and Washington that are not designated as quarantined areas are designated by this Order as *regulated areas*.

**IX. Effective Date**

To allow the affected industry and states to appropriately prepare for implementation of this emergency Order, the Order will become effective on January 10, 2005.

An interim rule will be issued and published in the Federal Register setting forth the requirements of the Order.

/s/ Richard L. Dunkle

Signature of USDA Official

Deputy Administrator, PPQ

Title

December 21, 2004

Date

Attachment 1 – All plants listed below are officially recognized as hosts of *Phytophthora ramorum*.

**Host Plants of *Phytophthora ramorum***

| Scientific Name (31) | Common Name |
|---|---|
| *Acer macrophyllum* | Bigleaf maple |
| *Aesculus californica* | California buckeye |
| *Arbutus menziesii* | Madrone |
| *Arctostaphylos manzanita* | Manzanita |
| *Calluna vulgaris* [1] | Heather |
| *Camellia* spp. [2] | Camellia - all species, hybrids and cultivars |
| *Hamamelis virginiana* | Witch hazel |
| *Heteromeles arbutifolia* | Toyon |
| *Lithocarpus densiflorus* | Tanoak |
| *Lonicera hispidula* | California honeysuckle |
| *Maianthemum racemosum* (formerly *Smilacina racemosa*) [1] | False Solomon's seal |
| *Photinia fraseri* [1] | Red tip or Fraser's Photinia |
| *Pieris Formosa* | Himalaya Pieris |
| *Pieris formosa x japonica* | Pieris 'Forest Flame', forest flame andromeda |
| *Pieris floribunda x japonica* | Pieris 'Brouwer's Beauty', Brouwer's beauty andromeda |
| *Pieris japonica* [1] | Japanese Pieris |
| *Pseudotsuga menziesii* var. *menziesii* | Douglas-fir |
| *Quercus agrifolia* | Coast live oak |
| *Quercus chrysolepis* | Canyon live oak |

[1] Formally moved from the Associated Host list to the Host list by this Order.
[2] Formally added to the Host listby this Order.

| | |
|---|---|
| *Quercus kelloggii* | California black oak |
| *Quercus parvula* v. *shrevei* | Shreve's oak |
| *Rhamnus californica* | California coffeeberry |
| *Rhododendron spp.* | Rhododendron (including azalea) – Includes all species, hybrids and cultivars |
| *Rosa gymnocarpa* | Wood rose |
| *Sequoia sempervirens* | Coast redwood |
| *Trientalis latifolia* | Western starflower |
| *Umbellularia californica* | California bay laurel, pepperwood, Oregon myrtle |
| *Vaccinium ovatum* | Evergreen huckleberry |
| *Viburnum x bodnantense* | Bodnant Viburnum |
| *Viburnum plicatum* var. *tomentosum* | Doublefile Viburnum |
| *Viburnum tinus* | Laurustinus |

Attachment II – All plants listed below are officially recognized as being associated with *Phytophthora ramorum*.

Associated plants are the thirty-seven below that have been identified as associated with *P. ramorum* because results of culture or Polymerase Chain Reaction (PCR) tests returned positive for the fungus. For each of these, traditional Koch's postulates have not yet been completed or documented and reviewed.

**Plants Associated with *Phytophthora ramorum***

| Scientific Name (37) | Common Name |
|---|---|
| *Abies grandis* | Grand fir |
| *Aesculus hippocastanum* | Horse-chestnut |
| *Arbutus unedo* | Strawberry tree |
| *Clintonia androwsiana* | Andrew's clintonia bead lily |
| *Castanea sativa* | Sweet chestnut |
| *Corylus cornuta* | California hazelnut |
| *Drimys winteri* | Winter's bark |
| *Dryopteris arguta* | California wood fern |
| *Fagus sylvatica* | European beech |
| *Fraxinus excelsior* [1] | European ash |
| *Kalmia latifolia* | Mountain laurel |
| *Laurus nobilis* | Bay laurel |
| *Leucothoe fontanesiana* | Drooping leucothoe |
| *Nothofagus obliqua* [1] | Southern or Roble beech |
| *Pieris Formosa* var. *forrestii* | Chinese Pieris |
| *Pieris formosa* var. *forrestii* x *Pieris japonica* | Pieris |
| *Pittosporum undulatum* | Victorian box |
| *Pyracantha koidzumii* | Formosa firethorn |

[1] Formally added to the Associated Host list by this Order.

| | |
|---|---|
| *Quercus cerris* | European turkey oak |
| *Quercus falcata* | Southern red oak |
| *Quercus ilex* | Holm oak |
| *Quercus rubra* | Northern red oak |
| *Rhamnus purshiana* | Cascara |
| *Rubus spectabilis* | Salmonberry |
| *Salix caprea* | Goat willow |
| *Syringa vulgaris* | Lilac |
| *Taxus baccata* | European yew |
| *Taxus brevifolia* | Pacific yew |
| *Toxicodendron diversilobum* | Poison oak |
| *Viburnum davidii* | David Viburnum |
| *Viburnum farreri (=V. fragrans)* | Fragrant Viburnum |
| *Viburnum lantana* | Wayfaringtree Viburnum |
| *Viburnum opulus* | European cranberrybush Viburnum |
| *Viburnum x burkwoodii* | Burkwood Viburnum |
| *Viburnum x carlcephalum x V. utile* | Viburnum |
| *Viburnum x pragense* | Prague Viburnum |
| *Viburnum x rhytidophylloides* [1] | Alleghany or Willowood Viburnum |

[1] Formally added to the Associated Host list by this Order.

**Scope of Work for *Phytophthora ramorum***
**(Sudden Oak Death)**
**In Regulated Counties**
**July 1, 2006 - June 30, 2007**
**FY 2006/2007**

# 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

TE: December 10, 2004

All County Agricultural Commissioners

OM. Plant Health and Pest Prevention Services

BJECT: *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.

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.

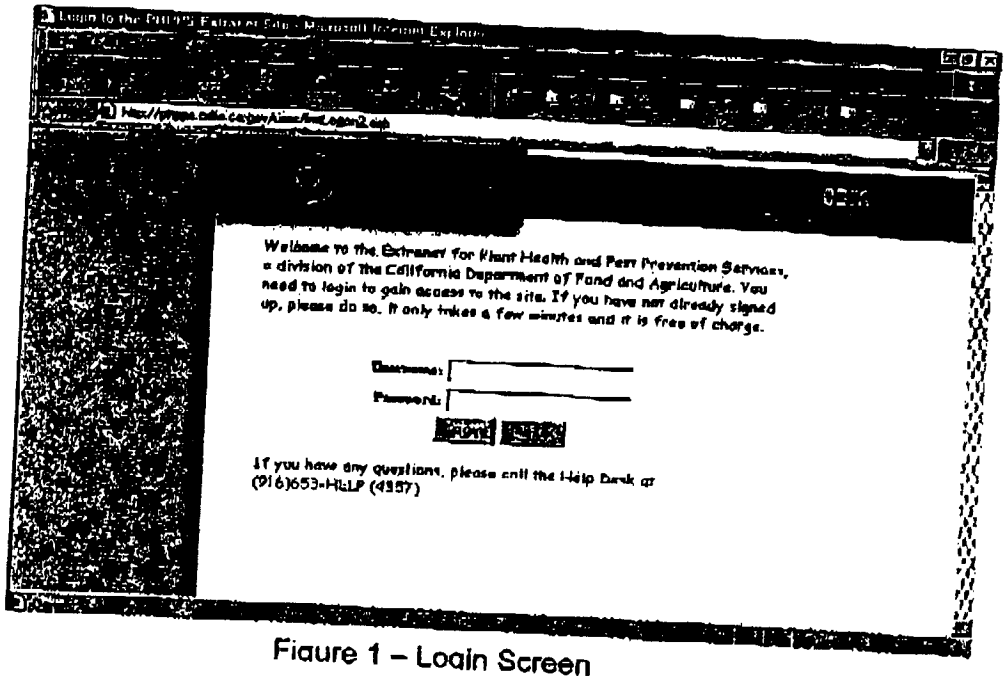


Figure 1 – Login Screen

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.**

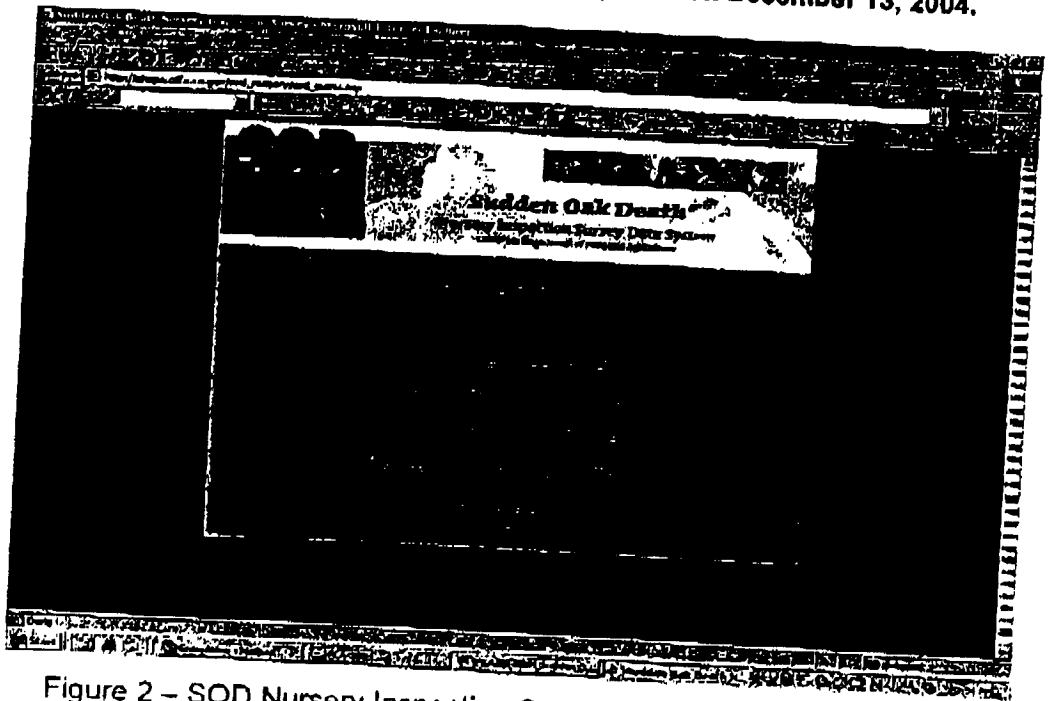


Figure 2 – SOD Nursery Inspection Survey Data System main

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

# Scope of Work for *Phytophthora ramorum* (Sudden Oak Death) In Regulated Counties July 1, 2006 - June 30, 2007 FY 2006/2007

## Appendix F

## Monthly Work Report

cdfa
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

# Monthly Report for Sudden Oak Death Statewide Emergency Response FY 2006/2007 From July 1, 2006 through June 30, 2007

County: _____

Date: _____

| ACTIVITY | NUMBER OF ACTIVITIES | HOURS (ALL ACTIVITIES) |
|---|---|---|
| **Eradication** | | |
| Implementation of Confirmed Nursery Protocol (wholesale/production nurseries) | 0 | 0 |
| Trace Forward/Trace Back Record Audit and Positive Nurseries (P.E.A. 2-2005) | 0 | 0 |
| Implementation of Positive Retail Nursery Protocol (P.E.A. 2-2005) | 0 | 0 |
| **Trace Forward/Trace Back Investigation** | | |
| Inspection, Submission of Samples, Regulatory Activity (hold notices, etc.) | 0 | 0 |
| **Quarantine Enforcement** | | |
| Inspection, Submission of Samples, Other Regulatory Activities at Host Nurseries ( hold notices, etc.) | 0 | 0 |
| Inspection of Non-Host Nurseries | 0 | 0 |
| Issuance of Compliance Agreement for Federal Emergency Order | 0 | 0 |
| On going Compliance Inspections, Regulatory Activity as Necessary | 0 | 0 |
| On going Compliance Record Monitoring | 0 | 0 |
| **OTHER** | | |
| Communication (Regulatory Updates, Conference calls) | 0 | 0 |
| Communication (Public Outreach, Industry Contact) | 0 | 0 |
| Training | 0 | 0 |
| Administrative Support (Quarterly reporting, data entry, etc) | 0 | 0 |
| TOTALS: | 0 | 0 |
| **VEHICLE USAGE** | **TOTAL MILEAGE** | |
| | 0 | |

**Scope of Work for *Phytophthora ramorum***
**(Sudden Oak Death)**
**In Regulated Counties**
**July 1, 2006 - June 30, 2007**
**FY 2005/2006**

# Appendix G

# 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 |
|---|---|---|---|---|---|---|
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**Scope of Work for *Phytophthora ramorum***
**(Sudden Oak Death)**
**In Regulated Counties**
**July 1, 2006 - June 30, 2007**
**FY 2006/2007**

# Appendix H

# Sample Invoice

(County Letterhead)



**California Department of Food and Agriculture**
Attn: Marcie MacFarland
1220 N Street, Rm A-316
Sacramento, CA 95814

**SOD Statewide Emergency Response In Regulated Counties**
Contract #
Budget Display FY 2006/2007
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

| | |
|---|---|
| Total Operating Expenses: | 0.00 |
| | 0.00 |

### Vehicle Usage

| | Miles | Rate |
|---|---|---|
| Vehicle Mileage ($0.34/per mile) | 0.00 | 0.34 |

| | |
|---|---|
| Total Mileage Cost: | 0.00 |
| | 0.00 |

### Total Operating Expenses

| | |
|---|---|
| | 0.00 |
| **Grand Total:** | 0.00 |

| | |
|---|---|
| Contract Amount | 0.00 |
| Billed to Date | 0.00 |
| Balance | 0.00 |

# 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.

Exhibit B
Attachment 1
Page 1 of 1

# Workplan for Sudden Oak Death Statewide Emergency Response
## Regulated Counties
## FY 2006/2007
## From July 1, 2006 through June 30, 2007

cdfa
CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

County: Los Angeles
Date: 12-Apr-06
*Cost Per Hour: $42.61

| 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 (Wholesale/Production Nurseries) | 2 | 8 | 4 | 64 | $2,739.84 |
| Trace Forward and Trace Back Record Audit and Positive Nurseries (P.E. Advisory 2-2005) | 2 | 8 | 2 | 32 | $1,369.92 |
| Implementation of Positive Retail Nursery Protocol (P.E. Advisory 2-2006) | 4 | 2 | 3 | 24 | $1,027.44 |
| **Trace Forward/Trace Back Survey** | | | | | |
| Inspection, Submission of Samples, Regulatory Activity (Hold Notices, etc.) | 50 | 2 | 4 | 400 | $17,124.00 |
| **Quarantine Enforcement** | | | | | |
| Inspection, Submission of Samples, Other Regulatory Activities at Host Nurseries ( Hold Notices, etc.) | 70 | 5 | 7 | 2450 | $104,884.50 |
| Inspection of Non-Host Nurseries | 30 | 1 | 3 | 90 | $3,852.90 |
| Issuance of Compliance Agreement for Emergency Federal Order | 2 | 1 | 4 | 8 | $342.48 |
| Ongoing Compliance Inspections, Regulatory Activity as Necessary | 30 | 2 | 1 | 60 | $2,568.60 |
| Ongoing Compliance Record Monitoring | 30 | 4 | 1 | 120 | $5,137.20 |
| **Other** | | | | | |
| Communication (Regulatory Updates, Conference calls) | N/A | N/A | N/A | 50 | $2,140.50 |
| Communication (Public Outreach, Industry Contact) | N/A | N/A | N/A | 60 | $2,568.60 |
| Training | N/A | N/A | N/A | 50 | $2,140.50 |
| Administrative Support (Invoicing, Data Entry, etc) | N/A | N/A | N/A | 96 | $4,109.76 |
| | | **TOTAL HOURS** | | 3504 | |
| | | **TOTAL PERSONNEL COSTS** | | | **$150,006.24** |
| **Overhead (Indirect Costs)— Not to exceed 25% of Total Personnel Costs** | | | | | |
| Enter Overhead Percentage: 25% | | | | | **$37,501.56** |
| **Miscellaneous** | | | | | |
| Supplies | | | | | |
| **Vehicle Usage** | | | | | |
| Enter Estimated Miles: 11000 | Rate Per Mile: $0.34 | | | | **$3,740.00** |

| **TOTAL COST:** | **$191,247.80** |
|---|---|

**EXHIBIT C**
**(County Agreement)**

GENERAL TERMS AND CONDITIONS - *GTC 306*

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 of 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 (Government Code Section 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 1005 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.