



FactSheet

Extension

Ohio State University Extension Fact Sheet

Plant Pathology

2021 Coffey Road, Columbus, OH 43210-1087

Sooty Molds on Trees and Shrubs

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Symptoms

A sooty, gray-black, velvety, often crust-like coating may develop on the leaves or needles, fruits, and branches of certain plants. The coating is actually the growth of one of several species of black-colored fungi or molds. The coating can be removed easily by rubbing the leaf between the fingers, thus exposing the green leaf tissue below.

Sooty molds grow only on the plant surface and will not kill plants. In fact, sooty molds often grow on sidewalks or fences under infested trees. Sooty molds are normally considered to be a cosmetic or aesthetic problem. In extremely severe cases, it is possible for the black growth to block enough sunlight to interfere with photosynthesis. In such cases, leaves or needles, fruits and new shoots may be smaller, or less intensely colored. Respiration can be reduced through the physical closure of stomates by the molds' vegetative growth. Under drought conditions, plants affected with sooty mold will wilt more rapidly than unaffected plants. If plant vigor has been reduced, the plant may also be predisposed to further injury by other insects, diseases or environmental stresses.



Sooty mold on the surface of a linden leaf.

Insect Association

Sucking insects are the primary cause of sooty mold growth. Many plant sap-sucking insects feed on leaves and stems of trees and shrubs. These sucking insects often produce excessive, watery excrement rich in sugars. This excrement is called honeydew. Excreted honeydew often falls on leaves or needles, branches, fruits or anything else immediately underneath the infested area of the plant. It is on this

excretion that the sooty mold fungi grow. Sometimes plants not actually infested by insects may be affected if a tree above them is being attacked by a honeydew producing insect and the honeydew drops onto them.

The major types of honeydew producing insects are: Aphids, soft scales (for example, magnolia scale, lecanium scales, cottony maple scale, pine tortoise scale), mealybugs, whiteflies, leafhoppers, planthoppers and psyllids. Occasionally, the spittle-like froth produced by spittlebugs promotes the growth of sooty molds.

Susceptible and Resistant Trees

Plants that are commonly infested by the insects mentioned above are often hosts to sooty molds. Resistance to this condition is normally a result of resistance by the plant to honeydew producing insects.

Control

Control sooty molds by controlling the honeydew producing insect. Chemical control is most commonly used to manage these sucking insects, although biological and cultural control strategies are available for some aphids and scales.



Sooty mold on the surface of a poinsettia leaf.

One must identify the insect that is causing the problem and the plant being attacked before deciding on a method of management. Consult an appropriate up-to-date OSU Extension fact sheet or bulletin such as Bulletin 504 (Insect and Mite Control in Woody Ornamental and Herbaceous Perennials).

A strong spray of water can be used to dislodge the mold growth from many plants. For most plants, adding a mild soap or detergent solution (at one teaspoon per gallon) will aid in cleaning them. Use caution, since some plants may be damaged by soaps. You should test for damage if you are not sure. Prepare your wash suspension, spray a small area of the plant, then wait a week or so to see if any damage will appear.

Plants Commonly Infested with Sooty Mold Diseases

<i>Abies spp.</i> (Fir)	<i>Magnolia spp.</i> (Magnolia)
<i>Acer spp.</i> (Maple)	<i>Malus spp.</i> (Apple and Crabapple)
<i>Ailanthus altissima</i> (Tree of Heaven)	<i>Myrica spp.</i> (Bayberry)
<i>Alnus spp.</i> (Alder)	<i>Philadelphus spp.</i> (Mockorange)
<i>Amelanchier spp.</i> (Serviceberry)	<i>Picea spp.</i> (Spruce)
<i>Asimina triloba</i> (Pawpaw)	<i>Pinus spp.</i> (Pine)
<i>Camellia spp.</i> (Camellia)	<i>Platanus spp.</i> (Planetree)
<i>Carya spp.</i> (Hickory)	<i>Populus spp.</i> (Poplar)
<i>Catalpa spp.</i> (Catalpa)	<i>Prunus spp.</i> (Cherry, Plum, Peach)
<i>Citrus spp.</i> (Orange, Lemon)	<i>Pseudotsuga menziesii</i> (Douglas Fir)
<i>Cornus spp.</i> (Dogwood)	<i>Pyrus spp.</i> (Pear)
<i>Cottoneaster spp.</i> (Cotoneaster)	<i>Quercus spp.</i> (Oak)
<i>Crataegus spp.</i> (Hawthorn)	<i>Rhamnus spp.</i> (Buckthorn)
<i>Diospyros spp.</i> (Persimmon)	<i>Rhododendron spp.</i> (Rhododendron and Azalea)
<i>Fagus spp.</i> (Beech)	<i>Rhus spp.</i> (Sumac)
<i>Fraxinus spp.</i> (Ash)	<i>Salix spp.</i> (Willow)
<i>Ilex spp.</i> (Holly)	<i>Sassafras spp.</i> (Sassafras)
<i>Juglans spp.</i> (Walnut)	<i>Sorbus spp.</i> (Mountain Ash)
<i>Juniperus spp.</i> (Juniper)	<i>Staphylea trifolia</i> (American Bladdernut)
<i>Lagerstroemia indica</i> (Crape-myrtle)	<i>Thuja spp.</i> (Arborvitae)
<i>Ligustrum spp.</i> (Privet)	<i>Tilia spp.</i> (Linden)
<i>Liriodendron tulipifera</i> (Tuliptree)	<i>Viburnum spp.</i> (Viburnum)

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