

Peach Scab

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Peach scab is caused by *Cladosporium carpophilum*, a fungus that occurs worldwide and affects peach trees in regions with a warm, humid climate conducive to the disease.

The pathogen can infect all stone fruits, but is more severe on peaches. It infects leaves, twigs, and fruit, but the damage to the fruit is primarily responsible for the economic losses caused by this disease. Although regular fungicide spray programs can typically control peach scab, years with high humidity, warm temperatures, and moderate rainfall during the early to midseason can lead to significant crop losses.

Symptoms

When fruit grows, it splits the shucks or papery remnants of the flower that surrounds the fruit. Although fruit may become infected with peach scab shortly after shuck split, symptoms are usually not visible on the fruit for 6 to 10 weeks. Only infections beginning between shuck split and 6 weeks before maturity will show symptoms before harvest.

Fruit lesions begin as small green spots that enlarge and darken to black as the fungus begins to produce spores. Although the fruit's appearance is affected, fruit quality is not because the lesions are superficial. Fruit lesions can reach ¼ inch in diameter and may or may not be raised. But, they will not be sunken like bacterial spot lesions.

Since fungal spores spread primarily by rain splash, it is common for clusters of small lesions to develop at the top of the fruit near the stem where



Figure 1. Fruit lesions caused by *C. carpophilum*. Source: Clemson University – USDA Cooperative Extension Slide Series, Bugwood.org

rain most frequently contacts the fruit (Fig. 1). Lesions that grow together into larger lesions may lead to fruit cracking as the fruit grows.

Twig lesions develop on the nonwoody, current season's growth. They begin as dull reddish spots and develop into elongated lesions, often with raised edges (Fig. 2). The fungus overwinters in these twig lesions and produces tufts of olive spores in the spring of the following season, triggering a new infection cycle.

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Figure 2. Twig lesions with raised edges. Source: Clemson University – USDA Cooperative Extension Slide Series, Bugwood.org

Spore production on these twig lesions continues throughout the growing season.

Leaf infections appear as inconspicuous chlorotic (yellowing) spots on the undersides of leaves. When the necrotic (dead) tissue falls out, it leaves shot holes in the leaves. Leaf infections do not play a significant role in the disease cycle and generally do not contribute to economic losses, though premature defoliation (leaf drop) can occur in some instances.

Transmission

Spores spread primarily by rain splash and wind. Spore production requires warm temperatures (above 16°C) and high humidity for at least 24 hours. Infection occurs in the presence of water, in the form of rain or dew, and below temperatures of 10°C or higher. Severe infection may occur in years and regions with warm temperatures, high humidity, and moderate rainfall during the early to mid growing season.

Control

Fungicides can control this pathogen. Follow these recommended treatment strategies:

- Begin applications at petal fall and continue until around 6 weeks before the fruit matures. This is when spore production tends to be high and preventing fruit infections is most critical.
- Apply fungicides every 10 to 14 days. You can adjust the timing slightly depending on weather conditions and the level of disease presence.
- Use recommended fungicides. These include captan, chlorothalonil, and sulfur.
- Monitor twigs for peach scab lesions early in the season to anticipate and plan fungicide applications.
- Improve air circulation in the orchard by choosing planting sites with good drainage, providing adequate spacing between trees when planting and pruning. This helps reduce wet conditions that contribute to the severity of the peach scab infection.

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