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## Arkansas Plant Health Clinic Newsletter

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### Azalea and Rhododendron

Azaleas are mainstays of the Arkansas spring garden. They provide weeks of dazzling blooms and are the backbone of many landscapes. Many plants became diseased last season with above-average rainfall and flooding in many parts of the state. Azaleas and Rhododendrons have shallow roots and prefer moist, well-drained soil with a pH between 4.5 and 6.0. They do best with protection from the hot afternoon sun. Prolonged soil moisture and soil temperatures of 80°F and above favor the development of *Phytophthora* root rot of Azalea and Rhododendron. *Phytophthora* may be confined to the root system or be found up in the foliage as well. Several species of *Phytophthora* have been found to cause root rot and foliar blight. Plants growing in heavy, poorly-drained soils are most at risk. Symptoms can include drooping, rolled and dull-colored leaves, permanent wilting, leaf and petiole lesions, defoliation, and plant death. Azaleas often shed their leaves, but Rhododendrons retain their dead foliage for a long time after leaves wilt. When examined, roots are reddish-brown with black lesions or completely rotted. Roots are often limited to the upper part of the soil. Eventually, the disease progresses from

the roots to the main stem, where a black to brown discoloration may be found at the soil line under the bark. Control of this disease is difficult. Wilted plants will not recover. Buyers should avoid any container plants with wilt symptoms. Provide excellent drainage for your plants. Raised beds are a must on heavy soils. Clay based soils may be improved with copious amounts of compost and sand. Mulching helps prevent inoculum from being splashed onto the foliage. Overhead irrigation and excessive amounts of nitrogen fertilizers should be avoided. Where practical, soil replacement along with improved drainage may solve the problem. Monterey Alette or Monterey AGRI-FOS may be used by homeowners. Commercial growers may use Subdue Maxx or Alette. Fungicides will not be effective if saturated soil conditions persist.

### Rhododendron *Phytophthora* Root Rot-*Phytophthora* spp.



Photo by Sherrie Smith, University of Arkansas  
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## Rhododendron Phytophthora Leaf Spot-*Phytophthora* spp.



Photo by Sherrie Smith, University of Arkansas  
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## Azalea Littleleaf Disease- *Phytophthora cinnamomi*



Photo by Sherrie Smith, University of Arkansas  
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## Cherry Laurel

Laurels (specifically *Prunus* spp.) may develop several bacterial diseases, especially when planted in shade and watered with overhead irrigation. Stressed plants are more likely to develop health problems. Both *Xanthomonas campestris* pv. *pruni* and *Pseudomonas syringae* have been associated with bacterial leaf spot in prunus. *Xanthomonas campestris* pv. *pruni* causes gray angular lesions that turn red. Eventually, the centers fall out leading to the common name Shot Hole disease. *Pseudomonas* can cause leaf spots and stem cankers. When their environment is stressful, Laurels are also prone to physiological spotting that resembles bacterial disease. Bacterial diseases are difficult to control at the best of times. Cherry laurel can be sensitive to copper compounds; so, they should only be used during the dormant season. Mancozeb has been found to help control Shot Hole disease on laurels and is effective against fungal diseases as well. Laurels should be planted in an area with good drainage where they receive at least 6 hours of full sun. Submit soil samples for analysis to be confident the soil profile is adequate for healthy growth. Near the bottom of the following web page are instructions on how to get free, routine, in-state soil analyses. <https://aaes.uada.edu/technical-services/soil-testing-and-research-laboratory/>



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## Cherry Laurel Bacterial Spot- *Xanthomonas campestris* pv. *pruni*



Photo by Brannon Thiesse, University of Arkansas  
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## Cherry Laurel Bacterial Spot- *Xanthomonas campestris* pv. *pruni*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

## Turf

Pythium diseases of turf grass may occur in cool, wet weather, but the most obvious damage occurs in hot, humid weather. All species of turf are susceptible. In cool weather, blighted leaves have straw-colored lesions. Characteristic sporangia and oospores may be observed when viewed under a compound microscope. In warm, wet weather, Pythium begins as circular spots 2-6 inches in diameter. They can enlarge at an alarming rate, sometimes destroying a stand of grass in a day. The areas may be copper or straw colored or have a gray, water-soaked appearance. The water-soaked leaves feel greasy when rubbed between the fingers, leading to the common name Grease Spot. Leaves become shriveled and matted when dry. During wet periods or periods of high humidity, the affected leaves become covered with a fluffy, white or gray mass of mycelia. Sometimes the blighted turf occurs in patches or circles with an area of green turf in the center. Pythium disease can only occur in areas that remain wet for extended periods. Provide for good surface and subsurface drainage. Avoid overwatering and night watering. Thatch removal is recommended if thatch exceeds half an inch in depth. Reducing plant stress with proper mowing heights and proper fertilization helps control Pythium diseases. Avoid over-fertilization with nitrogen, and avoid heavy applications of nitrogen in spring and summer. Slow-release nitrogen fertilizer gives better results. Disease is more severe in soils with high pH. Fungicides such as Aliette, Subdue



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Maxx, Mancozeb, Alude, and Banol are labeled for the control of Pythium in turf.

### **Zoysia Pythium Blight-*Pythium* spp.**



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

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