

## Monitoring and Management of Beet Armyworm and Other Rind-feeding Larvae in Watermelon

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*These are suggested recommendations for monitoring and scouting for beet armyworm infestations in watermelon. The information is based on past field experiences. Following these procedures should allow for timelier discovery of infestations, selection of appropriate insecticides, and more timely treatment.*

**Adult (moth) monitoring**—Pheromone traps, which attract male beet armyworm moths, can be an indicator of moth activity in the area. However, trap catch numbers may not necessarily relate directly to numbers of larvae in a field. There are documented cases where larvae have been found in fields when few moths have been captured in traps, and cases where there have been high numbers of moths in traps and no larvae in the field. But generally, when weekly trap catches are low there is no threat to the crop, and vice versa, when weekly catches are extremely high the crop may be at risk. Pheromone trap use recommendations include:

- Use two green or yellow/white plastic funnel traps (aka “universal” or “bucket” traps) per field. Place traps on field edges. Mount traps on any sort of pole so they hang freely, about 3 feet above the soil surface.
- Bait each trap with a beet armyworm pheromone lure (e.g., Hercon Luretape HC-BAW 100317, Trece TR-BAW 3210, Scentry SC-BAW L217). Replace the lure every two weeks.
- Place a kill strip (e.g., Hercon Vaportape HC-8001) inside each trap (to kill attracted moths) and replace them when they lose effectiveness (2 months).
- Check traps ~2 times each week. Empty the trap and record the number of moths.
- Counts below 3 moths/week=low risk; 25 or greater moths/week=high risk.



**Scouting for larvae and crop injury**—There is no substitute for scouting for evidence of larvae and feeding injury to actually know what the pest situation is in a field.

Inspections should be done in several areas of each field, as pests are generally not distributed uniformly across a field, but in pockets, areas, or on field edges. A field could be subdivided into areas that ‘represent’ the variation (e.g., edges next to woods, different crops or non-crop grassy/weedy areas, low or high areas, etc.) and a scouting visit should be made to each of these areas. In general, the more sites that can be scouted in a field the better, but a rule-of-thumb is to scout at least five different sites in each field.

Another helpful scouting tip is that beet armyworm is strongly attracted to lambsquarters and pigweed. Larvae often feed on these weeds first before they move into adjacent crops. Fields that have these weeds in or around them are at much greater risk to having beet armyworm infestations. Because these weeds can be an early indicator of the presence of beet armyworm, inspecting them should be part of a monitoring program.

- Scout fields 1-2 times each week for presence of small larvae on leaves or on/under melons. Also note the presence of typical rind feeding scars.
- Inspect pigweed and lambsquarters within and adjacent to fields for presence of larvae.
- Other rind-feeding insects may include yellowstriped armyworm, woollybear caterpillars, fall armyworm, or cabbage looper. For help in identifying these species, ask your Extension Agent for a hard copy of the “Mid-Atlantic Guide to the Insect Pests and Beneficials of Corn, Soybean, and Small Grains,” or view the pdf version (<http://pubs.ext.vt.edu/444/444-360/444-360.html>)



**Management recommendations**—Successful management of beet armyworm in melons requires early detection and early treatment at first appearance of small larvae and injury on melons. Small larvae are easier to control with insecticides. Good control also requires using insecticides that may be different from those normally used for other insect pests. Consider the following products, but also check local Extension recommendations such as the Virginia Cooperative Extension publication 456-420, “Commercial Vegetable Production Recommendations” (<http://pubs.ext.vt.edu/456/456-420/456-420.html>):

Coragen (chlorantraniliprole) (soil, drip, foliar)

Avaunt 30WDG (indoxacarb) (foliar)

Intrepid 2F (methoxyfenozide) (foliar)

Radiant 2SC (spinetoram) (foliar)

Entrust 80W (spinosad) (foliar)

Synapse WG (flubendiamide) (foliar)

Vetica (flubendiamide + buprofezin) (foliar)