



Spotting Plum Pox

USDA seeks aid in plum pox virus testing

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By Stephanie Staton

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How to Help

To participate in the New York survey or to schedule an inspection, homeowners in the Orleans and Niagara areas should contact the USDA field office in Lockport at 433-6482, extension 200 or by e-mail at NY.PlumPox.Survey@aphis.usda.gov. For more information or to report trees or fruit symptomatic of plum pox, contact:

USDA-APHIS-PPQ
Plum Pox Program Coordinator
Invasive Species and Pest Management
4700 River Road, Unit 134
Riverdale, MD 20737-1236
301-734-8899

Pennsylvania Department of Agriculture
2301 North Cameron Street
Harrisburg, PA 17110-9408
717-787-4737

Read More About Orchards

To learn more about diseases that affect stone fruits, nuts, and other fruits and berries, check out the Popular Farming Series: Orchardring.

If you have fruit trees on your property and live in northern New York state, the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) needs your help to test trees for the plum pox virus (PPV) in two New York counties: Niagara and Orleans.

The Path of PPV

The virus was first detected in New York in July 2006. Almost one month later, the USDA's Plant Germplasm and Biotechnology Laboratory also confirmed its presence in southwestern Michigan. According to USDA's APHIS, the first detection in the United States was in Pennsylvania in October 1999. One year later, it turned up in Ontario and Nova Scotia, Canada. This last outbreak led researchers to study areas close to the locations of the virus. The 2006 detections resulted from this seven-year survey for the virus, which was handled by state and federal agriculture officials. There were 22 leaf samples collected from a 108-tree orchard in Niagara County, N.Y., which is less than five miles from the PPV-positive site in Canada.

What Is PPV?

PPV is a virus disease of stone fruits (i.e., peaches, plums, nectarines, apricots, almonds and some ornamental Prunus cultivars) that can be carried in live stock, grafts and budwood of infected plants.

The virus is transmitted by aphids that feed on an infected plant before moving on to a healthy one—the virus is carried in their mouths, surviving for about one hour and reaching as far as 120 meters from its origin. The species of aphid, the strain of virus and the affected host species all impact the rate and penetration of the disease.

So far, the disease has only been found in commercial stone-fruit orchards, but researchers at Penn State University are surveying wild Prunus plants and weeds for signs of PPV. The virus strain found in the United States and Canada is the D strain from Europe, which isn't the most infectious PPV strain and doesn't appear to infect cherry species.

FruitPlantPartSymptomsApricotLeaves Ring spots, blotches, nettingFruitRing



spots on immature fruit, deformity of mature fruit, ring spots on pitPeachLeaves Yellow ring spots, yellow netting, veinal chlorosis, blotches, necrotic or dead areas, speckling patternFruitYellow or light-red rings, line patternsPlumLeaves Blotches, speckled pattern, ring spots, necrotic areasFruitDeformity, ring spots, necrotic spotting, speckled pattern

How Does PPV Affect Trees

The virus often can be detected at the base of a branch, but not at the tip. Not every tree, leaf or fruit shows symptoms, even though the entire tree is infected.

While it poses no human health risks, PPV does reduce total quantities, lower fruit quality and debilitate the tree. The D strain is not seed borne, so it isn't necessary to regulate fruit movement to prevent the spread of the disease; the only way to eradicate the disease is to remove and destroy all infected trees. To positively identify the presence of PPV, researchers must use serological laboratory tests.

About the Author: Stephanie Staton is managing editor for the Popular Farming Series and associate editor for Hobby Farms and Hobby Farm Home.