

INSECTS AND RELATED PESTS OF ORNAMENTAL PLANTS AROUND THE HOME

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To combat insect pests successfully, something should be known about the manner in which they develop and feed. Insects normally hatch from eggs deposited on or near the food supply; although in some cases they hatch within the female's body and the active young emerge from the female. Adults are usually individuals with fully developed wings, although a few species of insects never have wings.

Insects pass through several stages during their development. Plant bugs, leafhoppers, thrips and grasshoppers hatch from the egg in a form known as a nymph. The nymph resembles the full-grown insect, except that it lacks wings and is smaller. It sheds its skin periodically as it gradually increases in size. Moths, beetles and flies, on the other hand, hatch from the eggs in a worm-like form—a larva—much different from the adult. The larva of a moth or butterfly is commonly called a caterpillar; the larva of a beetle is called a grub, and the larva of a fly is known as a maggot. Larvae also molt, or shed their skins, periodically. Growing to full size, they change to an inactive form, known as a pupa. The adult insect emerges from this pupa.

The length of the life-cycle varies greatly with different species of insects. Some develop from egg to adult in a few weeks, many require a year, a few take two or more years to reach maturity.

GROUPS OF INSECTS

Pests of ornamentals may be divided into five groups by the way they damage plants.

- **Insects with Piercing-Sucking Mouthparts.**

These insects have beak-like mouthparts which are used for piercing the plant tissue and sucking the plant juices.

Examples: Scales, aphids, whiteflies, mealybugs.

- **Insects with Chewing Mouthparts.** They may feed on the leaves, flowers or attack the roots.

Examples: Caterpillars, beetles, grasshoppers, katyids.

- **Spider Mites.** These pests are not insects but closely related to spiders and scorpions. They suck plant juices with their piercing-sucking mouthparts.

- **Leafminers.** These are very small larvae of flies or moths that tunnel between the upper and lower leaf surfaces.

Examples: Blotch leafminers and serpentine leafminers.

- **Borers.** These are many species of insects which bore into the twigs or trunks of plants and trees. These are usually the larvae of moths or beetles.

Examples: Pine bark beetles, seagrape borer, Australian pine borer, carpenter worm.

CONTROL OF ORNAMENTAL PESTS

Beneficial Insects

Insect predators including lady beetles, praying mantis, assassin bugs and tiny wasp-like parasitic insects prey upon harmful insects. However, these predators and parasites do not keep most ornamental insect pests below damaging levels. Nevertheless, every effort should be made not to destroy these beneficial insects. Do not apply an insecticide unless plant damage is evident.

Purchase and release of lady beetles and other insect predators is generally of little value. When released, they usually disperse rapidly and widely. Predators do not reproduce as quickly as many kinds of pests and severe damage may occur. Also, most of the predators available for purchase will not feed upon many of the important ornamental insect pests or survive well under Florida conditions.

Mechanical Control

Pick or knock the insects off the plant, then destroy them or drop them into kerosene. Cut them in half with scissors. This is sometimes practical for several kinds of insects, including grasshoppers, caterpillars, and beetles, where they are not numerous.

Chemical Control

Insecticides are required to control insects and related pests on many ornamental plants. Most of the newer insecticides kill by contact with the insect or as a stomach poison. Some also exert a fumigating or vapor action under certain conditions.

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