

Fruit Diseases



Purdue University
Cooperative Extension Service

Raspberry Anthracnose

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Anthracnose is the most common and widespread disease of raspberries, especially black and purple raspberries; it is also often a problem on some blackberry varieties. Red raspberries are less likely to be seriously damaged, however to help ensure a disease-free planting, all management practices outlined below should be followed for all raspberry plantings.

Symptoms

Anthracnose first appears in the spring when the young raspberry plants are about 6 inches high. Small, purple, circular spots are found scattered over the length of the canes. These lesions soon enlarge, become sunken in the center and turn gray with purple borders (Figure 1). They eventually grow to about 1/8 inch in diameter and run together to form extensively diseased areas on mature canes (Figure 2). Anthracnose will frequently girdle the stem before the crop matures, causing the berries to dry up.

A severe outbreak of anthracnose will stunt or destroy new canes. Infected canes tend to crack during winter, causing them to dry out and break in the fruiting season. These canes are also more susceptible to winter injury.

Cause

Anthracnose is caused by the

fungus *Elsinoe veneta*, which overwinters in lesions on old fruiting canes. Just as the raspberry buds start to open in the spring, the fungus produces spores that are carried by wind and splashing rain to healthy, young canes. The lesions that develop on these "spring" canes then produce summer spores that, in turn, spread the disease to leaves, fruit, fruit stems, and fruiting canes.

Young, tender canes are highly susceptible to anthracnose infection during wet, rainy periods. During dry weather, these canes harden-off and resist the disease.



Figure 1. Circular spots with gray centers and purple margins are typical of early symptoms.

Management

(1) Growing Site. Raspberries should be planted in sunny, open areas that have good air drainage. Moist conditions favor anthracnose infections.

(2) Start With Clean Plants. Plant only disease-free canes when establishing a new patch. Before taking new black or purple plants to the field for setting, cut off the stubs of the old canes attached to the young plants below the ground level and destroy them.

(3) Destroy Wild Hosts. Wild brambles serve as a breeding ground for anthracnose and many other diseases. The area surrounding the planting should be kept free of wild blackberries and raspberries.

(4) Maintain Good Weed Control. Keep weeds cultivated from between the rows; they prevent good air circulation and thus hamper rapid drying of foliage.

(5) Sanitation. After harvest, remove and destroy badly-infected canes. Because the fungus survives on both living and dead plant tissue, old fruiting canes as well as severely affected new canes should be removed from your planting after harvest.

(6) Fungicide Sprays. If anthracnose becomes a persistent, chronic problem, fungicide sprays may be required for satisfactory control.

Spray with liquid lime-sulfur (sold as Dormant Disease Control Lime-Sulfur Spray, etc.) when leaf buds are just showing green, or when they are about 1/8 inch long. This early spring application is often referred to as a "delayed dormant" spray. The timing of the delayed dormant application is critical in that sprays applied too early (before green tip) are not effective, while sprays applied after the new shoots are 1/2 inch long may burn the foliage.

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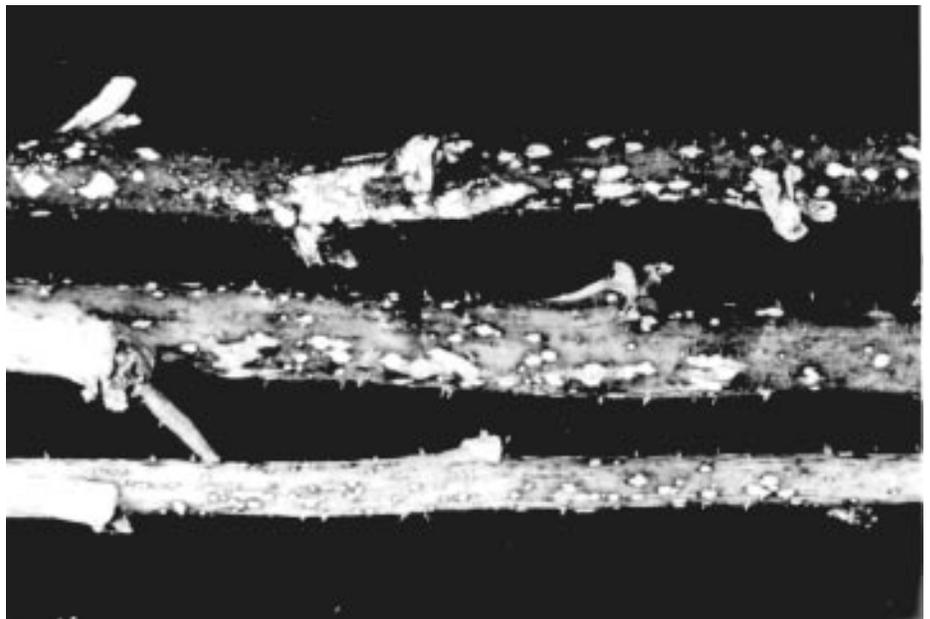


Figure 2. Anthracnose infection often results in extensive pitted areas on older canes.



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