

Hudson Valley Laboratory
Department of Entomology

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● Agricultural Research and Extension on Tree Fruits and Vegetables ●

Sweet Corn Pest Report

Tuesday, August 6

Corn earworm (CEW) adult populations remains low this week with trap captures ranging from 0 to 4 per trap in 4 sites. CEW trap counts in Florida (3 per trap), Hurley (4 per trap over two weeks) New Paltz (1 per trap per week) suggest a 5-6-day spray (Table 3). A tighter schedule may be required in sites where ECB and CEW larva populations are experiencing increasing numbers and continued larval emergence. Fall armyworm adults have yet to be observed in our traps.

The trap catch data from New Paltz this week indicates that the 2nd generation European corn borer adults are continuing their flight. Multiple sites including Ulster and Orange counties also have ECB present, however numbers are in decline in all sites. Most of the region including WNY, PA and NJ and seeing moderate to low ECB trap numbers. As we have observed over the past few years, variable population levels have been seen in the Hudson Valley. Trap locations should be relocated as needed and placed in corn moving to tassel and silk so as to optimize adult captures.

From the onset of ECB sustained flight we can predict the development of larval hatch based on degree day accumulations (Table 1.) Given the cooler temperatures over the past two weeks, we can expect larger larva, which will lead to decreased control with insecticides. Cooler temperatures are more conducive to effective larva control using pyrethroids. However, The OP's and carbamates are less prone to loss of efficacy from high temperatures than are the pyrethroids. The spinosad Entrust and spinetoram Radiant SC is only moderately reduced by increased temperature. Field scouting should be ongoing in all fields that are in the whorl and silk stage for the presence of newly emerging ECB-E and other insect pests. Damage threshold for fresh market sweet corn in the silk stage is 5%.

Western bean cutworm (WBC) adults are increasing throughout the state with nearly all sites in WNY finding adult captures in traps. Highest trap numbers of WBC can be found in W.NY (Bellona in Yates County at 6.57 moths per day. This week we observed 0 WBC adults per trap in Florida, Orange County with no other adults found in three other locations. No eggs or larva of the WBC have been observed in the Hudson Valley that I'm aware of. We are presently at 1802.3 DD since 1 May, which indicates greater than nearly 100% of WBC larva are predicted to have emerged (NEWA-Highland).

Regional Pestwatch data indicates regional low levels of CEW in NJ, NY with the exception of very high levels in E.LI. (Mattituck at 10.71 moths per day; East Quogue at 13.86, Batting Hollow at 6.14 / day), with central PA generally showing low populations.

Table 1. Degree day accumulations for predicting ECB activities in the field.*

Degree days from event (F°)	Life stage
0	Increasing moth flight (peak)
100	Peak egg hatch
200+	1st - 2nd instar larvae
350+	3rd instar larvae
400+	4th instar larvae
550+	5th instar larvae
900+	Pupation
1150 - 1700	Adult moths

* from: European Corn Borer Development and Management, USDA NC Reg. Ext. Pub. No. 327, May 1989. Threshold = 50°F (10°C)

Table 3. CEW spray schedule based on pheromone trap captures.

Per Day	Per Five Days	Per Week	Days Between Sprays
<0.2	<1.0	<1.4	No Spray(for CEW)
0.2-0.5	1.0-2.5	1.4-3.5	6 days
0.5-1.0	2.5-5.0	3.5-7.0	5 days
1-13	5-65	7-91	4 days
over 13	over 65	over 91	3 days



CEW adult on ear of corn.



CEW Eggs on silk.



ECB "window pane" damage



ECB feeding on emerging tassel



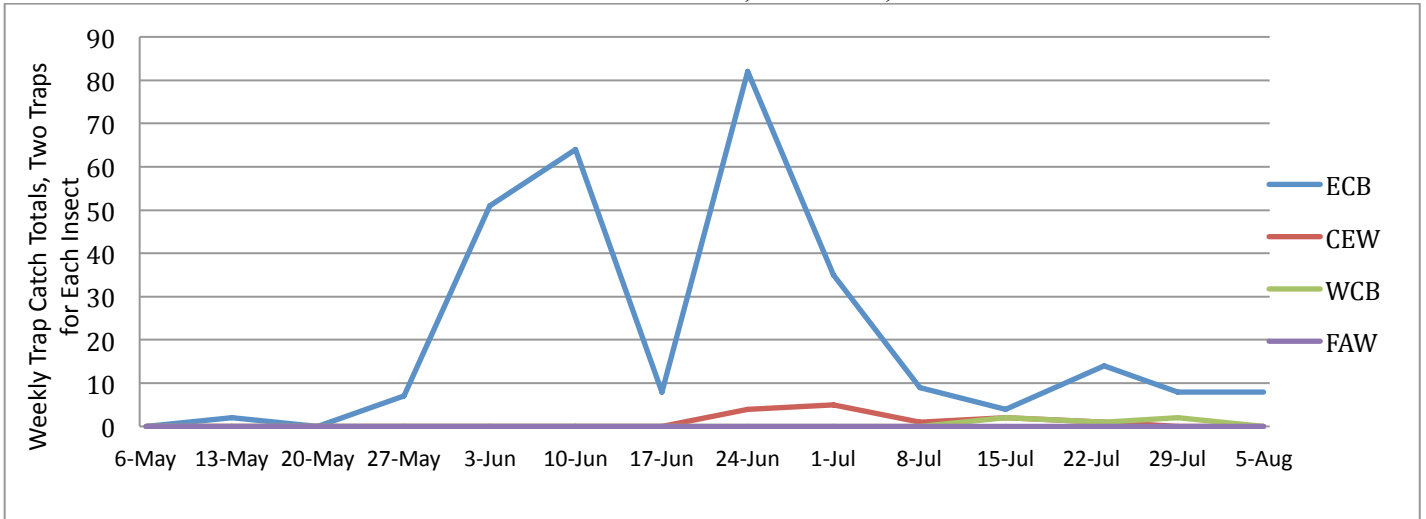
ECB pinhole damage



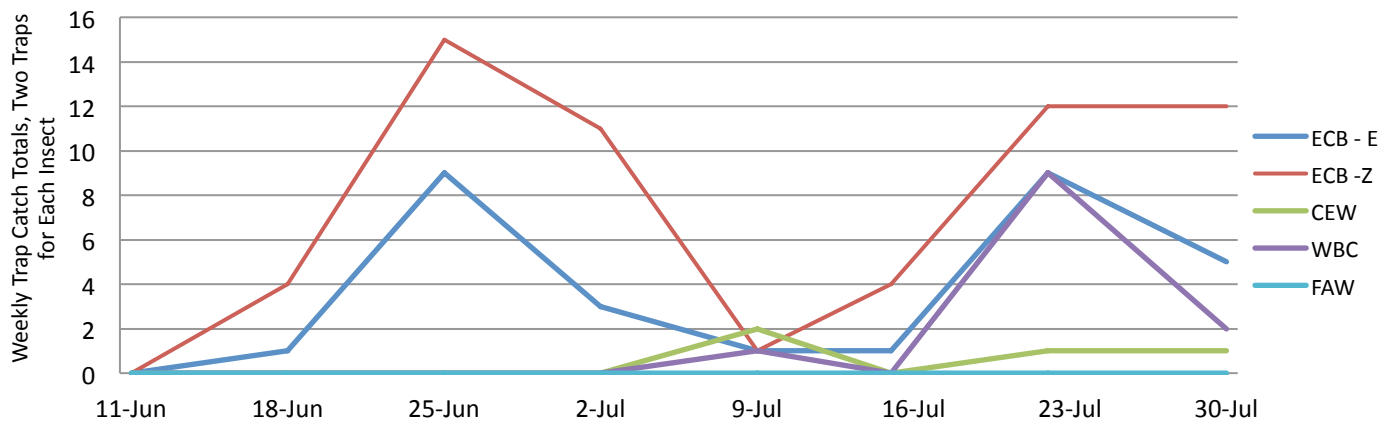
CEW and FAW feeding damage

2013 European corn borer (ECB), Fall Armyworm (FAW), and Corn Earworm (CEW) Adult Flight Data

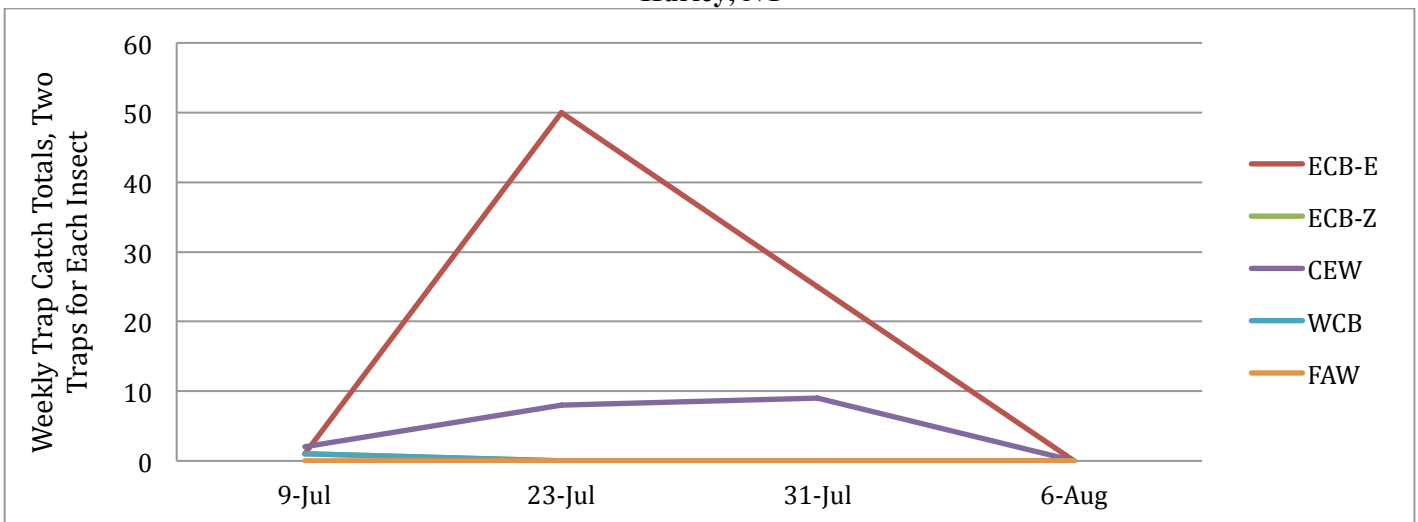
Wallkill View Farms, New Paltz, NY



Florida, NY



Hurley, NY





The **western bean cutworm (WBC)**, *Striacosta albicosta*, is a late season pest of corn (including field, sweet and popcorn), first trapped in the Hudson Valley in 2012. It is an emerging pest in the Eastern US. The western bean cutworm completes a single generation per year.



Adult moths fly in mid-summer and females lay eggs on the upper surfaces of corn leaves. As a late-season corn pest, WBC larvae feed on tassels, silks, and developing kernels and can cause severe damage. Chemical control can be a challenge because larvae spend considerable time inside the husk.