

July 10, 2012

Vegetable Crops Can Be Target for Common Armyworm

Cornell University/NYSAES Professor of Entomology Dr. Tony Shelton and Research Support Specialist Dan Olmstead have posted the following note to the Cornell Cooperative Extension Vegetable Program website.

Armyworm adults emerge from first generation infestations

Common armyworm, *Psuedaletia unipuncta* (Haworth), is an annual spring migrant to the northeastern United States². In May and June of this year (2012), first generation larvae caused significant damage to pastureland, cereal crops, and early corn plantings across New York State.

Heliothis traps baited with *Helicoverpa zea* pheromone lures at the Cornell University Agricultural Experiment Station captured adult males of *P. unipuncta* approximately 2-3 weeks before widespread reports of caterpillar damage began to appear.

Beginning June 25, 2012, traps again began capturing adult armyworm moths and an average of 4.1 per trap have been collected to date. In contrast, an average of 1 moth per trap was captured from the same sites prior to the first outbreak.

Many factors will influence the probability of a second widespread armyworm outbreak. According to Elson Shields at Cornell, the same behavior that makes this insect an effective long-ranged migrant also kicks in for the 2nd generation and will likely lessen the potential for a second outbreak. Armyworm moths are programmed to fly a distance before eggs are laid, so they will not be so concentrated as they were during the first generation when incoming migrants were concentrated in weather systems and dropped out in very high numbers over a relatively small area. In the 2nd generation they will be dispersed over a much wider habitat.

However, growers should be alert since pheromone trap catches are increasing and we are starting to see the 2nd generation. These moths will lay eggs in coming days and weeks, but we are not sure where. Thus, it would be advisable to monitor all stages of field and sweet corn, cereal grains, forage and pasture for larvae. **When preferred food sources become scarce, caterpillars will go to a variety of other vegetable crops** or weedy plant species, but will avoid legumes such as alfalfa, beans and clover².

Reports have indicated that pyrethroid insecticides will provide good curative control but are short-lived.

Additional reports have indicated that products containing flubendiamide and chlorantraniliprole provided good preventive control for fall armyworm (a related species) and are likely to be effective against common armyworm as well. These will last longer, but require additional time to become effective^{1,3,4,5}. A test we conducted this year indicated that Entrust, a product available to organic growers, provided good control. As always, check the labels before applying an insecticide.

References

¹ Bachmann, A., S. Fleischer, and S. Smiles. 2010. Evaluation of foliar insecticides for

the control of lepidopterans, 2009. Arthropod Management Tests. AMT35; E24.

² Chapman, P. J. and S. E. Lienk. 1981. Flight periods of adults of cutworms, armyworms, loopers and others (family Noctuidae) injurious to vegetable and field crops. Search: Agriculture n14. New York State Agricultural Experiment Station, Geneva.

³ Johnson, D. R., G. M. Lorenz, J. D. Hopkins, J. D. Reaper and K. D. Walsh. 2003. Armyworm management on wheat, 2001. Arthropod Management Tests 28; F125.

⁴ Johnson, D. R., G. M. Lorenz, J. D. Reaper, and T. J. Kring. 2003. Evaluation of insecticides to control armyworms on wheat, 2001 & 2002. Arthropod Management Tests 28; F124.

⁵ Smith, J. F., L. N. Owen, and A. L. Catchot. 2010. Efficacy of foliar insecticides against corn earworm and fall armyworm on sweet corn, 2009. Arthropod Management Tests 35; E28.