

Sudden Oak Death in Kansas

On June 7, 2019 *Phytophthora ramorum*, the cause of Sudden Oak Death, was confirmed by the Kansas Department of Agriculture in Rhododendron container plants in Kansas. The plants are part of a shipment to Walmart stores across Kansas and one Home Depot store in Pittsburg, KS from a nursery in Oklahoma.

Phytophthora ramorum is a fungus-like organism that causes a disease commonly known as Sudden Oak Death (SOD). In California coastal oaks and bay laurel it has been a serious problem for many years. *Phytophthora ramorum* was first detected in the US in California in 1995. Its impact is still being assessed by the United States Department of Agriculture and the United States Forest Service. Kansas oak forests occur primarily in the eastern third of Kansas, the western edge of the central hardwood forests. SOD affects oaks in the red oak group, including several species of oak native to Kansas. It can also infect a broad range of nursery plants at which point it is referred to as Ramorum blight. Other susceptible plants include rhododendron, azalea, camellia, viburnum, lilac, and periwinkle.

On oak trees, *P. ramorum* causes bleeding cankers on the trunk and an overall decline of the tree. Underneath the bark, the cankers have defined margins with a reddish-brown color. With the recent findings in container rhododendrons, our immediate concern is nursery plants. On nursery plant hosts the symptoms are often leaf scorch (browning) or foliar blight (sudden and severe yellowing, browning, spotting, withering, or dying of leaves, flowers, fruit, stems, or the entire plant) and sometimes a stem canker.

The symptoms can be confused with common problems such as sunscald. *Phytophthora ramorum* rarely causes death of nursery plants, but they serve as a source of infection for other nursery plants and to native oak plants.

The *Phytophthora* diseases are called water molds and they are triggered by wet conditions. Kansas has had significant rain this spring, so conditions have been favorable for the disease.

Long distance spread of this disease is through the movement of infected nursery plants between states. The disease can survive in infected plant tissue, soil and water, so local movement into landscapes would be through infected plant material. Spread from Rhododendrons in the landscape to nearby oak trees would be through aerial splash dispersal (i.e. rainfall) or water runoff.

The Kansas Department of Agriculture is working with the affected Walmart and Home Depot stores to eradicate the diseased plants. To help reduce potential spread of the disease, homeowners who have purchased Rhododendrons from these stores should dig up the plant, including the root ball, double bag it in plastic, and send it to the landfill. Garden tools and shoes/boots that contacted the suspect plant should be sanitized with a commercial disinfectant before using them in other areas of the landscape.

This is the first introduction of *Phytophthora ramorum* into Kansas and the Kansas Department of Agriculture, Kansas State University, and the Kansas Forest Service will continue to monitor its progress. K-State Research and Extension will be sharing information on the disease as developments occur. This

disease is a serious threat to Kansas forests and landscapes and cooperation of all residents is necessary to eradicate the threat.

Potentially susceptible oak species in Kansas may include red oak (*Quercus rubra*), black oak (*Quercus velutina*), pin oak (*Quercus palustris*), blackjack oak (*Quercus marilandica*), shumard oak (*Quercus shumardii*), scarlet oak (*Quercus coccinea*), and shingle oak (*Quercus imbricaria*). Factors that would affect the potential movement of *Phytophthora ramorum* into Kansas oak forests would be the presence of infected plants (such as Rhododendron) planted into home landscapes in oak water sheds, along with wet weather. Spring 2019 has been very wet and conducive to disease. The risk for *Phytophthora ramorum* establishment into oak plantings in western Kansas is lower than eastern Kansas because it is typically drier and there are fewer susceptible trees.

If you still have questions about if you need to dispose of your plant, please visit our website and utilize the flowchart on the fifth page of the Sudden Oak Death publication: <https://www.shawnee.k-state.edu/lawn-garden/> or visit our Response Line: <https://www.shawnee.k-state.edu/lawn-garden/garden-response-line.html>

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