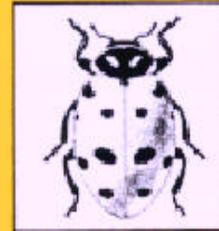


Kansas Insect Newsletter

For Agribusinesses, Consultants,
Applicators and Extension Personnel



K-State Research and Extension
Manhattan, KS 66506-4027

Extension Entomology
Tel. 785-532-5891

W. Waters Hall
FAX: 785-532-6258

http://www.oznet.ksu.edu/dp_entm/welcome.htm

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CHINCH BUGS:

On sorghum, Chinch bugs are active in eastern Kansas. The red nymphs have been moving out of wheat and wheat stubble into adjoining milo. Last week, we saw 3 or 4 fields in southern Dickinson County where there was some damage on milo next to wheat. In two fields of 10 to 11 inch sorghum, bugs were present on about the first 20 rows next to the wheat. On the first 12 rows, bug numbers



Small plants infested with nymphs from nearby wheat stubble.

averaged about 50 per plant. Plants here were generally 4 to 5 inches tall or dead or dying. Plants on the next 10 to 12 rows were infested with some bugs and with less damage. If you live in a chinch bug area (eastern Kansas). You might want to

advise growers to check sorghum where it borders wheat. If they find numbers like these, they may want to apply a border treatment to the first 20 to 25 rows by using 10 to 15 gallons of water per acre and directing the spray directly to the plants over



Chinch bug damage next to wheat

the row. One application applied now might be sufficient. Where they don't apply a border treatment, the bugs will tend to gradually move farther out into the sorghum field. Spot treatment like this does not lend itself very well to commercial treatment unless the applicator can direct the spray toward the base of the plants and be willing to repeat the application as new nymphs migrate into the field.

Infested Field Sprays: On sorghum, you can use Sevin, Furadan 4F, Lorsban 4E, Warrior, Baythroid, or Asana XL. Use 20 to 30 gallons of spray per acre. Bugs must be hit directly with the spray. Sprays will not give residual

protection against continued migration from nearby unsprayed areas.

Carbaryl (Sevin)

1½ to 2 lb. a.i./a. No preharvest waiting interval is required for forage use. Do not use within 21 days for grain.

Carbofuran (Furadan 4F) **Restricted Use**

½ lb. a.i. in 20 to 30 gal. of water per acre. Ground application only. A second application may be applied as needed. Do not make more than 2 applications per season. Do not apply after heads emerge from the boot. Do not graze treated fields or cut silage or forage within 30 days following treatment. Applicators must use proper protective equipment when applying this chemical. SLN label.



Bugs congregated around the stem.

Chlorpyrifos (Lorsban 4E)

Apply ½ to 1 lb. a.i./a (1 to 2 pints). The treated crop is not to be used for forage, fodder, hay or silage within 30 days after application of ½ lb. a.i./a, or within 60 days at rates above ½ lb./a. Do not apply to drought stressed sorghum within 3

days following irrigation or rain. Do not treat sweet varieties of sorghum. Do not apply more than 1 ½ lb. a.i./a per season.

Lambda-cyhalothrin (Warrior 1 lb EC)

Restricted Use.

Apply 0.03 lb. a.i./a (3.84 fl.oz. of 1 lb./gal. EC). Direct spray to the base of sorghum plants using sufficient gallonage in ground equipment. Repeat at 3 to 5 day intervals if needed. Do not graze treated areas or harvest for fodder, silage or hay. Do not apply within 30 days of harvest. Do not apply more than 0.02 lb. a.i./acre once crops are in the soft dough stage.

Cyfluthrin (Baythroid 2 EC) **Restricted Use.**

Apply 0.02 to 0.044 lb. a.i./a (1.3 to 2.8 fl. oz. of 2 lb./gal. EC). Apply by air or ground equipment in sufficient water for thorough coverage. At this rate (up to 5.6 fl. oz./acre) green forage may be fed or grazed on the day of treatment. Allow 14 days between application and harvest of grain or dry forage. May be chemigated by following label directions.

Esfenvalerate (Asana XL 0.66 EC)

Restricted Use

Apply 0.3 to 0.5 lb. a.i./a (5.8 to 9.6 fl. oz. Of Asana XL acre). Apply by ground or air equipment. Do not exceed 0.15 lb. a.i./acre/season. Do not apply within 21 days of harvest. This use pattern may not appear on the federal label. See Supplemental Labeling EPA Reg. #353-515 issued in 1998.

BILLBUGS ATTACKING SORGHUM:

In some areas billbugs are attacking sorghum. In Harvey County, Ron Graber inspected a 20 acre sorghum field first planted in May. A low spot infested with yellow nutsedge occupies about half of this field. In this area plants died soon after emergence. Plants exhibited ragged signs of feeding injury, some with oblong holes in leaves



Billbug damage in sorghum, Rooks Co., KS

and others without much of a defined pattern. Many small plants were stunted, and many were dying.



Billbug damages, note rows of oblong holes.

Plants outside the nutsedge infested area were relatively normal. The grower replanted, but the injury continued to develop as the new plants emerged. This problem turned out to be a **billbug** infestation. It could occur anywhere in the state where we have a problem with nutsedge. Chris Baker is also seeing this problem in Cowley County. Three clues help diagnose this: *One is that the damage roughly corresponds to spots where nutsedge is present, and the second is when you see at least some plants with rows of oblong holes on some leave. Third sign is when you see the center leaves in nutsedge turning red or brown.* Slice these plants open and you should find the small white legless grub down at

the base of the stem. Adult billbugs have been causing the injury by feeding on the sorghum plants (in May they were causing damage to corn). Since mid-June they have been laying eggs in nutsedge plants. As egg laying continues, feeding on sorghum should finally taper off.



The adult billbug is a snout beetle, about ½ inch long, antennae attached to the beak, and gray, brown or dark colored. Picture from the Ken Gray Collection, courtesy Oregon State University.



Yellow nutsedge, host of billbugs.

From mid-June to August, look for red or dying leaves in the center of nutsedge plants. Split the lower stem open and examine for a small white grub inside. I am not aware of anything labelled for use as a rescue treatment. Lorsban 4E at 2 pts. per acre is the closest. The use pattern allows you to use it on sorghum, and it is labelled for billbugs at this rate on corn.

On sorghum, it could be used to control the adults under a 2EE recommendation by the manufacturer. Some growers have used this. I don't have feedback on results.

GRASSHOPPERS:

Grasshoppers are hatching and will cause concern in local areas. It would be a good time for a note on this also. I will attempt to summarize suggestions in our next electronic

newsletter. In the meantime you might want to review Insect Newsletter # 7, June 9, 98 or #6 and #12 in 1999. You can find these at: (<http://www.oznet.ksu.edu/entomology/extension/extension.htm>)



Two-striped grasshopper, one of the cropland damaging species.

Sincerely,

H. Leroy Brooks
Extension Specialist
Insecticides (Pesticidal Safety)