

Scab of Flowering Crabapple

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Diagnosis

Apple scab is known to be present in all parts of the country where species of *Malus*, including crabapple and domestic apple, are grown. This disease is caused by the fungus *Venturia inaequalis*. In Arkansas, this disease is considered one of the most significant diseases of crabapple. Practically all cultivars of flowering crabapple are susceptible. The disease tends to be most severe in areas where cool, moist weather prevails during the spring and summer. Other landscape plants in the southern states affected by the scab fungus include pear, pyracantha, and hawthorn. “Black spot” and “mildew” were early descriptive names given to this disease. The primary impact of the disease is early defoliation and fruit drop. On the common apple (*Malus* sp), scab infection may also reduce fruit size and marketability.

Symptoms

The first visual evidence of scab usually becomes quite noticeable to the home gardener during the flowering period. Young leaves and flower sepals develop olive-colored, irregular spots on the undersurface. As the spots enlarge, they become olive green to gray, with a fuzzy or velvety surface. Spots enlarge rapidly on the leaf surfaces during moist conditions. Larger leaf spots often appear to radiate out from their centers. Older crabapple leaves generally develop spots on the upper surfaces. Spots may grow together, giving the leaves a darkened appearance. Severely infected leaves may fail to fully expand. Leaf curl and defoliation often result from infection. Fruit may also develop “crusty” and raised spots as well. As fruit spots enlarge, cracks may develop on the surface. The purple or maroon fruit color of many crabapple cultivars makes fruit spots difficult to see until infections become quite severe.

Less obvious symptoms to the gardener are small, scabby spots that occur on the twigs. These lesions can be important sources for disease outbreaks during the following season; however, infected dead leaves and fruit that fall to the ground are the most important sources. The fungus survives the winter quite easily on these tissues. Primary infection takes place in the spring when the flower buds open. Subsequent secondary spread of the fungus occurs during the growing season. Spores of the fungus that are produced on the leaves and fruit are spread by wind and splashing water to initiate new leaf and fruit infections during the growing season.

Prescription

Since some cultivars have some genetic resistance to crabapple scab, growers should consider selecting those as a landscape tree. Resistance will vary with the weather and part of the country. Dry springtime and summers tend to reduce the severity. Timely fungicide applications are the best control for susceptible trees. Growers who want to maintain a specimen tree will probably have to spray on a regular basis. Multiple spray applications are often necessary depending on weather conditions. Applications need to protect newly developing foliage, blossoms, and fruit. Fungicides containing the

active ingredients of captan, myclobutanil or propiconazole are registered for scab. Since the fungus can overwinter on dead leaves and fruit on the ground, gardeners should do a thorough cleanup around the tree. Dead leaves and fruit should be raked and destroyed prior to bud break in the spring.

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