

Western Bean Cutworm Trapping and Monitoring 2021 Summary

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Western bean cutworm (WBC) is a pest of field corn in Ohio. Monitoring efforts have increased since 2016 to assist growers by providing timely, localized information of WBC activity within counties. The increase in monitoring has been fueled by reports of WBC resistance to Cry1F hybrids. In addition, increased monitoring of WBC pest has assisted researchers to help them better understand WBC populations over time.

Adult moths can be monitored using a bucket trap and pheromone lure placed at the edge of corn fields from the end of June through August (Figure 1). These moths can be identified by the features on their wings including a boomerang and dot (Figure 1). WBC adults are attracted to the upper leaves of corn plants from where they lay their egg masses (Figure 1). Soon after hatching, the larvae (caterpillars) take shelter in the corn silks and feed on developing corn. The evasive behavior of WBC larvae makes monitoring and treatments difficult once they have entered the corn.

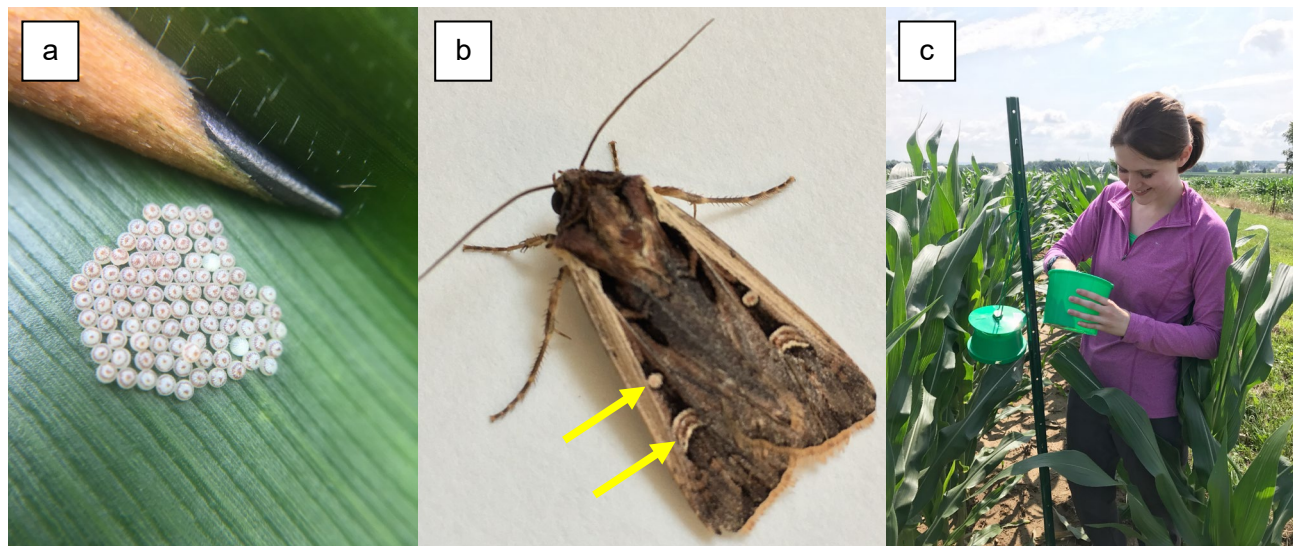


Figure 1. a) WBC egg mass with pencil for size reference, b) Western bean cutworm (WBC) adult moth. Yellow arrows point out identifying features on the wings including a boomerang structure and dot, and c) WBC bucket trap set up in corn field.

In 2021, the Ohio State University WBC monitoring network monitored a total of 100 traps in 28 Ohio counties (Figure 2). Traps were set the week of June 14th and monitored through August 29th. Trap numbers increased from 2020, but still remained low overall. The grand average was 3.9 moths per trap, up from 2.3 moths per trap in 2020. The overall peak week this year was the third week in July, with an average of 13.4 WBC/trap (Figure 3). The numbers peaked one week earlier than in 2020, which reinforces the importance of monitoring pests yearly to understand population dynamics.

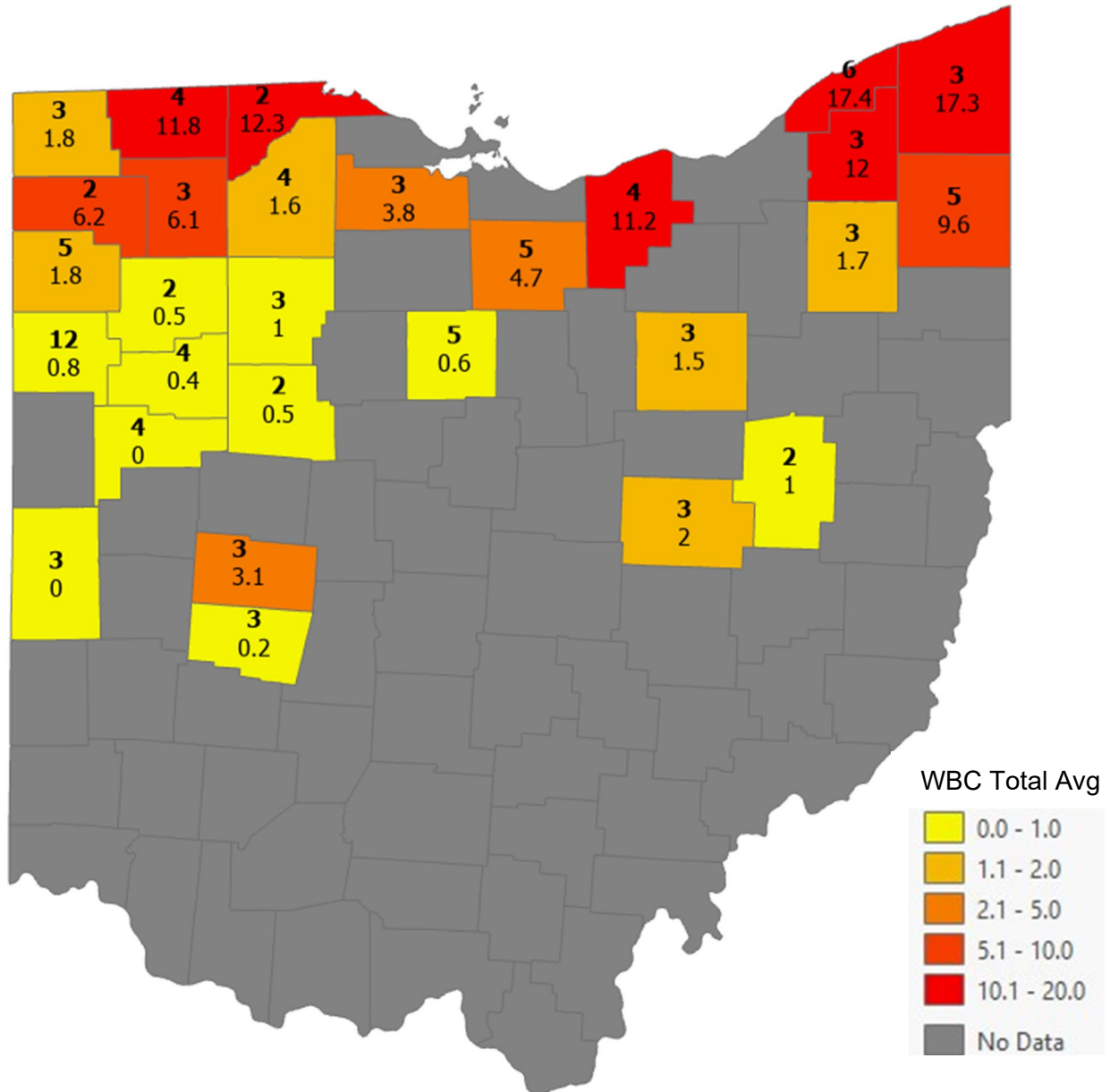


Figure 2: Map of Ohio counties that participated in Western bean cutworm (WBC) trapping in 2021. Number in each county signifies the total traps monitored each week in bold followed by overall season average.

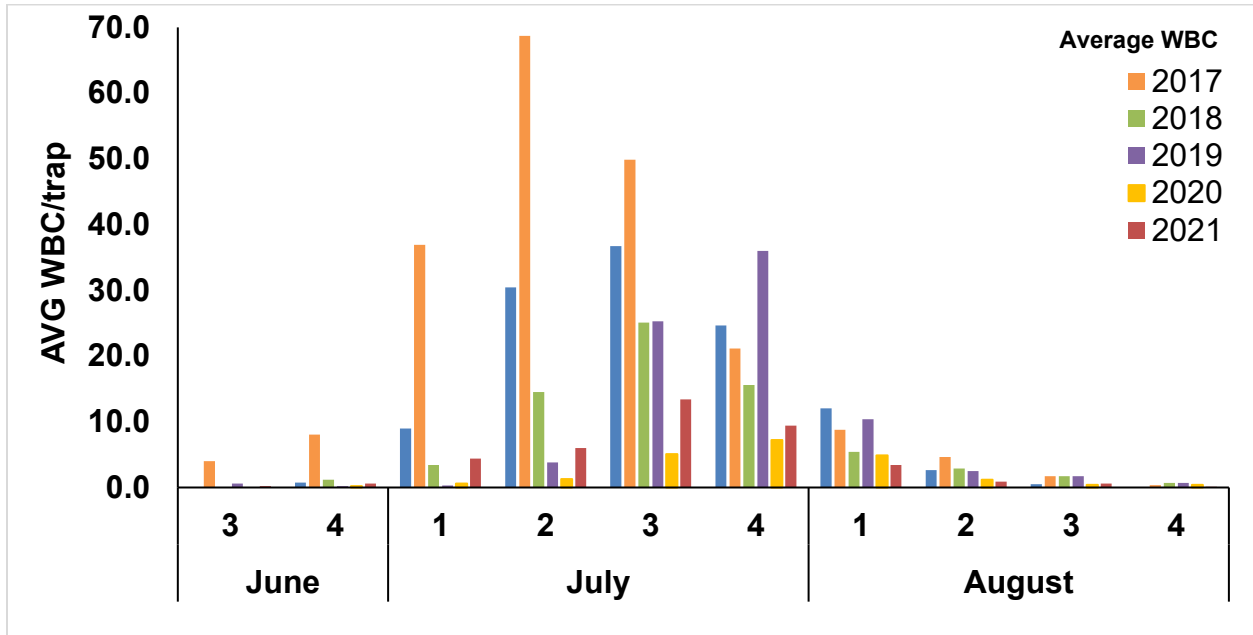


Figure 3. Average number of Western bean cutworm (WBC) adults recorded in traps in 2016 (blue), 2017 (orange), 2018 (green), 2019 (purple), 2020 (yellow), and 2021 (red).