

Cane Blight of Raspberries

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Cane blight is one of the more damaging diseases of raspberries. The disease is most common on black raspberries but also occurs on red and purple varieties. The disease occasionally occurs on blackberries and dewberries. Cane blight can result in wilt and death of lateral shoots, a general weakening of the cane, and reduced yield. It is usually most severe during wet growing seasons.

Symptoms

On first-year canes (primocanes) dark brown-to-purplish cankers form on new canes near the end of the season where pruning, insect, and other wounds are present. The cankers enlarge and extend down the cane or encircle it,



Figure 1. Cane blight lesion on thornless blackberry.

causing lateral shoots above the diseased area to wilt and eventually die. Black specks, which are reproductive bodies of the cane blight fungus, develop in the brown cankered bark. In wet weather, large numbers of microscopic spores ooze out of the pycnidia. This ooze gives the bark a dark-gray, smudgy appearance. During winter, infected canes commonly become cracked, brittle, and snap off easily. On infected second-year canes (floricanes), the side branches may suddenly wilt and die, usually between blossoming and fruit ripening. Upon close examination, the presence of dark brown or purplish cankers can be observed on the main cane or branches below the wilted area.

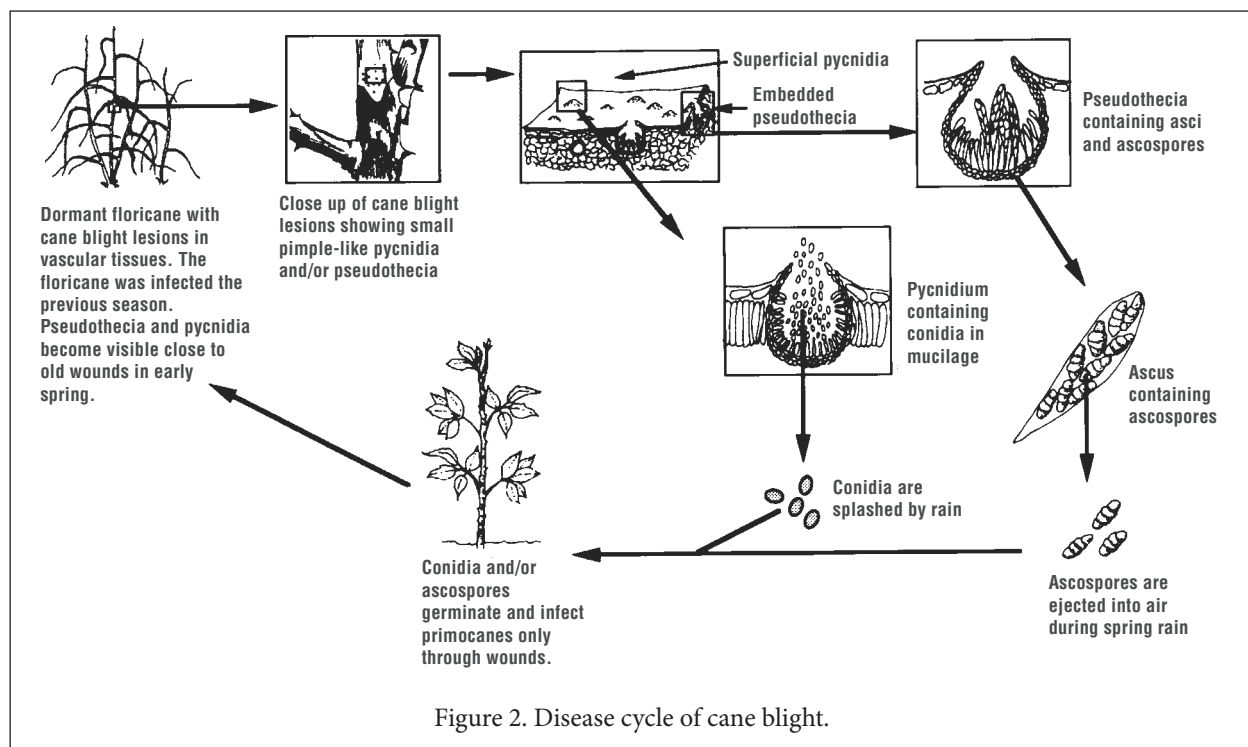
Causal Organism

Cane blight is caused by the fungus *Leptosphaeria coniothyrium*. The pathogen survives over winter on infected or dead canes. The following spring, spores are released and carried by splashing rain and wind to nearby primocanes. Under moist conditions, the spores germinate and penetrate pruning wounds, insect punctures, fruit stem breaks, and other wounds. After entry the fungus rapidly invades and kills bark and other cane tissues. Fungal fruiting bodies are formed in older cankers and complete the disease cycle. Dead canes continue to produce conidia and remain a source of infection for several years.

Control

1. All steps possible should be taken to improve air circulation within a planting, to allow faster drying of foliage and canes. Reducing the number and duration of wet periods should reduce the potential for infection. Excessive applications of fertilizer (especially nitrogen)

- should be avoided, since it promotes excessive growth of very susceptible succulent plant tissue. Plants should be maintained in narrow rows and thinned to improve air circulation and allow better light penetration. Weeds are very effective in reducing air movement; therefore, good weed control within and between rows is important for improving air circulation within the planting. Raspberries should be planted in sunny, open areas where water and air drainage are good. This allows plants to dry quicker after wet periods, and reduces the chance of infection.
- Wild brambles, especially wild raspberries, growing in the area should be removed. They can provide a continuous source of spores to spread this and other diseases and pests to cultivated raspberries and blackberries.
 - Healthy, rapidly growing plants that have been properly fertilized and watered, are more resistant to cane blight.
 - After harvest, remove and destroy all old fruited floricanes and any new primocanes canes that are infected. The best time to remove canes is during the dormant season. Old canes should be removed before growth starts in the spring.
 - Keep plantings free of insects, since they may cause wounds that serve as entry points for the fungus. Avoid any other pests or cultural practices that result in wounding of the canes.
 - If cane blight is a serious problem, the use of fungicides should be considered. For the most current spray recommendations, commercial growers are referred to Bulletin 506-B2, *Midwest Commercial Small Fruit and Grape Spray Guide*, and backyard growers are referred to Bulletin 780, *Controlling Diseases and Insects in Home Fruit Plantings*. These publications can be obtained from your county Extension educator or the Extension Publications Office, The Ohio State University, 216 Kottman Hall, 2021 Coffey Road, Columbus, Ohio 43210-1044.



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