



## Focus on Pests: Squash Vine Borer

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Plants in the squash family: zucchini, summer squash, winter squash, melons, and cucumbers, face a host of pests and disease in their lifetime. One of the most dramatic, the squash vine borer, eats into the main stem, causing severe wilting and ultimately death of the plant.

In their adult form, squash vine borers are large, bright orange and black moths. They are striking to look at and very distinctive. They are active during the day rather than at night like most other moths.



Adult squash vine borer. Photo from the [Missouri Botanical Garden](#).

In early to mid-summer, adult squash vine borers lay eggs on squash stems, near the base of the plants. Zucchini, summer squash, and winter squash are most often affected. Cucumbers and melons can also be targeted by the pests, but more rarely.

The eggs hatch in about a week, and the larvae bore into the stem of the plant. Over the next 4-6 weeks, the larvae grow until they are large enough to block the flow of water in the plant. Therefore, the plant wilts. When the larvae have finished growing, they exit the plant and burrow into the soil to pupate. They will emerge the following summer.

To determine whether squash vine borers are the cause of a wilting squash-family plant, check the stem of the plant near where it enters the ground. If squash vine borers are the culprit, their entry holes are often visible, as well as sawdust-like excrement that is either green or tan.



This zucchini vine has been completely severed by a squash vine borer larva. Can you spot the larva in the middle of the stem, on the left side of the photo?

If you see evidence of squash vine borers inside the plant, the best plan is to perform a crude “surgery” to remove the larva. Carefully use a clean (disinfect with a 10% bleach solution to be extra careful) , sharp knife to slice into the stem. Make a single, long cut following the length of the stem, until you are able to locate the larva and remove it. After removing and destroying the larva, mound damp soil over the wound on the stem. With some luck and patience, the squash may grow more roots under the mounded soil and continue to survive

Another option is to inject a caterpillar-killing bacteria called *Bacillus thuringiensis* (Bt) into the plant stem. If you’ve already got some Bt around, this might be worth a shot. Bt is selective. It affects only caterpillars, so it’s a fairly safe pesticide and is often used in organic farms and gardens.

Alternatively, pull infected plants and destroy them, to keep the borers from overwintering in the garden soil.

To prevent squash vine borers from attacking your squash plants in future years, try the following:

- Rotate crops, to ensure that squash borer larvae aren’t present in the soil in your squash plantings.
- Keep squash family crops covered until they flower. Use a commercially available fabric row cover, which allows light and water to permeate. Be sure to remove the cover shortly after the plants flower, to allow bees and other insects to pollinate.
- Plan for two successions of squash in one season. Or, plant squash family plants later in the season. Sowing them in early July will allow most squash plants to produce, while avoiding the squash vine borers’ timing of laying eggs. Be sure to check days to maturity to make sure your plants have time to produce before the frost!