

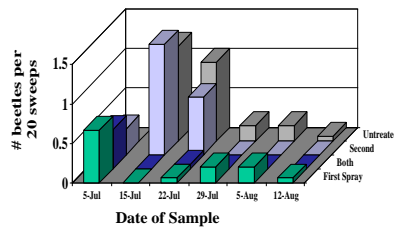


## Research on the Management of the Soybean Stem Borer in Kansas

The soybean stem borer (*Dectes texanus texanus*) is a stem-boring insect pest taking on more significance across Kansas. Although the adults inflict minimal leaf feeding damage, larvae girdle soybean stems internally, causing plants to lodge as physiological maturity is reached.



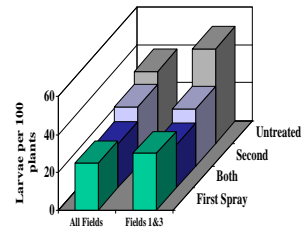
Fig. 2. Soybean Stem Borer Adults



Adults (Fig. 2)

Data from all three fields were pooled for presentation in this graph. Pretreatment samples showed vary low distributions of beetles across the fields. After the early treatment the numbers in the treated plots went to zero while numbers in the untreated plots and in the late treatment plots (which had not yet been treated) averaged just over 1 beetle per 20 sweeps. By 29-Jul the numbers in the untreated quarters of the fields were averaging only 0.2 beetles per 20 sweeps, but no beetles were being found in the halves of the fields that were treated late, where as, the number of beetles found in the early treated quarters was the same as in the untreated quarters.

Fig. 3. Soybean Stem Borer Larvae



Larvae (Fig. 3)

Samples taken at the end of the season showed only about a 50% reduction in larval numbers where the fields were treated twice. The reason for the limited success of the treatments may have been because the initial treatment was applied later than optimal. Beetles were actually present in samples taken on 28-Jun, but numbers were thought to be too low to be meaningful so a decision to treat the fields was delayed until the next week, and then it took another week before the fields were actually treated. This means that beetles were active in the fields for at least two weeks prior to treatment, which may have allowed for significant egg laying prior to treatment.

### 2002 Research trial

Three center pivot irrigated soybean fields were treated for soybean stem borer during 2002 as part of a grant from the Kansas Soybean Commission to study ways to control the soybean stem borer. Treatments were made twice with half of each field being sprayed each time, but the direction of treatment was rotated 90 degrees so that 1/4 of each field was treated twice, 1/4 was treated just with the first application, 1/4 was treated with just the second application and 1/4 was not treated (refer to figure 1).

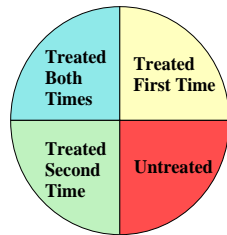


Figure 1.



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