

## UNPREDICTABLE PESTS DEVASTATE STANDS

### SITUATION

A high rate of **black cutworm** (BCW) moth catches, green fields and late planting dates are the perfect recipe for significant damage from black cutworm. Damage can range from very little to almost 100 percent stand loss. To give late-planted corn the best yield potential, make this pest a high priority.

### FACTORS TO CONSIDER

- Scouting
- Residue
- Identification
- Life cycle
- Treatment
- Prevention

### ACTION PLAN

**1. Scout for the pest.** Timely detection of BCW infestations requires periodic inspection, at least once per week, starting with the first emergence of the corn stand to the V6 leaf stage. Look for wilted or cut plants, always being aware that cutworms sometimes cut off the plant below the soil surface.

**2. Recognize the pest.** Larvae of the BCW vary in color from light gray to black. They have four dark tubercles on top of each abdominal segment, and mature larvae can be up to 1½ inches long. Total feeding time for the larvae ranges from 20 to 30 days, and those in the fourth to fifth instar stage cause the most damage.

**3. Understand the life cycle.** BCW adults do not overwinter in Northern states but rather migrate from the South in April and May. Female moths will lay eggs in fencerows, pastures, plant debris and fields with weedy vegetation — especially those with winter annuals. Larvae go through seven stages and are most damaging during the third and fourth stages, when they are ½ to ¾ inch long.

**4. Know when treatment is necessary.** Select a rescue treatment if 3 percent or more of the plants have been damaged, corn plants are in the V2 to V6 stage of development and larvae are still 1 inch or less. Reference Table 1 to predict the development of BCW larvae based on accumulating degree-days (warmer than 50 F).

### SUMMARY

When every extra bushel of yield pays, don't ignore the little things that can affect a crop. Although small, black cutworms can cause big losses. To prevent yield loss, select hybrids with in-plant insect protection from **SmartStax®** or **Herculex® Insect Protection** and work with a Mycogen Seeds representative to pick the hybrid that will perform the best in your area. For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.



Adult moths overwinter in Southern states and migrate north in April and May.



Black cutworm larvae in the fourth to fifth instar stage cause the most damage to corn.

**Table 1. Development of black cutworms based on degree-days accumulated (base 50 F) after an intense capture of adults (nine or more captured over two days).**

Accumulated degree-days	First occurrence	General activity
0	First intense moth flight	—
91-311	1st through 3rd instars	Leaf feeding
312-364	4th instar	Cutting begins
365-430	5th instar	Cutting
431-640	6th instar	Cutting slows
641-989	Pupa through adult	Mating and egg laying

Adapted from Kaster, L.V., and W.B. Showers. 1994. Modeling black cutworm (Lepidoptera: Noctuidae) field development in Iowa. *Environmental Entomology* 13:384-389.

## AgronomyServices

**Precision. Product. Placement.**

Images are courtesy of Purdue University Extension.

Table 1 is courtesy of the University of Illinois, *The Bulletin*, No. 3, Article 1, April 11, 2008.

[www.mycogen.com](http://www.mycogen.com) SmartStax® multi-event technology developed by Dow AgroSciences and Monsanto. \*The Mycogen Logo is a trademark of Mycogen Corporation. \*\*Herculex and "Science. Yield. Success." are trademarks of Dow AgroSciences LLC. Herculex Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred. \*SmartStax is a registered trademark of Monsanto Technology LLC. **Always follow grain marketing and IRM requirements and pesticide label directions. B.t. products** may not yet be registered in all states. Check with your seed representative for the registration status in your state. ©2011 Mycogen Seeds. Mycogen Seeds is an affiliate of Dow AgroSciences LLC. S47-137-036 (05/11) BR 010-12798 MYCOGENL0076 BC

