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Coryneum blight

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Quick Facts

- Coryneum blight affects peaches, apricots and sweet cherries in Colorado.
- Economic loss results when fruits are blemished and disfigured by spots and lesions from Coryneum blight.
- Outbreaks of this disease take place in spring and early summer and in cool, wet periods prior to harvest.
- Blight is difficult to eradicate because the fungus in infected buds and twigs may produce spores for two to three years.
- Control requires chemical sprays and removal of dead wood over a three-year period.

Coryneum blight—also called shot hole disease, California blight, peach blight or pustular spot—is caused by the fungus *Coryneum carpophilum*. In Colorado it affects mainly peaches and apricots, and to a lesser degree sweet cherries.

Severe foliar shot holing may weaken a tree, while the most apparent damage is infection of the fruit.

Disease Development

The fungus apparently overwinters on dormant infected leaf buds, blossom buds and small twig cankers. Spore production begins in early spring.

The first symptoms of infection are observed on young leaves as small red spots that enlarge and become purple with a white center. These spots then drop out of the leaf blade leaving a "shot hole." Numerous holes give a very tattered appearance to infected leaves.

Economic loss from Coryneum blight results when peach or apricot fruit are affected. The spots or lesions on the epidermis blemish or disfigure the fruit (Figure 1). Spots may appear on the fruit anywhere from 10 to 12 weeks prior to harvest through the post-harvest period.

Early season infections are characterized by the presence of a reddish-purple halo surrounding a light tan, scab-like center spot (which is the dead fruit skin killed by the fungus). These are very similar to damage caused by San Jose Scale, and great care is required to avoid confusion. Late season infections (up to four weeks before harvest) are different and lack the scab-like center and pronounced reddish-purple halo.

Infections on the maturing fruit produce

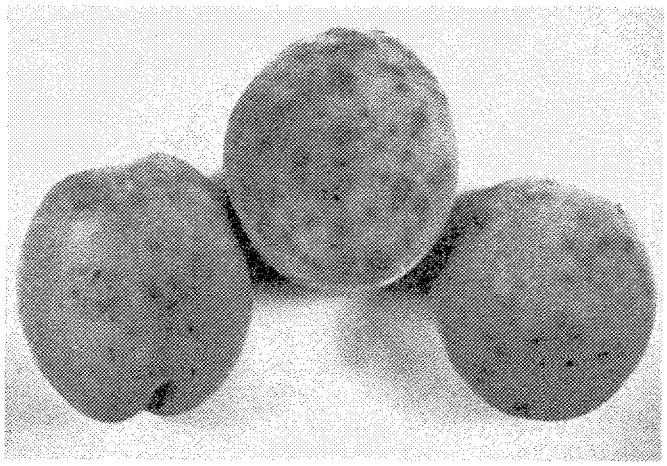

Figure 1: Severe Coryneum blight on immature peaches.

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sunken, brownish spots up to one-half inch (1 cm) diameter in a fairly short time. These render the fruit unsalable.

Depending on weather factors, the spots may remain tiny or enlarge to one-fourth inch (6 millimeters) in diameter. In severe cases, lesions coalesce and cause skin cracking and sometimes gumming, which results in reduced fruit quality and increased cullage.

Coryneum blight is serious in years when frequent light showers occur during the summer. Wind currents disperse the spores of this fungus from infected twigs and leaves to uninfected branches. These spores require free water droplets on the fruit, leaf or twig surface in order to germinate and cause infection.

The blight may spread rapidly within an individual tree, with movement from tree to tree somewhat slower. Leaf infections are a constant threat to fruit infection, since leaf lesions produce spores that can infect the fruit whenever weather conditions are favorable.

Temperatures of 70° to 80° F (21°-27° C) are optimum for Coryneum infections. Lesions can develop at 45° F (7° C) but at a much slower rate. It takes from two to five days for a spore to initiate infection and cause a visible lesion.

Control

Once established in an orchard, Coryneum blight is difficult to eradicate. Bud and twig lesions may continue to produce spores for two to three years, but the fungus does not overwinter in old infected leaves.

A conscientious program of chemical control and removal of dead wood is necessary to eradicate the disease.

Under Colorado conditions, most infections appear to take place in spring and early summer, although cool, wet periods prior to harvest can trigger blight outbreaks at that time.

In the spring fungicide sprays are applied at the shuck fall stage and include Captan 50 WP, Zineb 75 WP and Fixed Copper materials. Captan sprays should be continued into the summer months before cool, wet weather periods. Captan sprays also should be considered if such weather is anticipated during the four to five weeks before harvest.

In the fall, Bordeaux Mixture 10-10-100, Fixed Copper, Kocide, Bravo-500F, or Bravo 720F may be applied immediately after leaf fall. Fall applications are intended for use in severely infected orchards.