Vegetable Crops IPM Update, Week Ending 6/12/13

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Sweet Corn

European corn borer (ECB) adult catches have declined further over the past week. The adult population appears to have peaked, although foul weather may be playing a role in the overall reduction. The highest catches continue to be in the central counties (see ECB Map). Typically, as the adult population begins to decline, feeding injury increases significantly as eggs hatch. At present, ECB damage on untreated whorl and pre-tassel stage sweet corn in the central counties ranges to 50%. These numbers drop with treatment, although a single treatment is unlikely to be sufficient to manage ECB at this time of the season. Infestation percentages may 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:

Farmingdale	7	Old Bridge	3	Hackettstown	2
Allentown	5	Blairstown	2	Matawan	2
Princeton	5	Cinnaminson	2	New Egypt	2
Pennington	4	Crosswicks	2	Newton	2

Corn earworm moths (CEW) have been captured in blacklight traps over the past week. Numbers have been low and catches are sporadic. There are early sweet corn plantings in parts of the state that are now in silk. With few silks on which to deposit eggs, these early plantings are heavily impacted. At this time of the year, pheromone traps catch a disproportionately higher number of moths than the blacklights. In order to provide more useful information to growers who have these early silking fields, **a southern New Jersey pheromone-based map will appear in the Vegetable IPM Update in addition to the blacklight based map.** Interpretations of the maps will also be provided here.

Blacklight: At this time, the most consistent **blacklight** catches are occurring in Burlington County (see CEW Blacklight Map), and individual moth captured have been confined to surrounding counties.

Pheromone: CEW **pheromone** catches have increased, particularly near the border of Camden and Atlantic counties. Because there are few pheromone traps deployed relative to blacklights, the CEW Pheromone map give a less defined image. However, given the high threat to these early plantings, it is recommended that for the present, growers defer to the more conservative schedule suggested by the pheromone map (see CEW

Pheromone Map). Green areas on the pheromone map correspond to a 4-day spray schedule, while blue areas correspond to a 5-day schedule.

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

Downer	1	Milltown	1
Green Creek	1		
Hammonton	1		
Indian Mills	1		

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

Elm	19	Woodstown	3
East Vineland	8	Green Creek	2
Springdale	5	Pedricktown	2
Beckett	3		

Silking Spray Schedules*:
South –4 days
Central – 5-6 days
North – 6-7 days
* Note: These are general recommendations. Local trap catches may indicate some variation in the frequency of insecticide applications to silking corn.

Cole Crops

Heavy egg laying by **imported cabbage butterflies (ICW)**, and **diamondback moth (DBM)** continues. **Cabbage looper (CL)** larvae are now increasing significantly. 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.

Tomatoes

Bacterial leaf spot (BLS) infections have appeared in a few tomato plantings this week. Be aware that the practices of pruning and tying tomato plants in the field can spread bacterial pathogens if they are present on any of the plants. It is advisable to use latex gloves while pruning, and discard them at the end of each row. Using new gloves with each new row will help limit spread in the field. Additionally, tying wands may be dipped in a bleach solution at row end as well for the same reason. Bacterial infections (speck, spot and canker) typically appear first as very dark lesions on leaf edges or interior tissue. Foliage of any age may be affected. Be sure to work in younger plantings before older, potentially infected ones if tying or other activities are necessary in multiple plantings. This will lower the risk of spreading the pathogen to younger plants. Various

chemical applications may also be used to help suppress bacterial infections in both tomatoes and peppers (see the *2013 Commercial Vegetable Production Recommendations*), and these should be considered even in the absence of symptoms.

Peppers

Pepper plantings are now established in many areas. ECB egg-laying has occurred, and feeding is ongoing. 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 ½" in diameter, insecticides are warranted. See the *2013 Commercial Vegetable Production Recommendations* for materials useful in controlling ECB. **Pepper weevil:** Pheromone traps continue to capture pepper weevils primarily at non-farm sites. A trap at a tomato field near Swedesboro caught a weevil, as of yesterday. There are no known field infestations at this time.

Pepper Weevil Counts for the period from June 6-11, 2013:

Hammonton	35
Deerfield Twp.	13
Woolwich Twp.	10
Vineland	3

Brown Marmorated Stinkbug (BMSB)

BMSB adult catches decreased to nearly nothing throughout the state over the past week. There are no areas of higher activity, based on blacklight catches. Individual BMSB have been caught throughout the state, but rarely more than one per site for the past week. 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. As a result of the extremely low activity, no map will appear in this update.

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.