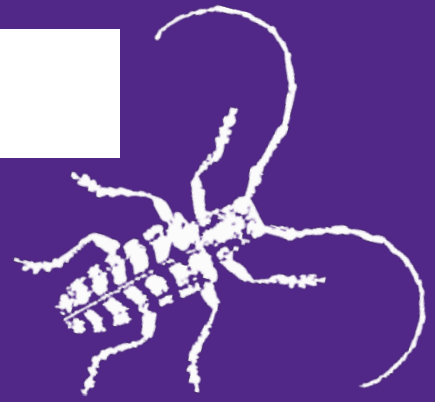


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Squash Vine Borer
ID to last week's bug
Corn – adult western corn rootworm, corn earworm and fall armyworm
Soybeans—false chinch bugs
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Squash Vine Borer

Squash vine borer, *Melitta curcurbitae*, feeds on squash, pumpkin, cucumber, and muskmelon. At this time of year, larvae are feeding inside plants. Adults are moths that are 5/8 inches long, orange-red, with gray bands and three to four black markings along with orange-red hairs on the abdomen (Figure 1). Adults are active during the day with females depositing eggs on the stem near the soil level or on stems or petioles when plants begin to flower. The eggs are red-brown, flattened, 1/30 inches in diameter, and are located at the base of plants (Figure 2). A single female can lay up to 200 eggs during her lifetime. Larvae that emerge (eclose) from eggs are white, with a dark head capsule. Young larvae are 1/4 to 3/4 inches in length and taper toward the end of the abdomen. Mature or fully-grown larvae are 1 to 1-1/2 inches long (Figure 3).



Figure 1. Squash Vine Borer Adult



Figure 2. Squash Vine Borer Eggs At Base Of Plant



Figure 3. Mature Squash Vine Borer Larva (Raymond Cloyd, KS)

Larvae that emerge (eclose) from eggs immediately tunnel into the base of plants; feeding for 30 days in the plant stem. The larvae increase in size as they mature. There is usually only one larva per stem; however, multiple larvae may be present in a single stem. In fact, one year we found seven larvae in one stem (it was awesome 😊). Mature larvae emerge from plant stems and burrow into the soil. The larvae construct brown, silken cocoons where they overwinter. Squash vine borer overwinters as a mature larva in the cocoon located 1.0 to 2.0 inches deep in the soil. In early spring, adults emerge from the soil. Squash vine borer has one generation in Kansas.

During this time of year, squash vine borer larvae are feeding within the internal vascular tissues, which inhibits the plant's ability to take-up water and nutrients. Consequently, larval feeding causes the sudden wilting of vines and plant collapse (Figure 4). Once the larvae are inside the plant, not much can be done to manage squash vine borer and prevent damage. The tunnels inside infested plants are filled with moistened frass (fecal matter) (Figure 5). Yellow-green sawdust-like frass can also be found around feeding sites at the base of vines or plants, which will be a direct indication that larvae have entered the plant.



Figure 4. Plant Wilting Due To Feeding By Squash Vine Borer Larvae (Raymond Cloyd, KSU)

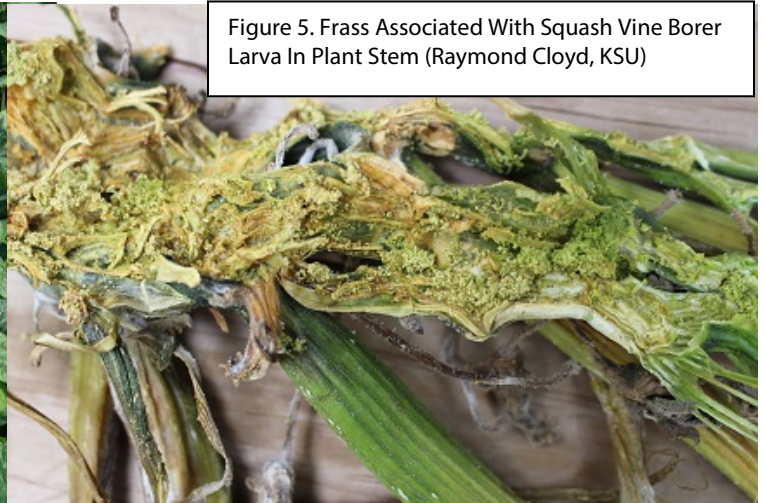


Figure 5. Frass Associated With Squash Vine Borer Larva In Plant Stem (Raymond Cloyd, KSU)

Since the larvae are feeding inside the plant there is not much that can be done to kill the larvae; however, there are plant protection strategies that can be implemented during the remainder of the growing season such as; sanitation and physical control.

Sanitation: remove and dispose of all wilted plants before the larvae leave and enter the soil. Discard all plant debris such as vines and fruits after harvest.

Physical control: rototilling in fall will directly kill squash vine borer pupae or bring the pupae to the soil surface where they are exposed to cold weather or predation by birds. In addition, the process of deep plowing will bury the pupae deeper in the soil profile, which may inhibit adult emergence from the soil. Another technique that may have limited use in large plantings but may be feasible for smaller plantings is to locate infested stems and vines, and create slits at the base of the plant. Tweezers can then be used to remove larvae from inside the plant. Larvae should be killed and the plant base covered with moist soil and mulch, which will stimulate the production of secondary vines and/or root growth; thus helping the plant to re-establish.

For more information on how to manage the squash vine borer, refer to the following extension publication:

Squash Vine Borer (MF3309 July 2016)

<http://www.bookstore.ksre.ksu.edu/pubs/MF3309.pdf>

Raymond Cloyd

HOME

ID to last week's bug

Rough stink Bug – As you can see from the image, Rough stink bugs resemble the color and texture of a tree's bark providing them with camouflage. These insects feed on caterpillars, planting eating beetle larvae, aphids and other soft-bodied insects that may harm plants.

Can you identify this insect and tell why they are beneficial?



Corn – adult western corn rootworm, corn earworm and fall armyworm

The first adult western corn rootworms (WCRW) (fig. 1) were detected on 5 July, 2020, in north central Kansas. Since this first emergence there has been considerably more emergence, to the point that there are several areas of north central Kansas that are now concerned about silk clippings by these adults. WCRW adults spend much of their time in the early morning, and then again toward evening, feeding on silks (fig. 2)—thus, shown here in a position that they are commonly found in while feeding on silks. They may spend much of the middle, warmer, part of the day in more shaded areas, i.e., behind leaf collars, etc. Figure 3 shows typical “goosenecking”, from the previous root feeding, which is now completed, by the larval stage of the WCRW.



Figure 1: Adult Western Corn Rootworm (WCRW) (Cody Wyckoff)



Figure 2: WCRW in position that they are commonly found while feeding on silk (Cody Wyckoff)



Figure 3: Goosenecked corn (Cody Wyckoff)

There is also much corn earworm and fall armyworm activity in corn fields that are just now, and have just recently, started silking. The larvae (fig. 4) observed around north central Kansas will probably feed for about another 2 weeks, then, pupate in the soil, emerge as adults which mate, and start depositing eggs. These eggs will most likely be deposited in late planted corn, or sorghum (between flowering and soft dough) and/ or soybeans.



Figure 4: Larva feeding on corn (Cody Wyckoff)

Jeff Whitworth

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Soybeans—false chinch bugs

We have received several calls relative to false chinch bugs (fig. 5) damage to soybeans. In most cases false chinch bugs may appear in large numbers in a patch or two in a field, and usually after the soybean field was treated with a herbicide. The most common natural host of false chinch bugs are plants in the mustard family. So when these are killed by a herbicide, the false chinch bugs congregate and may feed for a few days before dispersing. This feeding, by removal of plant juices, usually has little to no effect upon the plants, but occasionally can be very detrimental to soybeans (fig. 6) and sometimes sorghum.



Figure 5: False Chinchbug



Figure 6: Soybeans affected by False Chinchbugs
(photos provided by Rod Schaub)

Jeff Whitworth

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Bug Joke of the Week

How do fleas travel?
They "itch" hike.

Jeff Whitworth

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ID This Insect

Can you identify this insect and tell what the host plant is?



K-STATE
Research and Extension
Integrated Pest Management

Kansas Insect Newsletter

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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