

With summer comes the tobacco budworm — and holes in your plants

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Question: The blossoms on my petunia and geranium plants are full of holes. What is causing this, and what can I do?
Answer: This is a common problem in the summer. We have reached that time of year when the tobacco budworm (*Heliothis virescens*) arrives in our gardens, and the damage you are seeing is most likely the result of this common garden pest.

The larvae of the budworm is a tenacious caterpillar that enjoys feeding on a variety of blossoms, but petunias, geraniums (pelargonium) and nicotiana seem to be its favorite meal. And it tends to enjoy geraniums so much that it's often referred to as the geranium budworm.

You mentioned there are holes in the petunia blossoms; this is usually the first sign of an infestation and that they are out and about actively causing damage. Other indications the tobacco budworm is present is the worm's frass, or excrement, in and around the flowers (appears as tiny black specks), and the plants may feel a little sticky.

The larvae feed on the tasty young buds and ovaries of developing flowers, resulting in buds that either fail to open, or they appear chewed and look like they have been shredded. As the summer progresses, the feeding tends to increase.

The tobacco budworm larvae is a caterpillar of varying colors; it may be green, brown or rust, but all have stripes running lengthwise and hairs on the body. The color tends to vary depending on what they are eating. The caterpillars feed for about a month, and then drop to the soil to pupate and



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A healthy petunia plant consists of petals that are free of holes.

emerge as adults. The adults are moths about 1 ½ inches wide with light-green wings and four wavy cream-colored bands. In the early evening, the females lay single eggs on buds or on the undersides of leaves, which then hatch into the tiny caterpillars that are feasting on your petunias and geraniums. And to add to the frustration of the caterpillars eating your plants right now, this pest's life cycle will be repeated with two generations, often produced in a season — ough.

So now that we know what is causing the damage, what to do about this pest? Unfortunately there isn't a magic bullet, but there are a few actions you can take:

- Monitor your plants. The tobacco budworm appears in the summer, so be on the lookout for them. Inspect your plants for early detection to catch



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The tobacco budworm looks like an innocent caterpillar, but it's most likely the culprit of holes that appear on petunias and geraniums during the summer months.

them before too much damage occurs. They are most active at dusk or sometimes in the cool mornings. During the warmer daylight hours, they hide at the base of the plants.

- When you find them on the plants, the quickest and easiest way to remove them is hand-picking them off.
- They are quite resistant

to insecticides, so difficult to control with this method. If you choose to use an insecticide, look for one containing pyrethrins, spinosad or *Bacillus thuringiensis* (also referred to as Bt). Try to apply when the caterpillars are young and small. The caterpillar must eat the Bt, so this is more effective on petunias that have a wide surface blossom. It can be less effective on geraniums, as they eat the buds and are less likely to ingest much of the Bt.

- Keep plants healthy by providing adequate water and fertilizer, as well as removing spent blooms. This will help allow the plant to outgrow the damage and produce new blooms. The pupa of the budworm can over winter in the soil. It takes temperatures below 20 degrees to kill them off. To reduce them next year, it can be helpful to rototill the planting beds in the fall or

spring, which may destroy any over-wintering pupa.

Also, rotating beds of host plants each season will help to reduce populations. And remember to not keep soil in containers at the end of the season. If you are over-wintering your plants (such as geraniums) in a garage or other warm space, remove all of the soil to eliminate any pupae and repot before over-wintering. This garden pest is a tough one, and it can take a diligent gardener to stay on top of them.

Do you have a gardening question? Please e-mail, call or visit the Douglas County Master Gardeners Plant Clinic at douglasmg@oregonstate.edu, 541-236-3052 or 1134 S.E. Douglas Ave., Roseburg. Douglas Country Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.