Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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Remember Pollinators Matter Potato Leafhoppers Dectes Stem Borers Japanese Beetle How to Avoid Being "Bitten" By Mosquitoes Bug Joke of the Week

Remember Pollinators Matter

It is important to remember that pollinators matter to each of us as they are vital to ecosystem health and having a sustainable food supply. This week is pollinator week (June 21-27, 2001), which was created to support pollinator health. It is a time to celebrate pollinators and spread the word about items each of us can do protect these species. Honeybees, native bees, birds, bats, butterflies, and other animals are required to pollinate more than 80 % of the world's plants.

As we celebrate pollinator week here are several items you may consider doing to help protect the pollinators.

- 1. **Plant for Pollinators** Pollinators prefer a diverse mix of flowering plants. Consider using native plants in your landscape. Plant in clusters to create a "target" for pollinators to find. Pollinators will also assist in the healthy production of fruits and vegetables, so you both benefit.
- 2. **Protect Nesting Sites** Consider allowing dead branches and logs to remain as nesting sites. Reduce the mulch to allow patches of bare ground for ground-nesting bees to use. Consider installing wood nesting blocks for wood nesting natives.
- 3. **Reduce or Eliminate the Impact of Pesticides** Pollinator's can be sensitive to certain types of insecticides. If you need to use a pesticide, then read and follow all label directions. Choose a product that is the most pollinator friendly and consult the label to see if it should not be used on prebloom or blooming plants.
- 4. **Support Local Bees and Beekeepers** Purchasing local honey helps to support a beekeeper in your area. Visit your local beekeeper, ask questions, and learn.

5. **Reach Out to Others** – Be informed and spread the word to others about the importance of pollinators. Share on social media about what you are doing to help and encourage others to do the same.

This year our program promoted pollinators through an Insect Art Contest with the theme of "Exploring Pollinators." Hopefully these images remind you that pollinators do matter. Take time to think about what little things you could do to help diversify your landscape!

WINNER: Kendall Cox



WINNER: Morena DeKeihzer



CATEGORY: 3RD - 5TH

K-STATE Research and Extension

WINNER: Kylie Rankin



CATEGORY: 6TH - 8TH

K-STATE Research and Extension

WINNER: Kyla Lankton



CATEGORY: 9TH - 12TH

K-STATE Research and Extension

Frannie Miller – Pesticide Safety and IPM Coordinator

Potato Leafhoppers

Potato leafhoppers (PLH) started their annual migration back into Kansas about 7-10 days ago, at least in numbers that could be noticed. Potato leafhoppers are small lime green, wedge-shaped plant sucking insects (see pic 1-nymph) that have a characteristic white spot between their eyes on both adults (see pic 2) and nymphs. Adults have wings and readily fly when disturbed. Nymphs do not have wings but will quickly move to the underside of leaves or jump into the leaf litter below the canopy when disturbed. Females deposit eggs in stems and the tiny nymphs emerge ready to feed. Both nymphs and adults suck plant juices and in so doing inject a toxin into the plant. Signs of potato leafhopper feeding on alfalfa leaves then is often called "hopper burn". This starts out as a yellowing at the leaf tip (see pic 3) but if feeding continues, it may cause the whole leaf/stem/plant to turn yellow and wilt which may significantly reduce nutrient quantity and quality. PLH is usually affect the 2nd-4th cuttings. Swathing is probably the best way to control PLH populations but if populations exceed the treatment threshold and the alfalfa won't be ready to swath for 3 weeks or so, then an insecticide application may be justified.



Picture 1: PLH nymph

Picture 2: PLH Adult

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Picture 3: "Hopper burn" on alfalfa leaves

Jeff Whitworth - Field Crops

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Dectes Stem Borers

The 1st adult Dectes stem borers (see pic 4) were observed in soybean fields on 21 June. These adults are usually 1st observed a week or two prior to the 4th of July and so this year is no exception. As the adults emerge, they usually aggregate on weeds around soybean field borders for a few days then disburse throughout the soybean fields where they deposit their eggs in petioles and stems over the next 6-8 weeks.

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Picture 4: Adult Dectes stem borer Pictures by Cody Wyckoff

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Japanese Beetle

The first adult Japanese Beetle was observed on 22 June 2021 from a field east of Hiawatha, Kansas (picture 5).

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Japanese beetle (picture by David Hallauer)

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How to Avoid Being "Bitten" by Mosquitoes

Female mosquitoes (Figure 1) are out-and-about biting people outdoors to obtain a blood meal for reproduction (egg laying). The three primary strategies that should be implemented to avoid mosquito bites are: 1) source reduction, 2) personal protection, and 3) insecticides.



1) Source Reduction

Eliminate all mosquito-breeding sites to reduce mosquito populations by removing stagnant or standing water from items or areas that may collect water, such as the following:

- * Wheelbarrows
- * Pet food or water dishes
- * Saucers/dishes underneath flowerpots
- * 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

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2) Personal Protection

Protect yourself from mosquito bites by avoiding being outdoors during dawn or dusk when most mosquitoes are active. Repellents containing the following active ingredients: DEET (Figures 2 and 3) or picaridin (Figure 4) can be used. DEET, in general, provides up to 10 hours of protection whereas picaridin provides up to 8 hours of protection. A product with a higher percent of active ingredient will result in longer residual activity or repellency. For children, do not use any more than 30% active ingredient. In addition, do not use repellents on infants less than two months old. Clothing can be sprayed with DEET or permethrin, which is a pyrethroid-based insecticide. However, be sure to wash clothing separately afterward. Before applying any repellent, always read the product label carefully.







3) Insecticides

There are several products that may applied to stationary ponds, such as Mosquito Dunks and/or Mosquito Bits (Figure 5). Both contain the active ingredient, *Bacillus thuringiensis* subsp. *israelensis*, a bacterium that is ingested by mosquito larvae resulting in death. The bacterium only kills mosquito larvae with no direct effects to fish or other vertebrates. It is important to 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.



What Does Not Work Against Mosquitoes

The following items are not effective in managing mosquito populations:

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

If anyone has questions or comments regarding mosquito management, please contact your county extension office or Department of Entomology at Kansas State University (Manhattan, KS). For additional information on mosquitoes, I recommend the following publication:

Ortler, Brett. 2014. The Mosquito Book: An Entertaining, Fact-filled Look at the Dreaded Pesky Bloodsuckers. Adventure Publications, Inc., Cambridge, MN.

Raymond Cloyd – Horticultural Entomology

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Bug Joke of the Week

Q: Did you hear about the two bed bugs who met in the mattress?

A: They got married in the spring.

Raymond Cloyd – Horticultural Entomology

Sincerely,

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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