

Control of Common Pests of Landscape Plants



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Many species of insects or mites attack Georgia landscape plants. Homeowners have difficulty controlling these pests because they often are not aware of the problem until both the infestation and the damage are extensive, or they may apply insecticides improperly or at the wrong time.

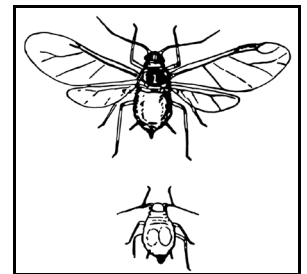
An effective pest control program on landscape plants begins with proper plant selection. Select plants that are less prone to insect problems when you design, buy or replace landscape plants. Secondly, on a weekly basis during the growing season, closely inspect landscape plants for developing pest populations. Remember that some insects and mites are minute in size and are frequently found on the undersides of leaves. A close and thorough inspection is necessary to detect these pests. Thirdly, if you find a developing pest population that you cannot identify, get some assistance with the identification from your local county extension office or a reliable nursery. You must know what pests you are trying to control.

Brief descriptions of major groups of pests (or the damage they cause) found on Georgia landscape plants are provided to assist with identification. Control strategies for these pests are presented in Table 1.

Sucking Pests

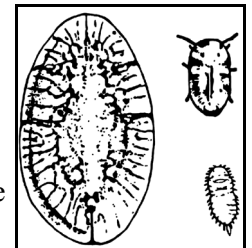
Sucking insect pests cause damage by removing sap from plant tissues. Symptoms of infestation include wilting of plant tissues, stunting, curling or distortion of new growth, chlorotic spots or stippling of leaf surface, or a sticky substance or black fungal growth on the upper leaf surface. Common insects and mites causing this type damage include aphids, scale insects, mealybugs, lace bugs, whiteflies and spider mites.

APHIDS: Aphids are small (about ¼ inch long), soft-bodied insects that vary in color from green to yellow to black. Some species are winged during certain times of the year. Generally, aphids can be recognized by their cornicles – a pair of tube-like structures projecting from the rear of their bodies. They are frequently found in large numbers clustered together on the backs of leaves or on the stems of new growth.



Aphids: adult winged female (top); adult wingless female (bottom)

SCALE INSECTS AND MEALYBUGS: Scale insects are very small, soft-bodied pests that secrete a protective covering over their bodies. These coverings vary in color from white to red to black. Some are flattened while others are more turtle-shaped. This covering protects the scale and makes control difficult. Scale insects are most easily controlled when insecticide applications are timed for the first instars or “crawler”



L-R: Adult brown soft scale; scale “crawler” (top); mealybug (bottom)

stage of the scale. Mealybugs are very similar to scale insects; they secrete a white, waxy material over their bodies, however. Mealybugs also move about on the host plant to feed. Mealybugs are most susceptible to insecticide applications when they are young and have not formed a thick covering over their bodies.

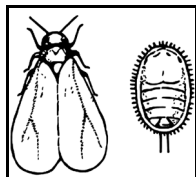
LACE BUGS: Lace bugs get their name from the appearance of the area behind their head and the wing

covers. The area forms a lacelike covering over the body of the insect. They are 1/8 to 1/4 inch long and are partially transparent. Lace bug damage appears on the upper leaf surface as white to yellow chlorotic spots. The lower leaf surfaces will be cluttered with black spots and the old cast skins of immature lace bugs.



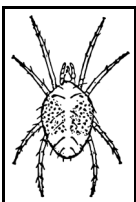
Adult lace bug

WHITEFLIES: Whitefly adults resemble small gnats. They range in size from 1/10 to 1/16 inch and have four broad, delicate, milk-white wings. The immature whiteflies are attached to the undersides of leaves and resemble scale insects. They are oval, flattened and yellow to almost transparent. Whiteflies often occur in tremendous numbers and, when a heavily infested plant is disturbed, the air is filled instantly with a white cloud of these insects.



White fly: adult (left); immature form (right)

SPIDER MITES: Spider mites, often called "red spiders," are most often found on the backs of leaves. They are so small they can barely be seen with the unaided eye. The adults are oval-shaped and have eight legs and no antennae or wings.

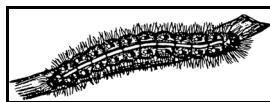


Adult two-spotted spider mite

Chewing Pests

Chewing insect pests cause damage by consuming plant parts such as leaves and stems or burrowing in plant tissues to cause damage to the host plant. Symptoms of chewing insect pests include holes in leaves, silvering of leaf tissue, complete removal of leaf tissues, burrowing in or around stems, branches or trunks of plants. Common insects causing these type damage include tent caterpillars, webworms, bagworms, shadetree borers and other beetles.

TENT CATERPILLARS: Tent caterpillars are attractively colored larvae that reach about 1 1/2 inches long. They have a few long hairs on their bodies, mostly along the sides. They are commonly seen in the early spring closely associated with webs or "tents" they construct in the crotch of small limbs on their host plant. This tent serves as a refuge for the larvae at night and during rainy weather. They have only one generation per year.



Tent caterpillar

WEBWORMS: Webworm larvae are about 1 inch long when full grown and are pale yellow or green in color. There is a broad, dusky stripe running down the back, bordered on each side by a yellow stripe. They are covered with tufts of long whitish hairs. These larvae can be found inside unsightly webs at the terminal ends of branches on host plants. Georgia has three to four generations of webworms each year.



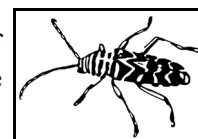
Fall webworm

BAGWORMS: Bagworms construct and live inside a 1- to 2-inch tough, tear-shaped portable silken case. These bags are the most easily seen and identifiable feature of the insect. Outside, the silken texture of the bag is somewhat concealed with layers of leaf, twig and bark fragments. The bag has an opening at the larger end that allows the worm to partially crawl out to feed and make repairs to its bag.



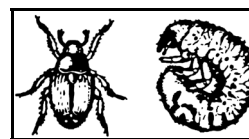
Bagworm

SHADE TREE BORERS: Many insects boring or living in the wood of shade trees are the larval or grub stage of beetles. Most of these pests attack trees or shrubs that are already weakened or injured by trans-plant shock, drought, flooding, soil fills, mechanical damage or disease. These larvae or grubs are 1/4 to 2 inches long, yellowish-white, legless and have either a fleshy, rounded head area or a large flattened area behind the head. They are found burrowing or tunneling under the bark of infested trees.



Shade tree borer

BEETLES: Several beetles, such as elm leaf beetle, imported willow leaf beetle, flea beetle and Japanese beetle, attack trees and shrubs and cause feeding damage. Damage first appears when the green parts of leaves are removed with just the veins of the leaf tissue remaining. As damage accumulates, dry skeletonized leaves become obvious. Leaves take on a rusty, reddish-brown tint.



Japanese beetles: adult (left), white grub stage (right)

Table 1. Control strategies for major pests of Georgia landscape plants.

Pests	Host Plants	Control Practices
Aphids	Many types of shrubs and trees	<ol style="list-style-type: none"> (1) Inspect plants frequently; look for lady beetles and other beneficial insect populations associated with aphids. (2) Aphids can be washed off plants with a strong stream of water when populations are light and/or beneficial insects are present. (3) When insecticides are needed to control heavy populations, products containing acephate (Orthene), dimethoate (Cygon), malathion, imidacloprid, cyfluthrin or bifenthrin. Follow label directions.
Scale Insects - armored scales - soft scales	All types of woody ornamentals and trees	<ol style="list-style-type: none"> (1) Select plant material that is not prone to scale infestation. (2) Inspect plants frequently; look for lady beetles and other beneficial insect populations associated with scale infestation. (3) Prune out heavily infested plant parts when possible. (4) Treat infested plants with insecticidal oils during the dormant season or with conventional sprays in spring and summer when young crawlers are actively moving on the plant. Application should cover both sides of leaves and all twigs and branches. Some products labeled for scale control include malathion, dimethoate (Cygon), acephate (Orthene), carbaryl (Sevin), bifenthrin, cyfluthrin, resmethrin, insecticidal soap.
Lace Bugs – azalea lace bug – hawthorn lace bug	Azalea, laurel, pyracantha, sycamore, hawthorn, quince, American elm, apple	<ol style="list-style-type: none"> (1) Inspect susceptible plant material every week during the growing season for developing lace bug infestations. (2) Wash light infestation off the host plant with a strong stream of water. (3) When chemical control is necessary, use products containing dimethoate (Cygon), acephate (Orthene), carbaryl (Sevin), malathion, cyfluthrin or befenthrin. Repeated application at 10- to 14-day intervals may be necessary to maintain effective control. For most effective control, time applications for early spring when the first generation is present.
Whitefly	Gardenia, crepe myrtle, ligustrum, azalea and many other woody ornamental and trees	<ol style="list-style-type: none"> (1) Monitor susceptible plants weekly for developing whitefly infestations. Place yellow wooden panels coated with a sticky substance near host plants to monitor for whiteflies. (2) Use products containing acephate (Orthene), diazinon, insecticidal soaps, malathion, resmethrin, imidacloprid, cyfluthrin, bifenthrin or petroleum oils to control whitefly. Often, three to four applications at 5- to 7-day intervals are necessary to control heavy populations. Observe and follow label instructions and restrictions.
Spider Mites	All types of woody ornamentals and trees	<ol style="list-style-type: none"> (1) Inspect susceptible plants weekly during hot, dry periods for developing mite infestations. (2) Wash light infestations off the host plant with a strong stream of water. (3) When possible, remove and destroy heavily infested plant parts. (4) When chemical control is necessary, use products containing dicofol (Kelthane), hexakis (Vendex), acephate (Orthene), horticultural oils or insecticidal soaps. Often two to three applications at 5- to 7-day intervals are necessary to control heavy populations. Observe and follow label instructions and restrictions.

Table 1. Control strategies for major pests of Georgia landscape plants. (continued)

Pests	Host Plants	Control Practices
Tent caterpillars	Plum, peach, apple, hawthorn, oaks, sweetgum and other trees	(1) Inspect trees for egg masses during winter pruning; remove and destroy egg masses. (2) Prune out webs when first noted. (3) Destroy webs and crush caterpillars. (4) Time insecticide applications for presence of feeding caterpillars. Spot treat webs with products containing diazinon, <i>Bacillus thuringiensis</i> (Dipel), carbaryl (Sevin) or malathion.
Webworms	Oak, pecan, hickory, other ornamental trees and shrubs	(1) Prune out and destroy webs; crush caterpillars. (2) Prior to insecticide treatment, break up webbing material to allow insecticide penetration. Treat webs with products containing acephate (Orthene), carbaryl (Sevin) or <i>Bacillus thuringiensis</i> (Dipel).
Bagworms	Broadleaf and coniferous trees and shrubs	(1) During winter, remove and destroy all bags. (2) Treat infested plants when bags are first noticed with products containing acephate (Orthene), carbaryl (Sevin) or <i>Bacillus thuringiensis</i> (Dipel).
Shade Tree Borers	All types of woody ornamentals and trees under stress	(1) Follow proper watering, fertilizing and pruning practices. (2) Remove other stress factors from tree when possible. (3) Protect trees from infestation or reinfestation by use of products containing lindane or permethrin. Apply first application in April and subsequent applications in late May, mid-July and late August.
Beetles – elm leaf beetle – imported willow leaf beetle – Japanese beetle	Many shade and ornamental trees	(1) Inspect trees frequently for beetle damage. (2) Insecticide applications are most effective when timed for the presence of young larvae or before large numbers of adults are present. Products containing carbaryl (Sevin) or acephate (Orthene) are effective. Repeated applications may be necessary to maintain control when beetles migrate in from surrounding areas.

Notice: Pesticide labels and registrations are subject to frequent revision. Before using any insecticide, refer to the label and confirm that the intended use is in accordance with label uses and restrictions.

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