

True Armyworm (aka Common armyworm) Alert - Update

Reports of true armyworm continue to come in from across New York. The highest concentration of armyworm activity to date has been in western counties with reports of more scattered incidence in central, northern and eastern New York. While reports have been confirmed in many counties, not all fields have been over threshold so it is important to get out and check your fields. Checking your fields early and often is critical to avoid economic damage or unnecessary spraying.

Armyworm moths are long-range migrants that arrive on the spring storms from their southern overwintering locations. Armyworm moth migrations are somewhat sporadic, cyclic from year to year and difficult to predict. This year the early spring in their overwintering areas enabled the moths to get an earlier start in their migrations north. True armyworms are primarily a pest of plants in the grass family: forage / pasture /grasses (& lawns), wheat, corn and small grains. Note: *Under hunger stress true armyworms will also attack some legumes and other plants.* Moths lay their eggs on weeds and/or grasses along field margins, on leaves of corn, or on small grains. Larvae hatch about a week later and develop over approximately a 3 week period, feeding mostly at night.

Fields at most risk for armyworms feeding are:

- 1) grass or mostly grass hayfields, pastures. (Armyworms will also feed on grass lawns.)
- 2) wheat and other small grain fields and cut hay fields
- 3) corn fields that:
 - a. were planted into a small grain cover crop (such as rye grass)
 - b. have grassy weeds, quackgrass, crabgrass and bluegrass and other perennials
 - c. were planted into burned down sods, have grass weed issues, no-till or reduced tillage fields, fields with crop residue
 - d. fields near severely infested small grain and cut hay fields, and in no-tillage corn established in grain stubble or on grassy land.

In many years natural enemies including various fungal and viral diseases and parasites such as tachinid flies, play a role in helping to suppress armyworm populations. This year our armyworm natural enemies appear to be lagging behind. Some tachinid fly parasitism has been observed in the Finger Lakes and diseased armyworm larvae are beginning to be observed in an increasing number of fields in western NY.

Armyworms may have 2 and possibly 3 generations in New York. Each generation takes about 5 weeks to complete. In a “normal” year the later generation armyworm impacts are usually minimal and or isolated. However, the presence of varying sized armyworm larvae (1/2 inch and greater) indicate there have been multiple flights and we may see an extended period of armyworm activity.

Many armyworms first observed in western NY around Memorial Day, are now about 1.5 inches in length or greater and may be pupating soon if not already. If so, the next generation of armyworms could be expected to be observed about mid July. To be sure, all crops at risk such

as grasses and corn should be continue to be monitored for signs of this insect.

Identification:

True armyworm larvae appear smooth, cylindrical, pale green to brownish when they are still small. Mature larvae are smooth and marked with two orange, white-bordered strips on each side. Larvae range in size from 1/8 inch to 1 1/2 inches long.



Healthy armyworm larva (left), parasitized armyworm with white tachinid fly eggs (center), diseased armyworm larvae on wheat heads (right)

Photo: K. Waldron, NYS IPM Program

Watch your fields!

It is important to detect armyworm infestations areas early, while larvae are still small. Large larvae do most of the feeding, are capable of destroying whole stands of corn, grasses and small grains and are harder to control. Armyworm larvae feed at night so look for signs of feeding: chewed ragged leaves, cut stems, lodged plants, pellet-like frass on the ground. Larvae tend to hide during the daytime often hidden under the plant canopy and in / under surface residue. In corn check under the canopy and within the whorl.

Armyworms can move from field to field in large numbers very quickly. As small grains begin to dry down or harvested, grass hay fields are cut or grass weeds dry down, larvae can move quickly to alternate hosts like corn. For management decisions refer to the monitoring and management guidelines below. Note the size of larvae and their relative number when making management decisions. Larger larvae eat more and 80% of the feeding damage happens in the last 7 days of larval feeding before pupation. There are several natural enemies that can impact armyworm populations including diseases and parasites. If there are sufficient numbers of armyworm larvae and damage is present, an insecticide could be justified. Larger armyworm larvae, greater than 1 inch long, are much more tolerant of insecticides, reducing the effectiveness and economic viability of this option. Always read, understand and follow insecticide label recommendations. Be aware of pre-harvest intervals.

Economic Threshold Guidelines For True Armyworm

Corn – Penn State extension specialists recommend treating seedling stage corn when 10 percent or more of the seedling corn plants are damaged and larvae are still present. For whorl-stage corn, apply an insecticide only if most plants show damage and about three larvae per plant are found. Tall corn will seldom need to be treated unless the leaves above the ear are also damaged. Note: control can be challenging if caterpillars are greater than one-inch long.

Wheat – 3 to 5 or more larvae square foot, larvae less than 1.25 inches and not parasitized, watch for flag leaf reduction or if grain heads clipped off - yield losses, a spray before soft dough to save the remaining 3 upper leaves is generally beneficial since these tissues are still important to grain filling.

Grass pastures - Midwestern extension guidelines indicate insecticide treatments are justified when four or more non-parasitized, half-grown or larger larvae are present per square foot. No specific guidelines are available in NY, need for treatment based on the level of damage observed in relation to the expected value of grass harvest. REMEMBER... if you have a true armyworm infestation in a mixed alfalfa – grass stand, alfalfa and grass BOTH NEED to be on the insecticide LABEL to be a legal application!!!

If treatment is necessary be sure that the insecticide is labeled for true armyworm and the crop. Be careful to evaluate pre-harvest interval when making decisions. Spray coverage is very important. Use higher spray volume for better coverage. Read and follow label instructions.

If field monitoring determines armyworm numbers have reached control guidelines, consider, where possible, treating only the infested portion of the field and a 20- to 40-foot border around it. A border 20 to 40 feet wide treated with insecticide will prevent armyworms from invading from an adjacent infested field. Because the larvae are active at night, apply treatments late in the day.

Armyworm identification Factsheets:

Armyworm (*Pseudaletia unipuncta* Haworth)

<http://ipm.illinois.edu/fieldcrops/insects/armyworm.pdf>

Armyworm Damage to Field Corn and Grass Hay and Pasture

pss.uvm.edu/mg/archive703/mg/pdf%20files/armyworm.pdf

Armyworm as a Pest of Field Corn

<http://ento.psu.edu/extension/factsheets/armyworm>

Armyworm Management.

See armyworm management guidelines in crop(s) of interest at Cornell University's Cornell Cooperative Extension Crop IPM Guidelines website: <http://ipmguidelines.org/>

Help and advice on armyworm management?

Contact your local County Cornell Cooperative Extension Office:

http://cce.cornell.edu/learnabout/pages/local_offices.aspx

To stay informed on field crop production and pest management issues see the Cornell University - Cornell Cooperative Extension Field Crop News Blog: <http://fieldcrops.org/>



Armyworm larvae in wheat

Photo: K. Waldron, NYS IPM Program