

Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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June 28, 2019 #12

Special Note: Insect Diagnostician
Mosquitoes: How to Avoid Being “Bitten” by This “Sucking” Insect
Soybean Update – Bean Leaf Beetles and Webworms
Bug Joke of the Week

Special Note: Insect Diagnostician

The Department of Entomology at Kansas State University (Manhattan, KS), currently, does not have an insect diagnostician. Therefore, all physical samples, phone calls, and emails (containing images) regarding arthropods (insects and mites) should initially be handled by the county extension offices. If the agriculture or horticulture agent is unable to identify a specific arthropod, then the agent will contact an extension entomologist at Kansas State University. This process will help expedite identifying samples and addressing inquires.

We sincerely appreciate your cooperation regarding this matter.

Extension Entomology Team

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Mosquitoes: How to Avoid Being “Bitten” by This “Sucking” Insect

The current wet weather and standing water has provided “perfect” conditions for mosquitoes (Figures 1 and 2). The three primary strategies that must be implemented to avoid mosquito problems and bites are: 1) source reduction, 2) personnel protection, and 3) insecticides.



Fig 1. Mosquito Sucking Blood (Author--Inverse)



Fig 2. Mosquito Magnet Sign (Auth--Raymond Cloyd, KSU)

1) Source Reduction

It is important to routinely eliminate or reduce all mosquito breeding sites, which will effectively decrease mosquito populations, by removing stagnant or standing water from items or areas that may collect water. These include the following:

- * Wheelbarrows
- * Pet food or water dishes
- * Saucers/dishes underneath flower pots
- * Empty buckets
- * Tires
- * Toys
- * Wading pools
- * Birdbaths
- * Ditches
- * Equipment
- * In addition, check gutters regularly to ensure they are draining properly and are not collecting water

2) Personnel Protection

Protect yourself from mosquito bites by delaying or avoiding being outdoors during dawn or dusk when most mosquitoes are active. Use repellents that contain the following active ingredients: DEET (Figures 3 and 4) or picaridin (Figure 5). Generally, DEET provides up to 10 hours of protection whereas picaridin provides up to 8 hours of protection. A product with a higher percentage of active ingredient will result in longer residual activity or repellency. For children, do not use any more than 30% active ingredient. Furthermore, do not use any repellents on infants less than two months old. Clothing can be sprayed with

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DEET or permethrin (pyrethroid insecticide). However, be sure to wash clothing separately afterward. Before applying any repellent, always read the label carefully.



Fig 3. DEET Repellents (Auth--Raymond Cloyd, KSU)



Fig 4. DEET Repellent (Auth--Raymond Cloyd, KSU)

Fig 5. Repellent With Picaridin (Auth--Raymond Cloyd, KSU)



3) Insecticides

For stationary ponds, there are several products that may be used, such as; Mosquito Dunks and/or Mosquito Bits (Figure 6). Both contain the active ingredient, *Bacillus thuringiensis* subsp. *israelensis*, which is a bacterium ingested by mosquito larvae that results in death. The bacterium only kills mosquito larvae with no direct effects to fish or other vertebrates. Avoid making area-wide applications of contact insecticides because these are generally not effective, and may potentially kill many more beneficial insects and pollinators (e.g. bees) than mosquitoes.

Fig 6. Mosquito Dunks and Mosquito Bits (Auth--Raymond Cloyd, KSU)



What Does Not Work Against Mosquitoes

The following items will not control mosquitoes:

- * Mosquito repellent plants (citronella plants)
- * Bug zappers
- * Electronic emitters
- * Light traps/carbon dioxide traps.

If anyone has questions or comments regarding mosquito control please contact your county extension office or Department of Entomology at Kansas State University (Manhattan, KS).

Raymond Cloyd

Soybean Update – Bean Leaf Beetles and Webworms

Adult bean leaf beetles (BLB) are still causing some concern for soybean producers throughout north central Kansas. These adults have been chewing round or oval holes in the leaves of seedling plants. However, it seems much of their leaf feeding has slowed and the females are now mostly on the ground around the base of plants depositing eggs. These eggs will hatch in a few days and the larvae will start feeding on soybean roots/root hairs. These larvae resemble corn rootworm larvae but BLB larvae do not feed on corn roots just as corn rootworm larvae do not feed on soybean roots. One other major difference is that the corn rootworms eggs were deposited in fields planted to corn last year whereas the overwintering adult female BLB deposited these eggs after finding seedling soybean plants this season.



Garden webworms have been causing concern because of visible defoliation over the last couple of weeks. However, most of these webworms, plus thistle caterpillars, have ceased leaf feeding and are in the process of pupating. The adults will be emerging over the next couple of weeks and the females will be depositing eggs to initiate the next generation. Thus, this first infestation of larvae of both species was just a “springboard” generation for the next one or two generations to come.

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Garden webworm



Thistle Caterpillar



Thistle Caterpillar

For more information relative to soybean insect management, please refer to the KSU Soybean Insect Management Guide: <https://www.bookstore.ksre.ksu.edu/pubs/MF743.pdf>

Jeff Whitworth

Holly Davis

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Bug Joke of the Week

Q: What is the result of crossing a rabbit with an insect?

A: Bugs Bunny (What's Up Doc?)

Raymond Cloyd

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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