



Heat stress in broccoli leads to unmarketable heads that are leafy, uneven, or yellowish. New varieties are being developed, suitable for the temps in our area.

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Both corn earworm and fall armyworm numbers increased this week. Most of the CEW sites were high enough to require a spray schedule.

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Growers have a chance to view trials, hear from Cornell experts, and talk with industry reps at the Sustainable and Organic Pest Management Field Day.

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Bacterial spot is appearing and spreading in peppers as high humidity and moisture conditions continue to favor the disease.

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VEGEEdge

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Cornell University
Cooperative Extension
Cornell Vegetable Program

Photo: Angela Parr

Managing Heat Stress of Broccoli with Heat Tolerant Varieties

Thomas Bjorkman, Department of Horticulture, NYS Agricultural Experiment Station

This summer's heat and drought have presented a variety of challenges for vegetable growers. Some cool-season crops, such as broccoli, depend on cool night temperatures as a cue for synchronized development. Even our normal summers are beyond the range of broccoli adaptation. This summer has been particularly challenging for raising quality broccoli. While broccoli plants grow very well on New York's fertile vegetable soils, the risk of poor head quality limits production.

Symptoms of heat stress

For maximum quality, the flower buds are all the same size on a head of broccoli (Fig. 1). When heat injury causes some flower buds to be delayed in their development, the result is a head that looks uneven and is not marketable (Fig. 2). Prolonged high temperature can cause all of the flower buds to be delayed in development, producing a yellowish head that is completely unmarketable despite the very small buds (Fig. 3).

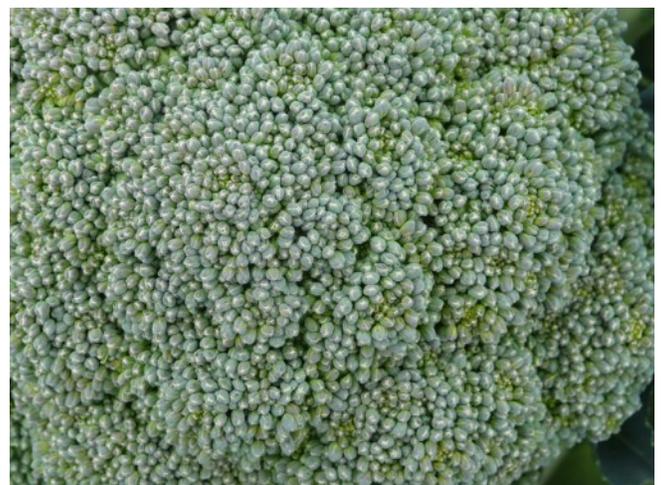


Figure 1. The flower buds are all the same size on an ideal broccoli head.
Photo: Thomas Bjorkman, Cornell

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VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension regional agriculture team, serving 12 counties in Western New York.

The newsletter is a service to our enrollees and is intended for educational purposes, strengthening the relationship between our enrollees, the Cornell Vegetable Program team, and Cornell University.

We're interested in your comments. Contact us at:
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Help us serve you better by telling us what you think. Email us at cce-cvp@cornell.edu or write to us at Cornell Vegetable Program, 480 North Main Street, Canandaigua, NY 14424.



**Cornell University
Cooperative Extension
Cornell Vegetable Program**

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The next issue of VegEdge will be produced on August 31, 2016.



Tomato harvesting crew at the Cornell Vegetable Program's Fresh Market Research Site at the Cornell Lake Erie Research & Extension Laboratory on August 17 in Portland, NY. From left to right: Jodi Callwood, CVP; Madonna Martin, CLEREL; Emily Reynolds, CCE Chautauqua; Paula Joy, CLEREL; and Darcy Telenko, CVP.

“Cat eyeing” caused by non-uniform bud size can be more subtle. The center of each head has smaller buds than normal. Sometimes these can look like yellow polka dots if the color difference is pronounced (Fig. 4). This degree of non-uniformity is acceptable in some markets, but may be a cause for rejection as well. Some varieties have improved adaptation for the flower bud development, but leaf growth is released by the high temperature (Fig. 5). Leafy heads are generally unmarketable as well. Finally, yellow and/or brown beading and secondary rot occur when broccoli is heat-stressed (Fig. 6).



Figure 2. Typical heat injury causes some flower buds to be delayed in their development. The result is a head that looks uneven and is not marketable. The slowed growth of the flower buds also causes leaves in the head to grow faster and poke through the surface. Photo: T. Bjorkman, Cornell



Figure 3. Prolonged high temperature can cause all of the flower buds to be delayed in development, producing a yellowish head that is completely unmarketable despite the very small buds. Photo: T. Bjorkman, Cornell



Figure 5. Inner leaf growth caused by high temperature. Photo: T. Bjorkman, Cornell

Eastern broccoli project to the rescue

The Eastern Broccoli Project has been developing broccoli hybrids that push the adaptation to higher temperatures than has been available before. Particularly large advances have been made by Cornell's Philip Griffiths and USDA's Mark Farnham. Their material is just now entering the seed companies' pipeline so it is a few years off (Fig. 7). But the seed companies cooperating in this project have been working hard towards this goal as well. In the last few years they have released varieties with better adaptation than what was on the market (Fig. 8). These varieties include Burney from Bejo, BC1691 from Seminis and DuraPak16 from Syngenta. Syngenta is also keeping Bay Meadows available specifically for the Eastern producer.

Burney is a good candidate for August harvest. Our research plots, it is just beginning to head in mid-August following very stressful temperatures and the heads are nicely uniform. BC 1691 is better suited to late August and through September. It's a high yielder because of the dense head and thick stem. In our yield trials it has produced as much as 800 boxes per acre. DuraPak16 works best in the spring, but may have its niche further south. Among existing varieties, Bay Meadows has been the most reliably heat tolerant in the 80 regional trials we've done. Sakata's Imperial has been a consistent performer as well. Our trials have not included the latest releases from market-leader Sakata. They recommend the widely planted Emerald Crown as well as Emerald Pride.

Broccoli buyers are exceptionally particular about every aspect of the head's appearance, how they are packed, and how they are iced (if at all). It is absolutely essential to know the buyers requirements before selecting a variety or setting the plants in the ground.

The Eastern Broccoli Project was recently renewed by the National Institute of Food and Agriculture to run another five years. I am the project director; there are fourteen investigators leading specific objectives and about 20 close industry partnerships, with more being developed during the project. We anticipate new variety releases and a lot of trial information during this time. Economic information on both production and marketing are also available. All that information can be found on the project website <http://easternbroccoli.org>.



Figure 4. Non-uniform bud size can be more subtle. The center of each head has smaller buds than normal. Sometimes these can look like yellow polka dots if the color difference is pronounced, called “cat eyeing”. This degree of non-uniformity is acceptable in some markets, but may be a cause for rejection as well. Photos: T. Bjorkman, Cornell (left); C. Hoeting, CVP (right)



Figure 6. Yellow beading followed by secondary bacterial rot occurs when broccoli is under heat stress. Photo: C. Hoepting, CVP



Figure 7. New hybrids developed as part of Eastern broccoli project breeding program produce nicely uniform, leafless heads even in the heat of summer. This example is from Philip Griffiths breeding program at Cornell. Photo: T. Bjorkman, Cornell



Figure 8. On-farm broccoli variety evaluation, 2015 yields more heat tolerant varieties: Emerald Crown (top left); Burney (bottom left); Experimental from Syngenta (bottom right), compared to Green Magic (top right). Photo: C. Hoepting, 8/25/15, CVP

Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

Few weather stations have reached the 30 blight unit (BU) spray threshold in the past week for late blight (LB). Buffalo and Versailles, however, have reached the -15 fungicide (loss) unit (FU) spray threshold reported on the full LB Decision Support System (DSS)/BlightPro. All other weather stations will reach either the BU or the FU threshold by late Friday. Rain is forecast Thursday, resulting in high relative humidity for many hours, which is favorable for LB.

Occasional reports of LB are coming in from the Midwest and Mid-Atlantic but not the Northeast so far. Ontario, Canada, continues to find LB spores in spore traps, but has not seen crop infection yet.

Late Blight Risk Chart, 8/23/16¹

Location ¹	Blight Units ² 8/17-8/23	Blight Units ³ 8/24-8/26	Location ¹	Blight Units ² 8/17-8/23	Blight Units ³ 8/24-8/26
Appleton	22	10	Lodi	12	13
Baldwinsville	32	19	Lyndonville	12	13
Bergen	8	8	Medina	13	10
Buffalo	17	9	Niagara Falls	12	12
Ceres	36	20	Penn Yan	26	17
Elba	1	8	Rochester	20	14
Fairville	13	14	Sodus	17	15
Farmington	19	14	Versailles	24	11
Gainesville	49	20	Wellsville	26	19
Geneva	11	9	Williamson	15	10
Kendall	22	6	Wolcott	7	9

¹ Assuming: last fungicide spray 1 week ago; residual like chlorothalonil; susceptible variety
² Past week's Simcast Blight Units (BU) (Threshold = 30 BUs)
³ Three day predicted Simcast Blight Units

WNY Sweet Corn Trap Network Report, 8/23/16

Marion Zuefle, NYS IPM Program; <http://sweetcorn.nysipm.cornell.edu>

Eighteen sites reported this week for Western NY. European corn borer (ECB)-E was caught at five sites and ECB-Z were caught at six sites. Corn earworm (CEW) are still increasing with twelve sites reporting trap catches this week. Eleven of the CEW catches were high enough to require a 4, 5, or 6 day spray schedule (see table). Fall armyworm (FAW) was caught at fourteen sites and Western bean cutworm (WBC) was caught at ten sites this week.

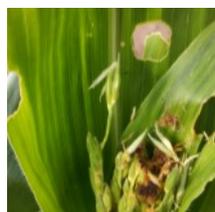
Both CEW and FAW increased this week. At sites where CEW are being caught in high enough numbers to determine the spray schedule, those applications will be sufficient to take care of other worm pests that are present. Where CEW are not determining the spray schedule, scout to be sure that FAW and other pests are not above threshold.



Fall armyworm egg mass.



Fall armyworm larva. Note the prominent inverted 'Y' on head.



Feeding damage. Photo: D. Telenko, CVP

WNY Pheromone Trap Catches: August 23, 2016

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	5	0	25	19	3	2058
Batavia (Genesee)	2	1	8	3	3	1591
Belfast	0	1	0	0	4	1800
Bellona (Yates)	0	0	2	146	0	2171
Eden (Erie)	1	0	17	1	3	1902
Farmington (Ontario)	0	1	2	8	0	1947
Hamlin (Monroe)	NA	NA	NA	NA	NA	1978
LeRoy (Genesee)	NA	NA	NA	NA	NA	1941
Pavilion	0	3	12	12	1	1614
Penn Yan (Yates)	0	1	7	2	0	2115
Ransomville (Niagara)	1	0	2	8	1	2138
Seneca Castle (Ontario)	NA	NA	NA	NA	NA	2000
Spencerport (Monroe)	0	0	0	0	0	2173
Waterport (Orleans)	NA	NA	NA	NA	NA	1975
Williamson (Wayne)	NA	NA	NA	NA	NA	1885

ECB - European Corn Borer WBC - Western Bean Cutworm
 CEW - Corn Earworm NA - not available
 FAW - Fall Armyworm DD - Degree Day (modified base 50F) accumulation

Average corn earworm catch			
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

Add one day to the recommended spray interval if daily maximum temperatures are less than 80°F for the previous 2-3 days.

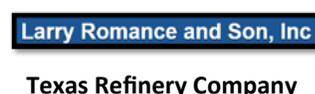
Don't Miss the Sustainable and Organic Pest Management Field Day



August 31, 2016 | 3:00 - 9:00 PM with LIVE cultivation demo by K.U.L.T. at 3:15 PM
 Cornell Vegetable Program's Fresh Market Research Site
 Cornell Lake Erie Research & Extension Laboratory
 6592 West Main Rd, Portland, NY 14769

- Weed management research trials in pumpkin and winter squash – Darcy Telenko, Cornell Vegetable Program
- Disease management in organic cucumber and tomato production – Abby Seaman, NYS IPM, and Judson Reid, Cornell Vegetable Program
- Vegetable disease control update – Holly Lange and Rachel Kreis from Prof. Chris Smart's lab
- Insect management and specialty crop vegetable variety demonstration – Robert Hadad, Cornell Vegetable Program
- Improving fertility management in vegetable crops – Prof. Steve Reiners
- Updates on ongoing research projects in the region

A number of sponsors will be showcasing some of their products including:



Texas Refinery Company

Pre-registration \$25 CVP enrollees/\$35 all others, includes steak dinner and handouts. Pre-registration required by August 25, 2016. Call 716-652-5400 or online at <http://cvc.cce.cornell.edu/event.php?id=565> Walk-ins welcome to join the program \$35 at the door, but will not receive dinner ticket unless pre-registered by Aug 25, 2016. Growers will also be able to view research projects at CLEREL and are encouraged to attend a Cover Crop Workshop and Field Day the next day September 1. <http://lergp.cce.cornell.edu/event.php?id=268>

CROP INSIGHTS



CUCURBITS

Downy mildew continues to spread in cucumbers western NY, see map for counties in the region that have confirmed outbreaks (green and red). Continue to stay on top of spray programs.

DRY BEANS

Foliage and pods in some dry bean fields are beginning to turn yellow, hastened by the hot, dry season. White mold (WM) was seen in one field this week with large, lush bean bushes, where rains fell earlier. There is no control at this time.

Western bean cutworm (WBC) moth catches are way down. Continue scouting dry bean pods one more time for WBC larval feeding damage, especially in areas with a history of damaged pods or beans. Trace amounts of pod damage were found this week in a couple of high risk fields. If pod damage is seen in 20-30 min. of scouting a field then one insecticide spray is recommended, a pyrethroid for conventional beans, or Entrust for organic beans.

LETTUCE

Keep an eye out Aphid populations are starting to increase.

ONIONS

Onions are lodging quickly now and most fields have been or will be shortly treated with sprout inhibitor. Although field edges can look stressed and small, usually once you walk into the field past the edges, the onions look pretty good. Weeding crews are cleaning up weed escapes prior to harvest. Aside from stressed out plants along field edges, most of the crop is lodging normally, and not dying standing up (Fig. 1). Even though weather conditions were seemingly not conducive for leaf diseases this season, fungicide use looks like it will be paying off, especially for control of *Stemphylium* leaf blight (SLB). Figure 2 shows the untreated check plot compared to one of the fungicide treatments in one of my fungicide trials this week. In this trial, onion thrips were controlled with weekly insecticide applications in the untreated check, so the leaf dieback that you see was caused by only by SLB and *Botrytis* leaf blight.



Figure 1. Despite a hot and dry stressful growing season, there are many fields of onions with healthy foliage that are lodging normally. Photo: C. Hoepting, CVP



Figure 2. Fungicide treatment (right) compared to untreated check (left), where onion thrips were controlled with weekly insecticide applications. This shows the ravaging effects of *Stemphylium* leaf blight and *Botrytis* leaf blight on onions, even a hot and dry year, which was not seemingly favorable for leaf diseases. Thus, significant fungicide use to control leaf diseases this year is justified. Photo: C. Hoepting, 8/23/16, CVP

PEPPERS

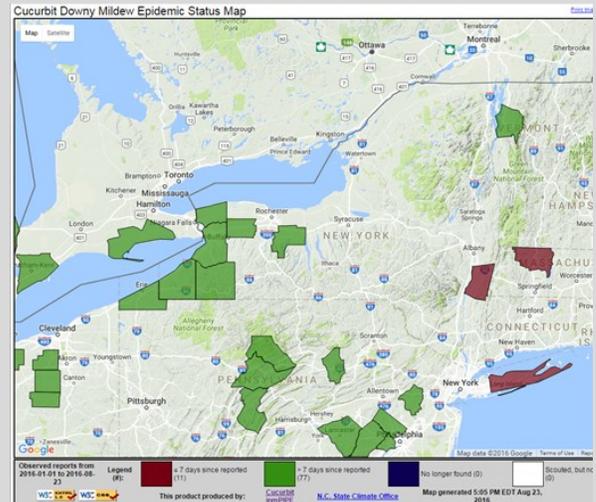
Both bacteria spot and *Phytophthora* blight (*P. capsici*) continue to be found in the region.

POTATOES

Many fields are vine-killed, except for later fields, and later varieties. Blackspot bruise (BB) may be a risk this year because of the hot weather and dry soils in many areas. From Sandy Menasha, Suffolk County, 8/18, Long Island Fruit & Vegetable Update – Hot, dry conditions decrease the water content of tubers, making them vulnerable to cell rupture below the skin during rough handling. The bruised area is not visible immediately but turns dark gray to black within a couple of days. BB can be seen only after the potato is peeled. Below are some tips to minimize BB during harvest.

1. Vine-kill 14-21 days before harvest to allow skins to properly set.
2. Irrigate 1 week before harvest to rehydrate tubers and soften any clods.
3. Avoid harvest when pulp temperature is above 65°F.
4. Pad all deflectors and sharp points.
5. Chain agitation should be minimized and excessive bouncing avoided.
6. Keep all drops to a minimum, no more than 6".
7. Adjust chain speeds to maintain a full, uniform flow of potatoes on the conveyors.

Fields along the East Coast, including NYS, and some in the Midwest, have been confirmed positive for blackleg *Dickeya* from infected seed pieces. From Andy Wyenandt, plant pathology, Rutgers University, NJ, 8/16: The following varieties have been confirmed infected: Reba, Superior, Vivaldi, Norwis, Snowden, Yukon Gold, Beacon Chipper, Kennebec and Atlantic. Two Canadian (New Brunswick) and 11 Maine



continued on next page

seed suppliers have been implicated. From potato plant pathologists from many states: To protect your farm from blackleg Dickeya, adopt your own 0% Dickeya tolerance policy. As yet there is no policy to regulate or control Dickeya in Maine or Canada.

TOMATOES

Early blight and bacteria diseases continue to spread on tomato around the region. Stink bugs are also becoming a problem – control options will vary depending on type.

WATERMELONS

Spidermites have moved into watermelon plantings, there are only a few acaricides that have short PHI including Acramite 50 WS (3 day (d) PHI), Portal XLO (1 d PHI cucumber; 3 d PHI melon), Warrior II w/Zeon (1 d PHI), Endigo ZC (1 d PHI). Galdiator, Agri-Mek and Zeal SC all have 7 day PHI.

Bacterial Spot on Pepper

Darcy Telenko, CCE Cornell Vegetable Program

Bacterial spot is appearing and spreading in peppers as high humidity and moisture conditions continue to favor the disease. Bacteria spot is caused by *Xanthomonas euvesicatoria* and *Xanthomonas perforans* and one of the most important disease affecting peppers in New York. Symptoms start as small, irregularly shaped, water-soaked lesions on the underside of the leaves that can grow up to ¼ inch in diameter, turn dark brown, and become raised. These necrotic spots may be found on leaves, stems and fruit and as the disease progresses the lesions may coalesce resulting in large



Photo: Darcy Telenko, CVP

necrotic areas. Severely infected leaves will turn yellow and eventually fall off increasing the chance of sunscald on the fruit. Fruit may also develop raised, scab-like spots generally near the stem end of the fruit where water and water-splashed inoculum collect. Favorable conditions for disease include high relative humidity and free moisture on the leaves. Symptoms can appear when RH is greater than 85% for a few hours during several days. Splashing rain and movement between wet plants can spread bacteria.

Bacterial Spot Management

- Resistant varieties with tolerance to bacterial leaf spot (BLS) race 1, 2, 3 include Red Knight, Ironsides, Early Sunstation, Lexington, Lafayette, Aristotle, Boynton Bell, X3R Aladdin, X3R Sir Galahad, X3R Camelot, X3R Wizard, Intruder, Legionaire, Karisma, and Commandant.
- Crop rotation – a minimum two-year rotation away from tomato and pepper crops.
- Use only disease-free, certified seed - hot water treatment is an option for non-treated seed that could be contaminated – it will kill bacterium inside and outside the seed, but can reduce germination and vigor if done incorrectly. Treat seed with Thiram after hot water treatment.
- Plant only disease-free and certified transplants.
- Infected crop debris should be destroyed as soon as possible after harvest to remove inoculum source for future plantings.
- Keep greenhouse dry and avoid splashing water reduce spread in plant beds and flats.
- Sprays should be applied before and during periods of rain and high humidity. Plant surfaces need to be protected since once inside the tissue bacterium cannot be controlled.

Compounds Available for Management of Bacterial Spot on Pepper

Name	Common Name	FRAC Group	Rate/A	REI	PHI	Notes
Actigard 50WG	acibenzolar-S-methyl	21	0.33-0.75 oz	12	14	For use on Chili peppers only.
Champ or OLP	copper compound	M1	1.3-2 pt	48	2	See label for details. Copper compounds may help reduce secondary spread, but effectiveness limited by rainfall and dew formation.
ManKocide	copper hydroxide + mancozeb	M1+M3	2-3 lb	48	7	Do not apply more than 39 lb product/A/season
Tanos 50 DF	famozadone+ cymoxanil	11+27	8-10 oz	12	3	Suppression of bacterial leaf spot. Do not make more than one sequential application of Tanos before alternating with a different MOA (not group 11). Must be tank mixed with contact fungicide such as copper, using least minimal labeled rate.
Agri-mycin 17 or OLP	streptomycin sulfate	25	0.5 lb/50 gal	12	0	Not for use in the field. Begin application in the 2-3 leaf stage and may be applied only prior to transplanting.

OLP =other labeled product. MOA= modes of action. ●

UPCOMING EVENTS *view all Cornell Vegetable Program upcoming events at cvp.cce.cornell.edu*

Fresh Market Potato Varieties, Disease & Insect Management Twilight Meeting

August 25, 2016 | 5:00 PM - 8:15 PM

Williams Farms potato field, Decker Rd, Marion, NY 14505



Growers will have a chance to review the fresh market varieties and Cornell breeding lines, including four European/Canadian varieties, in Walter DeJong's, Cornell on-farm trial. There will be an update on the new, very serious seed-borne bacterial disease, blackleg *Dickeya*, including how to identify it, and how to reduce the risk of getting it next year, as well as updates on late blight, potato insect management and the development of a quick test for determining nematode levels in soils before planting.

1.5 DEC recertification credits will be available in categories 1a, 10, 21, and 23. Dinner provided at 7:30 PM. Cost: FREE if enrolled in the Cornell Vegetable Program; \$10 for all others. Pre-register by contacting Carol MacNeil, crm6@cornell.edu or 585-313-8796 by August 22 so that we have a count for dinner. *We appreciate the support of Ag BioTech, Bayer CropScience, CPS Marion, Gowan, and Syngenta.*

Bejo Seeds Open House and Demonstration Trials 2016

August 30-31, 2016 | 10:00 AM - 6:00 PM, refreshments plus light lunch served on Tuesday, August 30, RSVP 315-789-4155

Bejo Seeds Research and Demonstration Farm, 4188 Pre-Emption Rd, Geneva, NY 14456

View a wide variety of quality vegetable crops at Bejo's Research & Demo Farm. For [more info](#), visit www.bejoseeds.com.

Sustainable and Organic Vegetable Pest Management Field Day

August 31, 2016 | 3:00 PM - 9:00 PM

CVP Research Site, Cornell Lake Erie Research and Extension Laboratory, 6592 W Main Rd, Portland, NY 14769



Extension Vegetable Specialists, Cornell faculty and the NYS Vegetable IPM Coordinator will be leading research site tours and answering questions on sustainable and organic pest management options for fresh market vegetable growers. Topics: Weed management in sweet corn, pumpkin, winter squash and root crops with a cultivation demo by KULT-Kress; Disease management in organic cucumber and tomato production; Vegetable disease control update; Insect management and specialty crop vegetable variety demonstration; Improving fertility management in vegetable crops; Updates on ongoing research projects in the region.

Cost: \$25 CVP enrollees/\$35 all others, includes steak dinner and handouts. Pre-registration required by August 25, 2016. Call 716-652-5400 or [register online](#). Walk-ins welcome to join the program \$35 at the door, but will not receive dinner ticket unless pre-registered by August 25. DEC and CCA credits will be available for portions of the day. For more info, visit <http://cvp.cce.cornell.edu/event.php?id=565>. *We appreciate the support of BioWorks, K.U.L.T., Larry Romance and Son, Siegers Seed Company, Texas Refinery Company, Valent, and Z&M Ag and Turf for sponsoring this event.*

2016 NYS Dry Bean Field Meeting

September 8, 2016 | 5:00 PM - 8:00 PM

NYS Agricultural Experiment Station, Gates Road farm, Veg Research Farm



Join us to view the Cornell Dry Bean Variety Trial, including 42 varieties/numbered lines of black, light and dark red kidney, cranberry and white kidney beans compared for yield, maturity, plant type and quality. Cornell lines bred for adaptability to NYS weather, pod height and white mold resistance are also included. There will also be updates on white mold and dry bean management research, and the status of the Western bean cutworm infestation in dry beans.

0.75 DEC recertification credits in categories 1a, 10, 21, and 23, and CCA credits will be available. Cost: \$10 Cornell Vegetable Program enrollees; \$15 all others, if pre-registered by Tuesday, September 6, includes supper. \$5 more at the door and supper cannot be guaranteed. Contact Carol MacNeil to pre-register by calling 585-313-8796 or pay online at <http://cvp.cce.cornell.edu/event.php?id=603>. *We appreciate the generous support of Gowan and New York Bean for sponsoring this event!*

2016 Vegetable Pest and Cultural Management Field Meeting - Chautauqua County

September 13, 2016 | 6:00 PM - 8:00 PM

Emanuel J Byler's farm, Dutch Hill Rd, Warren, PA 16365



This course will demonstrate pest management in fresh market vegetables in both field and greenhouse (high tunnel) vegetables; primarily for those growing for wholesale auction. A hands-on demonstration of weed, insect and disease identification in vegetables including management options such as inter-row cover crops, grafting and where appropriate, spray options will be used to educate growers. Judson Reid, Senior Extension Associate with the Cornell Vegetable Program along with CCE associates Telenko and Hadad will instruct participants and facilitate peer-based learning. Details on each topic will focus on field observations at the farm.

This event is FREE! 1.75 DEC recertification credits in categories 1A, 10, 23, and 24 will be available. Contact Judson Reid at 585-313-8912 for more information.

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/16 – 8/22/16

Location	Rainfall (inch)		Temp (°F)	
	Week	Month August	Max	Min
Albion	1.37	2.40	90	57
Appleton, North	0.91	2.40	83	56
Baldwinsville	1.44	3.45	88	56
Buffalo*	1.17	1.73	89	60
Butler	1.32	3.03	88	55
Ceres	2.42	4.70	85	52
Elba	1.33	2.16	86	54
Farmington	1.64	2.41	87	55
Gainesville	NA	NA	87	56
Geneva	1.32	1.90	88	56
Lodi	1.31	3.43	88	59
Niagara Falls*	1.07	1.72	90	60
Penn Yan*	0.96	2.47	88	57
Rochester*	1.99	2.70	90	62
Romulus	0.95	3.82	89	57
Silver Creek	1.55	3.59	83	65
Sodus	NA	NA	86	55
Versailles	1.50	2.86	88	60
Williamson	0.20	1.08	86	53

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – August 22, 2016

Location	2016	2015	2014
Albion	2140	1986	1774
Appleton, North	1888	1720	1568
Baldwinsville	2097	1990	1916
Buffalo	2187	2025	1851
Butler	2077	1998	1870
Ceres	1715	1741	1601
Elba	1605	1522	1438
Farmington	1979	1890	1761
Gainesville	1630	1565	1409
Geneva	2036	1930	1809
Lodi	2228	2099	1983
Niagara Falls	2323	1893	1772
Penn Yan	2159	2043	1924
Rochester	2212	2088	1926
Romulus	2061	1974	1860
Silver Creek	2002	1860	1766
Sodus	1884	1774	1701
Versailles	1941	1850	1727
Williamson	1904	1815	1698

* Airport stations

** Data from other station/airport sites is at: <http://newa.cornell.edu/> Weather Data, Daily Summary and Degree Days.

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VegEdge is the award-winning newsletter produced by the Cornell Vegetable Program in Western New York. It provides readers with information on upcoming meetings, pesticide updates, pest management strategies, cultural practices, marketing ideas and research results from Cornell and Cornell Cooperative Extension. VegEdge is produced every few weeks, with frequency increasing leading up to and during the growing season.



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