

Woody Ornamental IPM

Magnolia Scale

Magnolia scale (*Neolecanium cornuparvum* (Thro)) is one of the largest scale insects in Pennsylvania. It is native to the United States and is commonly found throughout the eastern part of the country. The magnolia scale removes fluids from the plant using its syringe like mouthparts and may result in branch dieback or death of the plant if left unchecked.



Plants Attacked

(*Magnolia stellata*), Saucer Magnolia (*Magnolia soulangeana*), Cucumbertree Magnolia (*Magnolia acuminata*) and Lily Magnolia (*Magnolia liliiflora*). It has also been reported that magnolia scale feeds on *Daphne* spp., Virginia Creeper (*Parthenocissus quinquefolia*), and Tuliptree (*Liriodendron tulipifera*).



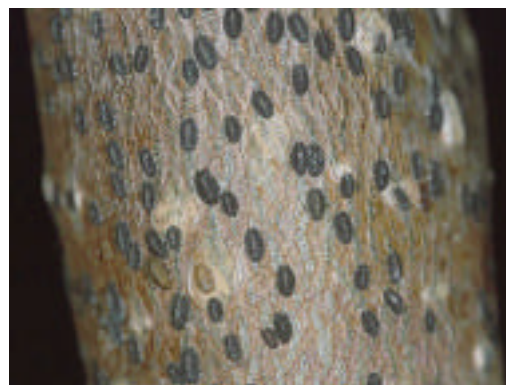
Magnolia Scale adult females and crawlers



Black sooty mold growing on scale honeydew excrement

Insect Identification

The over-wintering nymphs are dark gray-black and cluster together in large numbers on 1-2 year old branches of the host plant. In the early summer, the female magnolia scale develops a white waxy coating, which later disappears in August before newborn crawlers emerge. The mature female magnolia scale is 1/2" in diameter, smooth, elliptical, convex and dark brown to pinkish-orange in color. The male scale is much smaller (about 1/8"), and turns a translucent white color in early summer before developing into a tiny, pink to yellow gnat-like insect. Newly hatched crawlers are a medium brown color, getting darker after feeding commences.



Overwintering Magnolia scale nymphs

Life History

- Over-winter** Tiny dark-colored nymphs over-winter on one or two year old twigs.
- Spring** The scale begins to feed and enlarges in size.
- Summer** The male and female nymphs mature in late July-early August. The males emerge, mate with the females and die. In late August or early September, the female gives birth to crawlers who wander for a short period before settling on a young twig where they over-winter. There is one generation per year in Pennsylvania.
- Fall** The nymph stage is found on young twigs

Damage Symptoms

Magnolia scales are usually massed on the undersides of 1 and 2 year old twigs, with heavy infestations completely encrusting branches. Other indicators of a scale infestation include reduced foliage and flower production, undersized leaves and twigs and a black sooty mold on the foliage. After digesting the plant fluid, the scale excretes a clear sticky liquid called honeydew, which provides an ideal substrate for the black sooty mold fungus to develop. Magnolia scale infestations often go unnoticed until the leaves and twigs of the host plant turn black with sooty mold. The honeydew also provides a food source, attracting ants, bees, wasps and flies.

Management Options

Biological	The larvae and adults of certain lady beetles feed on magnolia scale in late summer. Contact insecticides can kill beneficial insects and should not be used when they are present. In many cases magnolia scale come with the plant, so it is important to avoid purchasing infested plants.
Mechanical	Controls will be more effective if heavily infested branches are pruned and removed.
Resistant Varieties	Many species of Magnolias may be attacked by this scale, but usually with less frequency and degree than the species listed in the plants attacked section.
Chemical	In late fall and early spring the application of dormant horticultural oil will reduce the nymph population. In late August to early September, the application of insecticidal soaps or horticultural oil will help to manage the crawler stage. Controlling the crawlers is usually the easiest and most effective way of dealing with infestations. Contact insecticides do not readily control the scale when their protective waxy covering is present.

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