

PRESCRIPTION PROGRAMS

APHIDS ON TREES AND SHRUBS

Many species of aphids occur on ornamental trees and shrubs in the Atlanta area. Certain species feed on foliage, others on twigs and branches, flowers or fruit, and some on roots. Aphids live on several distinct hosts, spending part of their seasonal development on one host and the remainder on another. They feed on both coniferous and deciduous plants. Effective control of aphids has been a problem to homeowners for years. Some of the more common aphids include the green peach aphid, melon aphid, tuliptree aphid, giant bark aphid, white pine aphid, and rose aphid.



Description

Aphids constitute a large group of small, soft-bodied insects. They may measure up to 6 mm in total length. Aphids have piercing-sucking mouth parts that enable them to remove plant fluids from a host. Aphids generally can be recognized by their pear-like shape, a pair of cornicles (tube-like processes) at the posterior end of their body. The cornicles secrete a defensive fluid which warns aphids of predators and other enemies. Aphids vary in color from green, yellow, red, purple, brown, or black.

Damage

Aphids are common, persistent, and sometimes troublesome pests of ornamental plants. Most aphids cause damage to host plants by robbing them of plant fluid, by the toxic action of their salivary secretions injected during feeding, and by serving as vectors of viruses that are harmful to plants. Feeding by aphids can stunt plant growth, deform leaves and fruit, or cause galls on leaves, stems and even roots. Many aphids also excrete a sticky, sugar-containing substance from their anus known as "honeydew." This material will drop onto the leaves, twigs, and fruit of a plant. A black, sooty mold soon begins to grow on this sugar-rich substrate. This mold not only mars the appearance of the plant, but when abundant, will also reduce the food-making process of a plant known as photosynthesis. Honeydew is attractive to ants, flies, hornets, and yellow jackets. It can also ruin cars, chairs, tables, or other objects that are beneath aphid-infested plants.



Management

Non-Chemical

In some cases, cultural practices such as proper pruning, fertilizing, and watering play an important role in preventing or suppressing an aphid infestation. When practical, try washing aphids off an affected host with a strong stream of water. Many trees, shrubs and flowers have resistance to aphids. Observe those plants in the neighborhood to identify those that seem to be annual "aphid food" and those that never seem to be bothered. Select the resistant types for your own yard.

Beneficial insects play an important role in aphid control. Ladybird beetles (both adults and larvae), lacewings, some flower flies (larvae), and tiny parasitic wasps will use aphids as a source of nourishment for their development. Remember certain insecticide applications will destroy these beneficial insects as well as targeted pest species. This practice could leave trees and shrubs unprotected if pest populations should increase in the future.

Chemical

The use of insecticides is often the only effective means of controlling an aphid infestation. We use a number of registered formulations of insecticides that are available for aphid control.

Systemic Insecticides. Aphids have sucking mouthparts and are thus very susceptible to pesticides located in the plant vascular system. Some of the systemic insecticides also have contact activity.

Contact Insecticides. Is the most effective way to control aphid populations.

Soft Pesticides. Since most aphids are soft-bodied insects, horticultural oils and insecticidal soaps seem to provide good control.