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Worms in Summer

by Michelle Le Strange, UC Master Gardener

Common in Flowers - Small green worms

Have you ever noticed that petunias and geraniums stop blooming in summer? Well they are not the only flowering plants to fall prey to several types of worms that become so voracious as to stop the plants from blooming. The most common problem makers include the petunia budworm (Helicoverpa virescens) also known as the tobacco budworm, cabbage looper (Trichoplusia ni), and beet armyworm (Spodoptera exigua), but numerous others species may also be gobbling on your flower buds.

Oftentimes you'll see the droppings, which often are described as small black seeds, before you see the worms. Look closely and you'll notice small green to brown colored worms nibbling on the flower buds, making small holes in the buds and the leaves. If left alone, the plant can be thoroughly eaten.

Common in Trees - Redhumped Caterpillar

The redhumped caterpillar (Schizura concinna) is found throughout much of California, but destructive populations are usually limited to the warm Central Valley. The mature worm is about $1\frac{1}{2}$ inches long with an orange/red head and a yellow spiny body with longitudinal white, brown and black stripes, and 2 prominent spines on the rear (quite colorful). The caterpillars rest with their hind end elevated (quite unusual). Trees most commonly attacked are liquidambar (sweet gum), walnut, and plum (both ornamental and fruiting), although it is also found on almond, apple, apricot, birch, cottonwood, cherry, pear, prune, redbud, willow, and others.

Upon hatching, caterpillars first feed in groups on lower leaf surfaces and then disperse while consuming the entire leaf, leaving only the tough woody veins. When infestation is light, only a few leaves on a few branches are eaten, but occasionally a heavy infestation develops and entire trees over a large area are defoliated. Most severe defoliation occurs in summer. Even if completely defoliated, trees that are otherwise healthy can be expected to recover.

When infestations are light beneficial parasitic wasps use the redhumped caterpillar as a host and provide an effective natural control. When infestations are heavy additional control measures are necessary. The simplest of these is to cut off the foliage that contains caterpillars while the insects are still young and gregarious. At this stage only small branches need to be pruned off to destroy a large group of caterpillars. The foliage can then be burned or the caterpillars crushed.

Common in Sweet Corn - Corn Earworm

Corn earworm moths (Helicoverpa zea) are olive green to reddish brown in color, under an inch in size, and are most active during evening and night. They lay tiny, white eggs on fresh corn silk, which hatch into small greenish worms with black heads and conspicuous black hairs on the body. Fully developed worms are more than an inch long and range in color from pale green or pinkish to brown.

The corn earworm may be present throughout the corn growing season but is most abundant during August and September. The ears are the preferred sites for corn earworm attack and damage is characterized by extensive excrement at the ear tip. Young larvae feed on corn silks, clipping them off. Shortly thereafter, they feed their way into the ear where they remain, feeding in the tip area until they exit to pupate in the soil.

In sweet corn, very early plantings require fewer treatments than late-season corn because earworm population densities increase as the season progresses. Pay particular attention to corn that is silking in late summer to early fall. Eggs hatch in 5 to 7 days following oviposition and once larvae enter the corn ears, control with insecticides is even more difficult. Most home gardeners can just cut the tip off of the ears.

Caterpillar Control Tactics

Bacillus thuringiensis and spinosad are effective sprays for caterpillar control regardless if worms are in flowers, trees, or vegetables. These active ingredients are commonly sold under various trade names in nurseries. Both are bacterial preparations that cause disease-like conditions in many types of caterpillars. Worms stop eating several hours after feeding on a sprayed leaf and die a couple of days later. They will not harm the natural enemies of caterpillars and other insects like the more toxic, broad-spectrum insecticides do. These would include carbaryl, bifenthrin, cyfluthrin, deltamethrin, esfenvalerate, fluvalinate, etc., but these products do provide quick knockdown and offer some residual control of worms.

Spray timing and coverage means everything for worm control. Spray after the first sign of worm damage which may show up as holes in leaves, worm droppings, or skeletonized leaves. Forceful spray throughout the plant, entire tree, or corn plant is needed for effective control with these products.

Experience has shown that sprays for worm control are often applied too late after too much damage has already occurred. So after planting or as new growth begins in spring, be vigilant in monitoring your plants and spotting the first sign of worm damage in your landscape.

August 27, 2009