

SQUASH BUGS IN HOME GARDENS

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The squash bug, *Anasa tristis*, is common throughout the United States. It primarily attacks squash and pumpkins but can also attack other cucurbits, such as cucumbers.

Identification

Adult squash bugs (fig. 1) are somewhat flattened, large insects, measuring 5/8 inch long and 1/3 inch wide. They are usually dark gray to dark brown. The edges of their abdomens protrude beyond their wings and typically have alternating orangish and brown stripes.

The eggs are elliptical, 1/16 in. long, and yellowish to bronze (fig. 2). The nymphs range in size from 1/10 to 1/2 inch in length as they progress through five stages called instars. The young nymphs when they first hatch have a light green abdomen and black heads and legs (fig. 3). As the nymphs grow larger, they first turn light gray (fig. 4) and then progressively brownish gray (fig. 5), with black legs and antennae.

Life Cycle

Squash bugs overwinter as adults in sheltered places, such as under plant debris, around buildings, or under rocks. When adults emerge in the spring, they fly to growing cucurbit plants to feed and mate. Female squash bugs lay eggs individually in small clusters of about 20 commonly on the undersides of the leaves, especially between the veins where they form a V (fig. 2). Eggs may also be deposited on stems. The females usually start appearing in gardens in early June and continue to lay eggs through mid-summer.

Eggs hatch in about 10 days. Nymphs require about four to six weeks before maturing into adults. Both adults and nymphs are secretive and quickly scurry for cover when disturbed. One generation develops each year, although it is possible that in some summers there is a partial second generation. The life stages overlap and all of them can be seen at any given time during the growing season. In the fall, especially after the vines have died, the adults, and late instar nymphs often congregate on squash fruits. The nymphs die when the temperatures drop to freezing. The adults gradually fly or crawl to sheltered places to overwinter.



Figure 1. Adult squash bug



Figure 2. Squash bug eggs

Damage

Squash bugs have piercing-sucking mouthparts that they use to suck the sap out of leaves. Their feeding causes yellow spots that eventually turn brown (fig. 6). The feeding also disrupts the flow of water and nutrients, which can cause wilting. However, unlike cucumber beetles, squash bugs do not vector diseases. Young plants are much more susceptible to damage and may die from extensive feeding. Larger, more vigorous plants are more tolerant of feeding damage, although they can also be injured or killed if they severely attacked.



Figure 3. Newly emerged squash bugs



Figure 4. Squash bug nymphs



Figure 5. Mature squash bug nymph

Management

The most important times to control squash bugs are when the plants are young seedlings and when they are flowering. Squash bugs are less important to control later in the growing season. Late season or fall feeding is not considered serious. Early detection of nymphs is important, as adult squash bugs are difficult to kill.

Cultural

Maintain healthy, vigorous plants through proper fertilization and watering to help limit squash bug damage.

Physical

Remove or knock off and kill nymphs and adults by dropping them into a pail of soapy water. This is particularly effective if only a few plants are affected. This can be challenging because squash bugs hide under leaves and move quickly when disturbed.

Crush eggs that are attached to the undersides and stems of leaves.

Trap squash bugs by laying out boards or pieces of newspaper. Squash bugs will congregate under the boards at night, and then can be collected and destroyed in the morning.

Remove plant debris around the garden during the growing season to reduce the potential harborages where squash bugs may hide. Clean up cucurbits and other plant matter around the garden in the fall to reduce the number of overwintering sites.

Insecticidal

Insecticides are normally not required to manage squash bugs. However, if cucurbits are found wilting early in the season due to squash bug feeding, then an insecticide application is probably needed to manage the insects. If large numbers of squash bugs are found in the garden later in the summer, it may be necessary to protect your cucurbits with an insecticide. It is not necessary to treat squash bugs found in the garden during late summer or fall regardless of how many are seen.

The best time to apply these insecticides is during minimal bee activity, which is typically early in the morning or late at night. Be sure to get good coverage underneath

the leaves as this is where most squash bugs are found. Examples of commonly available insecticide active ingredients are provided below:

Common name	Residual*	Notes
carbaryl	medium	contact
permethrin	medium - long	contact
bifenthrin	long	contact
esfenvalerate	long	contact

* Long residual can persist as long as four weeks. Medium residual can persist as long as 10 - 14 days.

CAUTION: Read all label directions very carefully before buying insecticides and again before applying them. Information on the label should be used as the final authority.



Figure 6. Squash bug injury

This publication was modified from a Department of Entomology University Minnesota publication entitled *Squash Bugs* by A. Genetzky, E.C. Burkness, and W.D. Hutchison.

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