

Bug-Wise

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Tomato Fruitworm: Although the much larger tomato hornworms are capable of causing impressive damage, tomato fruitworms are really a much greater threat to homegrown tomatoes. This is because, as their name implies, these caterpillars go directly for the fruit. Although tomato fruitworms have a very wide host range and occur on many other garden vegetables, including peas, okra, and eggplant, they are especially fond of tomatoes and tomatillos. However, when in the silking stage, corn is the most preferred crop.

The night-flying moths lay their small round eggs individually on the leaves and bloom clusters of tomatoes. Initially the eggs are pearly white, but become darker as they mature. Damage is caused by the caterpillars, which feed briefly on foliage before attacking fruit. Immature marble-sized tomatoes may be damaged, as well as large mature fruit. A single larva may damage several tomatoes over a period of about two weeks. Mature larvae are approximately 1.5 inches long. They are robust, nearly hairless caterpillars that can vary in color from green or light yellow to brown or black. Once they are mature, the caterpillars pupate in the soil near the base of the plant, emerging as mature moths in about 10 to 14 days.

Management Practices: Because there are several generations per year, with the population increasing with each generation, early plantings normally experience lower infestations than fall plantings. This is an important pest of commercial row crops, such as corn, soybeans, and cotton, and egg-laying pressure in home gardens can become especially heavy late in the growing season after these crops have matured.

Control: Tomatoes are not normally attractive to egg-laying moths until they begin to bloom. However, after bloom begins these pests can appear at any time during the growing season. Begin checking tomatoes at first bloom for the presence of eggs and/or caterpillars. Apply treatments at five to seven day intervals when necessary. Many of the labeled insecticides can be tank mixed with tomato fungicides and tank mixing an insecticide such as permethrin with a routine fungicide spray can be a time-efficient method of treating for this insect pest. However, be sure to check the labels of both products, the fungicide and the insecticide, before tank mixing. Treatments recommended for control of tomato fruitworm on home-grown tomatoes are listed in the following table. Note that some of these products are only labeled for use on a limited number of vegetables. Be sure to read label carefully.

Insecticides For Control of Tomato Fruitworm on Home-grown Tomatoes

Insecticide (PHI)	Brand Name (one example)
Carbaryl (3)	Garden Tech Sevin Concentrate Bug Killer
Cyfluthrin (1)	Bayer Advanced Garden Multi-Insect Killer
Cyhalothrin (5)	Spectracide Triazicide Soil & Turf Insect Killer
Endosulfan (1)	Thiodan
Esfenvalerate (1)	Ortho Bug-B-Gon Multi-Purpose Insect Killer
Permethrin (1)	Martin's Vegetables Plus 10% Permethrin Concentrate
Spinosad (1)	Fertilome Bore, Bagworm, Leaf Miner & Tent Caterpillar Spray

The brand names mentioned in the publication are used as examples only. No endorsement of these products is intended. Other appropriately labeled products containing similar active ingredients should provide similar levels of control. Always read and follow the insecticide label.

Azalea Lace Bug: This is the most common insect pest of azaleas, and populations are building now. Not every planting of azaleas will be heavily infested with lace bugs, but when heavy infestations do occur, they can cause extensive, unsightly damage. Heavy infestations can cause the leaves to have a ‘bleached’ appearance and it can take quite a while for azaleas to fully recover from severe injury, after the bugs are controlled.

Damage is caused by both the nymphs and adults, which feed on the undersides of the leaves with their piercing-sucking mouthparts, removing sap from the leaves. Initially, leaves may exhibit a ‘stippled’ appearance due to the light colored spots that appear on the upper surface of the leaves as a result of the bugs’ feeding. This stippling of the leaves is sometimes mistakenly attributed to spider mites, resulting in improper treatments. However, careful examination of the undersides of the leaves will identify the true problem.

The adults are approximately 1/8 of an inch long and have lacy transparent wings with dark markings. Nymphs are smaller, dark colored, and covered with spines. Cast skins of the nymphs tend to accumulate on the undersides of leaves, along with the dark-colored, shellac-like excrement. This excrement remains on the leaves for a long time, and its presence can help diagnose damage caused by lace bugs, even when the bugs themselves are not present. Plantings in sunny locations are more prone to attack than plantings in shady sites.

Lace bugs overwinter as eggs and nymphs hatch throughout the spring. Plantings can exhibit heavy infestations by May, but there are several generations per year, and populations will continue to build through the remainder of the summer.

It is a good idea to routinely check plantings for the presence of lace bugs, and initiate treatments if significant numbers are detected. Some treatments that are effective against this pest are listed in the following table. Refer to product labels for specific use rates.

For heavy, established infestations, a foliar spray containing a systemic insecticide such as acephate or imidacloprid is the quickest means of controlling azalea lace bugs. However, contact insecticides, such as cyhalothrin or permethrin, can be effective, if good spray coverage is achieved. Systemic soil treatments containing imidacloprid or disulfoton are useful as preventative treatments and are relatively easy to apply. Although they are slow-acting and relatively expensive, preventative soil treatments are an effective means of protecting infestation prone plantings, such as those that are growing in full sun.

Some Insecticides Recommended for Control of Azalea Lace Bug

Active Ingredient	Brand Name (example)
Treatments applied as foliar sprays	
acephate	Bonide Systemic Insect Control
cyfluthrin + imidacloprid	Bayer Advanced Garden Rose & Flower Insect Killer
cyhalothrin	Spectracide, Triazicide Soil & Turf Insect Killer
permethrin	Hi-Yield 38 Plus, Turf, Termite & Ornamental Insect Control
Soil-applied Systemic Treatments	
imidacloprid	Bayer Advanced Garden, Tree & Shrub Insect Control (Drench)
disulfoton	Hi-Yield Di-Syston Systemic Insecticide (Granules)

This information is for initial planning purposes only. Always read and follow product label.