

# Western Bean Cutworm in Michigan:

## Quick recommendation sheet for Field Corn



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### Assessing Western Bean Cutworm Pressure

Use pheromone traps to monitor adult flight locally, or follow ag news/your local agronomist to know when peak flight occurs in your area. Just after peak, scout pre-tassel and fresh tasseling fields to determine the percentage of plants with egg masses. Fields with heavy infestations (10% or more) are obvious & a spray decision is quick. Infestations closer to the threshold (5%) require more-detailed scouting. Note that **the 5% threshold is CUMULATIVE**, because fields can be attractive to egg-laying moths for 2 to 3 weeks. If the % infestation in a field is not at threshold, scout a week later and **accumulate % infestation towards the threshold** (add % week 1 + % week 2). This means careful scouting to detect infestations of 1% to 3%. Egg masses counted the first week will hatch by the second week.

#### Triggers for an insecticide application to corn:



field is pretassel to freshly tasseling

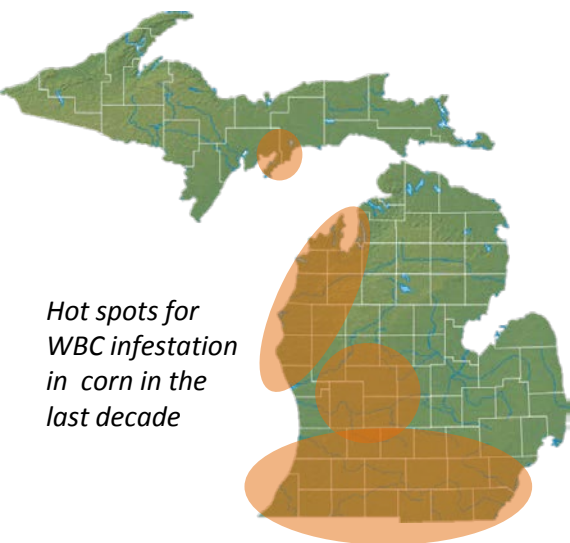


**cumulative infestation** = 5% or more of plants with egg masses



egg masses are starting to hatch (tiny larvae are moving on the plants)

Spray with a long-lasting pyrethroid with a 7-14 day residual to kill larvae that recently hatched, and are about to hatch. In wet seasons, if tank mixing with a fungicide for ear mold control, spray timing should be adjusted to target fresh silks. In dry seasons, if spider mites are also a concern, choose an insecticide that does not flare this secondary pest.



Since its discovery in Michigan, hot spots for WBC damage in corn have been in counties in the southern tier, on the western lakeshore, in the central sands, & in Delta county in the Upper Peninsula. Infestations in the Thumb and Saginaw Valley have typically been much lower. This difference could be related to soil type, with higher populations in areas with sandier soil where overwintering is deeper and thus survival better. However, there is still the possibility for localized issues in the Thumb, especially in areas with sandy soils.

# Western Bean Cutworm Lifecycle

- One generation per year
- Adult moths emerge in late spring to early summer from the soil
- Moths lay eggs in mid-July through early August
- Larvae feed first in the tassel and silks, then on the ear tip and kernels.
- Older larvae are protected within the husk, and thus are difficult to control.
- Damage to corn rarely impacts yield, but can reduce quality due to ear mold infection
- Mature larvae burrow into the soil from late August to early September, and overwinter

## WBC life stages and damage on corn in Michigan

September - June



Overwintering chamber

early July – early August

Egg mass just below tassel



moth in whorl



mid-July to early Aug: Larvae feed in tassel, leaf axils, or on silks



Mid-August

Larvae feed primarily on the moist ear tip; their color changes dramatically.



14 days old

21 days old

Late August into September

- \*ear damage (tip feeding, frass, kernel scraping, holes in side of ear)
- \*large larvae may still be present
- \*mycotoxin-producing ear molds may be associated with damage



