



## Pear Scab in the Home Fruit Planting

Although it is not particularly common, pear scab is very destructive when it does occur.

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Its symptoms and disease cycle are similar to those of apple scab. A major difference is the frequent appearance of pear scab on twigs, where it can overwinter and start new infections in spring. Infection of pear leaves is not as common as apple scab on apple leaves.

### Symptoms

Pear scab occurs on leaves, shoots, and fruits. Symptoms are very similar to apple scab. A major difference, however, is the frequent appearance of pear scab on twigs, where it can overwinter and sporulate to initiate new infections in the spring.

Lesions on leaves and petioles begin as round, brownish spots that eventually become velvety in appearance. Conidia, spores of the fungus, are produced within these lesions. Later in the season, small spots can be observed on the lower surface of the leaves. These are usually the result of late-spring or early summer infections. Leaf infection of pear is not as common as apple scab on apple leaves.

Scab lesions on fruit occur on the calyx end and eventually on the sides of the fruit. As these lesions enlarge, they become dark brown and form large black areas as they coalesce. Lesions on immature fruit are small, circular velvety spots. Darker,

pinpoint spots develop as the fruit matures. Infected fruit often become irregular in shape.

Shoot lesions resemble those found on fruit. Unlike apple scab, twig infections are common with pear scab. Early in the growing season, lesions on young shoots appear as brown, velvety spots. Later, these lesions become corky, canker-like areas. The following spring, pustules will develop within these overwintered lesions. These pustules produce spores that perpetuate the spread of the disease.

## Disease Cycle

The fungus overwinters in leaves on the ground and also in infected twigs. Infection of pear foliage and fruit occurs under conditions similar to those required for infection of apple by the apple scab fungus. Ascospores are the major source of primary inoculum. Infection occurs in the spring around bud swell. Ascospores in the overwintered leaves are released as the result of rain and are carried by air currents to young leaves and fruit. Ascospores continue to mature over a 6- to 8-week period.

Conidia are the source of secondary inoculum and are produced in twig lesions. Many secondary cycles may occur over a growing season. The length of the wetting period and temperature required for infection depend on the number of hours of continuous wetness and the temperature during this wetting period. Scab lesions may develop in as few as 8 days after infection on young leaves and as many as 2 months on older leaves. Fruit are also more susceptible when young, however, mature fruit can be infected if the length of wetting period is sufficiently long.

## Disease Management

Routine fungicide sprays normally control this disease in Pennsylvania. The fungicides that control apple scab also will control pear scab; however, pear scab is never as severe a problem as apple scab.