

Sweet Corn

European corn borer (ECB) adult catches are increasing now, particularly in the northwestern parts of the state (see ECB map). Whorl stage feeding is now interspersed with fall armyworm (FAW) feeding in many areas. As always, consider treating if 12% or more plants exhibit ECB feeding alone, or in combination with **FAW** (see below) injury. **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.

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

Belvidere	5	Califon	1	Pedricktown	1
Little York	2	Eldora	1	Phillipsburg	1
Allentown	1	Georgetown	1	Princeton	1
Blairstown	1	Oldwick	1	Sergeantsville	1

Blacklight: Corn earworm moth (CEW) catches have increased somewhat in blacklight traps. We are now catching scattered individual moths as far north as Sussex County. The majority of CEW adult activity is still in the southwestern counties (see CEW map), but the presence of moths in the north is an indication that the late summer increase will begin soon. Overall, CEW has been light this year, and the extent of the late population remains to be seen. Catches in North Carolina are increasing significantly now, and some Virginia traps are showing increased catches. As southerly winds or storm systems approach NJ, we should expect potentially significant increases in CEW in our area.

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

Centerton	3	Folsom	1	Pennington	1
East Vineland	2	Matawan	1	Springdale	1
Downer	1	Medford	1	Tabernacle	1
Farmingdale	1	New Egypt	1	Woodstown1	1

Pheromone Trap: There have been no dramatic changes from last week in CEW pheromone trap catches. Higher activity has been recorded along the Atlantic – Camden County border, but overall, catches are stable at low to moderate levels (see CEW pheromone trap map). The green area on the map roughly corresponds to a 4-day silk spray schedule. Low spots within the broader green area should be considered outliers, and grower near those areas should defer to the more conservative schedule. Sweet corn plantings now in silk in southern NJ are at risk for ear infestation if CEW is not properly controlled. As silks begin to appear, pay close attention to CEW catches in local blacklight traps, and treat silking plantings accordingly. The highest nightly CEW *pheromone trap* catches are as follows:

Elm	18	East Vineland	2
Eldora	3	Green Creek	2
Pedricktown	3	Woodstown	2

Silking Spray Schedules*:

South –3 - 4 days

Central –4 - 5 days

North - 5 - 6 days

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

Fall armyworm (FAW) infestations are more widespread now, and occurring in younger plantings. Infestations of whorl and even seedling stage corn are occurring as far north and west as Warren and Sussex counties. It is important that all plantings be scouted regularly for this pest. FAW caterpillars consume corn foliage, and produce large quantities of feces that pile up within the whorl. FAW larvae typically have light and dark brown bands, and the head capsule has a distinctive upside-down “Y” pattern on it. Unlike ECB, FAW will feed on corn plantings in the seedling stage, although whorl stage is usually the first to be affected. Consider treating if the number of plants infested with FAW either alone, or in combination with ECB exceeds 12%. FAW may be difficult to control with pyrethroid insecticides. Newer materials, including spinosad-based insecticides, as well as those including active ingredients chlorantraniliprole and flubendiamide are effective against BAW.

Peppers

With ECB moths now emerging, treatments may become necessary to prevent infestations. As ECB warrants control (local blacklight catches at 1/night), consider an insecticide that is not destructive to predators and parasites of aphids and TSSM. These include Coragen and Belt (or Synapse).

A few plantings have developed low level **cyclamen mite** infestations. Cyclamen mites are microscopic mites that infest growing terminals on the plants, and feed on developing fruit soon after pollination occurs. The result is distorted foliage near the terminals and a “russet” condition on fruit (upper photo – courtesy of Ohio St. Univ.). The foliar symptoms (lower photo-courtesy of Dr. Rose Buitenhuis) may be mistaken for herbicide injury. If infestations are not managed, numerous fruit are rendered unmarketable due to the rough, brown surface caused by the mite feeding.

Beet armyworm moths (**BAW**) have been captured in southern counties, but numbers remain fairly low. As moth catches increase, or pepper infestations occur, information will follow.

Pepper Weevil Report

No pepper weevils have been found in the traps. Still no field infestations - a stark contrast to 2013. There is no map this week.



Tomatoes

Native **brown stinkbugs** are increasing in tomatoes. Typically, injury increases with drier weather. Be sure to monitor fruit for this damage. If adults are found in more than one sample, or if nymph groups are found, or injury is increasing in harvested fruit, consider an insecticide application to limit further damage. Consult the *2014 Commercial Vegetable Production Recommendations* for specific insecticide recommendations.

Brown Marmorated Stinkbug (BMSB)

BMSB activity is very low, overall. At present, only a few traps are catching more than one per night. Adult activity continues to be well behind previous years. As adult captures increase to 5/night for a full week, maps will be produced to show where activity is highest. Information on scouting, crop injury and control will also be included.

At present, the highest nightly BMSB catches are:

Woodstown	5	Princeton	2
Belvidere	3		
Long Valley	3		
Hackettstown	2		

Pumpkins and Winter Squash

These crops are setting fruit in many areas. As fruit begin to appear and enlarge, the appearance of **powdery mildew (PM)** will follow. PM thresholds have been reached this week in nearly all fields in northern and central NJ. The same is undoubtedly the case in southern NJ as well. Check upper and lower surfaces of 2 mature leaves per plant on 5 consecutive plants each, in 10 locations throughout the field. When PM lesions are found on 2 or more leaves, begin a weekly protectant fungicide program. See the *2014 Commercial Vegetable Production Recommendations* for materials useful in managing PM.

Cucurbit downy mildew (CDM) has been detected on cucumber in Cumberland and Salem counties. CDM initially impacts cucumbers, and may begin to infect other cucurbits in the area over the next several weeks. A sentinel plot containing susceptible and resistant cucumber varieties, as well as muskmelons, watermelons, acorn and butternut squash and pumpkins is established at the Snyder Research and Extension Farm in Hunterdon County and another was established at RAREC in mid-July. The purpose of these plots is to detect the presence of CDM in NJ. Vines at Snyder Farm are fruiting, and no DM has been observed as yet in the plot. The CDM website (<http://cdm.ipmpipe.org/>) has New Jersey at "low risk" for further infection. This website should be a "favorite" on every grower's web browser. Northern and central counties appear to be free of CDM thus far, but this could change any time, particularly on cucumbers. It is advisable that all growers scout crops at least twice a week, and begin to apply CDM specific fungicides at least to the cucumber crop. Any further occurrence will be

reported in this newsletter and will also generate an alert to all subscribers. See the *2014 Commercial Vegetable Production Recommendations* for materials useful in managing CDM.

Basil

Questions about yellowing basil leaves are coming in regularly now. Basil plantings all over the state are at extreme risk of developing **basil downy mildew (BDM)**. This disease attacks Genovese type sweet basil in particular, but will also impact other tender-leafed varieties. Once the disease infects plants, the leaves are not marketable. Therefore BDM must be prevented. **The photographs here are of BDM symptoms on the upper leaf surface (yellowed areas bordered by leaf veins), and actual sporulation of the fungus on the lower leaf surface.** Fungicides in FRAC group 33 (phosphorous acid salts including K-Phite, Prophyte, etc.) are useful for management of this disease. For information on the disease, as well as other recommended control products, see the following article by Dr. Margaret McGrath of Cornell: <http://vegetablemdonline.ppath.cornell.edu/NewsArticles/BasilDowny.html>

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.