

Vegetable Crops IPM Update, Week Ending 6/05/13

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Sweet Corn

European corn borer (ECB) adult catches increased late last week, and have dropped back somewhat with the onset of cooler night temperatures. Overall, the adult population is on the increase, and may not have peaked yet, particularly in northern areas. The highest catches at this time are near the Burlington, Mercer and Monmouth County border (see ECB Map). Plant injury has increased dramatically in all parts of the state. At present, ECB damage on whorl and pre-tassel stage sweet corn in the areas east of Trenton range from 20% to 50% plants infested. It is likely that high infestation percentages will continue and even increase over the next two weeks. Consider treating if 12% or more plants exhibit the characteristic "shot-hole" type feeding on leaves and/or droppings or ECB larvae in emerging tassels. **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.

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

Allentown	9	Princeton	5	Lawrenceville	1
Woodstown	6	Griggstown	4	Califon	2
Farmingdale	5	Crosswicks	3	Matawan	2
Pennington	5	Denville	3	New Egypt	2

Corn earworm moths (CEW) have been captured in blacklight traps over the past week. Numbers have been low and catches are sporadic. However, with little sweet corn yet in the silk stage, host material for CEW is limited. This results in disproportionately high damage from relatively few moths. The most consistent catches are occurring in Gloucester County (see CEW Map), but individual moths have been caught as far north as Sussex County. CEW catches in Gloucester and Salem County pheromone traps have increased as well, with captures up to 5 moths per night. These moths represent a threat to the earliest sweet corn plantings now in the silk stage. As silks begin to appear, pay close attention to CEW catches in local blacklight traps, and treat silking plantings accordingly.

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

Chester	1	Milltown	1
Downer	1	Newton	1
Hackettstown	1	Pedricktown	1
Indian Mills	1		

Silking Spray Schedules*:

South – 5 days

Central – 6 days

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

Corn stem weevil is a secondary pest that has been found primarily at one farm in Cape May County. Three plantings of seedling/early whorl corn are infested and 90% of the plants show feeding damage. Usually, feeding damage is minimal but this spring many of the plants appear severely damaged. The adults chew holes in the leaves and stem of corn plants, quite different from the symmetrical billbug injury. Only early season corn seems to be vulnerable to the weevils.

Cole Crops

Heavy egg laying by **imported cabbage butterflies (ICW)**, and **diamondback moth (DBM)** continues. **Cabbage looper (CL)** larvae are now present to lesser degrees as well. Infestations of these pests have been found throughout the state. 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.

Peppers

Pepper transplants are now going into fields. At the same time, the first ECB flight is increasing. Be sure to scout fields regularly for the presence of ECB egg masses. If two or more egg masses are found in a 50 plant (two leaves/plant) sample, consider treating even if no fruit are present. In the absence of fruit, ECB larvae will bore into the central stem, topping the plant. This will result in the loss of crown fruit on infested plants. Generally, where blacklight trap catches average one or more ECB per night (colored areas on the ECB map) and fruit are greater than $\frac{1}{2}$ " in diameter, insecticides are warranted. See the *2013 Commercial Vegetable Production Recommendations* for materials useful in controlling ECB.

We will be reporting the incidence of **pepper weevil (PW)** this year. This is because we have expanded the number and geographic areas of the state where pheromone traps have been placed. Several non-farm sites including food processing plants, a land-fill, and other locations, as well as, many farms have pheromone traps now. So far, PW has been collected from a number of non-farm and 3 farm sites. At present, we are not aware of an established infestation in any pepper field in the state. For the period of June 3 and 4, 2013, weevils have been collected in Deerfield Township, Hammonton, Vineland and Woolwich Township. Trap catch in these areas range from 6 to 25 weevils.

Brown Marmorated Stinkbug (BMSB)

BMSB adult catches increased throughout the state over the past week. Currently, the highest catches are occurring in parts of Somerset and Monmouth counties (see BMSB map). BMSB has shown a preference for peppers in the past. Growers should pay close attention to activity from local traps to determine when to initiate field monitoring of this pest.

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

South Branch	10	Farmingdale	4	Pennington	3
Belvidere	7	Allentown	3	Pedricktown	2
Clinton	5	Califon	3	Springdale	2
Centerton	4	Hackettstown	3	Woodstown	2

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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.