

SQUASH VINE BORER

By Eric Day and Alexandra Spring



Squash Vine Borer, adult, damage, and larva.
Mary Foley Benson, USDA; Property of the
Smithsonian Institution, Department of
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DESCRIPTION: Larva: White, up to 1 inch long.

COMMON HOST PLANT(S): Squash, pumpkin, gourds, cucumber and muskmelon.

DAMAGE: Bores in vines, eats holes in stem near base of runner. Runner wilts.

DISTRIBUTION: East of Rocky Mountains.

LIFECYCLE: The pupae of squash vine borers overwinter in soil. From early to mid summer when cucurbits begin to bloom the adult moths appear and lay brown eggs singly at the base around cucurbit plants or on plants. In about 7 to 14 days larvae emerge and tunnel into plant stems. The entry hole is marked by their frass, which resembles sawdust. For approximately two to three weeks larvae feed inside stems. At full growth larvae enter soil and spin a cocoon where they will pupate in the spring.

THRESHOLDS: Scout plants for frass, at entry holes or on the ground at the base of plants. If frass is found, cut open stems to find larvae. If evidence indicates early feeding by larvae, then more eggs will continue to hatch within a few days and treatment is probably warranted; however, no real thresholds have been developed for squash vine borers.

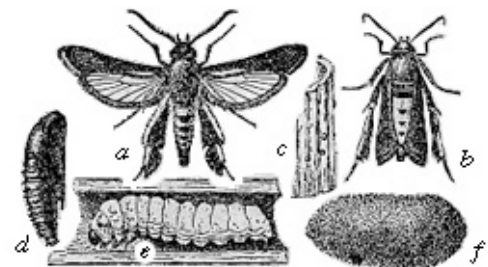
CULTURAL CONTROL: Locate points of injury. Split one side of stem with razor blade or sharp knife and puncture worm. Put a mound of moist dirt around each cut stem to prevent drying and to induce root growth beyond point of injury. To help offset damage by borers, place a mound of dirt about every 5 feet in cucurbit row. This will encourage adventitious root growth and help compensate for borer damage, not prevent attack by borers.

ORGANIC/BIOLOGICAL CONTROL: No known organic/biological control for squash vine borer.

CHEMICAL CONTROL: For control on Cucurbits (cantaloupes, cucumber, squash, pumpkins, and watermelons): Treat with a registered insecticide when vines begin to run, apply to bases of plants four times at 7 day intervals. Treat when seedlings emerge. *Caution: Honeybees are necessary for good fruit set; insecticides are toxic to bees. Apply in evening when fewer bees are working.* Treat flower buds, stems, and vines weekly.

REFERENCES:

Foster, Rick and Brian Flood. 1995. Vegetable Insect Management, Meister Publishing Company, Willoughby, Ohio. p. 173.



a, adult male with wings spread; b, female at rest; c, eggs on stem; d, pupa; e, full grown larva; f, pupal cell