2013 Western Bean Cutworm Scouting Update

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Western bean cutworm (WBC) is a corn pest that has expanded its range across Iowa and toward East Coast states. Before corn tassels, newly emerged WBC larvae move to the whorl and feed on the flag leaf. Once tasseling begins, they move to the green silks. Older larvae feed primarily on the ear tip, but some move outside the ear, chew through the husk and feed on kernels on the side or shank of the ear. Unlike corn earworm, multiple WBC larvae may be found in the same ear. Consuming the developing kernels can cause yield losses. In addition, the damage caused by feeding can allow pathogens to enter the ear and reduce grain quality.

Western bean cutworm adult emergence can be predicted using a degree day (DD) model developed in Nebraska. This DD model is based on the accumulation of DD (base 50°F) from May 1. Scouting should begin at 25 percent adult emergence, which is predicted at 1,319 DD. Fifty percent adult emergence, or the peak adult activity, is predicted at 1,422 DD, and scouting should continue for 7 to 10 days after the peak. The map (Figure 1) shows the predicted dates of approximately 25 and 50 percent adult emergence based on the DD model.

When scouting for WBC, examine 20 successive plants in five different areas of a field. On these plants, check for the presence of eggs or young larvae (Photos 1, 2) on the top three to four leaves. Management options and
descriptions of WBC are outlined in a previous ICM News article.

For field corn, if 5 to 8 percent of plants have eggs or larvae, an insecticide treatment may be warranted. For sweet corn, the threshold is reduced to 4 percent for the processing market and 1 percent for the fresh market. Alternatively, a newly developed “speed scouting” tool, which incorporates corn price into the threshold and may require examining less plants, was developed by Nebraska and can be downloaded here.

Insecticide application must be timed correctly to reach larvae before they enter the ear. If density thresholds are met, the suggested application timing is 90 to 95 percent tassel emergence, or 70 to 90 percent hatch if tassels have extended.

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