photo Jen Mullen

Reduce the liklihood of having to deal with pear scab by planting resistant varieties, such as 'Bartlett'.

photo Tabitha Borchardt

Organic Contols

Pear scab responds to the same organic controls as apple scab. These include treatments of sulfur, lime-sulfur, or Bordeaux mixture (copper sulfate plus lime) applied early in the growing season. Spray with sulfur or lime-sulfur as soon as the buds show green.

Since scab likes damp weather, spray every week until midsummer if the weather is dry. If the summer is wet, spray until 30 days before harvest. Use lime-sulfur sparingly after leaves expand fully, because lime-sulfur can burn leaves, especially in hot weather.

Pear scab, *Venturia pirina*, is a fungal disease closely related to apple scab. Pear scab only affects pear trees, and it is less common and damaging to pears than apple scab is to apples. While pear scab mars the appearance of the pears and can cause malformed fruit, it is generally a cosmetic problem. The taste of the fruit isn't changed, but its appearance and keeping qualities, as well as canning and drying qualities, are impaired.

Signs of pear scab

Evidence of pear scab can be seen on the fruit, leaves and twigs. On the fruit, the spots first look dark, velvety and circular. Later in the season they become more 'corky,' and the skin of the pear looks cracked. If a young fruit is attacked, the cells beneath the lesion stop growing, creating fruit that is dwarfed or distorted. The fruit reacts against the fungus by forming cork-like cells, most obvious in old scab spots where the fungus is no longer growing fast. Affected fruit may drop when very small.

The leaves can also have spots, much like those on the fruit. On the underside of the leaves, lesions are conspicuous, particularly on certain varieties, such as Winter Nelis. Pear scab is also seen on the twigs, where the spots look like a scale insect. On young one- and two-year-old twigs, the lesions are 'velvety' and enduring; they are difficult to see on older twigs.

Causes

Pear scab is a fungal disease carried via spores. Spores overwinter on fallen leaf litter and infected twigs, and the spores spread into the tree in the spring when warm air currents and splashing rain move them from the ground into the tree.

Infection can continue throughout the growing season. In the fall, diseased leaves drop to the ground, carrying the fungal spores with them. Fungal bodies reside in old, dead leaf-tissues until spring, when they resume growth. By the time the tree's blossom-buds are showing white, spores are mature and are discharged during rains. The spores are ejected with enough force to carry them into the air, where they are easily caught by the wind and blown into the opening buds. The germination of these spores results in infection. The period during which spores are discharged isn't definitely known, but probably extends over several days.

The pear scab fungus can also overwinter on the twigs of the tree. Spore bodies remain alive from autumn until spring, when new infections are initiated. Fungus is not believed to winter over on fallen fruit.

Controlling pear scab

Tree hygiene is critical. Remove all old leaves from beneath the tree and put them in the yard waste container, or bury them. Prune out affected twigs, which bear small, blister-like pestules, and put them in the yard waste. Do both of these things in late winter or early spring, before growth begins in the tree. Since scab flourishes in a moist environment, take care to keep the tree open and exposed to the sun. Prune interior branches to allow air circulation and sun penetration.

Resources

The Organic Gardener's Handbook of Natural Insect and Disease Control: A Complete Problem-Solving Guide to Keeping Your Garden and Yard Healthy Without Chemicals.
By Barbara W. Ellis, Fern Marshall Bradley, Helen Atthowe

http://attra.ncat.org/new_pubs/attra-pub/pear.html?id=Washington#dise

http://chestofbooks.com/gardening-horticulture/fruit/Manual-of-Fruit-Diseases/Pear-Scab-Caused-By-Venturia-Pyrina-Aderh.html