

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](http://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<sup>1</sup>, Humboldt<sup>1</sup>, Lake<sup>1</sup>, Marin, Mendocino, Monterey, Napa, San Francisco<sup>1</sup>, 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.

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<sup>1</sup> 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

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Signature of USDA Official

Deputy Administrator, PPQ

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Title

December 21, 2004

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Date



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

**Host Plants of *Phytophthora ramorum***

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

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<sup>1</sup> Formally moved from the Associated Host list to the Host list by this Order.

<sup>2</sup> Formally added to the Host list by this Order.

<i>Quercus kelloggii</i>	California black oak
<i>Quercus parvula</i> v. <i>shrevei</i>	Shreve's oak
<i>Rhamnus californica</i>	California coffeeberry
<i>Rhododendron</i> spp.	Rhododendron (including azalea) – includes all species, hybrids and cultivars
<i>Rosa gymnocarpa</i>	Wood rose
<i>Sequoia sempervirens</i>	Coast redwood
<i>Trientalis latifolia</i>	Western starflower
<i>Umbellularia californica</i>	California bay laurel, pepperwood, Oregon myrtle
<i>Vaccinium ovatum</i>	Evergreen huckleberry
<i>Viburnum x bodnantense</i>	Bodnant Viburnum
<i>Viburnum plicatum</i> var. <i>tomentosum</i>	Doublefile Viburnum
<i>Viburnum tinus</i>	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
<i>Abies grandis</i>	Grand fir
<i>Aesculus hippocastanum</i>	Horse-chestnut
<i>Arbutus unedo</i>	Strawberry tree
<i>Clintonia andrewsiana</i>	Andrew's clintonia bead lily
<i>Castanea sativa</i>	Sweet chestnut
<i>Corylus cornuta</i>	California hazelnut
<i>Drimys winteri</i>	Winter's bark
<i>Dryopteris arguta</i>	California wood fern
<i>Fagus sylvatica</i>	European beech
<i>Fraxinus excelsior</i> <sup>1</sup>	European ash
<i>Kalmia latifolia</i>	Mountain laurel
<i>Laurus nobilis</i>	Bay laurel
<i>Leucothoe fontanesiana</i>	Drooping leucothoe
<i>Nothofagus oblique</i> <sup>1</sup>	Southern or Roble beech
<i>Pieris Formosa</i> var. <i>forrestii</i>	Chinese Pieris
<i>Pieris formosa</i> var. <i>forrestii</i> x <i>Pieris japonica</i>	Pieris
<i>Pittosporum undulatum</i>	Victorian box
<i>Pyracantha koidzumii</i>	Formosa firethorn

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<sup>1</sup> Formally added to the Associated Host list by this Order.

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

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<sup>1</sup> Formally added to the Associated Host list by this Order.