



United States Department of Agriculture

## **Animal and Plant Health Inspection Service**

Pest Management - Plant Health Programs – Program Update

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### **APHIS *Phytophthora ramorum* Program, 3<sup>rd</sup> Quarter Summary; September 30, 2014**

#### **Background and History:**

The APHIS-PPQ *P. ramorum* regulatory program initiated with the First Interim Rule February 14, 2002, is now in its 14<sup>th</sup> year. With the inclusion of Trinity County in 2014 as the new quarantine area, in total there will be 15 counties designated as quarantined for sudden oak death (SOD) in California. In addition, 264 square miles in Curry County, in Oregon are also designated as quarantine areas. The remaining counties in California and Oregon, and the entire state of Washington are designated as regulated areas for inter-state shipment of nursery stock. Outside the currently quarantined counties *P. ramorum* has been detected only in the nursery environment and occasionally in streams connected to positive nurseries, however, **no** SOD-like disease outbreaks in the forest landscape have been reported. The USDA *P. ramorum* quarantine program, in place since 2002, has been successful in limiting the pathogen's artificial spread into the environment beyond the currently quarantine areas. The *P. ramorum* program in consultation with stakeholders has funded and developed several survey and remediation protocols, outreach and training initiatives. These efforts have not only safeguarded the natural environment but also benefitted the nursery industry by assuring the commercial movement of disease-free plants. In total, between January 1<sup>st</sup> to September 30, 2014, *P. ramorum* was reported in 16 host nurseries located in three regulated states (CA, OR and WA) and 3 non-regulated states (NY, TX, and VA). Of the 16 positive nurseries, 9 were inter-state shippers and 7 non-interstate shippers. The interstate shippers were located in CA (1); OR (5), WA (1), VA (1) and TX (1). The positive intra-state (non-interstate shippers) were located in WA (1), OR (1, VA (3) and NY (2). Only 6 of the inter-state shippers had actually shipped in the previous 6 months and trace investigations were completed. Positive trace forwards from an interstate shipper in WA State were detected from three residential locations, one each in MA, OR on host plants and, from a potting medium in one residential location in CT. *P. ramorum* was detected in *Camellia*, *Gaultheria*, *Pieris*, *Prunus*, *Rhododendron*, *Syringa*, *Vaccinium*, and *Viburnum* species, and also in Water, Potting Media and Soil.

#### **Impact of APHIS-PPQ revised *P. ramorum* regulatory framework and associated protocols on inter-state shippers of host plants.**

Since March 31, 2014 the Animal and Plant Health Inspection Service (APHIS) along with the state regulatory agencies has started implementing the revised *P. ramorum* regulatory framework and associated protocols. This is based on the January, 2014 Federal Order (DA-2014-02) revising the *P. ramorum* domestic quarantine regulations by relieving and/or imposing regulatory requirements for the interstate movement of host nursery stock from nurseries located in the regulated and quarantine areas in California (CA), Oregon (OR), and Washington (WA) and also across the country [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram/downloads/pdf\\_files/DA-2014-02.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/DA-2014-02.pdf)

As stated in the second quarterly report, the first round of inspection and sampling occurred in 23 qualifying nurseries in CA, OR, and WA. These are nurseries that ship interstate and were found positive since March 31, 2011. Since then, two interstate shippers in OR decided to opt out of the USDA program and are therefore not certified to ship interstate. Compliance agreement from one nursery in OR was suspended due to their inability to comply with Federal requirements. Regulatory samples will be obtained twice a year from host plants, standing water, drainage water, irrigation water, growing media, and any other articles designated by the inspector as a possible source of *P. ramorum* inoculum from nurseries that want to retain their inter-state shipping status.

For any nursery in the new compliance program, if all samples obtained from the nursery test negative for *P. ramorum* for three years from the first inspection after the effective date of the revised Federal Order (March 31, 2014), the nursery will be relieved of all Federal regulatory requirements for the interstate shipments of *P. ramorum* regulated, and associated articles following corroboration of the test results for all three years.

***P. ramorum* detections in various Critical Control Points (plants, soil, water, potting media) and implementation of mitigation protocols:**

Under the revised protocols inspections were conducted in host nurseries that opted to retain their interstate shipping status and samples obtained not only from plants but also from potting media, standing water, pots etc. The increased sampling resulted in positive detections on plants, from potting media and standing water. Standing water / soil is the main source of the pathogen. This has assisted the program not only pin-point the potential source of the pathogen during the critical control point assessments but also implement mitigation protocols such as soil steaming. Critical Control Point assessments were conducted jointly by APHIS-PPQ, State Department of Agriculture and subject matter experts. Once the assessments were completed the nurseries were then provided a range of options to address the presence of the pathogen. Positive nurseries were assisted throughout the process by APHIS and the state regulatory agencies to implement the mitigation protocols. The mitigation protocols were based on expertise and results obtained from trials conducted at NORS-DUC and also based on input from subject matter experts in OR, CA and WA.

*Inspections and sampling protocols for nurseries under the revised Federal Order DA-2014-02:*  
[http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram/downloads/pdf\\_files/Inspection\\_Sampling\\_Protocol.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/Inspection_Sampling_Protocol.pdf)

*Water sampling Protocol:*  
[http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram/downloads/surveyplan/appendixI.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/surveyplan/appendixI.pdf)

*Official Regulatory Protocol for Nurseries Containing Plants Infected with Phytophthora ramorum:*  
[http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram/downloads/pdf\\_files/ConfirmedNurseryProtocol.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/ConfirmedNurseryProtocol.pdf)

As of September 30, 19 regulated nurseries located in CA (6), OR (10), WA (2) and VA (1) are required to notify non-regulated states of high risk genera shipments. In addition as before, all host nurseries shipping interstate from the *P. ramorum* quarantine areas are required to notify regardless of the presence or absence of *P. ramorum* in the nursery.

**Program Updates: Nursery / Residential Detections to date (2000 – Sept 2014)**

Year	# Nurseries	# States	Notes
2000, and prior	Zero		There were no reported nursery detections prior to 2001
2001	One	California	In infested area
2002	Zero		
2003	20	3	CA, OR, WA
2004	176	21	125 linked to one nursery's shipments
2005	99	7	
2006	62	11	
2007	23	6	
2008	28	8	
2009	26	11	Also, 6 landscape detections in 4 states; Data 2009 , Dec 31st
2010	34	13	33 nurseries, and 1 greenhouse, 2 landscape detections.
2011 Jan-Dec	23	5	23 nursery detections, 1 residential, 1 landscape
2012 Jan-Dec	33	8	33 Detections were in nurseries located in CA, OR, WA, NC, ME, NY, PA. IN and 3 Residential finds (ME, OR, CA)
2013 Jan-Dec	18	4	15 detections in CA (1), OR (10) and WA (6), NY (1). Detections were in 14 inter-state shippers and 4 retail, non-interstate shipping nurseries
2014 Jan-Sept	16	6	Positive nurseries were in CA (1); OR (5) and WA (2), NY (2); TX (1) and VA (2). Detections were in 9 inter-state shippers and 7 non-interstate shipping nurseries. Residential detections one each in in MA, CT and OR.

**Details of detections from January to September 30, 2014:**

Between, January 1 to September 30, 2014 *P. ramorum* has been reported in 16 host nurseries located in three regulated states (CA, OR and WA) and three non-regulated state (NY, TX and VA).

Of the 16 positive nurseries, 9 were inter-state shippers and 7 non-interstate shippers. The interstate shippers were located in CA (1); OR (5), WA (1), VA (1) and TX (1). The TX nursery was positive due to plants received from the positive nursery in CA. Only 6 of the inter-state shippers had actually shipped in the previous 6 months and trace investigations were completed. Compliance agreement from one nursery in OR was suspended due to their inability to comply with Federal requirements. No host plants were shipped from the positive nursery in TX. Positive trace forwards from an interstate shipper in WA State were detected at two residential locations in MA, OR on host (*Camellia*) plants and from a potting medium in one residential location in CT. The positive intra-state (non-interstate shippers) were located in WA (1), OR (1), VA (3) and NY (2).

***P. ramorum* detections in various Critical Control Points (plants, soil, water, potting media):**

**Plants:**

*P. ramorum* was detected in;

**High Risk Hosts:** *Camellia*, *Pieris*, *Rhododendron* and *Viburnum*

**Associated hosts:** *Gaultheria*, *Prunus*, *Syringa* and *Vaccinium*

**Associated articles:**

Potting Media

Sanding water associated with soil

Water

Positive detections January – September 30, 2014

POSITIVE DETECTION	STATE	COUNTY	DATE CONFIRMED
<i>Camellia japonica</i>	CA	Sacramento (Regulated)	5-May-14
<i>Camellia japonica</i> 'Chandler Elegans'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Daikagura'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Daikagura'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Daikagura'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Daikagura'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Mathotiana'	CA	Sacramento (Regulated)	5-May-14
<i>Camellia japonica</i> 'Mathotiana Supreme'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Mathotiana Supreme'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia japonica</i> 'Mathotiana Supreme'	CA	Sacramento (Regulated)	29-Aug-14
<i>Camellia japonica</i> 'Virginia Sunrise'	VA	Hampton	30-May-14
<i>Camellia sasanqua</i> 'Chansonette'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia sasanqua</i> 'Chansonette'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia sasanqua</i> 'Chansonette'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia sasanqua</i> 'Chansonette'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia sasanqua</i> 'Chansonette'	CA	Sacramento (Regulated)	3-Jun-14
<i>Camellia sinensis</i>	MA	Plymouth	9-Jul-14
<i>Camellia sinensis</i> 'Sochi'	OR	Coos (Regulated)	13-Aug-14
<i>Camellia sinensis</i> 'Sochi'	WA	Lewis (Regulated)	29-May-14
<i>Camellia sinensis</i> 'Sochi'	WA	Lewis (Regulated)	29-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	OR	Tillamook (Regulated)	5-May-14
<i>Gaultheria shallon</i>	WA	Lewis (Regulated)	29-May-14
<i>Pieris japonica</i>	VA	Virginia Beach	30-May-14
<i>Pieris japonica</i> 'Flaming Silver'	OR	Clackamas (Regulated)	2-Apr-14

<b>POSITIVE DETECTION</b>	<b>STATE</b>	<b>COUNTY</b>	<b>DATE CONFIRMED</b>
<i>Pieris japonica</i> 'Forest Flame'	OR	Clackamas (Regulated)	2-Apr-14
<i>Pieris japonica</i> 'Little Heath'	OR	Clackamas (Regulated)	2-Apr-14
<i>Pieris japonica</i> sp.	OR	Clackamas (Regulated)	2-Apr-14
<i>Pieris japonica</i> 'Valley Rose'	OR	Clackamas (Regulated)	19-May-14
<i>Pieris japonica</i> 'Valley Valentine'	OR	Clackamas (Regulated)	19-May-14
<i>Pieris taiwanensis</i>	OR	Clackamas (Regulated)	19-May-14
Potting Media	CT	Tolland	24-Jul-14
Potting Media	OR	Washington (Regulated)	9-May-14
<i>Prunus laurocerasus</i>	WA	King (Regulated)	1-May-14
<i>Rhododendron</i> 'Calsap'	WA	King (Regulated)	1-May-14
<i>Rhododendron</i> 'Calsap'	WA	King (Regulated)	1-May-14
<i>Rhododendron</i> 'Edith Bosley'	VA	Hampton	6-Jun-14
<i>Rhododendron</i> 'Hahn's Red' Azalea	OR	Tillamook (Regulated)	5-May-14
<i>Rhododendron</i> 'Holden'	OR	Clackamas (Regulated)	2-Apr-14
<i>Rhododendron</i> 'Roseum Elegans'	NY	Suffolk	9-Jul-14
<i>Rhododendron</i> 'Roseum Elegans'	NY	Suffolk	9-Jul-14
<i>Rhododendron</i> 'Roseum Elegans'	OR	Columbia (Regulated)	14-Aug-14
<i>Rhododendron</i> 'Roseum Two'	OR	Columbia (Regulated)	14-Aug-14
<i>Rhododendron</i> sp.	OR	Clackamas (Regulated)	25-Aug-14
<i>Rhododendron</i> sp.	OR	Lane (Regulated)	29-May-14
<i>Rhododendron</i> sp.	OR	Lane (Regulated)	29-May-14
<i>Rhododendron</i> sp.	OR	Lane (Regulated)	29-May-14
<i>Rhododendron</i> sp.	OR	Tillamook (Regulated)	5-May-14
<i>Rhododendron</i> sp.	OR	Washington (Regulated)	9-May-14
<i>Rhododendron</i> sp.	OR	Washington (Regulated)	9-May-14
<i>Rhododendron</i> sp.	OR	Washington (Regulated)	9-May-14
<i>Rhododendron</i> sp.	OR	Washington (Regulated)	29-May-14
<i>Rhododendron</i> sp.	OR	Washington (Regulated)	29-May-14
<i>Rhododendron</i> sp.	WA	King (Regulated)	2-May-14
Soil Sample	OR	Clackamas (Regulated)	29-May-14
Soil Sample	OR	Clackamas (Regulated)	29-May-14
Soil Sample	OR	Clackamas (Regulated)	29-May-14
Soil Sample	WA	Lewis (Regulated)	12-Jun-14
Soil Sample	WA	Lewis (Regulated)	12-Jun-14
Soil Sample	WA	Lewis (Regulated)	12-Jun-14
<i>Syringa vulgaris</i>	CA	Sacramento (Regulated)	7-May-14
<i>Syringa vulgaris</i> 'Madame Lemoine'	WA	King (Regulated)	29-May-14
<i>Syringa vulgaris</i> 'Ludwig Von Spaeth'	WA	King (Regulated)	22-Jul-14

<b>POSITIVE DETECTION</b>	<b>STATE</b>	<b>COUNTY</b>	<b>DATE CONFIRMED</b>
<i>Vaccinium ovatum</i>	WA	Lewis (Regulated)	29-May-14
<i>Viburnum rhytidophyllum</i> 'Cree'	VA	Nelson	25-Jun-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	7-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento (Regulated)	28-May-14
<i>Viburnum tinus</i> 'Spring Bouquet'	TX	Tarrant	10-Jun-14
<i>Viburnum tinus</i> 'Spring Bouquet'	WA	King (Regulated)	2-May-14
Water (Bait) Sample	NY	Nassau	6-Jun-14
Water (Bait) Sample	NY	Nassau	6-Jun-14
Water (Bait) Sample	NY	Nassau	6-Jun-14
Water (Bait) Sample	NY	Suffolk	6-Jun-14
Water (Bait) Sample	NY	Suffolk	6-Jun-14

POSITIVE DETECTION	STATE	COUNTY	DATE CONFIRMED
Water (Bait) Sample	NY	Suffolk	6-Jun-14
Water (Bait) Sample	OR	Clackamas (Regulated)	19-May-14
Water (Bait) Sample	VA	Hanover	25-Jun-14
Water (Bait) Sample	VA	Virginia Beach	9-May-14
Water (Bait) Sample	VA	Virginia Beach	28-May-14
Water (Bait) Sample	WA	Lewis (Regulated)	29-May-14
Water (Bait) Sample	WA	Lewis (Regulated)	25-Jun-14
Water (Bait) Sample	WA	Lewis (Regulated)	25-Jun-14
Water (Bait) Sample	WA	Lewis (Regulated)	25-Jun-14

**Notes:** *Camellia* (20); *Gaultheria* (14); *Pieris* (8); Potting Media (2); *Prunus* (1); *Rhododendron* (20); Soil Sample (6); *Syringa* (3); *Vaccinium* (1); *Viburnum* (32); Water (Bait) Sample (14)

**Dated: September 30, 2014,** Prakash K. Hebbar *Phytophthora ramorum* National Policy Manager, USDA-APHIS-PPQ, APHIS Headquarters, Riverdale, Maryland; Stacy Scott, National Operations Manager, USDA-APHIS-PPQ, Ft. Collins, Colorado.

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