Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

Department of Entomology
123 West Waters Hall
K-State Research and Extension
Manhattan, Kansas 66506
785-532-5891
http://blogs.k-state.edu/kansasbugs/
http://www.entomology.ksu.edu/extension

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Green June Beetle Adults

Green June beetle, *Cotinis nitida*, adults are flying around in massive numbers near managed and/or unmanaged grassy areas, and occasionally 'bumping' into people and objects. Adults are 3/4 to 1.0 inch long, velvety-green, and tinged with yellow-brown coloration. Green stripes with yellow-orange margins extend lengthwise on the front wings (Figures 1 and 2). The underside of the body is distinctly shiny and metallic green or gold. Adults resemble 'dive bombers' flying around for several weeks in July. Green June beetle adults are sometimes confused with Japanese beetle,

Figure 1. Green June Beetle Adult (Raymond Cloyd, KSU)

Figure 2. Green June Beetle Adult (Raymond Cloyd, KSU)

Popilla japonica, adults; however, they really do not look alike.

Green June beetle has a one-year life cycle, overwintering as a mature larva or grub in the soil. Adults typically emerge in late-June and are active during the day, resting at night on plants, in thatch, or in compost. Adults produce a sound when flying that is similar to bumble bees. Adults feed on ripening fruits and corn tassels, and may feed on the leaves of oak and maple trees. Male Green June beetles swarm in the morning, 'dive bombing' to-and-fro just above managed and/or unmanaged grassy areas where females are located. The females emit an odor or pheromone that attracts the males. Clusters of beetles may be seen on the soil surface or in grassy areas with several males attempting to mate with a single female. After mating, females lay clusters of 10 to 30 eggs in moist soil with a high content of organic matter. The larvae emerge (eclose) from eggs in approximately two weeks and feed near the soil surface. Larvae are 3/8 (early instars) to 1-1/2 (later instars) long and primarily feed on organic matter in thatch or grass-clippings.

Dr. Raymond Cloyd – Horticultural Entomology

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Squash Bug

Squash bug, *Anasa tristis*, females have laid eggs and various stages of the nymphs are present feeding on squash and pumpkin leaves. Squash bug adults are flattened to 1/2 to 3/4 inches in length. Adults are dark-brown and have wings with brown-to-black and orange markings along the outer edge of the body (Figure 1). Females lay red eggs on the underside of leaves. Nymphs emerge (eclose) from the eggs in seven to 14 days and undergo five instars (stages between each molt) before maturing to adults. Young nymphs have a pale-green abdomen (Figure 2) and tend to gather near the eggs they emerged from. Older nymphs are gray (Figure 3) and tend to distribute themselves over the entire plant. Nymphs are 3/16 to 1/2 inches long. The nymphs cannot fly because they do not have fully developed wings.

Figure 1. Squash bug adult (Raymond Cloyd, KSU)

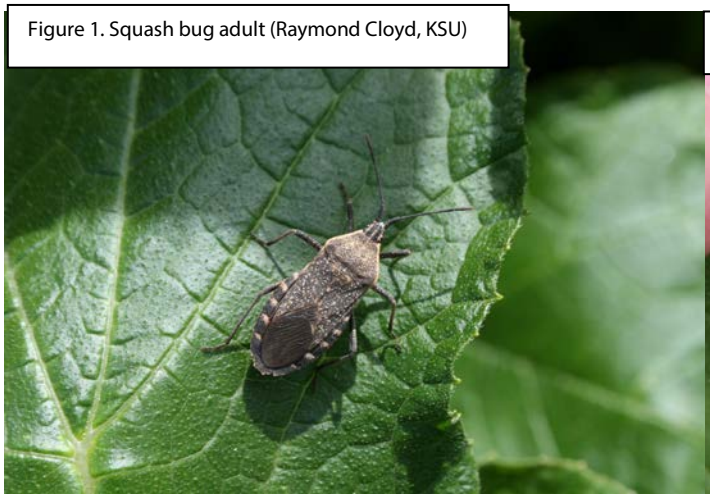

Figure 2. Young squash bug nymphs (Raymond Cloyd, KSU)

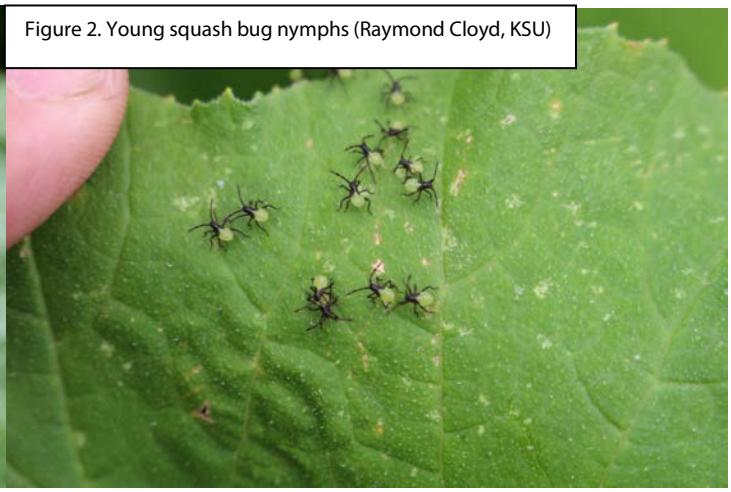

Figure 3. Older squash bug nymphs (Raymond Cloyd, KSU)

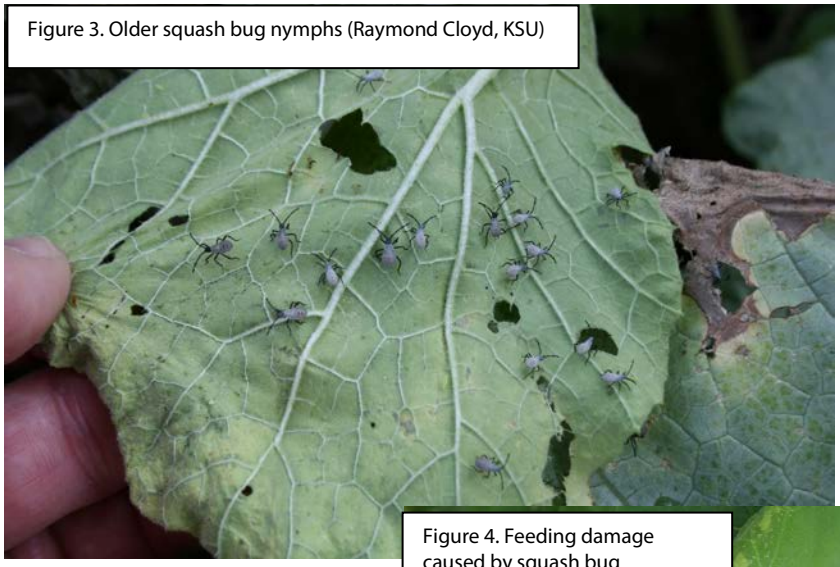

Figure 4. Feeding damage caused by squash bug (Raymond Cloyd, KSU)

Squash bug nymphs and adults use their piercing-sucking mouthparts to withdraw plant fluids from leaves, stems, vines, and fruits. Damage to leaves appears as small, yellow specks that eventually turn brown (Figure 4).

What can you do? Well, below are the plant protection strategies that you can implement to

mitigate problems with squash bugs and prevent subsequent plant damage.

1. Check plants for the presence of eggs, nymphs, and adults on leaf undersides at least once per week during the growing season.
2. Destroy eggs, and remove (handpick) nymphs and adults, placing them into a container with soapy water to kill them. Handpick every three to four days.
3. Place a floating row cover over plants to protect them from squash bug nymphs and adults.
4. Position wooden boards throughout the garden, turning them over daily to collect squash bugs hiding underneath, and then killing them by placing into a container of soapy water.
5. Apply a contact insecticide such as, potassium salts of fatty acids (insecticidal soap) or a mineral-based horticultural oil when the nymphs are present. The smaller nymphs are easier to kill than the larger nymphs. Adult squash bugs have a thickened waxy cuticle (skin) that insecticides cannot adhere to and penetrate. Adults are also protected from insecticide sprays by the leafy plant canopy. Weekly applications of contact insecticides may be required to maintain populations below levels that will prevent plant damage. Thorough coverage of the leaf undersides is important to suppress squash bug populations.

For more information on how to manage squash bug refer to the following extension publication:

Squash Bug (MF3308 July 2016)
https://www.bookstore.ksre.ksu.edu/pubs/MF3308.pdf

Dr. Raymond Cloyd – Horticultural Entomology

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Bugs That Are Active Now

Yellowstriped Armyworm, *Spodoptera ornithogalli*

Ashgray Blister Beetle, *Epicauta fabricii*, Adults

Tomato and Tobacco Hornworms, *Manduca quinquemaculata* and *M. sexta*

Striped and Spotted Cucumber Beetle, *Acalymma vittatum* and *Diabrotica undecimpunctata,* Adults

Whiteflies

Twospotted Spider Mite, *Tetranychus urticae*

Bagworm, *Thyridopteryx ephemeraeformis*

Dr. Raymond Cloyd – Horticultural Entomology

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New Children's Book Available

The Pesticide Safety and IPM program has developed a children's book entitled: "Tales: Spider Style." It features images of Kansas spiders, facts and information to support learning about spiders in the classroom. It was developed for use in Pre-K to 2nd grade. It is important for children to be able to observe the world around them and have an understanding of their importance in our ecosystem. Often times it is our kids that teach us adults with information they have learned.

The Pesticide Safety and IPM program collected data from Kansas teachers on what resources they felt were missing. Several teachers indicated they had lots of books on insects, but not one on spiders. The team had many images of spiders taken around Kansas, so the idea then grew into a children's book. It features facts about various spiders and a glossary of vocabulary words. Funds for this project were made available from the National Institute of Food and Agriculture through the Crop Protection and Pest Management Grants program.

Copies of these books were distributed to each county Extension Office for distribution to 1st grade classrooms, but we also have a supply at our office. If you are a Kansas teacher who is interested in using this resource in your classroom or want a copy for the school library, then you can e-mail Frannie Miller at fmiller@ksu.edu or call (620) 241-1523 with the address you would like the book sent to until supplies are depleted, then they can be purchased at https://npsecstore.com/products/tales-spider-style.

Frannie Miller – Pesticide Safety & IPM Coordinator

HOME

Soybean Pests

The pest situation, so far anyway, looks really encouraging throughout most of northcentral Kansas. Very few pests in sorghum, including chinch bugs, have been noted or reported at least as of 22 July. Sorghum seems to be all over the place, however, as far as developmental stages are concerned. There is some double-cropped sorghum that has just recently germinated (also some that was just planted late due to the weather) all the way to some that is just reaching the boot stage. So there is a long ways to go yet--but so far, the pest situation looks good.

Soybeans also seem to have relatively few pests so far this year. There are a few stink bugs (which will be depositing eggs soon) and Dectes stem borers (see fig 1 -adult green stinkbug and Dectes stem borer) neither of which are causing any problems yet--but may in the future before harvest. There are a few bean leaf beetle adults just emerging (see fig 2-bean leaf beetle adult eating hole in leaf) so these populations need to be monitored throughout pod set. There also seem to be relatively more spined soldier bugs (see fig 3) than usual this year. These are often confused with phytophagous stinkbugs but these" look alikes" are predators on other insects.

Figure 1. Adult green stinkbug and Dectes stem borer (pic by Cody Wyckoff)

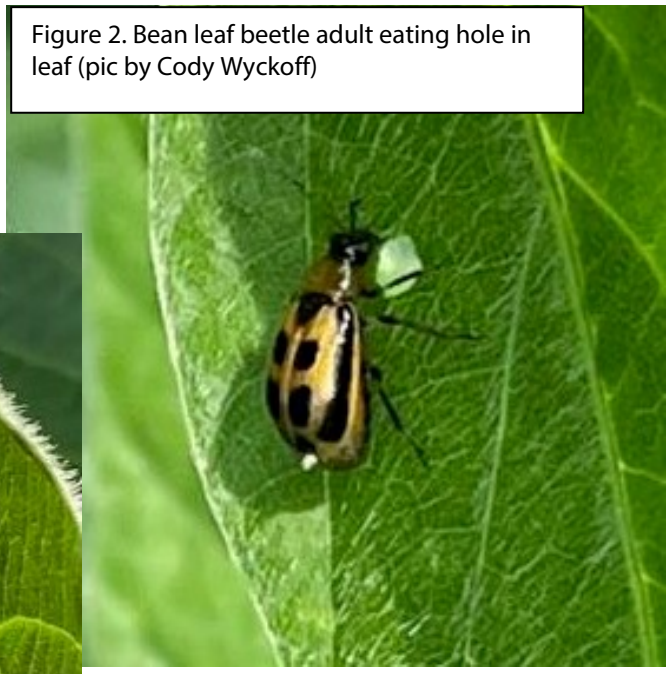

Figure 2. Bean leaf beetle adult eating hole in leaf (pic by Cody Wyckoff)

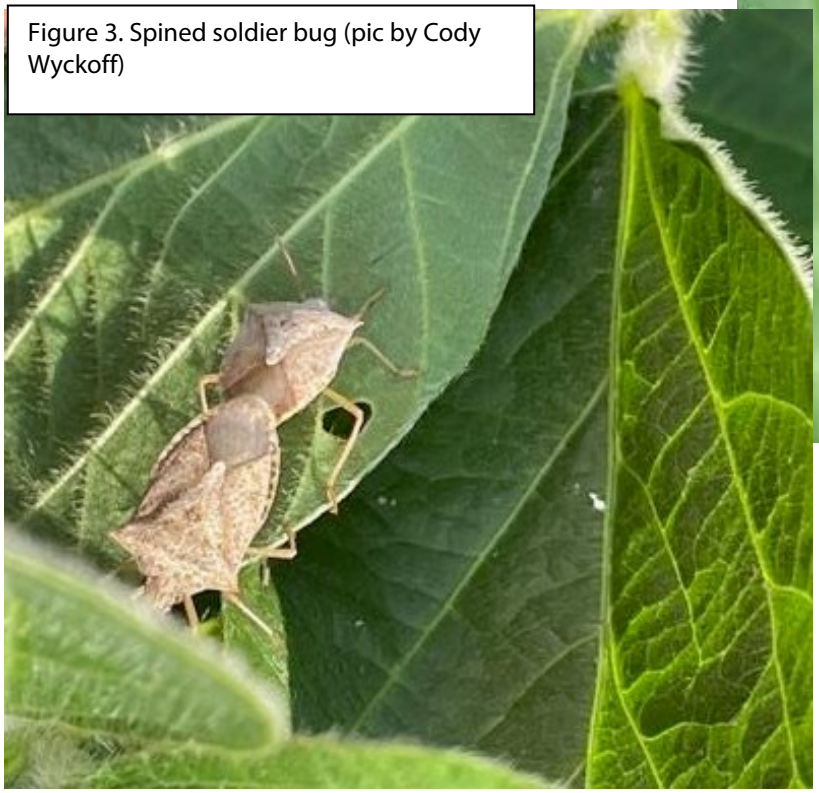

Figure 3. Spined soldier bug (pic by Cody Wyckoff)

Jeff Whitworth – Field Crops

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Bug Joke of the Week

Q: How Do Fleas Travel?

A: They Itch-Hike!

Dr. Raymond Cloyd – Horticultural Entomology

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Sincerely,

Jeff Whitworth
Extension Specialist
Field Crops
phone: 785/565-2371
e-mail: jwhitwor@ksu.edu

Raymond A. Cloyd
Professor and Extension Specialist
Horticultural Entomology/Integrated Pest Management
Phone: 785-532-4750
Fax: 785-532-6232
e-mail: rcloyd@ksu.edu

Frannie Miller
Pesticide Safety & IPM Coordinator
Kansas State University
600 W. Woodside
McPherson, KS 67460
Phone: (620) 241-1523
Fax: (620) 241-3407
http://www.ksre.ksu.edu/pesticides-ipm

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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