

By answering the following questions you can determine whether or not you have an infected plant that needs to be tested. Infected plants cannot be identified by visual symptoms and must be tested in the laboratory.

1. Was the plant purchased after January 1, 2002 and before July 1, 2004?

If yes, go to Question 2.

If no, plant does not need to be sampled.

2. The following is a list of known genera that are susceptible to *Phytophthora ramorum* and only these plants are suspect. Common names of representative plants from each genus are listed in parentheses after the genus name.

- Camellia
- Rhododendron (rhododendron, azalea)
- Pieris (andromeda)
- Viburnum (viburnum, snowball bush)
- Syringa (lilac)

Is the plant on the above list?

If yes, go to question 3.

If no, plant does not need to be sampled.

3. Does the plant have any dieback on the twigs and/or stems or do the leaves have spots?

If yes, contact your County Extension Office to get your plant tested.

If no, plant does not need to be sampled at this point in time but should be checked for these symptoms in the future.

4. What type of sample should I take?

A section of stem with suspect leaves or stem canker should be taken.

The sample should be placed in a sealable plastic bag and taken immediately to the County Extension Office. Include name of plant, and where and when purchased.

The sample will then be tested at the University of Georgia for disease presence. If the sample tests positive, you will be notified by the Georgia Forestry Commission, Georgia Department of Agriculture, or your county Extension Agent for further instructions.

Keep in mind that in Georgia and the entire southeastern United States, the fungus that causes SOD death has only been found on nursery plants. No positive samples have been taken from native plants and no oaks have tested positive for the fungus. It should be our goal to test all suspect plants where possible and remove the infected ones from the landscape before the fungus escapes to the surrounding vegetation.



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Preventing Sudden Oak Death

History and Current Distribution

A newly identified foreign pathogen threatens our Nation's oak woodlands. Sudden Oak Death (SOD) is caused by the fungus *Phytophthora ramorum*. This pathogen has existed in Europe for many years and was probably introduced into California in the early 1990's. By 1995, oak trees began dying in California from SOD. So far, the disease has spread to 14 California counties, as well as Oregon's Curry County. Tens of thousands of coast live oak, tanoak, and California black oak trees have been killed.

This disease could have severe economic and environmental impacts if it reaches Georgia. Georgia's red and white oaks could be hit hard with this pathogen. This brochure is designed to inform Georgia citizens about this new threat and give them instructions on how to assist state and federal agencies in preventing this deadly disease from establishing itself in Georgia.

Symptoms

Although the name sudden oak death implies a rapid decline, trees actually die over a period of months to years. The fungus first attacks the leaves of plants growing beneath oak trees such as mountain laurel, camellia, rhododendron, and viburnum. The understory plants develop leaf spots and blights that serve as sources of spores that can infect trees. The spores that are produced on the understory plants (foliar hosts) are windblown or splashed by rain onto the bark of oak trees where they penetrate the living tissues of the tree. Trees that are attacked by the fungus develop cankers under the bark that girdle and kill the tree - a process which often takes two years or more.

Scientists working with this disease have identified numerous foliar hosts that may contribute to the spread of the fungus. Included in this growing list of plants are: camellia, rhododendron, azalea, viburnum, mountain laurel, honeysuckle, and lilac.

Shipments from West Coast Nurseries

In March of 2004, select camellia varieties from a Monrovia nursery in California were identified as being infected with the pathogen. Two other nurseries in Oregon were also found to have infected plants in the summer



Leaf infection on back of rhododendron leaf

and fall of 2004. A total of 59,000 potentially infected plants were shipped to Georgia during the 12 months preceding March of 2004. While 10,000 were intercepted by the Georgia Department of Agriculture, 49,000 were sold before Georgia was informed of the SOD infected shipment. It is unknown how many of these 49,000 plants, if any, are infected.

What Has Been Done To Date

State and federal officials throughout the US have established quarantines to prevent further shipments of infected plants into their states. Prior to the SOD finding in March 2004, Georgia organized the Sudden Oak Death Advisory Committee (SODAC) in early 2003 and began a systematic survey of forests and other nurseries in partnerships with the US Forest Service and other state departments of agriculture and forestry to determine if the disease was already present. When the west coast nursery connection was learned, efforts by SODAC were redirected to all plant shipments entering Georgia identified as having *Phytophthora ramorum* on some of their shipments. Many of the suspect plants that entered Georgia were already sold and planted throughout the state, but an aggressive testing program of the plants still located at the nurseries revealed that the vast majority of plants that were infected with the SOD pathogen was from the Monrovia nursery.

To date, 14 Georgia nurseries have been identified as having received infected plants. These nurseries did not knowingly sell diseased plants, but had received the plants before the



Leaf infection on front of rhododendron leaves

federal and state quarantines took effect in March of 2004. All 14 nurseries have since been checked and certified free of SOD. Survey efforts continue in Georgia forests and nurseries, and the list of host plants and nurseries having infected plants could grow.

What Can You Do To Help

It is likely that the camellias you have purchased from Monrovia are free of the fungus. However, it is our goal to prevent the disease from escaping into the oaks of Georgia. If you bought Monrovia camellias anytime after January 2002, you may have received some infected camellias. Monrovia plants can be identified by the distinctive green plastic pot with the name Monrovia printed in white letters.



Canker on main stem of tanoak in California