Survey Reveals Low Densities Of Western Corn Rootworms In III. Corn Fields



URBANA, ILL.

espite root injury evaluations above the 2010 levels at University of Illinois research and education centers, a new survey of western corn rootworm adults in 24 Illinois counties confirms this pest's presence is lower than average.

"In general, a whole-plant count average of 0.75 to 1.0 beetle per plant is suggested as a density that could lead to economic infestations of larvae the following season," said Mike Gray, U of I Extension entomologist. "When producers experience these densities in their fields, they are encouraged to rotate to soybeans the following season or consider the use of a Bt hybrid or a soil insecticide at-planting."

Gray added that the whole-plant count threshold was dropped to 0.5 beetle per plant in first-year corn because a greater percentage of the adults were females and likely to lay eggs in the sampled field.

In the most recent survey, only two counties had densities that exceeded (McLean, 0.81 beetle per plant) or approached (Lee, 0.64 beetle per plant) the 0.75 beetle per plant threshold.

No western corn rootworm adults were found in the cornfields sampled in southern Illinois.

Densities of adults also were very low throughout central Illinois. In Knox and Fulton counties, no western corn rootworm adults were discovered. These counties are historically known as "good" candidates for economic rootworm injury.

Where have the western corn rootworm adults gone?

Gray said several factors could exist including saturated soils in late-May and early-June, during the springs of 2009 and 2010, increasing popularity of Bt rootworm hybrids, and intense use of fungicide/insecticide tank mixes broadcast in both corn and soybean fields.

Gray's team plans to conduct a second round of surveys in mid-August. In addition to the low densities of western corn rootworm adults, his observations within Bureau, Fulton, Knox, Lee, Warren, and Whiteside counties revealed very low densities of other insect species as well.

U of I Department of Crop Sciences researchers Ron Estes, Andy Morehouse and Nick Tinsley led the survey teams. Δ