

<http://www.oznet.ksu.edu/entomology/extension/extension.htm>

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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Wheat:

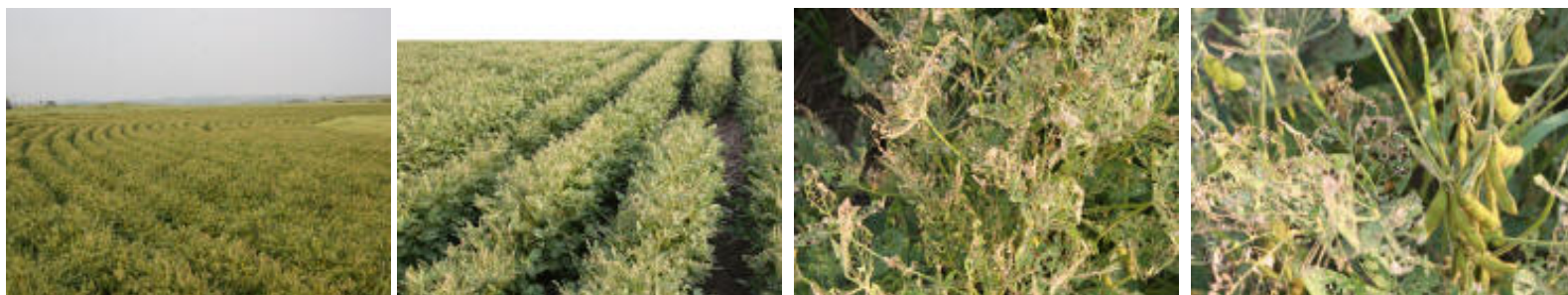
Hessian fly larvae have and are emerging throughout the state where recent rains have occurred. The only food source for these flies at this time is volunteer wheat. Thus, it is an ideal time to eliminate the volunteer which the flies are using to bridge their food gap until planted wheat starts germinating. By eliminating this generation of Hessian fly, hopefully, there will be fewer to infest your fall wheat.

Jeff Whitworth

Soybeans -- Defoliation Continues to be a Concern in Many Areas:

Defoliation to soybeans continues to be an issue with reports of very heavy leaf loss occurring in some fields, particularly in scattered areas of the east/northeast, central, northwest, and southwest. Occasional fields have experienced 75% or greater levels of defoliation with heaviest leaf loss generally concentrated in the upper part of the plant. Most of the defoliation is being caused by green cloverworm larvae. Treatment has occurred in some areas and we have no reports of insecticides failing to work against this insect. In others, growers and consultants have concluded that the benefits they might gain through spraying are not likely to offset their control costs, so many have decided that they cannot justify investing in an insecticide treatment.

In some cases, severe leaf-feeding injury and hot dry winds have combined to completely defoliate plants in just a few days, and any spraying may now be more for revenge than actually provide yield protection. However, it is also important to note that in some fields, defoliation is light and only a few larvae can be found.



Heavy green cloverworm defoliation

We recommend that growers with fields where the beans have not completed development continue to check their soybeans. Many fields are showing signs of normal leaf senescence associated with maturity and the risk of defoliation-induced yield loss should be

declining. Double-cropped and late-developing or slow-to-develop soybeans are at the greatest risk from this late-season defoliation. It is important to realize that insect damage develops over time and does not appear instantaneously unlike leaf loss caused by a hail storm or that imposed in a hail simulation study. If almost all beans have reached full size and pods are turning brown, it is much less likely that a treatment will return benefits unless direct pod feeding is noted.

Natural controls (predators, parasitoids, and signs of insect disease) are present in some locations. Scattered reports note fungal infections killing some larvae and some field infestations have been reduced as much as 60% during the last week.

Many green cloverworm infestations still appear to be very healthy with scouts reporting numerous larvae of all sizes. The fact that lots of tiny larvae are still being reported means that more defoliation will occur if those larvae continue to grow. We have received reports of 15, 20, 25, and more larvae per foot of row in some locations. Some fields are taking on a whitish or frosted appearance as dense populations of GCW larvae strip the tissue between major leaf veins and smaller larvae feed on one surface of the leaf, leaving a translucent window-like remnant that is no longer capable of functioning normally. As mentioned, treatment need should be decided based on the population and the maturity of the soybeans. The more fill yet to occur, the greater the need to consider spraying if reasonable yields are anticipated.

There has been some concern as to whether the green cloverworms will feed on pods. In normal years green cloverworms do not feed on pods, but since we have little if any real experience with populations this high the situation merits close observation over the next few days. This is especially relevant in fields that are too near maturity to benefit from treatment to protect the leaves, but where plants become completely defoliated before the larvae are mature. However, possibly a bigger threat is that some fields contain mixed populations of green cloverworms, plus other larvae that will feed on pods, like corn earworms and yellow striped armyworms. We know that earworms can feed on pods and therefore could be a direct threat to yield but do not mistake past damage for current injury. You need to find the worm and identify it to determine the level of concern. Spraying after the optimal window has passed or the worms have pupated will not return a benefit that offsets the cost of control. If earworms are present, keep in mind that they are less susceptible to many insecticides than green cloverworm larvae and thus may be more difficult to control.

For more information on managing these pests see <http://www.oznet.ksu.edu/library/ENTML2/Mf743.pdf>

Also see last week's newsletter at

http://www.oznet.ksu.edu/entomology/extension/KIN/KIN_2005/kin-19/05ksnew19.htm

Randy Higgins, Phil Sloderbeck and Jeff Whitworth

Worms Also Being Reported in Alfalfa:

A few callers have noted heavy green cloverworm populations also showing up in some alfalfa fields in the central and western part of the state. Cutting, rather than spraying, is being attempted in some of those fields. That is a reasonable pest management strategy if the alfalfa is in bloom. Time will tell if follow-up sprays will be required. We suspect that they will not be required in several locations where cutting is occurring. However, watch regrowth carefully.

Our alfalfa guide (<http://www.oznet.ksu.edu/library/ENTML2/MF809.pdf>) does not list green cloverworm larvae specifically, but all of the products listed under alfalfa caterpillars also list the green cloverworm along with malathion, methyl parathion, permethrin, Bacillus thuringiensis and indoxacarb (Steward). Always consider pre-harvest waiting intervals when selecting among alternative insecticide treatments if spraying of alfalfa, rather than cutting, is being considered.

Phil Sloderbeck and Randy Higgins

Sorghum Worms:

Corn earworms are reportedly causing some damage to sorghum heads throughout central Kansas. Sorghum head worm infestations are sometimes not noticed until "worms" are mature and most damage is done. So if you have sorghum, please be aware of the

potential that these infestations pose and check fields for worms as seed begins to form in heads through hard dough stage. We are finding many fields with 2nd instar corn earworms in both sorghum and soybeans this past week. See <http://www.oznet.ksu.edu/library/ENTML2/Mf742.pdf> for more information.

Phil Sloderbeck, Randy Higgins and Jeff Whitworth

Weekly Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from August 26 through September 8, 2005:

- 8-26-2005, Allen County: Drugstore Beetles in home.
- 8-26-2005, Trego County: Winged Ants.
- 8-26-2005, Franklin County: Pine Needle Scale in trees.
- 8-30-2005, Nemaha County: Lone Star Ticks off horse, dog.
- 8-30-2005, Osage County: Scarab Beetle larvae in soybean field.
- 8-30-2005, Sedgwick County: Midge larvae in wheat stem.
- 8-31-2005, Ottawa County: Blowfly Larvae in home.
- 8-31-2005, Rice County: Pine Needle Scale in trees.
- 9-1-2005, Nemaha County: Spider Mites, Leaf Miner damage, Lace Bug, Gall Wasp Galls on oak.
- 9-7-2005, Miami County: Lone Star tick nymph off person.
- 9-7-2005, McPherson County: Sac Spider in home.
- 9-7-2005, Graham County: Digger Bees from pasture.
- 9-7-2005, Harvey County: Fruit Fly, Dark Winged Fungus Gnat from kitchen.
- 9-8-2005, Riley County: Yellownecked Caterpillars on red oak.

If there are any questions regarding these samples or about the identification of any arthropod please contact the Insect Diagnostician at 785-532-4739 or at bbrown@oznet.ksu.edu.

Bobby Brown

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Sincerely,

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