A3173

Apple and pear disorder: Sooty blotch and flyspeck

P.S. McMANUS and M.F. HEIMANN

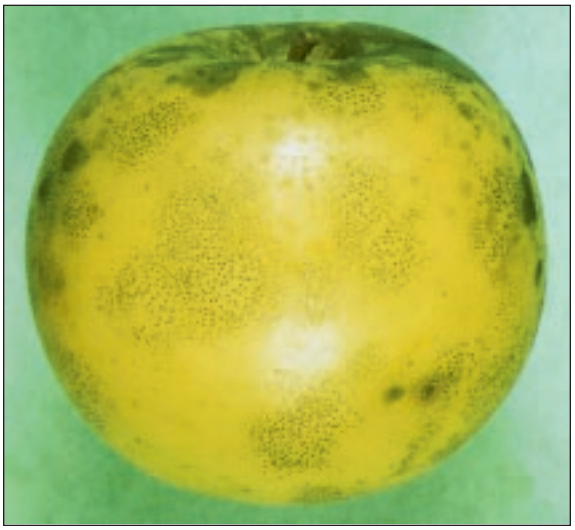
Sooty blotch and flyspeck are separate diseases that often occur together on apple and pear fruit during late summer. Both diseases are favored by extended periods of warm, humid weather and are usually not serious problems in Wisconsin. However, in organic orchards or home gardens where fungicides are not used, the diseases occur more frequently. The conspicuous symptoms of sooty blotch and flyspeck diminish the outward appearance of the fruit. However, neither disease will cause a serious rot, and affected fruit can be eaten safely.

Causes and symptoms

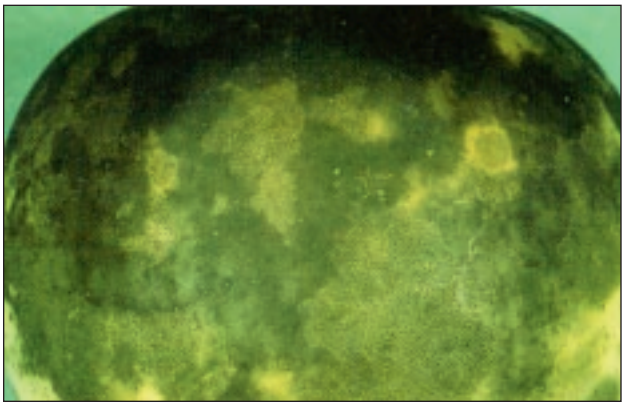
Sooty blotch and flyspeck are aptly named based on the symptoms of these diseases. Sooty blotch is caused by a complex of fungi including *Peltaster fructicola, Geastrumia polystigmatis,* and *Leptodontium elatius* and consists of irregularly shaped olive-green to dull black smudge-like blemishes. Flyspeck, caused by the fungus *Zygophiala jamaicensis,* appears as clusters of distinct, black, shiny, pinpoint sized dots. With these two diseases the symptoms described above are actually "signs" since it is the fungi themselves rather than a change in the plant tissue that is noted.

Disease cycles

The fungi that cause sooty blotch and flyspeck overwinter on twigs of apple, pear, and many different woody plants commonly found in hedgerows and woodlots. Spores or fragments of the sooty blotch fungi are spread by splashing rain from these reservoirs onto developing fruit about 2–3 weeks after petal fall. Spores of the flyspeck fungus are released during rainy periods, become airborne, and are carried to fruit. Because these fungi are confined to the skin of the fruit, disease development is highly sensitive to environmental conditions at the fruit surface. Optimal temperatures for spore germination are in the range of 60–80°F. Both diseases develop only when relative humidity is very high (greater than 90% for sooty blotch; greater than 95% for flyspeck). Although infections occur during June and July, signs of these diseases are usually not apparent until August and September in Wisconsin.



Flyspeck infection with some sooty blotch.



Extensive sooty blotch infection with some flyspeck.

Disease control

Cultural practices that promote air circulation and drying, such as fruit thinning and pruning, will reduce relative humidity at the fruit surface and should reduce the incidence and severity of sooty blotch and flyspeck. Choose planting sites that have good air movement and that are not adjacent to woodlots. Destruction of nearby hosts, especially raspberry and blackberry, is not always practical but will reduce the inoculum available to infect apple and pear fruits. Remove prunings from the vicinity and destroy them by burning, burying, or mulching and composting. Fungicides applied to control secondary infections of apple scab usually are effective against sooty blotch and flyspeck (see Extension publication *Commercial Tree Fruit Spray Guide*). If you use a fungicide, follow the manufacturer's directions on the product label.

Additional information

For more information on related topics, see the following publications available from your county Extension office.

Commercial Tree Fruit Spray Guide (A3314)

Apple Pest Management for Home Gardeners (A2179)

Growing Apples in Wisconsin (A3565)

Growing Pears in Wisconsin (A2079)

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