Apple & Pear Scab

Apple scab is the number one fungal disease in apple trees in western Washington. A different but closely related species of scab occurs on pear trees. Primary infection occurs when leaves and fruit on the ground from the previous year release spores into the air. The spores are spread by rain and wind onto the leaves, flowers, and fruit for 2 to 4 weeks. Extended periods of cool wet weather facilitate spore germination. Temperatures between 55 ° F and 75 °F combined with wetness provide ideal conditions for infection.

Secondary infection occurs when lesions develop on leaves and developing fruit, which then spread spores by rain and wind to other branches or trees during the growing season. Fruit infection can start in July and lead to the formation of corky brown lesions by harvest.

Symptoms
During the spring pale, chlorotic, water-soaked spots the size of a pinhead occur on leaves. These spots continue to develop going through olive green to brownish black, larger spots that join into radiating irregular patterns. Infected leaves may drop, weakening the tree. Fruit will develop corky brown lesions into irregular shapes that eventually split.

Cultural Practices to limit Scab
Plant resistant varieties. Scab resistant apple cultivars include Akane, Ashmead's Kernal, Chehalis, Enterprise, Honeycrisp, Liberty, Pristine, William's Pride, and the columnar Sentinel and Urban apple series. Pear scab resistant cultivars include Conference and Asian pears.

Site Management/Spacing: be sure to site your fruit trees in full sun and spaced well apart.

Sanitation: Pick up all fallen leaves, twigs, and fruit regularly to help prevent re-infection. Do not put in home compost bin or use leaves as mulch.

Pruning: Prune proactively to increase air movement and light penetration.

Watering: Avoid overhead watering which can spread spores.

Spraying to Limit Scab Recurrence (Do Not Spray if You Haven't Seen Problems):

- Start applying fungicides at leaf bud break (1/4-inch green tip).
- Repeat at 7-day intervals for three or more applications or until the weather dries.
- When trees are in bloom, stop spraying to protect bees. Wait until at least ¾ of the petals have fallen before spraying again.
- Homeowners are not advised to spray trees over 10 feet tall. Consult a commercial pesticide applicator for treatment of taller trees and shrubs.
- **Always follow label instructions.**

Organic Fungicide Sprays to Limit Scab

Copper: Bonide CAPTAIN JACK'S™ Liquid Copper Fungicide

Sulfur: Bonide Sulfur Plant Fungicide or Safer Garden Fungicide

Biological: Bonide Revitalize Bio-fungicide

Copper and sulfur are protective fungicides with no curative properties; they must be used before symptoms appear, or to prevent the problem from spreading. Revitalize is a bacteria-based immune stimulator for plants; it will help to suppress scab; but does not control it.

Captain Jack's Liquid Copper Fungicide is a copper soap. It can be used before bloom but not afterwards; using it after fruit has started forming can sometimes cause surface russeting. (Copper dust/spray can also be used pre-bloom but is easy to over-apply.) Sulfur and Revitalize can both be used up to harvest if need be.

Chemical Fungicides to Limit Scab

Bonide Fung-onil

Begin application when plants are in the first true leaf stage or when conditions favor disease development. Repeat applications at 7-day intervals. This product can be harmful to bees, so be sure not to allow spray on nearby flowers.

Monterey Liqui-Cop

A non-organic formulation of copper. Spray trees in fall after fruit harvest but before rains start to reduce overwintering spores.