

SQUASH VINE BORER

The squash vine borer is a key pest of squash, gourds and pumpkins. Unfortunately, it is usually noticed only after it has done its damage. Symptoms appear in mid summer when a long runner or an entire plant wilts suddenly. Infested vines usually die beyond the point of attack.

Sawdust like frass near the base of the plant is the best evidence of squash vine borer activity. Careful examination will uncover yellow brown excrement pushed out through holes in the side of the stem at the point of wilting. If the stem is split open, one to several borers are usually present. The caterpillars reach a length of 1 inch and have a brown head and a cream colored body.



Squash Vine Borer Larvae

The adult squash vine borer is a stout dark gray moth with 'hairy' red hind legs, opaque front wings, and clear hind wings with dark veins. Unlike most moths, they fly about the plants during the daytime, appearing more like a paper wasp than a moth.



Squash Vine Borer Adult Moth

This insect overwinters as a full grown larva or a pupa one to two inches below the soil surface. If it has not already done so, the larva pupates in the spring. Adult moths begin to emerge about the time the plants begin to run, and moth flight continues through mid August.

The small brown eggs, laid individually on leaf stalks and vines, hatch in seven to 10 days. The newly hatched larva immediately bores into the stem. A larva feeds for 14 to 30 days before exiting the stem to pupate in the soil. There are 1 to 2 generations per year in Kentucky.

Management

The key to squash vine borer management is controlling the borers before they enter the stem. Once inside the vine, insecticidal control is ineffective. Poor timing of sprays is the usual cause of inadequate control. Adult emergence occurs at approximately 1000 degree days (base 50F with a Jan 1 biofix) in the early summer. Use 950 degree days as the time to begin monitoring plants weekly for initial signs of the borer's frass at entrance holes in the stems. This usually corresponds to mid June as the start of the adult flight. Very early signs of larval feeding indicate that other eggs will be hatching soon. Use two insecticide applications 7 days apart to control newly hatching larvae and continue to monitor for additional activity. Sprays need to penetrate the canopy to cover the vines to be effective.

Home gardeners may have some success with deworming the vines. At the first signs of the sawdust like frass, vines are slit lengthwise near where the damage is found and the borers removed. The stems should be immediately covered with earth. Sanitation is also important. After harvest is complete, vines should be removed from the garden and composted to prevent the remaining borers from completing larval development. Burying a few nodes along each vine will encourage rooting at these nodes. This will lessen the impact if squash vine borers girdle the base of the vine.