Western Bean Cutworm Pheromone Network

Compiled by: PHREC Entomology Lab

Pheromone Trap Network[1] Report for 08 July 2022

This is a weekly summary and field risk-level prediction for western bean cutworm (WBC) infestation in dry bean. Western bean cutworms are difficult to scout effectively in dry beans. Therefore, we use pheromone traps to give us an estimate of risk of infestation. The average cumulative number of moths/field/day should be calculated from moth emergence to peak. The data in Fig. 1 below show the cumulative number of moths captured to date, averaged over 4 green bucket traps per field.

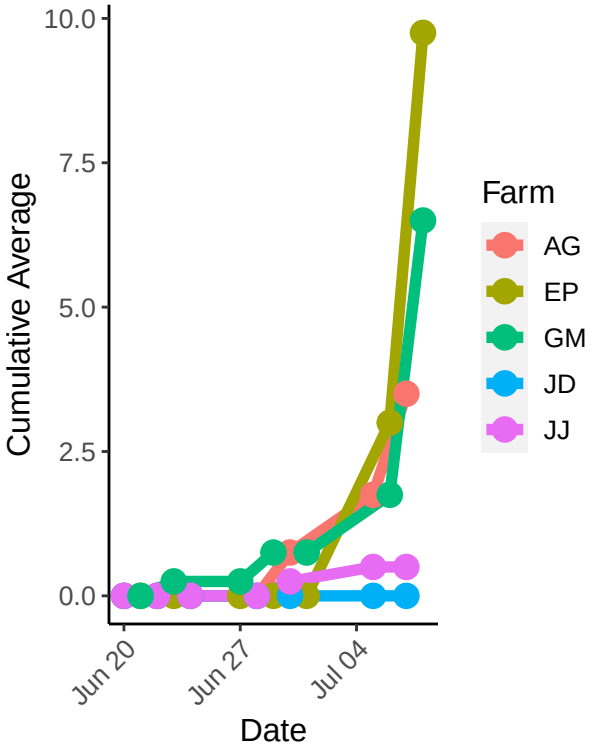
- If the cumulative catch[2] at the peak of the moth flight is < 700 per trap, risk of significant damage is **low**
- If 700-1,000 moths per trap, the risk is **moderate** and additional sampling information will be needed to reach a decision
- If > 1,000 per trap, damage risk is **high**.

If an insecticide application is required, optimal application timing is 10-21 days after peak moth flight. Current average cumulative catch across the sample region is 4.05 total moths per trap. Moth emergence dates for the 2022 growing season can be found on CropWatch, "Degree-days for Prediction of Western Bean Cutworm Flight". For 2022, the predicted 50% emergence date (i.e., peak moth flight) is **July 25**.

[1]This weekly report is the result of trapping network that is a collaboration with the Panhandle Entomology Lab at the Panhandle Research and Extension Center, the Nebraska Dry Bean Commission, and the Institute of Agriculture and Natural Resources at the University of Nebraska – Lincoln. The samples are based on 5 fields within central Scotts Bluff County.

[2]Note that these trap captures are from universal insect traps (or green bucket traps). The indication on the table is calculated based on transformed data ("corrected" data) from a model comparing universal insect trap data to milk jug trap data from replicated, on-farm, paired-trap comparisons. Additional data this year will improve this model and its accuracy with further analysis.

Figure 1. Cumulative western bean cutworm moths per trap per farm (based on 4 traps) in central Scotts Bluff County as of 08 July 2022



Farm	Catch	Risk
AG	3.50	low
EP	9.75	low
GM	6.50	low
JD	0.00	low
JJ	0.50	low