

Rose Black Spot

Mary Ann Hansen, Extension Plant Pathologist, Department of Plant Pathology,
Physiology and Weed Science, Virginia Tech

Rose black spot, caused by the fungus *Diplocarpon rosae*, is the most common cause of defoliation of landscape roses in Virginia. The disease is less of a problem in greenhouses where relative humidity can be carefully controlled. Susceptible landscape roses must be sprayed frequently with fungicides to keep the disease under control. Fortunately for rose growers, some of the newer cultivars and hybrids have resistance to this disease.

Symptoms

Small, round spots, ranging in size from 1/16" to 1/2" in diameter, appear on the upper sides of leaves. Leaf tissue adjacent to the spot turns yellow. Whole leaves eventually turn yellow and fall prematurely. Black spot can be distinguished from other leaf spot diseases of rose by the generally fringed margins and the darker and consistently black color of the leaf spots. Similar spots may appear on petioles and fruit. Raised, reddish-purple spots may also appear on canes. If black spot is left uncontrolled and early defoliation occurs, bushes are weakened and cane dieback the following spring may

be severe. Weakened plants may continue to die even after the plants leaf out.

Disease Cycle

During dormancy the fungus survives in infected canes and fallen leaves. Spores are spread to the highly susceptible, young, unfolding leaves in spring by splashing water. Infection takes place only when water remains on the leaves for seven or more hours. Therefore, the disease is most serious in regions of high rainfall and high humidity. Because the fungus tolerates a wide range of temperatures, symptoms can continue to develop all season long if moisture is adequate.

Control

Cultural Control

A preventative program for black spot should begin in the fall with a thorough sanitation program. Diseased leaves on the ground should be raked and burned or removed. All diseased canes should be pruned back to healthy wood. These practices will reduce the amount of overwintering fungus. During the growing season, overhead irrigation, which prolongs leaf wetness, should be avoided. If plants are overhead irrigated, watering should be done in the morning rather than the afternoon so that leaves dry quickly.

Chemical Control

Fungicides registered for black spot control should be applied preventatively to susceptible roses starting in spring before the new leaves become spotted. From this time through frost, the plants should never pass through a rainy period without a protective coating of fungicide on the leaves. Fungicides registered for black spot control include propiconazole (e.g. Banner), thiophanane methyl (e.g. Cleary 3336), chlorothalonil (e.g. Daconil 2787), mancozeb (e.g. Fore, Dithane, or Maneb), thiophanate



Fig. 1. Leaf symptoms of rose black spot.
(Photo by R. C. Lambe)

www.ext.vt.edu

Produced by Communications and Marketing, College of Agriculture and Life Sciences,
Virginia Polytechnic Institute and State University, 2009

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Rick D. Rudd, Interim Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Alma C. Hobbs, Administrator, 1890 Extension Program, Virginia State, Petersburg.

methyl + mancozeb (e.g. Zyban), trifloxystrobin (e.g. Compass) and myclobutanil (e.g. Systhane). Most of these fungicides can be sprayed at 7-10 day intervals when rains are infrequent. During rainy weather, it may be necessary to spray the plants more frequently. Details on rates and timing of application can be found the current Virginia Pest Management Guide for Home Grounds and Animals (VCE Publication 456-018) or the Virginia Pest Management Guide for Horticultural and Forest Crops (VCE Publication 456-017), <http://pubs.ext.vt.edu/456-017/>. For information on the proper use of pesticides and fungicides, refer to any current VCE pest management guide.

Resistance

The most effective way to prevent black spot is to plant roses that have resistance to the disease. Most roses get black spot to some degree, but roses that have been bred for resistance to this and another common disease of roses, powdery mildew, will require less maintenance than those that are known to be susceptible to these diseases. Some hybrids and cultivars that showed good to excellent resistance to both black spot and powdery mildew in a 1990 survey in Maryland are listed below (Table 1). Note that the degree of resistance exhibited by these roses in a given landscape may vary somewhat depending on local environmental conditions.

Table 1. Roses with good to excellent resistance to black spot and powdery mildew

Hybrid Teas	Wimi	Heartland
Canadian White Star	Grandifloras	Kathy Robinson
Chablis	Love	Mary Bell
Duet	Prima Donna	Old Glory
Electron	Floribundas	Queen City
Elmhurst	Koricole	Red Flush
Lady	Lavaglut	Singles Better
Lady Rose	Playboy	Watercolor
Lady X	Playgirl	Shrub Roses
Maid of Honor	Simplicity	Alba Meidiland
Mikado	Sun Flare	Albo Semi-plena
Miss All American Beauty	Traumerei	Blanc Double de Coubert
Modern Art	Miniatures	Bonica
Mon Cheri	Always A Lady	Frau Dagmar Hartopp
Nantucket	Anytime	Linda Campbell
Olympiad	Black Jade	Pink Meidiland
Otto Miller	Centerpiece	Roseraie de l'Hay
Pascale	Cinderella	Rugosa alba
Polarstern	Cuddles	Scarlet Meidiland
Red Devil	Ginny	Topaz Jewel
Voo Doo	Green Ice	

Adapted from previous publication by R. C. Lambe.

Disclaimer

Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.