

# Bacterial Leaf Spot of Chrysanthemum

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Bacterial Leaf Spot can be a real problem for chrysanthemum when frequent rainfall and cloudy days persist for extended periods. The disease is most commonly encountered in the southern United States and tropical climates. Most cultivars of chrysanthemum are susceptible to this disease. The bacterium that causes this disease requires either wet leaves or high humidity to multiply and infect chrysanthemum. Many bacteria may be commonly found on leaf surfaces and will not cause a problem unless they get inside the plant. The bacteria usually enter through the leaf stomata (minute pores that function in the exchange of gases between the plant and the environment) when moisture is present on the leaf surface. Bacteria are often spread from plant to plant by splashing water.

The initial evidence of this disease is the presence of black “greasy” leaf spots on individual leaves. Most spots are about ¼ inch in diameter and usually appear on the lower older leaves of the plant. Under moist conditions, spots often grow together to eventually cover the entire leaf area. Entire leaves may become black or dark brown, wilt and die. Dead leaves shrivel and become brittle on the stems, developing into a blighting of the foliage. These dead leaves may serve as a reservoir for subsequent spread of the bacteria to other leaves.

If wet conditions persist, the bacteria can move down the petiole into the stem causing a dark brown streaking. As the bacteria advance into the stem tissues, lateral branches and leaves will die also. Flower buds can also develop infection and die before buds open. Buds will turn dark brown or black, with dead areas extending downward on the stem. These stem lesions may be up to three inches long.

Outdoor chrysanthemum growers should start with disease-free cuttings or plants. Since moisture is very important for this bacterial disease to develop, any methods to minimize leaf wetness should be practiced. Watering should be done early in the day so the plant surfaces can dry quickly. Container plants should be spaced properly to allow good air circulation between individual plants. In the landscape, plants should be grown in a sunny location with good air circulation. Fungicides containing copper can provide limited control on susceptible cultivars.

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