Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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News Corner

NEWS CORNER

Fall Armyworm Activity in Kansas

Fall armyworm, *Spodoptera frugiperda*, (Figure 1) is known to feed on over 80 host plants. In Kansas, it can damage several important crops as well as pasture, turf, and home landscaping. This insect does not overwinter in Kansas. Rather, it is native to the tropical regions of the western hemisphere and is active year-round along the gulf coast and southern Florida, migrating in from these locations each year. Two full generations are possible in Kansas with defoliation and grain damage being the biggest concerns.

Figure 1. Full grown Fall Armyworm caterpillar. Photo from Department of Entomology, Kansas State University.

Start scouting now

Fall armyworm trap counts from pheromone traps steadily increased through August, particularly in central and eastern Kansas. Recently, reports of egg masses in residential and agricultural settings have been reported. At-risk crops should be scouted regularly for the remainder of the growing season. Caterpillars increase in size at an exponential rate and a majority of feeding occurs during the later stage of development. It is critical to scout thoroughly and treat, if needed, before the caterpillars are over ½ inch long. Larger caterpillars are harder to control and do the most damage. Recommended thresholds and products labeled for control of fall armyworm caterpillars (Table 1) can be found below.

Figure 2. Fall armyworm egg mass. Eggs are covered with shed scales from the adult moth after laying.

Fall armyworm thresholds for fall planted crops

- **Alfalfa**: 1-2 caterpillars per square foot can destroy seedling alfalfa. 10-15 per square foot can destroy 12" tall plants.
- **Wheat**: Larval "window-paning" (Figure 2) in early planted wheat can be a concern. If 25-30% of plants show damage, examine field frequently. Treat at 2-3 active larvae/ft.

Figure 3. Window-paning from young caterpillar feeding.
Photo from Department of Entomology, Kansas State University.

For more information on products registered for control of fall armyworm in Kansas, please consult the following insect pest management guides:

- **Wheat -** https://bookstore.ksre.ksu.edu/pubs/wheat-insect-pest-management-2024_MF745.pdf
- **Alfalfa -** https://bookstore.ksre.ksu.edu/pubs/alfalfa-insect-pest-management-2024_MF809.PDF

Anthony Zukoff—Southwest Research and Extension Center – Garden City, KS

HOME

Delayed planting and volunteer wheat control

Most wheat insect and mite pests may be effectively managed in the fall by planting as late as agronomically feasible in your area, and by destroying all volunteer wheat at least 2 weeks prior to planting.

Wheat pests most affected:

1. **Aphids.** There are 20+ species of aphids that may utilize wheat as a host, whether volunteer or domestic-they don't differentiate. Aphid feeding by itself may cause some plant stress in the fall, especially under dry conditions. But,the more serious problem, any of these aphids may vector some of the viruses that cause Barley Yellow Dwarf, which can be much more problematic to those plants that become infected with the virus. If there is no wheat, there will be nothing for the aphids to feed on and thus, no virus reservoir for the aphid to become infected from.
2. **Armyworms.** The larvae can feed on wheat until temperatures dip down into the mid 20-degree F range for a couple hours. If there is no volunteer or planted wheat in the area when the moths are ovipositing, they will fly elsewhere to lay their eggs.
3. **Hessian fly.** These tiny flies can emerge any time after a moisture event, and deposit eggs. But adults live only 3-5 days, and if they emerge and there is no wheat available for oviposition they will fly elsewhere.
4. **Wheat curl mites.** These tiny mites cannot fly, run, jump or even crawl very far. They can cause stress to wheat just by their feeding. But more problematic-they can vector viruses that cause the disease Wheat Streak Mosaic. Volunteer wheat can, and often is, the reservoir for the mites and the virus. Thus, destroying all volunteer wheat, and planting as late as possible will help break this "green bridge" and really help to mitigate wheat curl mite/wheat streak mosaic problems.

Most of these wheat pests (and diseases) are really small, thus it just doesn't take much volunteer wheat to supply large numbers of these pests with their survival food, plus being the reservoir for plant pathogens, vectored by some of these pests.

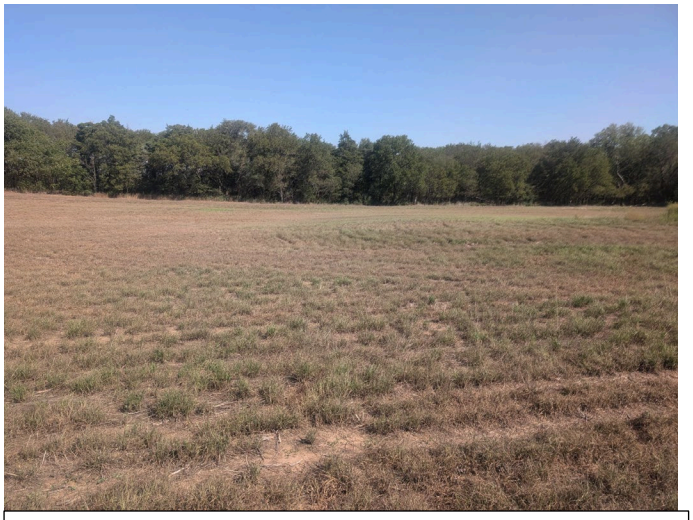

Figure 1. Damaged brome field.

2021		Total worms/ft^2/4 Reps	
Treatment	Rate	19 Sept (7 dat)	26 Sept (14 dat)
Fastac CS	2.4 fl. oz/a	0	1
Besiege XL	8.0 fl. oz/a	0	2
Stallion	6.0 fl. oz/a	0	2
Grizzly Z	2.5 fl. oz/a	0	0
Lorsban 4E	1.5 pint/a	3	3
Check (control)	-	25	26
Check (control)	-	18	20

Figure 2. Efficacy trial - Armyworms in brome (DAT=Days after treatment).

Jeff Whitworth – Field Crop Entomology

HOME

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Need an insect identified? Visit the Insect Diagnostics Program Website

Visit entomology.ksu.edu/extension to explore our extension resources.

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