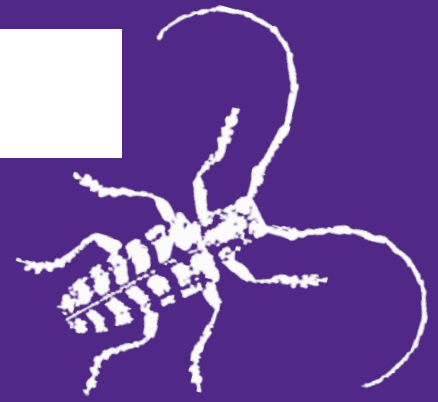


Kansas State University Extension Entomology Newsletter

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>



April 7, 2021 No. 3

Eastern Tent Caterpillar

Honey Bees in Kansas

Bugs To Be On The Look Out For

Alfalfa Weevil

Pea Aphids

Dr. Raymond Cloyd – Dept of Entomology Extension Personnel

Anthony Zukoff – Dept of Entomology Extension Personnel

Dr. Jeff Whitworth – Dept of Entomology Extension Personnel

Bug Joke of the Week

Eastern Tent Caterpillar

The larvae (caterpillars) of the Eastern tent caterpillar, *Malacosoma americanum*, are emerging (eclosing) from their eggs and feeding on the leaves of trees and shrubs (Figure 1). After caterpillars emerge from the eggs, they create a distinct white, silken nest (or tent) in the branch crotches of trees and shrubs



Figure 2. Eastern tent caterpillar nest (Sean Mills)



Figure 1. Eastern tent caterpillar feeding on new leaves (Raymond Cloyd, KSU)

Kansas Insect Newsletter

April 7, 2021 No 3

(Figure 2) including: birch, crabapple, hawthorn, mountain ash, poplar, willow, and flowering cherry, peach, and plum. The nest protects caterpillars from cold temperatures and natural predators.

Caterpillars are black and have a white stripe extending the length of the body along with blue markings on both sides of the body (Figure 3). There are five larval instars (stages between each molt). Eastern tent caterpillar is one of our earliest caterpillar defoliators in the season, feeding on newly emerged leaves, which can reduce the ability of trees and shrubs to produce food by means of photosynthesis. Although feeding damage may not directly kill a tree or shrub, a decrease in photosynthesis can predispose plants to secondary pests such as wood-boring insects. Leaf quality can influence tree and shrub susceptibility. For instance, black cherry, *Prunus serotina*, trees grown in the shade are fed upon less by Eastern tent caterpillars due to lower leaf nutritional quality.



Figure 3. Eastern tent caterpillar (Raymond Cloyd, KSU)

The young or early instar (1st through 3rd) caterpillars are active during the daytime and reside in the silken nest at night. During the day caterpillars emerge from the silken nest and feed on plant leaves. On over-cast or cloudy days caterpillars will remain inside the silken nest. The final instar (5th) caterpillar only feeds at night. The length time of time that caterpillars spend feeding increases 4-fold between the 1st and 5th instars. Feeding activity depends on temperature with caterpillars feeding for a longer period of time when exposed to warmer temperatures than cooler temperatures. Eastern tent caterpillar overwinters as an egg mass attached to the branches or small twigs (Figure 4). There is one generation per year in Kansas.



Figure 4. Eastern tent caterpillar egg mass attached to branch (Raymond Cloyd, KSU)

The silken nests can be physically removed or disrupted by hand. You can destroy, disrupt, or open-up the silken nest using a rake or a high-pressure water spray. The young exposed caterpillars are susceptible to consumption by birds. However, the later instars are fed upon less because the hairs on the body deter birds from feeding on them.

Kansas Insect Newsletter

April 7, 2021 No 3

Spray applications of the bacterium, *Bacillus thuringiensis* subsp. *kurstaki*, or spinosad are effective in killing small (young) caterpillars and suppressing minor infestations of Eastern tent caterpillar. These insecticides are stomach poisons so caterpillars must ingest the material to be negatively affected. When caterpillars are mature and approximately 2 inches long, then pyrethroid-based insecticides, such as bifenthrin, cyfluthrin, and lambda-cyhalothrin should be applied. It is important to apply insecticides when caterpillars are active during the daytime to increase exposure to the insecticide. However, pyrethroid-based insecticides are harmful to pollinators (e.g. honey bees) and beneficial insects. Therefore, do not apply pyrethroid-based insecticides when pollinators are active. For more information on managing Eastern tent caterpillar populations contact your county or state extension specialist.

Raymond Cloyd

HOME

Honey Bees in Kansas

The Kansas Honey Producers Association appreciates Kansas State University extension agents and all the work they do across the state for pollinators including honey bees. We would like to offer support during these challenging times. With the focus on home and health, we are seeing an increased interest in beekeeping across the state. The Northeastern Kansas Beekeepers Association offers beginning classes associated with beekeeping each year. Because of the need to distance ourselves, our classes are held remotely. Although this has some disadvantages, the classes are recorded. The private YouTube links to both classes are provided below. The first class is "Beginning Beekeeping" and provides information on biology, acquiring bees, basic diseases, colony growth, and seasonal management. The second class is "Year 2 and Bee-Yond," which focuses on topics related to individuals with some beekeeping experience. Topics include why hives die, making splits and requeening a hive, management of varroa mite, and extracting honey. The classes are available to members of the Northeastern Kansas Beekeepers Association for \$5.00 but these classes are being offered free to extension agents. We ask that you respect our work and if others would like to view the programs, please direct them to our web site: www.nekba.org. Questions and requests for assistance may be sent to Becky Tipton, President of the Kansas Honey Producers Association at bstbees@embarqmail.com or 785-484-3710.

Beginning Beekeeping: <https://www.youtube.com/playlist?list=PL-ODXdd1V14knXZL7IcjeBhVIGu3bcdju>

Kansas Insect Newsletter

April 7, 2021 No 3

Year 2 and Bee-Yond: <https://www.youtube.com/playlist?list=PL-ODXdd1Vl4koDQmqCVLszBrs6zJtOR94>

Raymond Cloyd

HOME

Bugs To Be On The Look Out For

European pine sawfly, *Neodiprion sertifer*
Spruce spider mite, *Oligonychus ununguis*
Lilac/ash borer, *Podosesia syringae*

Raymond Cloyd

HOME

Alfalfa Weevils

Alfalfa weevil larvae continue to feed and thus increase in size (fig. 1). However, after monitoring several fields throughout north central Kansas over the last 10 days, there was not yet any field that had a 50% infestation level. (Infestation level determined by the stem count bucket method where individual stems are removed and quickly shaken into a 1 gallon white bucket to dislodge any weevil larvae that may be present. Then, count the number of larvae in the bucket and divide into the number of stems shaken into the bucket to get the percent infested stems). Alfalfa weevil monitoring should continue, however, as we are still relatively early and more larvae will probably be hatching.



Figure 1 Alfalfa weevil larvae and leaf damage (Cody Wyckoff)

Jeff Whitworth

[HOME](#)

Pea Aphids

None of the fields sampled over the past 10 days had been treated with an insecticide. Thus, pea aphids are really prevalent and increasing in population density. However, much like alfalfa weevils, none of the fields monitored had infestation levels anywhere close to a treatment threshold. These pea aphid populations are often utilized by beneficials (fig.2 of pea aphids and parasitized pea aphids, called "mummies") early in the season to increase their populations, which often help against other pests in other crops. ie. greenbugs, corn leaf aphids, soybean aphids, etc. Again, monitoring pea aphids should also continue until swathing.

Kansas Insect Newsletter

April 7, 2021 No 3

Alfalfa weevils and pea aphids are considered cool season pests and primarily affect alfalfa up to the 1st cutting. Most alfalfa weevil larvae detected (fig. 1) were late 1st/early 2nd instars and, thus will probably finish feeding in about 2 weeks at the temperatures predicted for that period of time (60-70's for daytime temp's). Thus, sampling for both alfalfa weevil larvae and pea aphids should continue until at least the 1st cutting.



Figure 2 Pea aphids and parasitized pea aphids (Cody Wyckoff)

Jeff Whitworth

[HOME](#)

Kansas Insect Newsletter

April 7, 2021 No 3

Dr. Raymond Cloyd – Dept of Entomology Extension Personnel

Dr. Raymond A. Cloyd has extension responsibilities in horticultural entomology and other entomological-related areas listed below:

- * Greenhouses
- * Nurseries
- * Turfgrass
- * Landscapes
- * Interiorscapes/conservatories
- * Christmas trees
- * Vegetables
- * Fruits
- * Pollinators
- * Hemp
- * Urban and structural
- * Public health



Dr. Raymond Cloyd

[HOME](#)



Anthony Zukoff, Dept. of Entomology Extension Personnel – Southwest Research & Extension Center

Anthony is an Extension Associate providing extension entomology outreach and programming focused on all things insect-related with an emphasis on current and emerging pest issues facing crop production in western Kansas. He can be reached at the Southwest Research and Extension Center in Garden City. Follow him on Twitter (@westksbugs) for regional entomology happenings and updates.

Anthony Zukoff

[HOME](#)

Kansas Insect Newsletter

April 7, 2021 No 3

Dr. Jeff Whitworth – Dept. of Entomology Extension Personnel

Dr. Jeff Whitworth, Professor in Entomology, Field Crops providing responsibilities as a consultant (by telephone, email, zoom or in person) with County Extension Agents/consultants/agricultural chemical company representatives/producers etc. to provide education and as up-to-date information as possible on all things entomological, relative to field crops and household/structural pests for about the eastern half of the state. Visit sites of pest outbreaks when requested and conduct insecticide efficacy trials as needed. Help with arthropod identifications for our Insect Diagnostic needs.



Jeff Whitworth

[HOME](#)

Bug Joke of the Week

Q: When do spiders go on their honeymoon?

A: After their webbing day!

Raymond Cloyd

[HOME](#)

Kansas Insect Newsletter

April 7, 2021 No 3

Sincerely,

Jeff Whitworth
Extension Specialist
Field Crops
phone: 785/532-5656
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

Anthony Zukoff
Extension Associate – Entomology
Southwest Research and Extension Center
Garden City, KS
Phone: 620-275-9164
e-mail: azukoff@k-state.edu
@westksbugs



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, , Ernie Minton, Director.