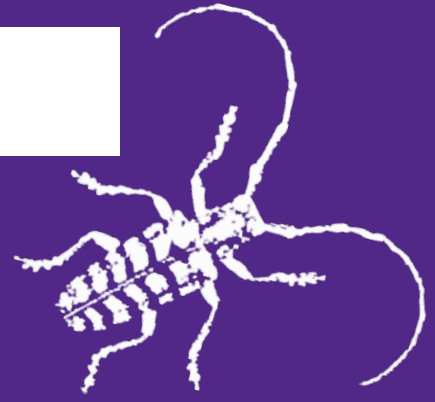


Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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Manhattan, Kansas 66506
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Here We Go Again...Cicada Killer...Not the Asian Giant Hornet
Grasshoppers
Japanese Beetles
Aquatic Pest Control (Category 5) Aquatic Pest Control (Category 5)
Commercial Applicator Recertification Training Program (Category 6, 7C & 9A ROW)
Bug Joke of the Week

Here We Go Again...Cicada Killer...Not the Asian Giant Hornet

We are receiving numerous inquiries regarding large wasps flying around in landscapes and gardens. These are the Eastern cicada killer, *Sphecius speciosus*; not the Asian Giant Hornet, *Vespa mandarinia*, which is still restricted to Washington state. Cicada killer adults are approximately 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 are intimidating; especially the males. Cicada killers are solitary wasps, not social wasps like yellowjackets. Adults live up to 75 days from July through September, and feed on flower nectar and plant fluids or exudates.

Figure 1. Cicada Killer Adult (Raymond Cloyd, KSU)



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A female cicada killer will dig a 6 to 10-inch burrow (1/2 inch in diameter) in the soil; usually in sandy or loose soil. A pile of sand or soil, depending on soil type, will surround the entrance.

Cicada killer females search for dog days cicada, *Tibicen pruinosus*, adults on the trunks and lower branches of trees. The female stings the adult cicada using her ovipositor (egg-laying device), flips the cicada over, straddles the cicada, and then transports the immobilized or paralyzed cicada back to the burrow in the soil (Figures 2 and 3). Each burrow may contain three to four cells with one or two cicadas. The dead cicada serves as a food source for the cicada killer larvae, which are legless and grub-like. A female will lay one egg per cicada if the egg is unfertilized. Larvae that emerge from unfertilized eggs are males whereas larvae that emerge from fertilized eggs are females and are provided with two cicadas. Larvae emerge (eclose) from eggs in two to three days and feed on paralyzed cicadas. The female will eventually cover the burrow, dig another one, and repeat the process. Full-grown larvae overwinter inside silken cases, pupate in spring, and adults emerge from July through August. There is one generation per year in Kansas.

Figure 2. Cicada Killer Female Transporting a Paralyzed Cicada to Her Nest (Raymond Cloyd, KSU)



Figure 3. Cicada Killer Adult Female with Dead Cicada



Cicada killers are an urban nuisance pest, especially when large numbers are nesting in bare areas, in turfgrass, or around a structure. People are generally concerned because cicada killers resemble giant yellowjackets or they think cicada killers are the Asian giant hornet or the so-called "Murder Hornet". However, cicada killers, in general, will not sting an individual. Wasp and bee female stingers are modified

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egg-laying devices (ovipositors), so males cannot sting. Females may sting if crushed or if stepped on with bare feet or grabbed with bare hands.

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. An individual that walks 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 ignores the individual. Nonetheless, an individual walking across a lawn, fairway, or other area where cicada killers are nesting, will experience the same treatment through each male's territory. After females have departed the nest, then males will eventually leave.

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

Managing cicada killers in baseball infields and volleyball courts is more challenging because people with minimal clothing and exposed skin are diving and sliding onto the soil; thus making it difficult to recommend using an insecticide. However, in the case of a volleyball court, a geotextile fabric placed beneath the sand may create a barrier that prevents cicada killers from creating burrows.

Raymond Cloyd – Horticultural Entomology

[HOME](#)

Grasshoppers

As noted before, grasshoppers seem to be really numerous this year throughout northcentral Kansas. We have seen, or heard about, more grasshopper-riddled fields (see pic 1) than we have maybe in the last 15-20 years. The species responsible for most of the crop damage is the common, relatively large, yellow, differential grasshopper (see pic 2). These grasshoppers are still feeding a little, but are also moving to grassy/weedy/undisturbed areas where they are depositing eggs in the soil. These eggs will then hatch next spring and the young nymphs can start feeding on any nearby crops.



Picture 1: Grasshopper riddled field (pic by Cayden Wyckoff)



Picture 2: Differential grasshopper (pic by Cayden Wyckoff)

Jeff Whitworth – Field Crops

[HOME](#)

Japanese Beetles

Japanese beetles have been very active throughout Kansas for the last 2 months. However, they seem to have been more widespread north of Interstate 70 from the Missouri border west to about Smith Center. There were a few "hotspots" south of I-70 but not as widespread. Japanese beetles can be a concern in field crops because they can feed on green silks in corn or on leaf tissue in soybeans. They do have a wide host range but those are the two vulnerable crops and it is just a matter of timing as to which are attacked. If any corn in the vicinity of where the adult beetles emerge is silking, it seems that is highly attractive to the hungry beetles. However, if corn silks are starting to turn brown when the adults are foraging they seem to be attracted to new succulent soybean leaves (see pic 3). Japanese beetles seem to be slowly increasing in numbers and range. The larvae are white grubs and most commonly feed on roots in some area of undisturbed plants, i.e. turf, pastures vineyards, etc. After the larvae pupate, the adults emerge and fly to any nearby food source. This usually starts towards the end of June or in early July. They then feed voraciously

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for a few days before disbursing to start depositing eggs back in the "nursery" area. They continue this feeding-disbursing, etc. usually for about a month or so. Adults then die, eggs hatch, and the cycle starts all over again.



Picture 3: Japanese Beetle damage (pic provided by Jeff Hammer)

Jeff Whitworth – Field Crops

[HOME](#)

Aquatic Pest Control (Category 5) Commercial Applicator Recertification Training Program Virtual Edition Using Zoom

AQUATIC

PEST CONTROL

Category 5

Commercial Applicator Recertification Training Program

Virtual Edition Using Zoom



Thursday, October 28, 2021

8:00 A.M. – 2:00 P.M.

K-STATE

Research and Extension

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PROGRAM SCHEDULE

- 7:30 a.m. **Registration**
- 8:00 a.m. Alternative Weed Control Techniques for Aquatic Environments, Joe Gerken, Fisheries and Aquatic Extension Specialist, Kansas State University (1 Credit Hour Cat. 5)
- 9:00 a.m. Algae and Floating Aquatic Plant Identification,
Brittany Chesser, Aquatic Vegetation Management Specialist, Texas A & M (1 Credit Hour Cat. 5)
- 10:00 a.m. Aquatic Herbicide Chemistry – Improved Field Performance Starts with You”, Andrew Z. Skibo, Ph.D. Alligare (1 Credit Hour Cat. 5)
- 11:00 a.m. Common Aquatic Modes of Action and How They Work, Dr. Jason Ferrell, University of Florida, Director of Aquatic and Invasive Plants (1 Credit Hour Cat. 5)
- 12:00 p.m. Core Hour: Pesticide Law, Environment and Labels, KDA Pesticide & Fertilizer Program (1 Core Hour)
- 1:00 p.m. Aquatic Labels and Calculations, What you Should Know!, Brett Bultemeier, University of Florida, Pesticide Office (1 Credit Hour Cat. 5)

In odd years, training for category 5 will be held as complete recertification training containing 5 pest management and one core hour.

Category 5 training will not be offered again until 2023. so if you certification ends in 2021 or 2022

Workshop Registration

Name: _____

Company: _____

Address: _____

City, State: _____ Zip: _____

Phone: _____

Email address: _____

Registration Fee: \$60.00 – To ensure you are able to receive the zoom link please register by October 22, 21

Core only: \$20.00

Pay to: KSU Entomology Department

Send to: Frannie Miller, KSU Entomology Dept.

600 West Woodside, McPherson, KS 67460

Fax: (620) 241-3407

Credit card payment can be made online at:

<https://commerce.cashnet.com/KSUIPM> If you must cancel, a full refund, minus \$5 administrative fee will be made on all credit card payments.

Commercial Applicator Recertification Training Program (Category 6, 7C & 9A – Right-of-Way, Industrial Weed and Noxious Weed)



**Commercial Applicator Recertification
Training Program**

Category 6, 7C & 9A

Right-of-Way, Industrial Weed and Noxious Weed

Virtual Edition Using Zoom

8:00 a.m. - 5:00 p.m.

Friday, October 29, 2021

K-STATE

Research and Extension

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PROGRAM TOPICS AND SPEAKERS

- 7:30 a.m. **Registration**
- 8:00 a.m. IVM and Zonal Maintenance for ROW and Utilities, Matt Kraushar, Indiana Dept. of Transportation (1 Credit Hour 6, 7C & 9A)
- 8:55 a.m. Herbicide Recommendations for Noxious and Problem Weeds, Jordan Boone, Territory Manager, Corteva (1 Credit Hour, 6,7C & 9A)
- 9:50 a.m. Break
- 10:00 a.m. Weed and Brush Management in IVM Areas, James Jackson, Market Development Specialist, Alligare (1 Credit Hour 6, 7C & 9A)
- 11:00 a.m. Pesticide Use and Professionalism, Jeremy Corrigan,
Vegetation Management Specialist, Arborchem (1 Credit Hour 6, 7C & 9A)
- 12:00p.m. **Lunch**
- 1:00 p.m. Emerging Trends in IVM, Jeremy Corrigan,
Vegetation Management Specialist, Arborchem, (1 Credit Hour 6, 7C & 9A)
- 1:55 p.m. Off Target and Movement of Herbicides in IVM, Sarah Lancaster, KSU Extension Weed Specialist (1 Credit Hour 6, 7C & 9A)
- 2:50 p.m. Break
- 3:00 p.m. Weed Identification and Their Look-A-Likes, Scott Marsh, Noxious and Invasive Weeds Specialist, Plant Protection (1 Credit Hour 6, 7C & 9A)
- 4:00 p.m. Core Hour: Pesticide Law, Environment and Labels, KDA Pesticide & Fertilizer Program (1 Core Hour)

Workshop Registration

Name: _____

Company: _____

Address: _____

City, State: _____ Zip: _____

Phone: _____

Email address: _____

Registration Fee: \$80.00

Pay to: KSU Entomology Department

Send to: Frannie Miller, KSU Entomology Dept.

600 West Woodside, McPherson, KS 67460

Fax #: (620) 241-3407

Credit card payment can be made online at:

<https://commerce.cashnet.com/KSUIPM>

If you must cancel, a full refund, minus \$5
administrative fee will be made on all credit card

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Bug Joke of the Week

Q: What Do You Do With A Sick Wasp?

A: Take It To The Waspital!

Raymond Cloyd – Horticultural Entomology

HOME

Sincerely,

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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

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