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Cane Diseases of Brambles: *Leptosphaeria coniothyrium, Elsinoe veneta,* and *Didymella applanata*

Introduction

Several fungi commonly cause cane diseases on brambles.

CANE BLIGHT is caused by the fungus *Leptosphaeria coniothyrium*. Although cane blight may occur on all brambles it is most common on black raspberry.

ANTHRACNOSE is sometimes called cane spot, this disease is caused by the fungus *Elsinoe veneta*. Anthracnose is a serious disease of purple and black raspberries. The anthracnose fungus may also infect blackberries. Red raspberries, however, are not seriously affected by this disease.

SPUR BLIGHT is caused by the fungus *Didymella applanata*. Al1 raspberries can become diseased, but red raspberries are more prone to infection by the spur blight fungus than other brambles. Blackberries are not affected.

Symptoms and Signs

CANE BLIGHT On new canes, symptoms often do not show up until late in the growing season. Dark brown cankers appear on the canes and are always associated with a wound, pruning cut, or stub (**Figs. 1 & 2**). Fruiting canes that are infected produce weak growth and wilt as fruit begins to ripen. Dark brown cankers may be found on the canes below the weak or wilted growth.

ANTHRACNOSE In the spring, distinct, small, purple spots appear on the young canes. As the spots enlarge to 1/4" diameter, their centers become grayish and their borders remain purplish. When many spots occur on a cane, they may grow together weakening or girdling/killing the new cane. Canes weakened by anthracnose infections may die during the winter or the following year before fruiting. Leaves and berries may be infected by this fungus. Tiny spots with light gray centers and purple margins will form on leaves. Berries that become infected will rot, appear misshapen, and have poor flavor.

Figure 1: Cane Blight caused by *Leptosphaeria coniothyrium* (provided by the **Plant Disease Diagnostic Clinic, Cornell University)**

SPUR BLIGHT shows up on new growth in mid to late summer as dark brown or purplish lesions around the buds. Infected buds slowly shrivel and the following spring produce weak shoots or may fail to grow altogether. By this time the brown or purplish lesions around the buds will appear ashy gray. Cracks and splits may form in the bark as the blight progresses.

Disease Cycle

The CANE BLIGHT fungus produces spores in tiny, black structures in the diseased bark especially near the bud. These structures release spores during wet

weather from spring through summer. Spores may be spread by wind, splashing water and insects. Spores that land on pruning cuts, stubs, broken fruit stems, cracks in bark, or other wounds may be successful in causing new infections.

Figure 2: A close up of a canker on a cane. (provided by the **Plant Disease Diagnostic Clinic, Cornell University)**

The ANTHRACNOSE fungus produces spores in tiny, black structures arranged in concentric ring patterns in the loose, grayish diseased bark. These structures release spores during wet weather beginning in early spring. The spread of spores to new growth is favored by rain, wind, and splashing irrigation water.

The SPUR BLIGHT fungus produces spores in tiny, black structures in the diseased bark especially near the bud. These structures release spores during wet weather. The spores are spread by rain, wind, and irrigation water. Spores that land in the moist areas near buds on young canes may be successful in causing new infections.

Management Strategies

The same cultural management practices may be used for all three issues. In March or April before new canes emerge, prune dead, diseased, or weak canes and destroy or trash them. Since these diseases are favored by moist conditions, keep the brambles properly spaced and pruned so they will dry quickly after rain or irrigation.

Red raspberry varieties more susceptible to spur blight include Royalty, Titan, Taylor, Canby, Skeena, Matsqui, Williamette, Reveille, and Sentry. Festival, Brandywine, Killarney, Latham, Madawaska, Hilton, and Newburg are less susceptible to the disease.

Some fungicides may be labeled to manage or to help suppress these diseases. For a list of products that may registered for home garden use in New York please see our fruit fungicide table. Please note that some restrictions or warnings may apply to various products that may be registered for either commercial or home garden use. The first application should be applied when no more than 1/2 inch of green is pushing out of the buds. Sprays applied after the green tips show 3/4" or more may burn the leaves.

Follow the label instructions for all pesticides used, and avoid the use of insecticides during bloom so that bees are not harmed. For commercial applications, please refer to the appropriate commercial pest management guidelines, or contact your local Cooperative Extension Office for more information on currently registered products.

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READ THE LABEL BEFORE APPLYING ANY PESTICIDE! Changes in pesticide regulations occur constantly. All pesticides distributed, sold, and/or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office.

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