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Sooty mold

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Sooty mold can be found on virtually any plant in the state. Nearly all shade trees and evergreens are favorite targets. Lindens and pines are perhaps most commonly affected in Wisconsin. Shrubs, annuals, and even buildings under insect-infested trees sometimes become heavily covered.

Symptoms and effects

Plants affected by this condition are covered with a black mold that sometimes resembles soot. Any part of the plant may be affected, including leaves, branches, and fruit. The mold covering is superficial and may be light or heavy. You can usually scrape it off with a knife or your finger. Sometimes the mold develops a crust, causing leaves or evergreen needles to mat together. During dry weather the black layer dries and resembles tissue paper and often blows off in fragments.

Sooty mold is quite unsightly though it rarely causes injury to affected plants. Continued heavy growth for an extended period of time can reduce light transmission, and the foliage may turn yellow as a result. If damage occurs, it is more likely to result from the heavy infestation of insects that secrete the honeydew upon which the fungus develops.

In some situations, such as in greenhouses, the mold may develop on flower parts, thus reducing their value or marketability.

You can easily identify heavy sooty mold growth in the field, although you might confuse light infestations with other saprophytic (non-disease) fungi.

Cause

The sooty mold fungus, *Fumago vagans*, lives on the honeydew which insects secrete while feeding on the plant. Honeydew is the excreta of plant-feeding Homoptera (aphids, white flies, scales, and other sucking insects). Each day the insects excrete honeydew in large volumes many times their body weight. The carbohydrate content of honeydew may exceed 80 percent.

Since sooty mold can develop on most plants, it is necessary to determine where the honeydew originated. Occasionally sooty mold will develop in isolated blotches on natural plant exudates or plant secretions. For example, sooty mold can develop on sap oozing from wounded plant tissue.

Control

Cultural

Primary control efforts are directed at preventing the buildup of insect populations that secrete honeydew. On small plants, periodic rinsing with cold water will physically remove and prevent buildup of



The black sooty covering on this pine branch is typical of sooty mold as it may appear on many different plants.

some honeydew-producing insects. This also helps wash off the residue and early mold accumulation. If you see honeydew or natural plant secretions building up, it is also advisable to wash this off the plants before fungal growth occurs. Plants growing in an extremely humid environment, such as foliage plants or orchids in a greenhouse, may require frequent rinsing to remove the honeydew.

Washing plants after heavy sooty mold has developed is of limited value because often the fungal growth is not effectively destroyed.

Chemical

You will need a contact insecticide to reduce high insect populations. Products containing insecticidal soaps, horticultural spray oils, malathion, diazinon, chlorpyrifos, or Orthene may be used. Consult the label for proper dosages and plant materials that can be treated. Scale insects on woody plants are best treated using a dormant oil spray in spring before plant growth.

Where honeydew is a persistent problem, consider selecting a systemic insecticide such as dimethoate or Orthene. Some insects require multiple, specifically timed applications for acceptable control. Be sure to positively identify insects before treatment. Sometimes insects that are seen on the plant are beneficials eating the pest that is creating the honeydew. Improper spraying could aggravate the problem.

References to products in this publication are for your convenience and are not an endorsement of one product over other similar products. You are responsible for using chemicals according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from chemical exposure. Failure to do so violates the law.



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