

# Rose Black Spot

Mary Ann Hansen\*

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



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

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), thiophanate methyl (e.g. Cleary 3336), chlorothalonil (e.g. Daconil 2787), mancozeb (e.g. Fore, Dithane, or Maneb), thiophanate

\* Extension Plant Pathologist, Department of Plant Pathology, Physiology and Weed Science, Virginia Tech

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 in 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://www.ext.vt.edu/pubs/pmg/>. 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

Canadian White Star  
Chablis  
Duet  
Electron  
Elmhurst  
Lady  
Lady Rose  
Lady X  
Maid of Honor  
Mikado  
Miss All American Beauty  
Modern Art  
Mon Cheri  
Nantucket  
Olympiad  
Otto Miller  
Pascale  
Polarstern  
Red Devil  
Voo Doo  
Wimi

### Grandifloras

Love  
Prima Donna

### Floribundas

Koricole  
Lavaglut  
Playboy  
Playgirl  
Simplicity  
Sun Flare  
Traumerei

### Miniatures

Always A Lady  
Anytime  
Black Jade  
Centerpiece  
Cinderella  
Cuddles  
Ginny  
Green Ice  
Heartland  
Kathy Robinson  
Mary Bell  
Old Glory  
Queen City  
Red Flush  
Singles Better  
Watercolor

### Shrub Roses

Alba Meidiland  
Albo Semi-plena  
Blanc Double de Coubert  
Bonica  
Frau Dagmar Hartopp  
Linda Campbell  
Pink Meidiland  
Roseraie de l'Hay  
Rugosa alba  
Scarlet Meidiland  
Topaz Jewel

*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.