

Vegetable Crops IPM Update, Week Ending 10/02/13

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Sweet Corn

European corn borer (ECB) adult activity has decreased to extremely low levels. There are too few catches at this point to register a map image. It is likely that there are few plantings left now that are not yet silking. However, in the case that a planting has not yet reached this stage, remember to make a full-tassel application to control ECB larvae as they leave the tassel and travel down the stalk to re-enter the plant near the ear shank. This last application is often critical to controlling ear infestations from ECB. Consider weekly applications through the silk stage unless local corn earworm catches dictate a tighter schedule. This will help prevent ear infestations resulting from eggs laid on or near the developing ear. Early this week, ECB larvae were found boring into ears in a late sweet corn field in Hunterdon County, so there is still a threat of infestation from existing larvae.

The highest nightly ECB catches for the previous week are as follows:

Lawrenceville	1
Oldwick	1
RAREC	1

Warmer evenings over the past week have resulted in a slight increase in **corn earworm moth (CEW)** numbers, particularly in the northern counties. This activity should continue to rise and fall with fluctuations in temperature. Overall, New Jersey is experiencing a moderate late season population at this time, and it is high enough to cause damage if not managed properly.

Blacklight: The highest **blacklight** catches are in from Mercer-Burlington County border area (see CEW Blacklight Map. In this blacklight-based map, the blue area relates to a 4-5-day silk spray schedule and green areas represent a 3 day silk spray schedule. In general, where 3 day zones exist within larger 4-5 day areas, it is advisable to defer to the more conservative schedule.

The highest nightly CEW **blacklight** catches for the previous week are as follows:

Georgetown	3	Blairstown	1	Matawan	2
Hackettstown	3	Clinton	1	Milltown	1
Newton	2	Downer	1	New Egypt	1
Allentown	1	Farmingdale	1	Sergeantsville	1

Silking Spray Schedules*:

South – 3-4 days

Central – 4-5 days

North – 5 days

* Note: These are general recommendations. Local trap catches may indicate some variation in the frequency of insecticide applications to silking corn.

Tomatoes

Late blight has been appearing on tomatoes in several areas throughout the state recently. These occurrences remain isolated, but all growers should include fungicides with specific activity against late blight (if not already doing so) with their regular protectant program immediately. Consult the *2013 Commercial Vegetable Production Recommendations* for labeled materials.

Peppers

Beet armyworm (BAW) numbers in southern NJ pheromone traps have declined further. However, fields from Hammonton on south should still be scouted weekly. These caterpillars generally feed on young pepper foliage before entering fruit. BAW is resistant to a number of synthetic pyrethroid insecticides. Newer materials, including spinosad-based insecticides, as well as those including chlorantraniliprole and flubendiamide are effective against BAW. YSAW is now impacting pepper some pepper fields in central NJ, and may be controlled with materials that are effective against BAW.

The highest nightly BAW pheromone trap catches in southern NJ are as follows:

Elm	27	Green Creek	4
Hammonton	15		

Pepper Weevil

Counts remain high in fields that have been infested over the summer. No new infestations have been found, but where fields are infested the weevil population will continue to increase up until frost. The need for insecticide applications continues to drop as we approach frost. Only fields where there are young peppers that will be harvested should be protected.

Even though Actara may be the best material for controlling weevils, less expensive options probably should be used now since there is so little of the growing season left. Refer to the *2013 Commercial Vegetable Production Recommendations* for labeled materials.

Brown Marmorated Stinkbug (BMSB)

BMSB adult catches have decreased to nearly nothing, as this pest begins to seek overwintering sites. They are being seen with less frequency in vegetable fields and with greater frequency on and in structures like houses and barns. It is still advisable to check pepper fields weekly, as recent weather has been favorable for a good, late season crop.

The link for the Vegetable IPM Map Archive is:
<http://www.pestmanagement.rutgers.edu/IPM/Vegetable/Pest%20Maps/maparchive.htm>
This site contains all current pest maps as well as those from previous years, back to 1999.

Pumpkins and Winter Squash

As growers prepare to harvest fields or open fields for U-pick, large numbers of **squash bugs** may be present. These large, dusty gray true bugs (adults and different nymphal stages at right) may be alarming to U-pickers but generally do not cause injury to pumpkin plants or fruit at this late stage of the season. If their presence is a deterrent to U-pick consumers, squash bugs may be eliminated with any number of broad spectrum insecticides. Consult the *2013 Commercial Vegetable Production Recommendations* for specific materials and rates.



Be aware that the use of synthetic pyrethroid insecticides may result in dramatic increases in **melon aphid** populations. In fact, many fields have large populations of melon aphid now, despite not having been treated for other pests. These aphids generally do not do extensive damage to plants (except under extreme infestation pressure), but their presence on the underside of leaves results in the deposition of sticky droppings on the surface of fruit. This can become an economic issue should fruit need to be cleaned prior to sale, or if affected fields are to be opened for U-pick. Materials that specifically target aphids (pymetrozine) and neonicotinoid insecticides are effective against melon aphid. Consult the *2013 Commercial Vegetable Production Recommendations* for specific materials and rates.

Cole Crops

Diamondback moth (DBM) infestations are now common and **imported cabbage worm (ICW)**, and in some cases **BAW** and **cross striped cabbage worm** are present. Scout plantings weekly. Check 5 consecutive plants each in 10 random locations throughout the planting, paying particular attention to the innermost leaves where ICW often feed. Consider treating if caterpillars are found on 10% or more plants that are in the 0-9 true leaf stage. From 9-leaf to the early head stage (in broccoli, cauliflower and cabbage) infestations up to 20% may be tolerated. Once heads begin to form, a 5% threshold should be observed to protect the marketable portion of the plant. For leafy greens such as collards and kale, 10% plants infested is the threshold throughout. It is important to identify DBM and BAW correctly, because if it present, synthetic pyrethroid insecticides may not provide acceptable control.

Crucifer downy mildew has appeared on broccoli and collard plantings in northern NJ. This fungal infection can cause significant damage to all foliage, and is particularly problematic on leafy greens because of the direct injury to the marketable portion of the plant. Crucifer downy mildew is characterized by yellow lesions on the upper leaf surface, with pale lavender colored sporulation below. Be sure to inspect plantings weekly for the appearance of this disease. Longer periods of leaf wetness favor the development of this disease. Consult the *2013 Commercial Vegetable Production Recommendations* for fungicides and rates.

Hawaiian Beet Webworm Update

As noted recently, **HBWW** has again appeared in New Jersey. This pest favors beet foliage, as well as spinach and Swiss chard. Amaranths (both cultivated, and pigweed) are also hosts. Adults (a small moth – see photo) are appearing in more sites each week. At present, IPM personnel have encountered large adult populations in Cumberland, Monmouth, Salem and Somerset counties. As yet, damage has not occurred in host crops, but the larvae will damage foliage and produce webbing on the underside of leaves. Several years ago we had a large population of this pest in early autumn, with infestations resulted in significant damage to spinach, beet and chard fields.

