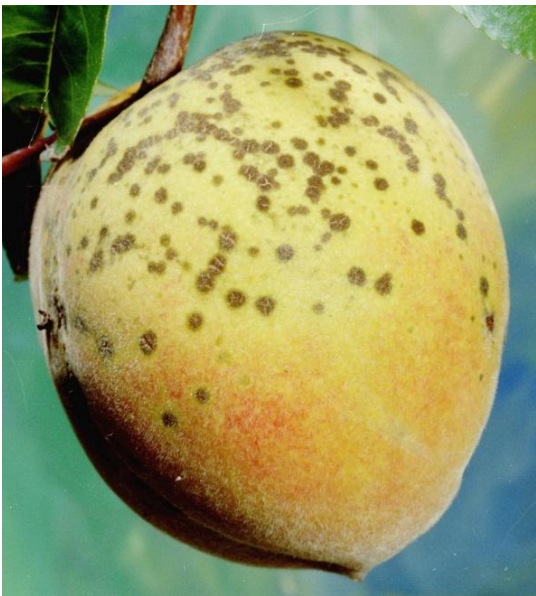


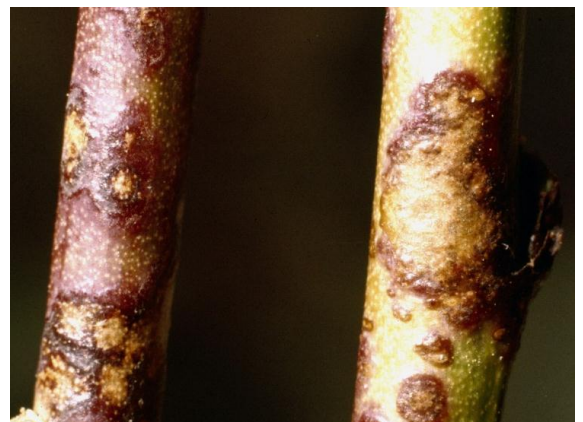
Peach Scab



Fruit lesions caused by *C. carpophilum*

Introduction: Peach scab is caused by *Cladosporium carpophilum*, a fungus which occurs worldwide and can be problematic for peach trees in regions which have a climate conducive to disease. The fungus can infect leaves, twigs, and fruit; but the damage which occurs to fruit is primarily responsible for economic losses incurred by this disease. The pathogen is capable of infecting all stone fruits but disease is more severe and of greatest importance on peach. Although adherence to regular fungicide spray programs typically keeps this disease under control, years in which high humidity, warm temperatures, and moderate rainfall prevail in the early to mid-season can still lead to significant scab losses.

Symptoms: Although fruit may become infected shortly after shuck split, symptoms are typically not visible on fruit for six to ten weeks so, only those infections which are initiated between shuck split and six weeks before maturity will exhibit symptoms before harvest. Fruit lesions begin as small green spots which enlarge over time and darken to black as the fungus begins to produce spores. Although fruit appearance can be significantly affected by this pathogen, fruit quality is not, as lesions remain at or near the surface of the fruit. Lesions on fruit may reach $\frac{1}{4}$ in. in diameter and may or may not be raised but, will not be sunken, as with bacterial spot lesions. Since fungal spores are 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 rain most frequently contacts the fruit. Coalescence of lesions may lead to fruit cracking. Twig



Twig lesions with raised edges

lesions develop on the non-woody, current season's growth and begin as dull reddish spots which develop into elongate lesions, often with raised edges. The fungus overwinters in these twig lesions and produces tufts of olive spores in the spring of the season following initial infection, triggering a new infection cycle. Spore production on twig lesions will continue throughout the growing season. Leaf infections are characterized by inconspicuous chlorotic spots on the undersides of leaves which may develop into "shot-holes" when the necrotic tissue falls out. Leaf infections do not play a significant role in the disease cycle and generally do not contribute to economic losses, though premature defoliation can occur in some instances.

Transmission: Conidial spread occurs primarily by rain splash but also by wind. Production of conidia requires warm temperatures, above 16°C, and high humidity for a period of at least 24 hours. Infection will only occur in the presence of water, in the form of rain or dew, and under temperatures of 10°C or higher. In years and regions which receive warm temperatures, high humidity, and moderate rainfall during the early to mid-season, severe infection may occur.

Control: Fungicides are effective for controlling this pathogen and applications should begin at petal fall and continue until around six weeks before fruit maturation. This is the period during which spore production tends to be high and prevention of fruit infections is most critical. Applications should be made every 10-14 days or so, but timing may be adjusted slightly depending upon weather conditions and observed disease pressure. Recommended fungicides include, but are not limited to, chlorothalonil, captan, and sulfur. Monitoring for peach scab lesions on twigs early in the season will help direct fungicide application needs. Practices which improve air circulation in the orchard such as pruning, choosing planting sites with adequate drainage, and using adequate spacing when planting, help to reduce the severity of *C. carpophilum* infection.

Symptom images: Clemson University – USDA Cooperative Extension Slide Series, Bugwood.org

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