

## MAGNOLIA SCALE

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**Large female adult magnolia scale in mid-September. Photo: Anika Adams**

Magnolia scale (*Neolecanium cornuparvum*) is a soft scale insect that attacks only magnolia trees including the popular star magnolia (*Magnolia stellata*) and saucer magnolia (*Magnolia x soulangiana*). There are two types of scale insects-soft scales and armored scales. All scale insects have ‘piercing sucking’ mouthparts that remove sap from their hosts. Soft scales are usually larger than the armored scale, are often covered by a waxy secretion and produce a sticky substance called honeydew, a nice name for the excrement of the pest. Armored scales have a hard protective covering and do not produce honeydew. The magnolia scale adults are shiny brown, elliptical and convex, and can grow to ½ inch in length and can be mistaken for plant buds. Infestations are often detected when gardeners note their magnolia tree’s bark and leaves are blackened. The black mold, called sooty mold, grows on the honeydew of the pest and does not really harm the tree other than decreasing the amount of sun the leaves receive. Honeydew and sooty mold can stain lawn furniture under an infested tree and the sugars in honeydew can attract wasps and ants. When populations are high, scale feeding can cause yellowing of the leaves, twig dieback and overall decline in the health of the magnolia.

By early to mid-summer, the scale females turn brown/purple in color and develop a white, waxy coating that disappears in late summer. They continue to enlarge through July and give birth to the 'crawler' or nymph stage in late summer (late August) into early fall (through September) depending on temperatures. After producing the crawlers, the female dies, although the scale covering may remain on the tree. The time to treat the infestation is when the crawlers are active from late August through September since this stage is the most vulnerable to insecticides. Adult scales are typically protected from chemicals due to their waxy coating. The crawlers can be treated organically with horticultural oil or insecticidal soap. Thorough coverage with these products is critical since they need to contact the crawler to kill them. Multiple applications may be necessary because these materials do not have any residual activity. Always consult the label of the product you are using for timing of additional sprays. The crawler stage will continue to remain active until they settle on a feeding site on the branches where they remain for the winter. There is only one generation of this pest each year.

Controlling scale infestations can be challenging. Scout your trees every summer and fall to control emerging infestations. Keep trees in good vigor through proper watering, mulching, and pruning of dead or infested branches since stressed trees can be more prone to attack by scale. Over fertilization can promote the build-up of scale populations so avoid excess nitrogen. If the scale insects are limited to a couple of branches, prune out those branches and destroy them to eliminate the infestation. Organic dormant oil sprays can be applied to the overwintering insects in early spring before the buds open. In severe infestations, it may take a few years of fall applications for the crawler stage and dormant sprays to clean up the population.

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