



## Identification of Black Spot Disease in Plants

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### DESCRIPTION

Black spots can be found on roses, flowers, fruits, and foliage, among other plants. It's particularly difficult when the weather is hot and humid. Black spot is a fungus that mostly affects roses, although it can also damage other ornamental and garden plants. If the illness is left untreated, the fungus (*Diplocarpon rosae*) will gradually weaken the plant, resulting in fewer and fewer blossoms.

### Symptoms

On upper leaf surfaces, black dots with a diameter of one-tenth to one-half inch appear first. Areas near the black spots turn yellow, and leaves drop prematurely, usually starting from the bottom and working up the plant. Raised purple-red spots appear on the young wood of first-year canes less frequently. These patches may become darkened and blistered in the future. Rain, dew, irrigation, people, insects, and transportation can all transmit the disease. The fungus cannot survive in the soil for more than a month or on pruning instruments for more than a month. In mild areas, black spot spores can survive the winter in fallen leaves and stem lesions and remain active on the plant all year.

### Reproduction

Infection with this fungus requires free water, as it does with other fungi. For the spores to germinate, they must be wet for at least 7 hours. Acervuli or fruiting structures of the pathogen form within two weeks of infection. These formations release spores, which are then blown, splashed, or transferred to fresh

tissue causing new infections. The optimal temperature for spore germination is 65°F, and the disease develops most quickly at around 75°F. At temperatures above 85°F, the disease cannot spread. The fungus can be found in fallen leaves and infection sites on the canes during the winter. Individual spores won't last more than a month in the soil.

### Control

In the autumn, rake and remove all fallen leaves. Remove infected canes by pruning and discarding them. Don't water the leaves, especially on cloudy days when it takes longer to dry. Plants should be grown in a bright, open space to allow the leaves to dry quickly. Allow for good air circulation by avoiding dense vegetation and windbreaks. For low-maintenance plantings, use resistant cultivars. Remove infected leaves during periods of dry weather to help slow disease progress if possible pick resistant fruit plants while selecting fruit trees. Rake up fallen fruit and keep the soil under the tree clean. There are numerous fungicides approved for the treatment of black spot.

### CONCLUSION

Plants that have been compromised by this disease are more susceptible to winter harm. Although the illness does not kill the plant, the loss of leaves weakens it over time, making it more vulnerable to other stresses, including winter damage. The disease thrives in chilly, humid climates. In contrast, high summer heat in July and August will slow the disease's progression.

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