



Vol. 4, Issue 19  
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## Vegetable News

### Corn Ear Worms Have Arrived!

Chuck Bornt, *ENYCHP*

As usual with corn earworm it's not if they will arrive but when will they arrive and that time is now! This week we saw several of our trapping locations reporting significant numbers of CEW. The fact that most of them were alive when we checked the traps also indicates that they probably came in on the weather front that rolled through parts of the region on Sunday. Remember that this pest does not overwinter in our region but rides up from the south on weather fronts which then deposit them throughout the region, and not necessarily distributing them evenly! I've been on some farms that have a ton of CEW damage in one field and another (theirs or a neighbor's) with the same maturity, spray program etc. may have 50% infestation or better—just depends on where they were dropped!



Larvae feed on corn kernels within the ear. Larvae vary in color from green to brown to black (University of Minnesota).

CEW is also different compared to the other sweet corn worm pests that we deal with because we actually use the trap catches to time our insecticide sprays (as seen in Table 1) unlike European Cornborer and Fall Armyworm in which we scout the corn and look for damage. In my opinion CEW is harder to deal with because the damage they cause occurs right in the very tip of the ear because they lay their eggs on freshly silking corn. As those eggs hatch, the larvae follow the silk channel to the tip of the ear and begin feeding, usually resulting in an unmarketable ear (and a nasty surprise when you open up the ear!). For this reason,

it is very important that insecticide coverage be maintained in the ear zone on silking corn. Once they enter the tip of the ear they are very protected from insecticides. This has become easier with some of the newer materials such as Coragen (Group 28) or Voliam Xpress/Besiege (pre-mixes of Coragen and Warrior), Belt (Group 28) and Radiant (Group 5) which have longer residuals compared to straight pyrethroids used alone. The best control is to time the frequency of sprays based on moth counts (Table 1) on fresh silking corn, being sure to target the ear zone in particular.

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<b>Table 1: Average CEW pheromone trap catches during silk stage.</b>			
<b>Average Corn Earworm Pheromone Catch</b>			
<u>Per Day</u>	<u>Per Five Days</u>	<u>Per Week</u>	<u>Days Between Sprays</u>
<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

**Northern Corn Leaf Blight**  
*Chuck Bornt, ENYCHP*

Although I haven't found Northern Corn Leaf Blight yet this year, I suspect it has to be around especially with the outbreaks we've had the last couple years (meaning there is probably inoculum around) and with the cool nights and heavy dews, I think it will be showing up very soon. Northern Corn Leaf Blight affects both sweet corn and field corn and is a disease that should not be taken lightly as it can both affect ear quality (discolors the husk leaves) and can essentially defoliate a plant. Look for long, grayish cigar shaped lesions on the lower leaves first. I have heard of sweet corn being rejected by buyers because of low levels of NCLB on the flag leaves of the ears.

The first line of defense for sweet corn is selecting varieties that have NCLB tolerance or resistance. This information is generally noted in the seed catalogs, or you can ask your seed salesperson. The second line of defense is a fungicide. There are several recommended materials that can be used, including those in Group 11 FRAC fungicides: Headline and Quadris, or those in Group 3: PropiMax and Tilt. Quilt or Quilt Excel are premixes of both the active ingredients in Quadris and PropiMax and Tilt. The recommendation is to alternate between Headline and PropiMax or Tilt plus a protective material like Bravo or mancozeb (Dithane). **However, pay attention to the pre-harvest interval of these materials as they range from 7 days to 14 days.** Stratego is also labeled and is a pre-mix of propiconazole (FRAC Group 3) and another active ingredient called trifloxystrobin (Group 11), has been labeled

in NY and has a preharvest interval of 0 days with a 12 hour re-entry period. You need to rotate between the Group 3 and 11 fungicide groups for fungicide resistance management. Please be aware if you are applying pre-mixes that contain both groups or only a single active ingredient as this will determine your fungicide schedule.

Once corn is harvested, corn residue should be destroyed as soon as possible in order to reduce the amount of inoculum and further infection of later plantings. You should also try to rotate out of corn in those fields infected with leaf blight for at least one year or better yet two years, if possible.



Long, tannish boat-shaped lesion of Northern Corn Leaf Blight which will eventually turn a gray color.

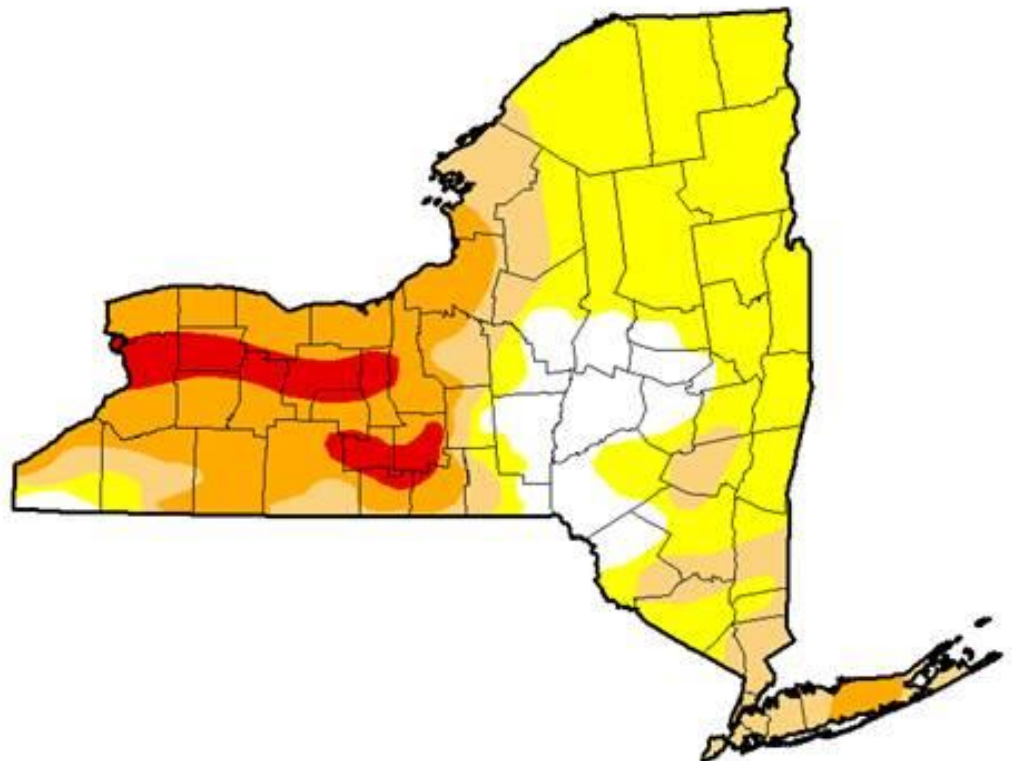
## The Northeast and the Eastern Great Lakes Region: Drought Update

*Keith Tidball, Cornell University*

Beneficial rains (2 to 4 inches, locally to 6 inches in northwestern Pennsylvania and 8-10 inches in northern Indiana and southwestern Lower Michigan) fell across much of the northeastern quarter of the Nation, preventing additional deterioration, and in several areas, improving conditions. In general, enough rain (more than 2 inches) fell for a one-category improvement in the southern half of Lower Michigan, most of Indiana, the western half of and northeastern Ohio, northern Pennsylvania, extreme southwestern and south-central New York, northwestern New Jersey, northeastern Connecticut, and southwestern New Hampshire. The rains were especially welcome as temperatures averaged well above normal (6 to 10 deg F) and felt even more oppressive with the high humidity. USGS stream flows showed short-term (instant, 1- and 7-day averages) recovery in these areas (above to much-above normal), although longer-term (14- and 28-day averages) values were in the normal to subnormal class. While the rains may have aided the soybean crop, the precipitation may have been too late to help earlier planted corn.

However, some portions missed out on the heavy rains (e.g. western New York and coastal New England) where less than 0.5 inches fell). Accordingly, conditions deteriorated there, including an expansion of D3 into northeastern Massachusetts and southeastern New Hampshire, and two new D3 areas in western New York, one along the I-90 corridor, and another in the southern Finger Lakes region. 90-day deficits of 4-8 inches were common across coastal New England and western New York, with 8-12 inch accumulated deficiencies at 6-months. In eastern Massachusetts, USGS stream flows failed to rise substantially after this week's rains, remaining in near- to record low levels at all time periods. The Massachusetts Drought

Management Task Force met on Aug. 11 and recommended that all of the state be included in the drought declaration, and that the drought watch for central and northeast Massachusetts be upgraded to drought warning. In western New York, wells in Genesee County had gone dry or had reduced pressure, while officials in Ithaca, NY, stated on July 27 that if significant rains did not fall soon, the town and Cornell University could be out of water in the next 30 days as their municipal water sources at Falls and Six Mile Creeks were at record low levels. According to NASS/USDA, Aug. 14 statewide topsoil moisture rated short to very short was at 100, 92, 80, 67, 62, 59, and 55 percent in RI, MA, CT, NH, VT, OH, and ME, respectively, and those values represented a weekly improvement or no change. Statewide subsoil moisture rated short to very short was similar, with values ranging from 89% in Connecticut to 26% in New Jersey, with most other Northeastern states above 50%. Statewide pastures conditions (%) with over half rated very poor or poor included CT (87), RI (80), NH (78), MA (58), and ME (52). Farther west, short-term abnormal dryness (60-days) has expanded in southeastern Wisconsin as accumulated shortages have reached 3-5 inches.





## Free Cancer Screening Tests Available

*Sandy Buxton, CAAHP*

Do you think if you are uninsured that you are unable to do wellness screenings? Do you realize that by not finding some of the most treatable cancers early, the cost for care increases dramatically?

The Cancer Services Program (CSP) is a free service offered through local identified hospitals to screen for breast, cervical and colorectal cancer. Sponsored by the NYS Department of Health, CSP helps eligible individuals get free mammograms, Pap tests and at-home FIT tests for colorectal cancer.

Individuals are eligible by meeting income guidelines and being uninsured. This pool would include farm owners and their families, employees and even undocumented workers.

According to NYSDOH, “clients receiving positive screening tests also receive diagnostic testing and are referred to treatment if needed. Eligible clients are also enrolled in the Medicaid Cancer Treatment Program for Medicaid coverage for the duration of their breast, cervical, colorectal or prostate cancer treatment.”

The program is available in every county in NY and can be found by visiting [https://www.health.ny.gov/diseases/cancer/services/community\\_resources/](https://www.health.ny.gov/diseases/cancer/services/community_resources/) or by calling 1-866-442-2262.

## Farmers' Market Pricing Project Survey & Evaluation

As August nears its end, our Farmers Market's Research Project is concluding. For the past few months, various staff members have traveled to markets attended by yourself, your friends, and neighboring farmers to collect the prices of specific products. These prices were aggregated each week according to region to create price summaries for your viewing.

The individual offices and dedicated staff of Cornell Cooperative Extension strive to provide valuable educative material and research to farmers just like you each and every day. Help us ensure that we continue to succeed at this goal by taking our brief online survey.

**[Follow this link to take the survey online](https://cornell.qualtrics.com/jfe/form/SV_57ivb2VrwD5cWRD)**

Or go to: [https://cornell.qualtrics.com/jfe/form/SV\\_57ivb2VrwD5cWRD](https://cornell.qualtrics.com/jfe/form/SV_57ivb2VrwD5cWRD)

## It's Time to Put Fall & Winter Cover Crop Plans into Action

*Ethan Grundberg, ENYCHP*

It is always a challenge to make time for cover cropping this time of year. However, as fields of first and second cucumber and summer squash plantings are taken out of production along with early-mid-season lettuces, there is an opportunity to take advantage of warm temperatures and day lengths to establish robust fall and winter cover crops now. Before selecting a cover crop for your fields, think through the following three things:

1. What is the desired outcome or “management goal” that you want to see from the crop? Common goals for late season cover crops are nutrient scavenging, weed control, erosion protection, increasing organic matter, and breaking up hardpans from tillage and compaction from equipment use in season.
2. Does the cover crop that best achieves your management goal serve as a host for insect or disease pests that are problematic in those fields and will affect the crops planted there the following year? Pay particular attention to soil-borne pests like root-knot nematodes and insect pests like tarnished plant bug and thrips.
3. How early do you need to complete primary tillage in that field the following spring and what tillage equip-



ment do you have to do it? Heavy residues from certain overwintering cover crops can delay planting in the spring until mid-June.

A few popular options for seeding now are:

**Buckwheat** (50 lb/ac drilled 70 lb/ac broadcast):  
Though typically sown earlier, late season buckwheat can

still be effective at suppressing late germinating weeds. Even if sown in the first week of September and left to frost-kill in place, buckwheat can provide some erosion protection as well. Since the residue decomposes quickly and is easily incorporated, planting buckwheat now can be a good option for fields that will be planted early next spring.

**Canadian Field Peas and Oats** (120 lb/ac peas with 20 lb/ac oats): This mixture is typically sown no later than mid-September in the region. Though oats do not typically develop deep enough roots to help break up hardpans, the grass does provide a winter-killed protective mulch and well-enough established roots to help prevent erosion. The oats also act as a nurse crop for the slower-to-germinate field peas that use the grasses structure to climb. Peas are legumes and will contribute some nitrogen to the soil through symbiotic fixation, but the N contribution per acre varies depending upon how well the crop establishes and is dependent upon the presence of *rhizobia* bacteria. If you have not done so in the past 5-10 years, consider purchasing a legume inoculum to mix with the field peas to increase the likelihood of nitrogen fixation. Though peas and oats leave some more residue than buckwheat, both winter kill and are easily incorporated for early spring field preparation.

**Forage Radish** (10 lb/ac drilled 15 lb/ac broadcast): Very similar to daikon radishes, forage or “tillage” radishes produce thick tap roots that can regularly reach lengths of 10-16 inches. The deep roots can help break up compacted soils and create deep channels to improve water percolation and deep root establishment of future cash crops. Since the crop is winter killed, residues are easily managed for early spring planting. Since forage radish is a brassica and can attract flea beetles, make sure not to use it as a fall cover in fields to be planted with spring cole crops.

**Winter Rye** (seeding rate depends on date, see <http://covercrops.cals.cornell.edu/rye.php> for precise information): Rye is the most desirable late season cover crop for erosion control and nutrient capture. Since it overwinters and continues to grow both above and below ground in the spring, the crop is also excellent at outcompeting early spring weeds. However, this vigorous growth combined with rye’s high carbon to nitrogen ratio makes it a difficult cover to manage for early spring planting. Conventional growers can kill the rye cover crop with herbicide in the early spring, but residues still require about a month to decompose and often delay planting until early June. Organic growers have most success flail mowing the crop before it produces seed heads and often find repeated tillage passes are necessary to break up the heavy residues.

**Hairy Vetch and Rye** (30 lb/ac vetch 70 lb/ac rye): Growers looking for an early season addition of nitrogen from a cover crop often mix hairy vetch with winter rye. The rye provides the same benefits discussed above while also acting as a nurse crop for the leguminous vetch. Most of the nitrogen fixation occurs in May, so it is best to wait to spray down or flail mow kill the crop until at least late May, or when flowers have set but seed pods have not formed. Like straight stands of winter rye, the vetch rye mix is best used in fields that will not be planted until at least early to mid-June. Be aware that hairy vetch is a host for root lesion nematodes and can also harbor white mold.

The Cornell Cover Crops Guide for Vegetable Growers is a great resource for more information on cover crops suited to the region, including a “decision tool” to help select the right cover crop for your management goals and season: <http://covercrops.cals.cornell.edu/>. Happy cover cropping!

## UPCOMING

## LECTURES

Registration 6:30pm/ Program 7:00pm

October 27, 2016, Gardenworks Farm  
1055 County Route 30, Salem

December 1, 2016, Hubbard Hall– Love Joy Building  
5 Washington Street, Cambridge

January 26, 2017, SUNY Adirondack– Main Campus  
640 Bay Road, Queensbury

March 14, 2017, Brown’s Brewing Company– Waloomsac Tap Room  
50 Factory Hills Road, Hoosick Falls (snow date March 21)

Register online at [www.sunyacc.edu/continuinged](http://www.sunyacc.edu/continuinged) or by calling 518-743-2238

A Lecture Series on  
the Regional Farm  
and Food System:

**GLOBAL ISSUES,  
LOCAL SOLUTIONS**

Average Farmers Market Prices

Product (NC = nonconventional)	Unit	Mid-Hudson	Capital	Saratoga - Lake George
Beefsteak Tomatoes	1 lbs.	\$3.13	\$2.56	\$2.56
Beefsteak Tomatoes NC	1 lbs.	\$2.38	\$3.22	\$3.19
Blueberries	pint	\$4.00	\$4.50	\$4.50
Blueberries NC	pint	\$4.50	\$5.00	\$4.33
Carrots	bunch	\$2.00	\$2.25	\$3.50
Carrots NC	bunch	\$2.67	\$2.67	\$3.54
Cherry Tomatoes	1 lbs.	\$2.67	\$3.40	\$3.69
Cherry Tomatoes NC	1 lbs.	\$3.56	\$3.77	\$3.63
Heirloom Tomatoes	1 lbs.	\$3.58	\$3.00	\$4.33
Heirloom Tomatoes NC	1 lbs.	\$4.33	\$3.62	\$3.33
Honey	1 lbs.	\$7.50	\$8.75	\$8.50
Honey NC	1 lbs.	\$8.00	\$9.00	\$6.00
Raspberries	1/2 pint		\$3.00	\$4.00
Raspberries NC	1/2 pint	\$4.00	\$4.00	\$4.00
Red Potatoes	1 lbs.	\$3.25	\$3.00	\$3.15
Red Potatoes NC	1 lbs.	\$3.33	\$4.17	\$3.75
Russet Potatoes	1 lbs.			
Russet Potatoes NC	1 lbs.			
Salad Mix	1/2 lbs.			\$4.00
Salad Mix NC	1/2 lbs.	\$6.00	\$4.92	\$5.67
Shelled Peas	pint			
Shelled Peas NC	pint			
Strawberries	pint	\$4.00	\$3.00	\$5.00
Strawberries NC	pint		\$3.58	
Sugar Snap Peas	pint			
Sugar Snap Peas NC	pint			
Sweet Corn	dozen	\$5.38	\$6.96	\$6.17
Sweet Corn NC	dozen	\$6.50	\$6.88	\$8.00
Yellow Potatoes	1 lbs.	\$3.25	\$4.00	\$3.00
Yellow Potatoes NC	1 lbs.	\$3.33	\$4.00	\$3.83

## Vegetable Growers Twilight Meeting

Wednesday August 31, 2016

5:00– 7:00 pm.

Hudson Valley Farm Hub, 1875 Hurley Mountain Road, Hurley, NY 12443

This program includes: an update and recap of vegetable disease management (bring samples from your farm in tightly sealed, see through, plastic bags), discussion of the Cornell tomato disease resistance breeding program, tour of disease resistant tomato trial of 15 varieties that includes new Brandywine crosses as well as the newly released variety Stellar, followed by a tomato tasting. Guest speaker- Margaret McGrath from the Long Island Research and Extension Center, Cornell University. Also, Ken Greene from the Hudson Valley Seed Lab will be joining us to showcase some breeding work he’s conducting at the Farm Hub and will have a new local “Stone Ridge” tomato variety for tasting.

Registration is not required and there is no fee for this program. This meeting will be held rain or shine. English-Spanish translation will be provided. 1.5 DEC pesticide applicator credits are available. For more information, contact Teresa Rusinek at 845 389-3562 or [tr28@cornell.edu](mailto:tr28@cornell.edu)





## Greenhouse Biocontrol Demonstration Series

### Four Workshops September 15 & 27, October 4 & 11, 2016

Each meeting 2:00 PM - 4:00 PM  
Schenectady County Horticulture Education Center  
PTL Arthur Chaires Lane, Schenectady, NY

Register online!  
Each session must be registered for individually -  
click links below:

[Sept 15: Start Early. Getting Started with Biocontrol for Growers](#)

[Sept 27 : Biocontrol for the Public Eye](#)

[Oct 4: "Mid-Season" Biocontrol Workshop for Growers](#)

[Oct 11: Biocontrol for Growers, Educators, and Consumers](#)

Each workshop is \$5.00 per person.

Questions? Tove Ford ([tff24@cornell.edu](mailto:tff24@cornell.edu)) , Lily Calderwood ([lbc75@cornell.edu](mailto:lbc75@cornell.edu))

**FREE Greenhouse Scout App for the first 40 greenhouse growers who sign up!**



Site	2016 Weekly Total 8/17-8/22	2016 Season Total 3/1-8/22	2015 Season Total 3/1-8/22	2016 Weekly Rainfall (inches) 8/17-8/22	2016 Total Rainfall (inches) 3/1-8/22	2015 Total Rainfall (inches) 3/1-8/22
Albany	141	2266.4	2312.0	0.41	17.15	18.38
Castleton	132.9	2187.3	2807.8	0.98	18.69	17.96
Glens Falls	121.6	2032.8	1988.5	0.58	22.51	16.90
Griffiss	120.1	1911.1	1854.0	1.14	27.27	25.74
Guilderland	128	2051.0	2081.5	0.04	18.06	22.99
Highland	149.2	2386.8	NA	0.90	19.24	0.00
Hudson	140.6	2352.3	2308.2	1.16	25.82	21.21
Marlboro	145.5	2281.4	2228.4	0.83	18.60	16.26
Montgomery	158.7	2309.9	2280.0	0.51	17.63	17.23
Peru	121.3	1890.0	1879.6	0.73	11.10	19.38
Red Hook	136.1	2245.3	2202.2	1.13	16.42	17.66
Willsboro	119.3	1868.9	1834.6	0.41	15.13	23.26
N. Adams, MA	111.5	1835.1	1801.0	0.69	20.12	20.12

**2016 Weather Table**—The weather information contained in this chart is compiled using the data collected by Network for Environment and Weather Applications (NEWA) weather stations and is available for free for all to use. For more information about NEWA and a list of sites, please visit <http://newa.cornell.edu/> This site has information not only on weather, but insect and disease forecasting tools that are free to use.

Sweet Corn Pest Chart (week ending 8/23)					
Location	CEW	ECBZ	ECBE	FAW	WBC
N. Washington	1	0	6	5	0
S. Washington	1	0	1	0	0
Albany	7	0	0	0	2
Rensselaer	51	0	0	68	3
Saratoga	0	4	2	0	3
Schoharie	NA	3	2	NA	NA
Greene	6	0	0	0	0
N. Ulster	1	0	1	0	0
Ulster	0	0	0	0	0

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