

Cercospora Leaf Spot of Hydrangea

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Introduction

Cercospora leaf spot is an infectious leaf disease that affects smooth, panicle, oakleaf and bigleaf types of hydrangea in Arkansas landscapes and nurseries. This disease is caused by the fungus *Cercospora hydrangea* and is perhaps the most common disease seen on this perennial ornamental during the months of July through October. Although this disease can be widespread on hydrangeas in the landscape, it is generally an aesthetic problem for homeowners because the disease rarely kills the plant. Cercospora leaf spot can, if it is severe, reduce overall plant vigor by repeated defoliation. For bigleaf-type hydrangeas in the landscape, Cercospora leaf spot tends to be less severe under shady conditions, but in nursery environments under shady conditions, frequent overhead irrigations can intensify disease activity and subsequent defoliation and loss of vigor.

Symptoms

Initial infection usually occurs during May, but symptoms don't become apparent until later in the season. Midsummer environmental conditions contribute to disease severity. Rainfall and overhead irrigation are major factors that play a pivotal role in symptom expression and intensity. Late summer rainfall can be a major contributor to defoliation and decline.

Leaf spot symptoms can vary according to the type of hydrangea (panicle, smooth, etc.) that is infected. In general, leaf spots are first visible on older leaves at the bottom of the plant then spread upward toward the top of the plant. Initial spots are purple and small with a circular shape (Figure 1). As spots enlarge, they often become irregular or angular in shape and develop a tan or gray center surrounded by a purple or brown border. Leaves that are severely spotted often become a yellow-green color (Figure 2). The fungus produces



FIGURE 1. Cercospora leaf spot on bigleaf hydrangea



FIGURE 2. Yellow leaves associated with Cercospora symptoms (Courtesy of J. Stout)

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numerous spores that are sometimes visible with the unaided eye as minute dark specks within the center of the spot (Figure 3). These microscopic spores can be spread long distances by wind and splashing water from rainfall or overhead irrigations.



FIGURE 3. Closeup of Cercospora leaf spot with fungal fruiting bodies

Management

Since hydrangea cultivars vary in susceptibility to Cercospora leaf spot, homeowners should select resistant varieties for new plantings. Sanitation is an important tool in disease management. Since the fungus can easily survive in infected leaves that fall and remain on the ground or that remain on the bush, removal of these leaves can help prevent future infections and disease outbreaks. Spotted leaves should be removed any time during the growing season when they are present, especially before new leaves begin to form in the spring. If possible, irrigate plants using a soaker hose or drip irrigation, since splashing water from an overhead sprinkler can spread the fungus from leaf to leaf and create an ideal environment for disease activity.

There are some fungicides available to help manage Cercospora leaf spot, but for the homeowner, disease management with fungicides is often not warranted because symptoms usually occur so late in the season. However, the use of fungicides may be justified for high-value landscape plantings that develop severe cases of the disease each year. Products containing chlorothalonil, myclobutanil or thiophanate-methyl are most effective when applied prior to or at the first sign of leaf spots. These fungicides work best to protect newly developing leaves, but they will not protect new growth that emerges after the application has been made. Consequently, in order to keep plants relatively free of the disease, multiple applications (usually every 10 to 14 days) may be necessary.

Remember with all pesticides, always read and follow the label directions. Complete coverage of the leaves with the fungicide in conjunction with proper timing of applications is important for successful leaf spot management. Consult Extension publication MP154, *Arkansas Plant Disease Control Products Guide*, at www.uaex.uada.edu for available fungicides for commercial or homeowner ornamental applications.

Additional Information

An effective disease management program begins with an accurate diagnosis. A laboratory exam in conjunction with background information about the affected plant may be required for an accurate diagnosis. For further information about Cercospora leaf spot and other hydrangea diseases, contact your local county Extension office.

Additional fact sheets are also available at www.uaex.uada.edu.