



Excreted honeydew collects on these ixora leaves. A black fungus, called sooty mold, soon colonizes the carbohydrate rich honeydew.



Ixora plants are festooned with sooty mold due to the green scale (on leaves) and hemispherical scale (on twig) infestations.



This green scale insect is a common pest on *ixora*, *gardenia*, *citrus* and other ornamental plants. Adults, crawlers and settled nymph stages are active on this citrus twig.



Aphids tend to like tender growth of plants such as this *viburnum*, even in the winter. These aphids are tapped into the veins of newly expanding leaves.

Sooty Mold in the Landscape: What Can it Mean?

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I've noticed a lot of dark and sooty looking plants lately. Take a closer look. The sooty mold means that there are some insects at work. Citrus and *ixora* are really under attack now.

Sucking insects such as soft scale (wax, green and cottony cushion scales), mealybugs, aphids, whiteflies and treehoppers suck nutrients from plants by tapping into the vascular tissues with their thread-like mouthparts. They exist on the plant's liquid and nutrients, thereby "starving" the twigs and branches that eventually shrivel and die.

Honeydew-causing insects filter out the nitrogen components of the sap and excrete the excess water and sugary components onto leaves, driveways and whatever is nearby. Honeydew seems like a strange name for a waste product that comes out the back-end of an insect. However, a black sooty mold (fungus) will eventually colonize the honeydew waste product. A severely infested tree with soft scale can be identified from a distance by its dark, shadowy appearance due to the sooty mold accumulation. The sooty mold does not harm the tree other than the thick coating can block photosynthesis and thus minimize plant nutrient production efforts. Yellow jackets and bees hovering around your shrubs are also an indication of a sucking insect infestation, as they are attracted to the sweet honeydew. During the rainy season the honeydew is washed off the plants and the sooty mold doesn't accumulate in the obnoxiously thick layers that we see during the dry season.

What to do

Ant management is a new twist when dealing with these plant pests. Ants like sweets and the more six-legged, sweet honeydew producers (think of the sucking insects as little candy factories) the better. This means that the ants move insects to other plants and start a new infestation. The ants guard the honeydew producers and fend off predators and parasites from attacking the defenseless and nonchalant plant sucking insects. Control of shrub and tree attacking insects that attract ants is also an important step in household ant pest management.

To help manage the plant sucking insects, check plants monthly and, if needed, use horticultural oil, usually a 2% mixture of a paraffinic mineral oil, that is labeled for use on the plant species you will be spraying. The oil also will dry up the sooty mold fungus so that after 2 applications it will start to flake off and blow away. Some newer products that will give longer residual such as permethrin based insecticides will also keep the ants away. However, spray the trunks of infested plants and not the foliage, as the permethrin sprays will kill predators and parasites that help regulate the plant pests. Use ant bait stations, placed away from the house, but near the shrub beds to minimize ants setting up new "candy factories" on your plants by moving these little suckers around. A systemic, soil drench product called Bayer Advanced Garden™ Tree and Shrub Insect Control (contains 1.47% imidacloprid) is reported to give 4 to 12 months residual, depending on the organic matter content of the soil. It is not labeled for citrus nor food bearing plants.

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