

2021 USDA APHIS PPQ *Phytophthora ramorum* program summary

In 2021, the USDA APHIS, Plant Protection and Quarantine (PPQ), *Phytophthora ramorum* program supported compliance activities, diagnostics, and surveys in 22 states. *P. ramorum* was detected at 17 different establishments: eight were new and nine were previously positive (see Table 1). Confirmed positive samples were collected at interstate shipping nurseries, at intrastate shipping nurseries including big box stores, and a large managed landscape.

For compliance inspections of previously confirmed positive interstate nurseries, positive samples were detected in seven interstate nurseries (see Table 2) and six were in nurseries with compliance agreements. The seventh nursery is now under a new compliance agreement. Samples confirmed positive were also collected during trace investigations and annual surveys. Table 2 summarizes these results by nursery type.

Table 1: Summary of nurseries by type within the U.S. with APHIS-confirmed positive detections of *P. ramorum* in 2021.

Type of Nursery	# First Confirmed in 2021	# Previously +	Total # Nurseries
Big Box	3	0	3
Other Intrastate	5	1	6
Commercial Landscape	0	1	1
Interstate	0	7	7
Total	8	9	17

Table 2. Summary of nurseries by type and reason samples were collected.

Type of Nursery	Reason Samples were Collected			Total # Nurseries
	# Trace	# Annual Survey	# Compliance	
Big Box	2	1	0	3
Other Intrastate	3	3	0	6
Commercial Landscape	0	0	1	1
Interstate	0	1	6	7
Total	5	5	7	17

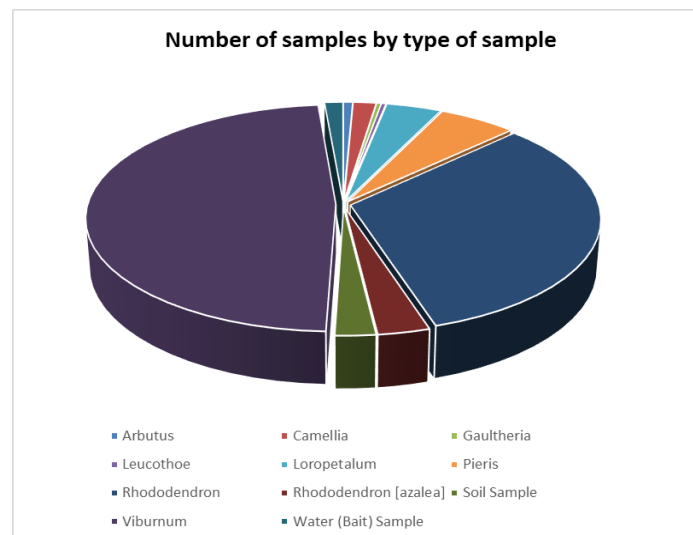
Six nurseries were released from the compliance program because of no detections of *P. ramorum* during six compliance inspections (2 per year), or because they had closed or stopped selling host plants. Four nurseries fulfilled all requirements, so were released from compliance agreements in 2021. One positive nursery ceased operations and another nursery stopped selling host plants.

P. ramorum was detected in 300 samples in 2021 (see Table 3 and Figure 1). The most common sample types confirmed positive for *P. ramorum* were tissue samples from *Viburnum* and *Rhododendron*. No samples were confirmed positive from the high-risk genus *Kalmia*. APHIS confirmed a positive tanoak (*Notholithocarpus densiflorus*) in Curry County, Oregon, resulting in an expansion of the Oregon Quarantine zone. This detection is not included in the nursery summaries provided.

Table 3: Samples confirmed positive for *P. ramorum* in 2021 by sample type.

Sample Type	Quantity	Percent
<i>Arbutus</i>	2	0.67
<i>Camellia</i>	5	1.67
<i>Gaultheria</i>	1	0.33
<i>Leucothoe</i>	1	0.33
<i>Loropetalum</i>	12	4.00
<i>Pieris</i>	17	5.67
<i>Rhododendron</i>	97	32.33
<i>Rhododendron</i> [azalea]	9	3.00
Soil	7	2.33
<i>Viburnum</i>	145	48.33
Water (Bait)	4	1.33
Grand Total	300	

Figure 1. Number of samples positive for *P. ramorum* by type (genus, soil, water) in 2021



Cooperative efforts

USDA provides funds to states for annual nursery surveys, compliance activities and diagnostics. Two sources fund *P. ramorum* surveys in nurseries: PPA Section 7721 (formerly called “the Farm Bill”), and Cooperative Agricultural Pest Survey (CAPS) program. Table 4 lists the states receiving survey funds for FY21 from these two funding sources. In addition to funding annual surveys through PPA 7721 and CAPS in FY21, USDA provided financial support for compliance and diagnostic activities in California, Florida (diagnostic support to other states), Louisiana, Oklahoma, Oregon, Pennsylvania, and Washington.

Table 4: States receiving funds for annual *P. ramorum* surveys from PPA Section 7721 and CAPS in FY21.

States	FY 21 Funding Source
AL	PPA 7721
AK	CAPS
AR	PPA 7721
IN	CAPS
KY	PPA 7721
LA	PPA 7721
MD	PPA 7721
MI	PPA 7721
NV	PPA 7721
NY	CAPS
OH	PPA 7721
OK	PPA 7721
PA	PPA 7721
SC	PPA 7721
TN	PPA 7721
VA	PPA 7721
VT	PPA 7721
WV	PPA 7721
Totals	18