

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



August 3, 2018 No 15

Cicada Killers

Sorghum – Worms and Aphids

Soybean – Bean Leaf Beetles and Defoliators

Cicada Killers

The presence of dog day cicada (*Tibicen pruinosus*) adults 'singing' in trees means that it is time to be aware of 'huge' wasps flying around. These are the Eastern cicada killer (*Sphecius speciosus*). Cicada killer females search-out, kill, and provision each cell within a nest with a cicada. The dead cicada becomes a food source for young cicada killers or larvae. Cicada killers are an urban nuisance pest, especially when nesting, sometimes in large numbers, in bare areas or areas around a structure. People are generally concerned because cicada killers look-like giant yellowjackets.

Cicada killers are about 2.0 inches long and black, with yellow-banded markings on the abdomen. The head and transparent wings are red-brown (Figure 1).

Cicada killers are not dangerous, but they can be intimidating; especially the males. Cicada killers are ground-nesting solitary wasps, with the female digging a 6 to 10-inch burrow (1/2 inch in diameter) in the ground; usually in sandy or loose soil. A pile of sand or soil, depending on soil type, typically surrounds the entrance. Females search for and sting large

Fig 1. Close-up of cicada killer adult (Author-Raymond Cloyd, KSU)



Kansas Insect Newsletter

August 3, 2018 No 15

insects such as a cicada or katydid, and then bring the immobilized or paralyzed prey back to the burrow (Figure 2).

The female then places the prey into a chamber within the nest and lays an egg on the body. Sometimes a female will place two prey in a burrow but only lays an egg on one. The female eventually covers the burrow, digs another, and repeats the process. The egg hatches into a legless grub-like larva that consumes the prey. Full-grown larvae overwinter in the burrow, pupate in the spring, and emerge as adults from July through August.

Fig 2. Cicada killer female transporting a paralyzed cicada to her nest (Author--Raymond Cloyd, KSU)



Male cicada killers establish aerial territories and patrol for intruders. A male cicada killer wards-off other males that enter his territory and attempt to mate with females. In addition, an individual, walking into the territory is typically confronted by a very large wasp hovering in front of the face and 'zips' to the side and back. However, after determining that the 'intruder' is not a rival or a threat, the male cicada killer will ignore the individual. Nevertheless, an individual walking across a lawn, fairway, or other area where cicada killers are nesting, will be subject to the same the 'experience' through each male's territory. Regardless, cicada killers are unlikely to sting an individual. Wasp and bee stingers are modified egg-laying devices (ovipositors), so males are unable to sting. Females, however, may sting if crushed or when stepped on with bare feet, or grabbed with bare hands.

Cicada killers are common in areas with bare soil, so mulching, planting ground covers, or sodding may reduce potential problems. Furthermore, cicada killers can be a problem in well-maintained areas such as irrigated and regularly fertilized turfgrass. Cicada killers are a major problem when nesting in areas accessible to or frequented by the public. Applying carbaryl (Sevin) or pyrethroid-based insecticides containing the active ingredients; permethrin, bifenthrin, cyfluthrin, and/or lambda-cyhalothrin to the burrowed area will kill females in golf course sand traps. Once females are gone, males eventually leave. In home yards, sandboxes should be covered with a tarp when not being used to deter cicada killers. Sand below swings, jungle gyms, or other playground equipment can be replaced with bark mulch or shredded tires.

Managing cicada killers in baseball infields and volleyball courts can be more challenging because people with minimal clothing and exposed skin are diving and sliding onto the ground, which makes it difficult to recommend using an insecticide on a volleyball court. However, in these cases, the use of a geotextile fabric placed beneath the sand may create a barrier that prevents cicada killers from creating burrows. The recommendations mentioned above will only be effective if cicada killer populations are not excessive.

Raymond Cloyd

[HOME](#)

Sorghum – Worms and Aphids

'Ragworms', mostly fall armyworms but a few corn earworms (sorghum headworms) as well, continue to cause considerable concern due to the very ragged looking leaves their feeding produces. These worms are present every year, to a greater or lesser extent, but this year does seem to be a good year for them. However, this whorl-stage feeding activity really has little to very little negative impact upon the plants, nor does it reduce yield. Most of the plants we examined in north central Kansas had feeding damage only – no worms, or a mature larva which had completed most of its feeding. Therefore, insecticide application will be a waste of time, money, and will kill any beneficials which may be present.



Mature fall armyworm feeding in sorghum whorl



As sorghum starts to reach reproductive stages, the developing kernels will be vulnerable to attack by the next generation of fall armyworms and corn earworms (sorghum headworms). Between flowering and soft dough these larvae can cause about 5% loss/worm/head. Sampling needs to be conducted carefully and in a timely manner during this window.

Corn leaf aphids continue to be common in sorghum whorls and are often tended by ants for their honeydew. Beneficials are still plentiful and corn leaf aphid populations do not seem to be increasing.



For more information relative to sorghum insect management, please see the 2018 Sorghum Insect Management Guide: <https://www.bookstore.ksre.ksu.edu/pubs/mf742.pdf>

Jeff Whitworth

Holly Davis

HOME

Soybeans – Bean Leaf Beetles and Defoliators

Soybean fields around north central Kansas still seem to be relatively unbothered by defoliators. Bean leaf beetle adults are increasing in numbers and may begin feeding on the succulent pods as they form.



The next generation of corn earworms (coming from sorghum fields) may start feeding on the beans within the pods, although we did not find any pod feeding yet. The only defoliators sampled this past week were a few green cloverworms, thistle caterpillars, and yellowstriped armyworms. None were in sufficient numbers to cause concern, individually or collectively.





Thistle caterpillar



Early instar yellowstriped armyworms

For more information relative to soybean insect management, please see the 2018 Soybean Insect Management Guide: <https://www.bookstore.ksre.ksu.edu/pubs/mf743.pdf>

Kansas Insect Newsletter

August 3, 2018 No 15

Sincerely,

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

Jeff Whitworth
Extension Specialist
Field Crops
phone: 785/532-5656
e-mail: jwhitwor@ksu.edu

Holly Davis
Research Associate
Phone: (785) 532-4730
e-mail: holly3@ksu.edu



Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact *LOCAL NAME, PHONE NUMBER*. (For TDD, contact Michelle White-Godinet, Assistant Director of Affirmative Action, Kansas State University, 785-532-4807.)

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John D. Floros, Director.