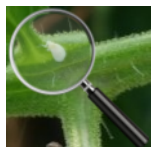




Larval feeding by flea beetles on carrot roots results in irregular shaped cavities along the length of the root which can lead to secondary infections.

PAGE 1



2016 has been a year of widespread white fly infestation in tunnels. Organic and conventional control measures are discussed.

PAGE 5



Downy mildew versus Alternaria leaf spot in Cole crops. Can you tell the difference?

Learn how to identify and control these autumn diseases.

PAGE 5



FARM OPS Partial scholarships are being offered to military veterans to take the Cornell Small Farms

Program's online courses as part of the Farm Ops initiative.

PAGE 8



VEGE_{edge}

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

● Volume 12 | ● Issue 21 | ● September 7, 2016



Cornell University
Cooperative Extension
Cornell Vegetable Program

Photo: Christy Hoepting

Flea Beetle Damage to Carrot Roots

Julie Kikkert, CCE Cornell Vegetable Program

Researchers in Ontario, Canada have reported flea beetle feeding on carrot roots in a commercial field for the first time this year <https://onvegetables.com/2016/09/01/flea-beetle-feeding-damage-found-on-carrots-in-ontario/>. Feeding of flea beetle larva on carrots has been known in California for several years. A main concern is that the feeding has often been mistaken for cavity spot, caused by *Pythium* sp. fungi. Proper diagnosis is important in determining management options.

In California, both potato flea beetle (*Epitrix cucumeris*) and pale striped flea beetle (*Systema blanda*) have been reported to feed on carrots. Larval feeding on the roots results in irregular shaped cavities along the length of the root. Trails of smaller feeding sites travelling the length of the root may also be present. The feeding opens wounds that can cause secondary microbial infections that further cause



Large amounts of feeding damage caused by flea beetle larvae.
Photo from onvegetables.com

continued on page 3



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:
CCE Cornell Vegetable Program
480 North Main Street, Canandaigua, NY 14224
Email: cce-cvp@cornell.edu

Web address: cvp.cce.cornell.edu

Contributing Writers

Robert Hadad
Christy Hoeping
Julie Kikkert
Carol MacNeil
Judson Reid
Darcy Telenko

Publishing Specialist/Distribution/Sponsors

Angela Parr

VegEdge is published 25 times per year, parallel to the production schedule of Western New York growers. Enrollees in the Cornell Vegetable Program receive a complimentary electronic subscription to the newsletter. Print copies are available for an additional fee. You must be enrolled in the Cornell Vegetable Program to subscribe to the newsletter. For information about enrolling in our program, visit cvp.cce.cornell.edu. Cornell Cooperative Extension staff, Cornell faculty, and other states' Extension personnel may request to receive a complimentary electronic subscription to VegEdge by emailing Angela Parr at aep63@cornell.edu. Total readership varies but averages 700 readers.

Information provided is general and educational in nature. Employees and staff of the Cornell Vegetable Program, Cornell Cooperative Extension, and Cornell University do not endorse or recommend any specific product or service.

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are possible. Some materials may no longer be available and some uses may no longer be legal. All pesticides distributed, sold or applied in NYS must be registered with the NYS Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide usage in NYS should be directed to the appropriate Cornell Cooperative Extension (CCE) specialist or your regional DEC office.

CCE and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products or companies is made or implied. **READ THE LABEL BEFORE APPLYING ANY PESTICIDE.**

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

Contents

Contact Us

Cornell Vegetable Program 10

Crops

Crop Insights 04

Carrots: Flea Beetle Damage to Carrot Roots 01

Cole Crops: Managing the Disease of Fall: DM vs. ALS 05

Potato/Tomato: Late Blight Risk 03

Sweet Corn Trap Network Report, 9/6/16 03

General

Announcing Online Course Scholarships for Veterans in New York State 08

Upcoming Events

2016 NYS Dry Bean Field Meeting 08

Vegetable Pest & Cultural Management Field Meeting - Chautauqua County .. 08

Soil Health Field Day 08

Worker Protection Standard (WPS) Training 08

Weather Charts

..... 09

The next issue of VegEdge will be produced in 2 weeks, September 21, 2016.



Attendees of the Sustainable and Organic Vegetable Pest Management Field Day in Portland, NY on August 31, 2016 following the Fingerweeder demo by K.U.L.T.-Kress. Photo: Julie Kikkert, Cornell Vegetable Program

confusion with cavity spot. In contrast, cavity spot lesions begin as pinpoint sunken spots and enlarge to irregularly shaped depressions that are oriented across mature carrot taproots. Cavity spot lesions tend to be more abundant on the upper third of the root and are often found where lateral roots emerge.

If you suspect flea beetle feeding on carrots in the Cornell Vegetable Program area, please send photos and/or samples to Julie Kikkert or Robert Hadad for assistance with diagnosis. 🍎



Flea beetle feeding damage with a trail of smaller feeding sites.
Photo from onvegetables.com

Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

Two-thirds of the weather stations reached the 30 blight unit (BU) late blight (LB) spray threshold in the past week. The rest of the stations will reach either the BU threshold or the fungicide (loss) threshold (FU) by late Friday. Continue fungicide sprays after vine-killing as long as green foliage or stems remain. Copper is a good choice as vines mature, and after vine-killing.

There are no new reports of LB in NYS or in surrounding states or provinces in the past week.

Late Blight Risk Chart, 9/6/16¹

Location ¹	Blight Units ² 8/31-9/06	Blight Units ³ 9/07-9/09	Location ¹	Blight Units ² 8/31-9/06	Blight Units ³ 9/07-9/09
Appleton	28	8	Lodi	39	20
Baldwinsville	46	20	Lyndonville	14	14
Bergen	30	16	Medina	13	10
Buffalo	37	13	Niagara Falls	28	13
Ceres	41	21	Penn Yan	38	18
Elba	NA	10	Rochester	32	16
Fairville	28	16	Sodus	29	16
Farmington	32	11	Versailles	31	17
Gainesville	45	21	Wellsville	36	21
Geneva	25	9	Williamson	25	12
Kendall	17	12	Wolcott	24	12

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, 9/6/16

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

Only twelve sites reported this week for Western NY. European corn borer (ECB)-E was caught at one site and ECB-Z was not caught at any of the reporting sites. Corn earworm (CEW) was caught at eight sites, with seven sites high enough to require a 4, 5, or 6 day spray schedule. Fall armyworm (FAW) numbers are down with only eight sites reporting trap catches and only three sites still catching Western bean cutworm (WBC).

Please take a few minutes to fill out a survey on how the trap network has impacted your pest management decisions. The survey is for growers, consultants and extension personnel. It is voluntary and completely confidential. No personal information will be collected. To access the survey online please go to https://cornell.qualtrics.com/SE/?SID=SV_6tcGkoB6NL1khmd. You can also request a paper copy of the survey be sent to you, by contacting Marion Zuefle at mez4@cornell.edu or calling 315-787-2379. Thank you for your participation. 🍎

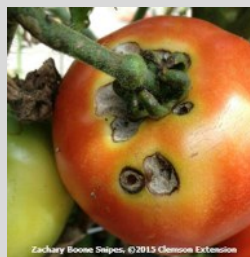
WNY Pheromone Trap Catches: September 6, 2016

Location	ECB-E	ECB-Z	CEW	FAW	WBC
Baldwinsville (Onondaga)	5	0	1	0	0
Batavia (Genesee)	NA	NA	NA	NA	NA
Belfast	NA	NA	NA	NA	NA
Bellona (Yates)	NA	NA	NA	NA	NA
Eden (Erie)	0	0	7	0	1
Farmington (Ontario)	0	0	0	0	0
Hamlin (Monroe)	NA	NA	NA	NA	NA
LeRoy (Genesee)	NA	NA	NA	NA	NA
Pavilion	0	0	0	9	0
Penn Yan (Yates)	0	NA	12	3	0
Ransomville (Niagara)	0	0	6	7	2
Seneca Castle (Ontario)	NA	NA	NA	NA	NA
Spencerport (Monroe)	0	0	3	2	0
Waterport (Orleans)	NA	NA	NA	NA	NA
Williamson (Wayne)	NA	NA	NA	NA	NA

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

CROP INSIGHTS

Tomato Fruit Worm is becoming more of a problem in tomato and



Tomato fruit damage (left) and earworm burrowing into tomato (right).

pepper fruit. This pest is AKA corn ear worm. This pest will feed on the fruit and will also burrow into them. In peppers, an otherwise nice looking fruit on the outside may have a worm on the inside after having burrowed into the pepper up near the stem. Treat with spinosid or Bt or any of the number of the same products used for sweet corn worm treatment. Read labels to verify specific crop recommendations, REI, and PHI.

DRY BEANS

Dry bean harvest has begun. More defoliation will be starting soon. There are some very late fields due to late germination and emergence due to the drought. In many fields pods are not filled, and the beans in the pods are smaller than normal. Some fields will require defoliation due to the weeds. Soil-applied herbicide activity was reduced due to the dry soils. Don't forget to do a soak test during harvest to check for hair-line seed coat cracks (checked skins) due to lower than normal bean moisture.

Note: Western bean cutworm can't feed on bean pods or bean seeds once they begin to dry.

POTATOES

Many growers have started harvest, or will do so soon. Several tuber diseases, such as Fusarium and Pythium leak, get started on bruised, shattered or skinned tuber surfaces resulting from harvest and handling. There are several post-harvest, pre-storage treatments available to reduce the spread of potato diseases during storage. They all require uniform treatment of tuber surfaces with a very fine, very low volume spray. Note: *If there is rot potential in a lot the extra water required for application may cancel out any benefit from the fungicides.* Potatoes should be dry before placing them into storage. Bio-Save is a biological material that research has shown to reduce the spread of Fusarium dry rot (FDR) in storage. Continuous agitation is essential. Stadium has been shown to reduce the spread of FDR and silver scurf, and MSU trials have shown late blight suppression. Phostrol can suppress the spread of late blight (LB) and pink rot to new tubers in storage, but is not recommended for fresh market potatoes, especially if there are enlarged lenticels. Follow label directions carefully regarding product rates/ton of potatoes and especially the amount of water/ton of potatoes.

From *Rutgers Vegetable Crop and Pest Advisory*, 9/6 – Blackleg Dickeya was confirmed in NJ on Dark Red Chieftain from New Brunswick, Canada, in the past week. From *Sandy Menasha, CCE Suffolk Co*, 9/1, *Long Island Fruit & Vegetable Update* - In fields were blackleg Dickeya was present there is about a 50 cwt/A yield decrease, more or less depending on the severity of disease. Dickeya is not a storage disease as it requires warm temperatures (above 77°F) and moist conditions. Most Dickeya infected tubers rot in the field. Last year growers reported no storage losses even though Dickeya was present in their fields.

From the *USDA Economic Research Service*, 9/X - The 2016 fall-season potato acreage indicates a 3% decline in planted and harvested acreage from a year ago. U.S. fall-season potato growers planted 916,400 acres in 2016— the lowest area since 2010.

TOMATOES

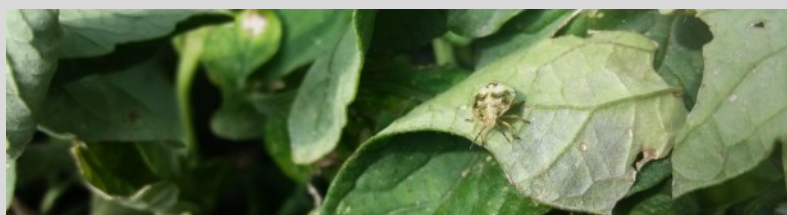
Early blight in tomatoes is becoming more widespread after the rains, cool nights, and dew. Rain and overhead irrigation can splash contaminated soil up onto the leaves. Once there, the fungus infects the leaf tissue and the disease advances. To keep the vines productive a little longer use copper or other protectants.



Early blight leaf spots (left) and plants with advanced early blight symptoms (right). Photos from Long Island Horticultural Research Extension Center.

TUNNELS

Stink bugs in tunnel tomatoes – Stink bugs are on the rise in tunnel tomatoes this week. There are several native species including the Green and Brown Stink Bugs, as well as the invasive Brown Marmorated. These pests may be more destructive in determinate plantings with dense foliage. Effective control materials include bifenthrin products (1 D PHI). Organic control could be attempted with Mycotrol (0 D PHI); preliminary re-



Stink bug nymph on tomato. Photo: Judson Reid, CVP

continued on next page

continued – CROP Insights

search indicates applying at higher humidity may encourage infection of the insect by the active ingredient (the fungus *Beauveria bassiana*)



Stink bug feeding damage on tomato. Photo: Judson Reid, CVP

Whiteflies in tunnels – 2016 has been a year of widespread white fly infestation. Since they do not overwinter in NYS, the origin of the outbreak is often in question. Whiteflies move north as the 'green bridge' develops (they overwinter in FLA) but do not survive northern winters. Greenhouse growers overwinter them by keeping a house with stock plants going. Freezing out is the best approach, as well as the insecticides we discussed. Whiteflies are so sporadic in NYS, that the population usually catches us by surprise and we are too late with biocontrols. For organic control Azadiractin products can act as anti-feedants and several are OMRI listed. Mycotrol and Molt-X are an organic tank mix that has shown promise in CVP trials. JMS Stylet Oil also is listed for whiteflies.

In conventional tunnels, Admire Pro may be applied at a rate of 0.6 ounces per 1000 plants in a minimum of 16 gallons water to the rootzone via drip irrigation, with 0 day PHI. This is restricted to a single application per season. Danitol 2.4 EC has a 3 Day PHI, and must be tank mixed with Belay Insecticide when spraying specifically for whitefly. Belay has a 7 day PHI and must not be applied during bloom or when bees are foraging. Capture (bifenthrin) is a whitefly material with a 1 day PHI. Asana (1 day PHI) and Baythroid (0 day PHI) also have a whitefly label.



Whiteflies on high tunnel tomato. Photo: Judson Reid, CVP

Managing the Diseases of Fall in Cole Crops: Downy Mildew vs. Alternaria Leaf Spot

Christy Hoepting, CCE Cornell Vegetable Program

Alternaria leaf spot (ALS) and downy mildew (DM) of Cole crops, become more prevalent in the fall when cool night time temperatures result in heavy dewfalls, because these diseases are favored by extended periods of leaf wetness. Optimum temperatures for DM are 50 to 60°F while ALS is favored by 75° to 82°F; however, if leaf wetness is prolonged for 20 hours or more, ALS can produce many spores outside of the optimum range of temperatures. Both diseases survive in soil and crop debris and can be spread onto plants from splashing soil and over longer distances aerially. Additionally, ALS can be spread by flea beetles. Best control is generally achieved with choosing tolerant varieties, preventative fungicide sprays, post-harvest crop destruct to destroy infested crop residue and a 3-year crop rotation out of Cole crops.

DM vs. ALS: Can you tell the difference?

Lesions/spots first appear on lower frame leaves, which turn yellow (Fig. 1). To determine which disease is present, look at the lesions on the older lower frame leaves. DM causes irregular, yellow to brown spots on the upper side of the leaves (Fig. 2) with a grayish, white mildew on the underside of the leaves (Fig. 3) that occurs during cool, moist conditions. ALS will have circular small, dark/brown spots with concentric rings (target spots) on the upper surface of leaf. When humidity is high, lesions can be covered with a sooty black mass of spores (Fig. 4). ALS lesions are papery and eventually fall out leaving a shot hole appearance (Fig. 1).



Figure 1. Both Alternaria leaf spot (ALS) (top) and downy mildew (DM) (bottom) cause lower frame leaves to turn yellow as shown here in cabbage. Close inspection of the leaves will reveal which disease is the cause.

Photos: C. Smart, Cornell (top); C. Hoepting, CVP (bottom)

continued on page 6

As soon as DM and ALS lesions are evident on older leaves, spores can spread to marketable portions of the crop, where they can cause economical crop loss. DM and ALS can also make the heads more susceptible to soft rot bacteria and other storage rots, especially in cabbage and broccoli. In cabbage, early signs of DM can be subtle and easily over looked (Fig. 5). In cabbage heads, when DM and ALS are advanced, both diseases may be confused with bacterial or Botrytis diseases (Fig. 6). In broccoli, DM and ALS both appear as dark discoloration of the beading, of which ALS is slightly darker and more sunken (Fig. 7). In cauliflower, both DM and ALS appear as black sooty spots (Fig. 8). A distinguishing feature between the two diseases is that only DM causes a grayish/brownish internal discoloration in these crops when the heads are cut open (Fig. 9). In Brussels sprouts, ALS appears mostly as small black spots (Fig. 10).

During favorable conditions, it is important to apply fungicides preventatively to prevent economical losses of marketable portions of Cole crops.

Table 1 lists the relative performance of selected fungicides in Cornell fungicide trials. Although several fungicides control both ALS and DM, best control of each disease is achieved with different fungicides. Note that Bravo did not provide the best control of either disease. Protectant fungicides like Bravo should be used before disease levels are high. Once risk of disease increases, then a more effective fungicide may be justified. Be aware that for resistance management, there are restrictions on the number of sequential applications, maximum rates used per season and rotation partners that can be used with several of these fungicides including Quadris/Quadris Top, Cabrio, Presidio and Inspire Super. For example, Presidio cannot simply be used weekly for 5 weeks for DM control; rather, it needs to be used in a tank mix with a fungicide belonging to a different mode of action and may not be used more than twice before rotating to another chemical class. Read labels carefully! Table 2

shows an example of a spray program that maximizes control of both DM and ALS while respecting the rotation restrictions and tank mixes for resistance management of each fungicide. Some growers also use a copper based bactericide in addition to fungicide to help to prevent secondary bacterial rots, especially in broccoli.

Table 1. Relative performance of fungicides for control of Brassica Downy mildew and Alternaria leaf spot in fungicide trials conducted by Cornell Plant Pathologists (C. Smart 2014, 2015; Dillard 2011).

Relative performance of fungicides evaluated in Cornell trials*		
	Downy Mildew	Alternaria Leaf Spot
Best Control Provided by:	Presidio (43) ¹	Endura (7) Quadris Top (3, 11) Switch (9, 12) Cabrio (11) Quadris (11) Inspire Super (3, 9)
Followed by:	Cabrio (11) Quadris (11)/Quadris Top (3, 11) Bravo (M5) Copper bactericide	Bravo (M5) Presidio (43)
Some control also provided by:	Phosphorous acid (22) Mancozeb (M3)	
Failed to control:	Actigard (P1)	

*Note: Several other fungicides are labeled for control of DM in brassicas and include Ridomil Gold, Reason, Presidio, Ranman, Forum, Alliette and Actigard.
¹FRAC fungicide resistance group.

Table 2. Example fungicide program to use in Cole crops for management of both Alternaria leaf spot and Downy mildew based on Cornell fungicide evaluations and rotations for resistance management.

Example fungicide program for management of ALS and DM based on Cornell trials			
Fungicide	FRAC ¹ Group	Disease(s) Controlled	Notes
Bravo	M5	ALS & DM ²	While disease pressure is low.
Quadris Top	3, 11	ALS & DM	To prevent spread from lower frame leaves to marketable portions.
Presidio + Bravo	43 M5	DM & ALS DM & ALS	To prevent spread. Presidio must be tank mixed with another fungicide belonging to a different mode of action.
Quadris Top	3, 11	ALS & DM	To prevent spread.

¹FRAC: Fungicide Resistance Action Committee fungicide class for resistance management.
²ALS: Alternaria leaf spot; DM: Downy mildew.



Figure 2. Downy mildew causes irregular, yellow (left: early infection) to brown spots (right: older infection) on the upper leaf surface, which shows up on lower frame leaves first. Photos: C. Hoepting, CVP

continued on next page

Other practices for managing DM and ALS include:

- Avoid using varieties that have shown chronic problems to DM and ALS.
- When growing more susceptible varieties, scout these varieties more diligently. If DM is detected on the lower frame leaves, it would be sensible to apply fungicides during heading to prevent infection from spreading to the marketable portions.
- Incorporate crop residue immediately after harvest to remove this as a source of disease for other plantings and to hasten decomposition of the infested material.
- Rotate away from cruciferous crops for a minimum of two years.
- Mulch (straw, plastic, etc.) can reduce disease incidence by providing a protective barrier against soil-borne inoculum.
- Maintain good weed control, especially of brassica-type weeds.
- Storage cabbage should be handled carefully during harvest to avoid bruising and other wounds that will allow easy entry of the fungus.
- Storage facilities should be thoroughly cleaned of debris before harvest and wooden storage boxes disinfected.

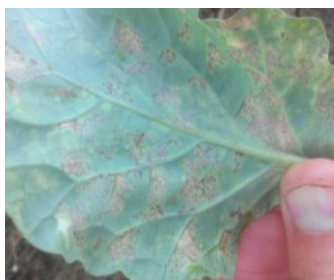


Figure 3. On the underside of the leaf, the lesions of downy mildew have a grayish, white mildew. These spores can spread to the marketable portion of the plant leaves first.
Photo: C. Hoepting, CVP



Figure 4. Circular concentric rings diagnostic of Alternaria leaf spot. When humidity is high, abundant sooty black spores can be seen on the lesions (right). Photos: C. Hoepting, CVP (left); H. Dillard (right)



Figure 5. Early symptoms of DM on cabbage may easily be overlooked. Photo: C. Smart, Cornell



Figure 6. In cabbage, advanced symptoms of downy mildew (left) and Alternaria leaf spot (right) can be confused with bacterial or Botrytis diseases. Look for accompanying lesions on lower frame leaves to provide clues as to the cause of head degradation.
Photos: C. Smart, Cornell (left); H. Dillard (right)



Figure 7. In broccoli, both DM (left) and ALS (right, top and bottom) cause dark discoloration of the beading. ALS tends to cause more distinct sunken spots. Photos: C. Hoepting, CVP



Figure 8. In cauliflower, both DM (left) and ALS (right) cause black spotting.
Photos: C. Smart, Cornell



Figure 9. Only downy mildew causes and internal grayish/brownish discoloration of the head in broccoli (shown) and cauliflower (not shown). When broccoli and cauliflower heads are infected with DM or ALS, it deems them unmarketable.
Photo: C. Hoepting, CVP



Figure 10. In Brussels sprouts, ALS appears mostly as tiny black spots (as opposed to brown spots with concentric rings). Photo: H. Dillard

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

2016 NYS Dry Bean Field Meeting

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

NYS Agricultural Experiment Station, 3350 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: \$15 Cornell Vegetable Program enrollees; \$20 all others at the door and supper cannot be guaranteed since the pre-registration period has ended. 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! Thanks to the NYS Dry Bean Industry for supporting 2016 Dry Bean Research!

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.

Soil Health Field Day

October 26, 2016 | 9:00 AM - 3:30 PM

Leicester and Mount Morris, NY



Featured: Grower speakers from NYS and Quebec, and a Penn State weed specialist. Field demonstrations of cover crop mixes, corn herbicide effects on interseeded cover crops, and roller-crimper/planter operation.

Cost \$15, at the door \$25. Contact SWCD Wyoming County at wscwcd@frontiernet.net or 585-786-3675. CCA and DEC pesticide credits pending.

Worker Protection Standard (WPS) Training

October 26, 2016 | Check-in 9:30 AM; Training 10:00 AM - 12:00 Noon

CCE Niagara County, 4487 Lake Avenue, Lockport, NY 14094

NYSDEC Pest Management staff will be providing outreach on the new Environmental Protection Agency (EPA) Worker Protection Standard (WPS), which goes into effect January 2, 2017. (Additional information about the WPS revisions can be found at <https://www.epa.gov/pesticide-worker-safety/revisions-worker-protection-standard>.) The new WPS provides occupational protections from pesticide exposure for agricultural exposure. This training is for those who use or supervise the use of pesticides on farms.

To register, please send an email to PesticideCompliance@dec.ny.gov. If currently certified in New York as a pesticide applicator, include your Certification ID Number.

Announcing Online Course Scholarships for Veterans in New York State

Laura Biasillo, Cornell Cooperative Extension

The Cornell Small Farms Program is pleased to offer partial scholarships for military veterans to take our online courses as part of the [Farm Ops](#) initiative. The courses, normally \$250, will be offered to veterans for \$125. In order to be eligible a person must be active or retired military, a resident of

New York State, and have plans to begin selling farm products (filing a Schedule F) in 2016 or 2017. In order to view the course offerings and schedules go to: <http://www.nebeginningfarmers.org/online-courses/>. If you are eligible and would like to apply for a scholarship, com-

plete a short form [here](#).

Registration is limited and will be offered first come, first served. Participants will be asked to complete a targeted survey at the end of the course as well as 6 months from completion, to determine the effect on their operation. ●

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/30 – 9/5/16

Location	Rainfall (inch)		Temp (°F)	
	Week	Month	Max	Min
Albion	0.73	3.43	91	47
Appleton, North	0.14	2.94	85	44
Baldwinsville	0.00	3.54	85	47
Buffalo*	0.89	4.16	85	52
Butler	0.00	3.30	86	46
Ceres	0.07	5.65	84	47
Elba	1.16	3.74	86	42
Farmington	0.36	3.03	88	44
Gainesville	0.28	NA	84	41
Geneva	0.17	2.22	86	47
Lodi	0.02	4.16	89	50
Niagara Falls*	0.51	2.35	87	51
Penn Yan*	0.12	3.04	87	50
Rochester*	0.76	3.91	88	49
Romulus	0.08	4.34	85	50
Silver Creek	0.03	5.39	82	48
Sodus	NA	NA	NA	NA
Versailles	0.09	3.91	85	46
Williamson	0.03	1.19	84	46

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – September 5, 2016

Location	2016	2015	2014
Albion	2426	2273	2066
Appleton, North	2150	1965	1848
Baldwinsville	2376	2264	2201
Buffalo	2478	2309	2148
Butler	2359	2277	2152
Ceres	1958	1980	1806
Elba	1819	1736	1672
Farmington	2242	2146	2032
Gainesville	1853	1790	1640
Geneva	2310	2193	2076
Lodi	2528	2389	2276
Niagara Falls	2627	2167	2061
Penn Yan	2447	2317	2207
Rochester	2508	2371	2224
Romulus	2412	2246	2144
Silver Creek	2284	2123	2072
Sodus	2136	2029	1968
Versailles	2205	2107	2010
Williamson	2158	2078	1970

* Airport stations

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

VEGEdge SPONSORS



American Takii, Inc.
831-443-4901 | www.takii.com
180 years Creating Tomorrow Today



Vegetable Seeds for Professionals
315-789-4155
www.bejoseeds.com



Crop Production Services
585-589-6330 | www.cpsagu.com
"Profit from our Experience"



Growmark FS - Filling Your Crop Needs
Elba Muck 716-474-0500 | Caledonia 585-538-6836
Knowlesville 585-798-3350 | Batavia 585-343-4622



Call 800-544-7938 for sales
or visit www.harrisseed.com
A Grower Friendly Company



People...Products...Knowledge...

Albion, NY...(585) 589-4195
Geneva, NY...(315) 789-4450
Genoa, NY...(315) 497-2713



SEEDWAY Vegetable Seeds
800-952-7333 | www.seedway.com
We are focused on quality seed and service!



Blake Myers, 585-303-3252
vegetableseeds@aol.com
www.siegers.com



Our Vision... "To be the first choice for
growers in all of our marketplaces."
www.StokeSeeds.com



Cornell University
Cooperative Extension
Cornell Vegetable Program

480 North Main Street
Canandaigua, NY 14424

VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

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.

VEGETABLE SPECIALISTS

Robert Hadad | 585-739-4065 cell | rgh26@cornell.edu
food safety & quality, organic, business & marketing, and fresh market vegetables

Christy Hoepting | 585-721-6953 cell | 585-798-4265 x38 office | cah59@cornell.edu
onions, cabbage and pesticide management

Julie Kikkert | 585-313-8160 cell | 585-394-3977 x404 office | jrk2@cornell.edu
processing crops (sweet corn, snap beans, lima beans, peas, beets, and carrots)

Carol MacNeil | 585-313-8796 cell | 585-394-3977 x406 office | crm6@cornell.edu
potatoes, dry beans, and soil health

Judson Reid | 585-313-8912 cell | 315-536-5123 office | jer11@cornell.edu
greenhouse production, small farming operations, and fresh market vegetables

Darcy Telenko | 716-697-4965 cell | 716-652-5400 x178 office | dep10@cornell.edu
soil health, weed management, fresh market vegetables, and plant pathology

PROGRAM ASSISTANTS

Jodi Callwood | jbc278@cornell.edu

Amy Celentano | ac2642@cornell.edu

John Gibbons | 716-474-5238 cell | jpg10@cornell.edu

Cordelia Hall | ch776@cornell.edu

Mariam Taleb | mt786@cornell.edu

ADMINISTRATION

Peter Landre | ptl2@cornell.edu

Angela Parr | 585-394-3977 x426 office | aep63@cornell.edu

Steve Reiners | sr43@cornell.edu

For more information about our program, email
cce-cvp@cornell.edu or visit us at CVP.CCE.CORNELL.EDU



Cornell University
Cooperative Extension
Cornell Vegetable Program