Kansas Insect Newsletter

For Agribusinesses, Consultants, Applicators and Extension Personnel

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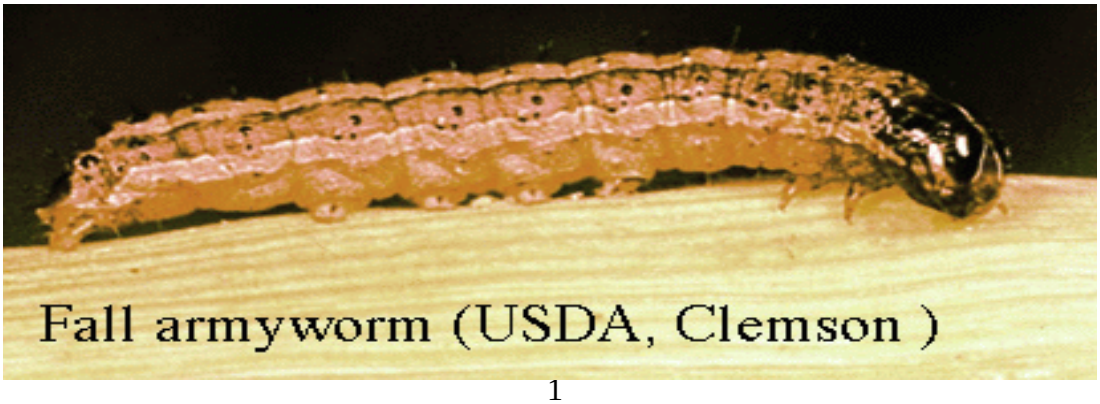
Wheat Insects, What's the Outlook?

Delayed planting could result in lower risk of some insect problems. Briefly, here is how it looks at the moment: (1) Some fall armyworm damage in irrigated fields in the southwest is present; otherwise, the risk of fall armyworms should become less as wheat planting is delayed. (2) By next month, greenbugs could be a problem if current weather patterns continue. (3) Many are recalling previous recommendations to use seed treatment for false wireworms where they are planting in dry soils. (4) Grasshopper concerns are thought to be light. (5) Hessian fly damage is not anticipated. Later, mites and flea beetles may have some potential.

Fall Armyworm -

They have been active for almost two months mostly in lawns and pastures. Will this continue on in wheat? How do you answer this? -- Guess mostly. We know from experience

Fall armyworm KSU



Fall armyworm (USDA, Clemson)

that fall armyworms can be a problem until after frost. The risk is nearly always greater in early planted fields, hence, our guess is that wheat that does not emerge until early October will not be as likely to be infested. There appeared to be a great deal of parasitism in some of the worms we were seeing a month ago, so this could represent less of a threat to wheat. As always though, when the new crop emerges, watch seedling plants for signs of small window-pane feeding on the leaves. Treatment might be needed if more than 25% of the plants are beginning to show signs of infestation.

Grasshoppers -


Differential grasshopper
K.O. Bell, KDA

You expect more grasshoppers during dry years, but we are not aware of high populations at present. Actually, numbers in many areas may be lower than normal. While the overall risk seems low, they are probably abundant in some areas. With fewer weeds and grasses to feed on, emerging wheat will be attractive as food and could be damaged even by relatively low numbers (3-7 per yard). Normally, you are not too concerned until grasshoppers average about 8 or more per yard. The most common method of control in wheat is to spray the borders (where possible, a strip about 150 feet wide) just before the wheat emerges. Timing is critical to optimum control. If the application is too early, the insecticide will be gone by the time wheat emerges which could allow grasshoppers to migrate back in too quickly. If it is applied too late, the wheat may get damaged before the insects are killed. The residual of the treatments will vary, but it is important to monitor around wheat field margins after treatment to make sure the grasshoppers do not re-enter the field and cause significant damage. Products for controlling grasshoppers in non-cropland borders (ditches and other waste areas) are Asana XL, some malathion products, Sevin and Orthene 75S. Orthene also can be used for treating adjacent rangeland. Asana and Orthene treatments can only be used to treat the areas adjacent to wheat and cannot be used on growing wheat. Other choices applied directly to growing wheat in planted fields are listed in the Wheat Insect Recommendations.


Border damage to wheat caused by grasshoppers (Logan Co. Kans. KSU)

False Wireworms -

Many older farmers recall the need for insecticide seed treatment when wheat had to be dusted in. That is a valid point. False wireworms, if present, can follow the drill row and destroy the seed before it germinates. It can be prevented with a drill box seed treatment that includes lindane (Gaucho should work also). If people who recognize false wireworms saw the adult beetles during the summer crawling across the highway or in the stubble in noticeable numbers, a preventative seed treatment might be in order. Otherwise, with what seems to be low populations in general, the risk of this problem may not be too great.

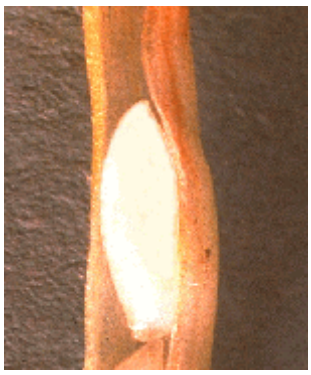
Greenbugs -

Last fall greenbugs built up to threatening levels throughout most of the wheat growing areas in the state. At one point, it was hard to find fields free of infestation. They weren't noticeable until late October, but it was amazing how fast numbers increased in November. Greenbugs thrive during warm, dry periods following the first frost when beneficials are declining. If we have another long, dry fall, we could experience another greenbug problem. Small moisture stressed wheat plants could, of course, be damaged by relatively low numbers of greenbugs. Frequent rainy weather usually reduces the risk. Last year was one of those years where Gaucho seed treatment would have been useful, especially in the western third of the state. If you believe that weather patterns will be similar this year, then Gaucho might be a consideration. An opposing argument is that we rarely have two consecutive years where weather conditions and pest populations are nearly identical.

Hessian Fly -

Though you may not have seen it, there was some fly around last spring. Rick Snell, Barton County Extension Agent, estimated between 5 and 10% Hessian fly lodging in some varieties in the Barton County plots and some infestation was observed by Phil

Sloderbeck during the fall in Finney County. Damage from fly is unusual in the southwest area, but not unheard of especially in early planted fields with susceptible varieties. A dry spring and summer is not usually considered favorable for fly development; and this year, it does not look like very much of the acreage will be emerging before the fly free date. Now, we have a better selection of varieties with fly resistance than at times in the past. It would be a surprise for fly to show up as a problem this fall, but it is always a concern and this insect has a habit of showing up when least expected.



Flea Beetles -

Border injury that is caused by flea beetles is a fairly common condition especially in the western half of the state. They tend to be active in October prior to frost. They chew on the upper epidermal leaf tissue causing narrow whitish streaks. The tops of the plants often exhibit a whitish cast when viewed from a distance. Sometimes persons confuse the injury with moisture stress where they don't look close enough to see the small dark colored beetles. Warrior is the only known label that specifically lists flea beetles on wheat, although most of the insecticides used for grasshoppers usually seem to reduce flea beetle numbers.

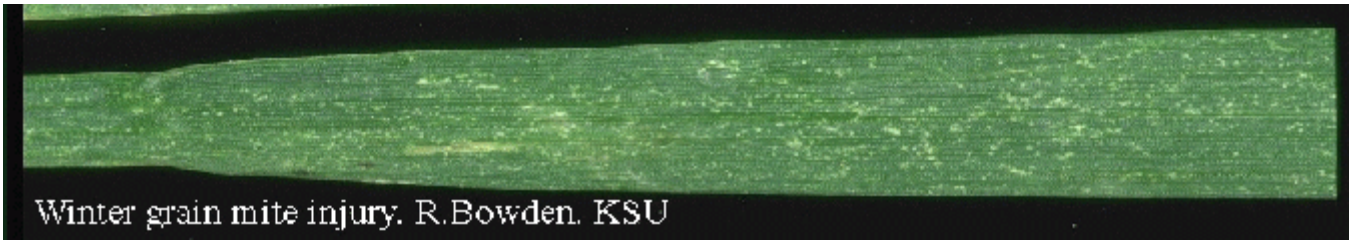
White Grubs -

White grubs, larvae of June beetles, are the C-shaped whitish larvae with brown colored head capsules. They live in the soil and when abundant cause injury by feeding on the roots. An annual species, southern masked chafer, seems to be most common. Grubs are often small in the fall (+/-1/4") but sometimes larger. They feed on a combination of organic matter and plant roots. They are usually non-economic at numbers of less than 4-5/sq. ft. Even at levels of 4-5/sq. ft. prior to planting, they frequently fail to cause observable

damage. Since they cease feeding and migrate down in the soil in preparation for overwintering as soil temperatures start to decline, delayed planting is a logical method of management. There are no insecticides currently registered for grub control in small grains. Gaucho at 1.5 fl. oz. of product per cwt. of seed used as a seed treatment might retard some feeding but the manufacturer makes no control claims, and we are not aware of any data involving this concept.

Winter Grain Mites -

This mite has been an occasional concern, particularly in the south central area in recent years, but it might occur about anywhere. This is a cool weather pest, active during the fall and spring. Since it lays oversummering eggs on plant residues, it is more common where wheat follows wheat and perhaps where there is minimum disturbance of plant residues. The bright reddish-orange legs provide a quick clue in the identification of this small brown mite. Mites



Winter grain mite injury. R.Bowden. KSU

tend to hide at the base of plants during the day and feed at night causing an off-color, silvery-gray appearance of leaf tissue. Except in extreme cases, fall damage often appears to be temporary since that by the following spring, it is sometimes hard to distinguish from treated and non-treated fields.

Sincerely,

H. Leroy Brooks
Extension Specialist
Insecticides (Pesticidal Safety)