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Apple Scab

Apple scab lesions on leaves and fruit of cultivated apple

Apple scab occurs wherever apples are grown and may be the most serious disease on apples. The disease can also infect crabapple and mountain ash. Scab diseases similar to apple scab occur on pear, firethorn, and hawthorn. The scab-like leaf spots and fruit spots, from which the name was developed, may cause defoliation and reduction in fruit quantity and quality and quantity.

Symptoms. The disease may infect leaves, petioles, pedicels, fruit and twigs. The spots are most noticeable on leaves and fruit. Infections first appear as olive-green spots with indefinite borders. With age, these spots become more prominent and darken to a greenish-black with a velvety appearance. Severe spotting will cause leaves to senesce and fall off. Spots on young fruit result in deformation and cracking. If infection is severe, fruit may drop off before ripening. Defoliation may result in a reduction of flower bud formation so that bloom or fruit yield the next year will be reduced.

Disease cycle. This fungus disease, caused by *Venturia inaequalis* (anamorph *Spilocaea pomi*), may be quite severe when rainy, cool weather occurs in the spring. Fungal spores are produced in early spring on dead, fallen apple leaves about the time buds begin to develop. These spores are splashed by rain and blown by wind to land on developing plant tissue and initiate infections. After spots appear on the newly formed leaves, more spores are produced that spread infection to other parts of a tree. Again, rainy weather greatly encourages spore spread and infection during the secondary phase of spore production. The fungus overwinters on fallen leaves.

Management strategies. Collect and dispose of fallen leaves in autumn. This will help reduce the inoculum that may cause disease the following spring. A spray schedule with emphasis on the early part of the season is usually required for maximum production of high quality fruit. Applications should be made at pink, bloom, petal fall and 10-14 days after petal fall. Bonide Captan 50%WP (66330-27-4) is registered for the home garden for treating fruit and ornamental apple trees for scab. Follow the label instructions for all pesticides used and avoid the use of insecticides during bloom so that bees are not harmed. For more information on tree fruit applications refer to the fact sheet “Spraying the Home Orchard”.

If plans are underway to plant more apple trees, consider planting cultivars that are resistant to apple scab. These include Enterprise, Goldrush, Liberty, Jonafree, Macfree, Prima, Pristine, Redfree, and Sir Prize. Several crabapple cultivars are also resistant to apple scab. These include: Adams, Adirondack, Ames White, Autumn

Glory, Calocarpa, Centurion, Coral Cascade, Donald Wyman, Doubloons, Evelyn, Gibbs Golden Gage, Harvest Gold, Henningi, Henry Kohankie, Indian Summer, Jackii, Kathrine, Lady Northcliffe, Liset, *Malus floribunda*, *Malus x micromalus, Malus x robusta,* Marshall Oyana, Molten Lava, Mount Arbor Special, Ormiston Roy, Prairifire, Prof. Sprenger, Purple Prince, Red Jewel, Red Snow, Robinson, Senteinel, Silver Moon, Sissipnk, Sparkler, Strawberry Parfait, Tina, Weis.

12/1978 Prepared by S. Wickes Wescott III, Extension Associate

3/1991 Revised by Diane Karasevicz, Extension Associate

7/1999 Updated by Karen L. Snover, Plant Disease Diagnostician, Cornell

8/2004 Last updated with information from Sandra Jensen Tracy, Plant Disease Diagnostician, Cornell