

Dectes texanus texanus
Life History



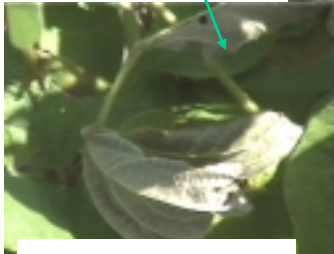
Soybean stem borer

Adults lay eggs singly within mid-canopy leaf petioles.



Each larva tunnels down the petiole to the main stem...

.... Scars mark the stem entry point; petiole tunneling causes the leaf to die and drop from the plant;



Each larva will tunnel downward until it stops around the soil line....

...resulting in a girdled and lodged plant that is difficult to harvest...



SOYBEAN STEM BORER IN KANSAS: A Research Update.

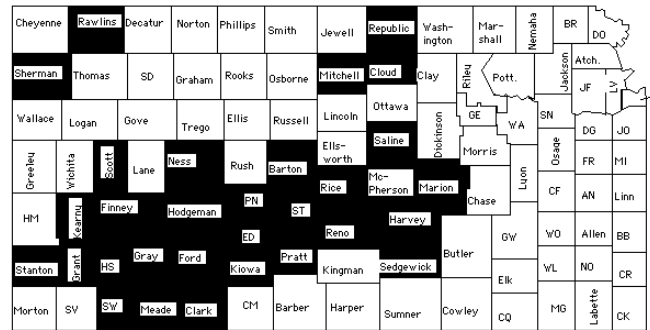
M. Kaczmarek¹, R.A. Higgins¹, P.E. Sloderbeck¹, L.L. Buschman¹, D. Crook¹, S.B. Ramaswamy¹, W. Schapaugh².

¹Dept. Of Entomology, Kansas State Univ., Waters Hall, Manhattan, KS 66506, USA,

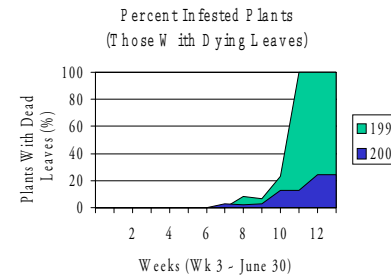
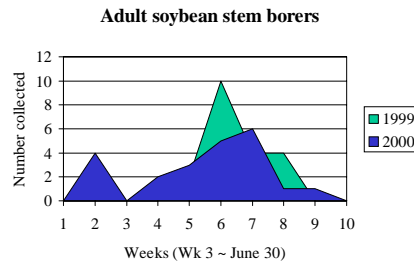
²Dept. Of Agronomy, Kansas State Univ., Throckmorton Hall, Manhattan, KS 66506.

Annually, for at least 15 years, K-State specialists have received isolated reports of lodging in soybean fields as a result of the soybean stem borer *Dectes texanus texanus*. Often these problems were associated with untimely rains that delayed harvest. In the past few years, the problem seems to be becoming more common even in first year soybean fields. The soybean stem borer is a small, gray cerambycid beetle. Larvae are legless and appear white to deep yellow. Adults cause insignificant damage feeding on the leaves, while the larvae tunnel within soybean leaf petioles and down through the main stem. When the larvae reach the plant base, they girdle the stem near ground level, allowing the plant to lodge, thereby increasing harvest difficulty and decreasing yield. Although the soybean stem borer has been around for many years, our knowledge of it in Kansas soybean fields is limited. Because improving management options depends on sound knowledge of the insect, our current research program has multiple components. We are sampling fields for adults and larvae to establish the seasonal occurrence of various life stages under Kansas conditions. We are determining infestation levels within variety trials to check for possible host plant resistance. Also, we are conducting insecticide efficacy trials, and are exploring the potential of using pheromones to help monitor infestation levels. This research is being supported by K-State and the Kansas Soybean Commission.

Known Distribution of Soybean Stem Borer as of December 1, 2000
Kansas State University



Distribution and Seasonal Occurrence in Kansas of the Soybean Stem Borer



Thus far, we have not found dramatic differences in percent of plants infested or degree of tunneling among >45 soybean varieties planted at four locations across the state under conditions of natural infestation.



Imidacloprid (Gaucho™) did not provide adequate protection as a seed treatment.

However, under confined conditions, foliar sprays of lambda-cyhalothrin (Warrior™) or permethrin (Pounce™) killed adults actually hit by the spray and offered some residual protection.

