

Tomato growers battle tobacco hornworms in June

Texas A&M AgriLife Extension Service — Galveston County Office



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Tomato growers have been harvesting the tasty fruits of their labors.

The one fly-in-the-ointment for tomato growers this time of year is a pale green caterpillar with black and white markings — the voracious hornworm.

If you have grown tomatoes for several years, you are likely to have had an encounter with hornworms.

Tomato growers in Galveston County typically experience their first encounter with this insect pest during June.

The damage is typically done before you see any hornworm caterpillars.

One day your tomato plants seem healthy, lush, and

happy, the next day they are missing leaves and looking battered.

There are two types (species) of hornworms — the tomato hornworm and the tobacco hornworm.

Both types are green caterpillars with white distinctive markings on their sides.

The tomato hornworm caterpillar has eight V-shaped stripes, while the tobacco hornworm has seven diagonal stripes.

If you're not into counting stripes then just observe the color of the "horn" on a caterpillar's rear end.

The name "hornworm" comes from the distinctive projection or "horn" located on one of

the last abdominal segments on the caterpillar.

The tomato hornworm usually has a slightly curved, red-colored horn at the rear, while the tobacco hornworm has a black horn that is straight.

The horn is prominent from the time the larva hatches from the egg. Contrary to popular belief, the horns do not have a stinger.

Ironic as it might sound, the tobacco hornworm is the usual culprit on locally grown tomatoes.

The tobacco hornworm is more common in the southern United States, especially the Gulf Coast states — including Texas.

In contrast, the tomato horn-

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worm is uncommon along the Gulf Coast and is more likely to be encountered by tomato growers in northern states.

The hornworm is the caterpillar stage of the sphinx moth (also called the hawk moth). Sphinx moths have a wingspan of about 5 inches and hover like hummingbirds, feeding at dusk on the nectar of deep-throated flowers such as four o'clocks, petunias, and flowering tobacco.

The caterpillar's large size — nearly 4 inches when mature — allows it to strip great quantities of foliage in a relatively short time.

In large numbers, it can create extensive damage. Hornworms feed on the leaves and new stems of the tomato plant and sometimes on the fruit.

It also loves munching on eggplant, potato and pepper — all members of the nightshade family.

The adult moth lays its eggs on the underside of tomato leaves in the spring. Female moths deposit one to five eggs per plant visit and can lay dozens of eggs during her short lifetime.

The greenish eggs take about a week to hatch into small caterpillars that feast their way through your tomato plants and leave behind dark green or black droppings.

After crunching on tomato plants for three to four weeks, hornworm caterpillars then crawl down the main stem of a plant to ground. They burrow several inches into the soil to form a pupa (the nonfeeding stage where the caterpillar changes to an adult).

If the weather conditions are suitable, the moth can emerge from the pupa in the soil in two to four weeks to mate and begin laying eggs again for the

next cycle.

In most cases, the pupa remains in the soil through the upcoming winter season, with the adult moth emerging in June of the following year.

In small gardens, the most effective and immediate method of control is to remove the plump caterpillars by hand (this is a good task for non-squeamish kids) and immerse them in a can of soapy water.

The caterpillars are generally found on the upper foliage of the plant and easily are seen in the morning. If you're not too squeamish, simply snip the marauders in half with scissors.

Keep a close eye on your tomato plants starting in early June. Examine plants at least twice a week to check for small caterpillars and missing foliage.

Catching infestations early will make controls more effective and reduce damage.

Prevention also is an important element in hornworm control. Thoroughly tilling the garden soil after the tomato harvest season is finished will help reduce the number of overwintering pupae in the soil.

The caterpillars are susceptible to *Bacillus thuringiensis* (sold as Dipel, Thuricide and BT Worm Killer), as well as to many common vegetable insecticides such as Sevin and malathion.

