



ENTFACT-144

SOYBEAN PODWORM IN KENTUCKY SOYBEAN

Helicoverpa zea, (Lepidoptera: Noctuidae)

Doug Johnson, Extension Entomologist

The soybean podworm (SPW), more commonly known as the corn earworm, may be the most dangerous pest of soybeans in Kentucky. Like most other soybean insect pests, SPW seldom occurs in economically important populations. However, when it does, these populations often go undetected until after serious damage is done.

The adults are tan to light green moths with a wingspan at rest of about 1/2". Eggs are white to pink, about 1/30" wide and laid singly. Larvae (worms) are about 1 1/2" in length when full grown. They are usually tan to pale green with several dark stripes down the back. However, color may be quite variable, with some individuals almost black.

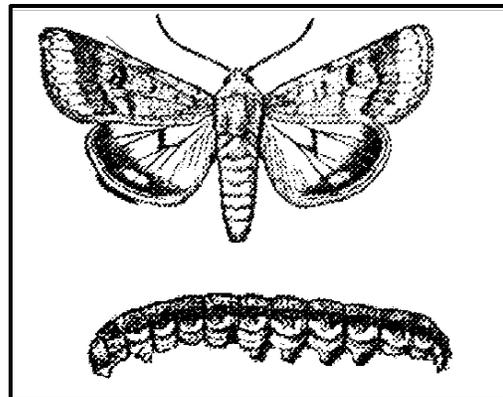
Soybean podworm adults can be captured using a pheromone baited trap and this may give an early warning of their presence. See Entfact-112, "Using Pheromone Traps in Field Crops", for more information. Larvae (worms) are detected by sampling fields with a shake cloth. Begin checking fields just before the onset of bloom. At several locations in the field, place the shake cloth on the ground between two rows and shake the soybean plants over the cloth. Shake two feet of row on each side of the cloth. Record number of (healthy) worms at each site. Once you have visited several locations, average the numbers you collected at each site. An average of several sites will provide you with a better estimate of what is happening in the whole field.

Soybean podworms feed almost exclusively on pods. They eat away the pod wall and completely consume the seed; this is why they are so dangerous. Pod feeding directly reduces yield and is much harder to notice than leaf feeding.

Additionally, the economic threshold is **two worms per row foot** compared to 15-20 worms per row foot for leaf feeders. .

One of the best controls for SPW is planting on time. This pest is most often found in late planted fields. These are often double-crop beans but may be full season beans that were not planted on time. Additionally, planting so that the field is completely covered by the soybean canopy before bloom helps to control this pest. SPW is less subject to "natural controls" when the canopy is open.

In the cases where economic populations of SPW arise, insecticides for their control can be found in ENT-13. Modern insecticides will provide good control of this pest but to be cost effective, they must be applied before the damage is done.



For immediate access to more information visit our family of web sites at:

<http://www.uky.edu/Agriculture/IPM/ipm.htm>
<http://www.uky.edu/Agriculture/PAT/welcome.htm>
<http://www.uky.edu/Agriculture/Entomology/enthp.htm>

Other Sources of Kentucky Information on this Insect.

<http://www.uky.edu/Agriculture/IPM/scoutinfo/soybean/insects/podworm/podworm1.htm>

IPM-3 *Kentucky Integrated Crop Management Manual for Soybeans.*

ENT-13 *Insecticide Recommendations for Soybeans.*

Additional Print References

- Davidson, R. H., Lyon, W. F. Insect Pests of Farm, Garden, and Orchard. New York: John Wiley & Sons, 1979.
- Higley, L. G., Boethel, D. J., editors. Handbook of Soybean Insect Pests. Lanham, MD: Entomological Society of America, 1994.
- Metcalf, R. L., Metcalf, R. A. Destructive and Useful Insects. New York: McGraw-Hill, Inc. 1993.
- Pedigo, L. P. Entomology and Pest Management. New York: Macmillan Publishing Co., 1989.