Stink Bugs on Corn

Unusual damage reported from a no-tilled corn field in Kingman county (report and photographs from Dale Fjell, KSU Agronomy, by way of Randy Higgins). Plants were found with buggy whipping, holes with yellow boarders in emerged leaves and "suckering" (the production of tillers from the base of damaged plants). Closer inspection revealed a few stink bugs in the area.

Putting all of these symptoms together it is pretty clear that this field was being damaged by stinkbugs. According to information from Illinois and Kentucky this problem was first recorded in Kentucky in 1985. Brown and One-spotted stink bugs are the most common stink bugs found attacking corn. These insects are 1/2-inch long, shield shaped insects with piercing-sucking mouthparts. The upper side of the body ranges from light to very dark brown. The underside varies from light yellow to green. Most often only a very small percentage of fields are affected by these insects, however damage has been seen across a wide area of Kentucky and parts of neighboring states. They report that stink bug damage is most severe in no-tillage fields. In this case, the damage can be found throughout the field, often with areas of more intense damage. Frequently these are near wooded areas. Stink bug damage can be found in conventional fields, but the incidence of damaged plants is low and usually frequently limited to the border rows. Surveys have identified a soybean-wheat-corn sequence as especially favorable for stink bug damage. A stink bug population can build up in soybeans during podfill. Wheat cover crops provide an attractive early

spring host for the insects, and subsequently they feed on emerging corn.

Stink bugs feed on plant fluids by inserting their needlelike mouthparts into stems, leaves or seed pods. While feeding, they inject materials into the plant to aid in digestion and sap removal. Penetration by the mouthparts can cause physical damage, much like stabbing the plant with a fine needle. There is usually a row of oval holes with yellow borders across the unwrapped leaves of damaged plants. This row results from the single feeding puncture that penetrates the wrapped leaves. A slimy, decaying area may be found in the stalk where the stink bug has fed. This probably results from activity of the insects digestive juices. The most dramatic symptom is tillering of damaged plants. Tillering usually first appears about 10 days after the damage was caused.

Thresholds for stink bugs in corn have not been developed, so decisions to treat them are based solely on gut feelings. Once the injury becomes evident it is probably too late to treat, most of the injury happens when plants are small and the stinkbugs are able to pierce the base of the plant and reach the growing point.

Luckily this field appeared to have only a small percentage of the plants showing damage, however it does alert us to another potential pest problem that we should probably be on the lookout for as we increase the use of no-till production practices.

http://www.uky.edu/Agriculture/PAT/recs/crop/pdf/entfa305.pdf

P.S. June 13, 2002 -- Just got a note from Glenn Salbury a couple days ago that indicated that he had visited the field in Kingman County and he thought that the damage may have been caused by the wheat stem maggot. Which could be a possibility since the field had been in wheat stubble. Occasionally if the timing is just right wheat stem maggots can apparently move from wheat to corn, especially if the developing wheat is destroyed near the time the corn is emerging. Could certainly be another explanation for the damage for corn planted into destroyed wheat fields or into wheat stubble that had had some volunteer wheat earlier in the spring.

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