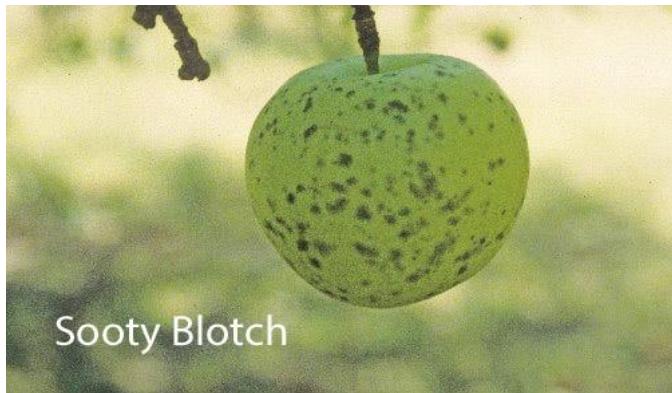




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**Problem:** Sooty Blotch - *Peltaster fructicola*, *Gastrumia polystigmatis*, *Leptodontium elatius* and Fly Speck - *Zygomphala jamaicensis*



**Host Plants:** Apples, pears and various wild hosts.

**Description:**

Late maturing apple and pear cultivars may have sooty blotch and fly speck develop on the fruit surface. Both diseases are favored by moderate temperatures, abundant rainfall, and high humidity. Colonies are mutually exclusive though both diseases normally appear on the same fruit.

Sooty blotch results in sooty-like brown to green blotches on the outer skin of the fruit. These blotches are caused by hundreds of dark, minute pycnidia which are all connected with rather loose, profusely branched thread-like fungal growths (hyphal threads). Pycnidia are asexual fruiting structures associated with certain fungi. The fungus is superficial but can only be removed by vigorous rubbing.

Flyspeck appears as small, shiny black dots that tend to cluster in groups of a few to about 100 though groups of 10 to 50 are most common. These dots are pseudothecia; the sexual fruiting structures of this disease. While they appear to be isolated, the dots are connected by a hyphal strand.

Both fungi overwinter on twigs of many wild hosts. Sooty blotch conidia are disseminated by wind into orchards from late May or June until fall. Here they infect fruit, twigs, and other parts of the tree. The fungus is active only in humid, cool weather. In late spring, with the approach of warm weather, growth is inhibited and symptoms seldom appear. As the temperatures cool in late summer, the fungus starts growing again. The optimum conditions for its development are a temperature of 65° F. and a relative humidity of 80 to 95 percent. Under ideal conditions, the incubation

period may be as short as 5 days. In the field, however, it is usually 20 to 28 days on fruits 42 to 45 days old.

The life cycle of the fungus is little affected by the apple infections since they do not produce conidia. However, conidia on the wild hosts cause new infections so that the pathogen is always present.

The flyspeck fungus also comes from wild hosts. Both ascospores and conidia are disseminated into the orchard, starting in the late spring. This fungus has an incubation period of about 15 days with cool temperatures. It requires the same moisture and temperature conditions as sooty blotch. This is undoubtedly why they are always seen together.

### **Recommendations:**

Good pruning to facilitate drying is very important in controlling the disease. An application or two of fungicide should be made to prevent these fungus diseases from developing on the late season cultivars. Captan is an effective control chemical for homeowners. Commercial apple growers or other large-scale growers should consult the current Midwest Fruit Pest Management Guide at the following website:

<https://store.extension.iastate.edu/product/14488>

### **References:**

1. [Sooty Blotch and Flyspeck of Apple](#), Ohio State University Extension, PLPATH-FRU-41

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