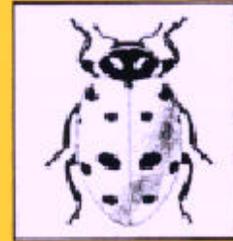


Kansas Insect Newsletter

For Agribusinesses, Consultants,
Applicators and Extension Personnel



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GREENBUGS MAY STILL BE A THREAT TO WHEAT!:

Here is a summary the situation as we are aware of it. For a about a month last fall, mostly during November, greenbugs started to multiply in much of our wheat, and for a time it appeared that wide-spread damage might develop. Finally, cooler temperatures arrived, signaling the beginning of a



Sheridan Co. 3/1/00

slow decline in populations in all except the southwest portion of the state.

As you know, greenbugs rarely overwinter successfully in Kansas. However, so far, this winter, temperatures have been exceptionally mild, and in most places dry and greenbugs are still around. Last week, in central and northwest Kansas, we found low numbers (10-20 greenbugs per row ft). We found them as far north as Sheridan County, and though we haven't checked, we suspect some are present in the northern tier of counties as well.



Yellow leaf may be a sign of greenbug

Are they threatening anywhere at this time?

Concern is mostly in the southwest corner (areas to the south and west of Garden City) where greenbugs have been gradually increasing since about mid-February. A consultant in Stanton County says they are spraying some where populations are running 200-300 per foot of row. Gary Gold in Stevens County says greenbugs are definitely a concern especially in dryland fields that have a limited amount planted growth. He too is talking of 200 to 300 per foot in some fields. Some treatment is being applied. Some growers have been applying insecticide with liquid fertilizer as a means of reducing application cost. The problem extends southward to Amarillo. Infestations of up to 1000/ft were reported recently in several of the panhandle counties. Carl Patrick says infestations have



A greenbug colony. The tan colored ones have been parasitized.

gradually built up since January. He said this week that parasitism is becoming widespread round Amarillo. In north central Texas, greenbugs have been scarce, but are now building rapidly.

They may be less of a threat in South central Kansas!

In November our highest numbers seemed to be in south central Kansas. Last week, we failed to find greenbugs in a field in Sedgwick County where they had averaged maybe 50-75 per foot in November. This is where they have had a lot of moisture. Greenbugs usually survive better where it is dry. Bradley Goering, Extension Agent in Sedgwick Co. also thinks numbers have probably declined. I talked to Tom Royer, Okla. State, he thinks numbers in north central Oklahoma are lower than they were. In surveying northward from Wichita, we encountered some in Marion County, and they are also present in wheat here at Manhattan.

Outlook: If the weather remains relatively dry, and mostly mild, look for greenbugs to noticeably increase in areas west of Manhattan (except possibly for the Wichita area) at least for a while and especially where it remains dry, but the good news, is that we have pretty good beneficial

populations that have also survived the winter in good shape. The lady beetles are hungry. In some fields, I noticed two or three per foot of row last week. They are searching for aphids, we are already seeing adult parasitic wasps. They will soon be active. These little creatures are worth lots of money to us. This year in many areas of the state, they may save our wheat from disaster. However, it is worrisome that we have a heavy greenbug infestation located just down in the panhandle areas of Texas and Oklahoma. This has the potential to cause us some grief.

Determining the Need for Greenbug Control

Treatment is usually recommended if one of the following conditions is met or exceeded:

A. Seedlings, thin stands with less than 3 tillers - as greenbugs begin to exceed about 50/ft, and more than half of the plants with one yellow (greenbug damaged) leaf.

B. 3- to 6-inch wheat, with 3 tillers or more - 100-300 per foot of row, or 300-500 per foot on larger well tillered wheat. Or where you begin to see small colonies of greenbugs on most tillers and/or where some leaf yellowing is common on most plants, but usually before yellowish areas discernable at a distance appear in the field.

C. 6- to 10-inch wheat 300-500 per foot of row - Treatment during the early part of the fall is generally advisable as soon as the threshold is reached if continued mild weather is forecast.

Greenbugs usually decline naturally during December and January. Treatment during this period is not often necessary, but may be needed if infestations are threatening and the weather is unusually mild.

Insecticides to Use

Methyl Parathion

Restricted Use

Apply 1/2 lb. to 3/4 lb. a.i./a. Do not use within 15 days of harvest at rates over 1/4 lb. a.i./acre. If parathion (ethyl parathion) is substituted, see label restrictions. Note, this product is more toxic

than some, but less than regular parathion, often effective and relatively cheap if applied safely in open areas away from populated areas.

Chlorpyrifos (Lorsban 4E-SG) Restricted Use

Apply 1/4 to 1/2 lb. a.i./a by ground or air in a minimum of 2 gal. of spray per acre, nor make more than two applications per crop. Do not apply closer than 28 days before harvest. Do not graze nor feed treated forage to livestock within 14 days of application.

Disulfoton (Di-Syston 8) Restricted Use (may not give control in western Kansas) 1/3 a.i./a. Do not graze treated forage. A second application may be made within 30 days. Do not apply within 30 days of grain harvest.

Dimethoate

(may not give control in western Kansas)

Apply 1/3 lb. a.i./a. Do not apply within 14 days of grazing or 60 days of grain harvest - this use permitted on some 2.67 labels. Some Dimethoate 400 labels specify a 35 day harvest interval.

Malathion

Apply 1 to 1.25 lb. actual per acre. 7-day waiting inter-val for grazing or harvest. REI 12 hours.

Greenbug Resistance A resistant strain much harder to kill surface from time to time. Control attempts have been hampered where this strain is predominant. Most of the reports of control problems have been in the summer on sorghum, and, so far, control on wheat has not generally been as difficult to achieve. Reports out of Oklahoma and Texas indicate generally good results this winter with standard insecticide treatments.

ARMY CUTWORM:

Army cutworms don't appear to be as much of a problem as they were last year. Salsbury mentioned finding some on wheat around Greensburg about a month ago and about two weeks ago, Ron Graber had a report of some in wheat in Harvey County. There is also some concern on Canola. Mustards are a favorite food of



Sudden appearance of brownish or thin spots could be a sign of army cutworm.

army cutworms so this can be a bit of a problem for Canola growers. Recently **Capture** received a label permitting use on Canola. The rate ranges from 2.1 to 2.6 fl. oz of product per acre. You won't find army cutworm on this label, but you will find "Lepidopterous pests" and "armyworms." To us, the army cutworm is a Lepidopterous pest; and a species of armyworms.

BROWN WHEAT MITES:

If you are checking wheat in the western third of the state, you might see some brown wheat mites, especially in drier areas. These small brownish mites remain on the foliage during the day, unlike winter grain mites that tends to hide on the ground. Brown wheat mites probably shouldn't be too much of a concern until numbers start to exceed maybe 10 per leaf.



The brown wheat mite is dark brown in color with front legs that are nearly twice as long as the others.

CATTLE AND HORSE OWNERS IN THE ENTIRE EASTERN HALF OF KANSAS SHOULD BE ALERT FOR GULF COAST TICKS IN EARS OF LIVESTOCK:

Gulf Coast ticks have caused increasing concern to livestock owners in eastern Kansas for the past few years. This species from our Gulf Coastal states entered southeastern Kansas in the early 1970s. No further news of it reached K-State until 1995 in which it was apparent as far west as Cowley County and as far north as Osage County. Since then it has been a problem each year and has caused injury to livestock at least as far north as Jackson County. Specimens were easy to find in grass in Shawnee and Riley counties in 1999 and a reliable but unverified report suggests they may have become established as far northwest as McPherson County. This past winter has been mild, which leads us to expect plenty of ticks again in 2000.

Only the adults of this species attack livestock. They mostly infest the ears of hooved animals and seem to prefer cattle, horses, and mules to deer or sheep. Factors in their saliva cause dramatic localized tissue response in the host's ear. The ear becomes thickened and often becomes permanently bent downward from the middle of the ear — a condition known as “gotch ear.” In very young calves, up to one-third of the ear may become necrotic and fall off, giving the appearance of damage from frostbite. Older animals may also get “gotch ear” but seldom if ever lose their ear tips.

Infestations of Gulf Coast ticks have been shown to reduce average daily gain of stocker steers by 20%. No performance research has been conducted on nursing calves. Ear damage from ticks causes great economic loss to seedstock producers and in show animals.

Stockgrowers usually see ear damage before noticing the ticks. By then, it is too late to prevent damage except in the animals which have not yet shown ear damage. As cattle producers check on calves that are only a few hours or days old, they should look for these ear ticks.

If insecticidal ear tags are to be applied to the calves, one in each ear is required to protect the ears from ticks. Research in Texas and Oklahoma has shown that pyrethroid tags such as Saber Extra, Python, and Cutter Gold provide excellent protection. Observationally, we have seen excellent results from two 40% diazinon tags such as Patriot or Cutter 1. The ethion tag (Commando) or the combination 30% diazinon + 10% chlorpyrifos tag (Warrior) would probably perform well also.

Another strategy that has worked well for cattlemen who do not wish to apply ear tags until mid- or late April is to use any one of the 15 or more 1% permethrin pour-on products such as DeLice or Durasect. They carry a bottle of the permethrin material and a one-inch paint brush in their pasture truck and paint the insides of each newborn calf's ears with the insecticide. This provides two or three weeks of protection. Also, for whole-herd treatment one can spray necks and ears with Co-Ral, Taktic, or Permethrin. [Do not use Taktic on horses.] Protect equine ears with ointments, wipe-on, or wax-stick formulations containing cypermethrin, permethrin, or lindane.

This tick species does not seem to be most abundant in the traditionally “ticky,” brushy pastures. Rather, it seems to be most numerous in clean stands of native grass, brome, or fescue. Spring burning, at normal time each year, should reduce the number of these ticks in the long run, but, remember, they're causing injury for several weeks before native pastures should be burned.

--D.E. Mock

Sincerely,

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