Timing, cover crop selection, and farm management are critical to successfully using living mulch between rows.

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VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Volume 10 | Issue 19 | August 20, 2014

Photo: Julie Kikkert.

Cornell University
Cooperative Extension
Cornell Vegetable Program

Living Mulch Update: Successfully Using Cover Crops Between Rows

by Judson Reid, Cornell Vegetable Program

The concept is simple: lay plastic mulch, immediately sow covers such as wheat or clover, transplant veg crops, then sit back and watch your fields turn green. We can guarantee that your fields will turn green. However the green may be weeds.

To make this system work timing and selection of cover crop are critical. For timing we want to compress fitting, laying plastic, sowing cover crop and crop transplant into the smallest window possible. When this window is stretched out weeds get a head start on the cover crop. Another danger is the cover crop dominating the vegetable crop (Fig. 1).

Figure 1. Peppers dominated by cover crop.
Photo: Judson Reid, Cornell Vegetable Program

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VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension regional agriculture team, serving 11 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

Contents

The next issue of VegEdge will be produced August 27, 2014.

Over 200 growers, agribusiness reps, agency and extension staff, attended the August 19th, Soil Health Workshop at Donn Branton's Farm, Stafford. Donn began using zone/strip till and no till in 1996 for field and vegetable crops, and more recently adopted extensive cover cropping. Those attending shared and learned about how reducing tillage and increasing cover cropping improves soil health and crop productivity, on vegetable, field crop and dairy farms. They also viewed reduced tillage and cover crop interseeding equipment, the latter being used for the first time on Branton Farms. Most impressive was a video showing how smoke can move through an extensive network of earthworm holes up to the surface at: https://www.youtube.com/watch?v=eroGrAjlLZk

Frank Gibbs, Soil Consulting Services, Rawson, OH, formerly NRCS, describes from down in a soil pit the soil management practices which result in large, beneficial populations of earthworms. Note the earthworm holes, marked in orange. *Photo: Julie Kikkert, Cornell Vegetable Program*

continued from cover - Living Mulch Update: Successfully Using Cover Crops Between Rows

The Cornell Vegetable Program has investigated the use of cover crops (also called living mulch) in between plastic mulched beds of vegetables for the last three years. 2014 has brought a unique set of conditions compared to the previous seasons. A cool wet spring delayed field work, which may have helped cover crop establishment by tightening the field prep window. Subsequent diluvial episodes encouraged green growth. Whether that green was living mulch, crops or weeds depended on farm management.

Figure 2. Compost treatment are impressive. *Photo: Judson Reid, Cornell Vegetable Program*

Although we don't feel this system will work for everyone, we see excellent potential for weed control and are very impressed with our compost treatments (Fig. 2). Why not come see for yourself? On August 29th there will be a demonstration meeting on a cooperating farm with living mulch, as well as high tunnel tomatoes, grafting trials and more. Registration is here: http://bit.ly/1oQODcc or call Karen at 315-536-5123.

Late Blight Risk

Carol MacNeil, CCE Cornell Vegetable Program

Late blight (LB) in potatoes and tomatoes has now been confirmed in the following counties: Allegany, Erie, Genesee, Madison, Livingston, Ontario, Schuyler, Tompkins, Wayne, Wyoming, and Yates Counties. Several of these are new counties confirmed last week. New samples with LB are coming in all the time. It is likely now present in all counties in Western NY, the Finger Lakes Region, and Central NY. New reports have come in from central and northern Maine.

The continued wet weather has been very favorable for development. The majority of LB samples from the area that were tested have been the US23 strain, sensitive to mefenoxam fungicides (Ridomil, other materials). The only exceptions remain in Allegany County, where the mefenoxam sensitivity of the LB is unknown, and one sample each of US24, with variable mefenoxam sensitivity, in Erie and Wyoming Counties.

The LB Decision Support System (DSS) called for 5-6 day fungicide spray interval during the past week (assuming a susceptible variety and the use of chlorothalonil), for most locations. Reaching 30 blight units (see the chart) triggers the recommendation to apply a fungicide under these criteria. In Appleton, Farmington, Geneva and Sodus blight units seem lower, but the full LB DSS program indicates a significant loss of fungicide coverage this past week, warranting re-application of a spray on a tight schedule. Use of a targeted LB fungicide like Previcur Flex + protectant, Revus Top, Ranman + protectant, or Gavel, only extends the spray interval by a day, 2 at most, compared to protectants like chlorothalonil. Ranman and Gavel are better at protecting potato tubers from LB infection, as are mefenoxam fungicides (Ridomil, others) if a susceptible strain such as US23 is present.

Rapidly kill hotspots of infection with Gramoxone, vine killer, or by cutting and bagging, burying or covering plants. Kill an area 30 ft. around the hotspot since it likely has infections that aren't yet large enough to see. Spray infected areas last. Whether you are vine-killing early to stop the spread of LB, or vine-killing because tubers have reached the right size, continue to apply at least a protectant fungicide (chlorothalonil, mancozeb or copper) regularly until all the leaves and stems are dead and brown. LB is present all over the area, spores are in the air, and you can't risk infection. Wait 3 weeks to harvest from the time the foliage is dead and dry, to avoid having LB spores infect tubers during harvest.

If you think you might have LB contact Carol MacNeil at 585-313-8796 or crm6@cornell.edu, John Gibbons at 585-394-3977 x405, or another Cornell Vegetable Program staff member. *LB DSS users*: If you need assistance contact Ian Small at ims56@cornell.edu

Late Blight Risk Chart, 8/19/14

Location[1]	Blight Units[2] 8/13-8/19	Blight Units[3] 8/20-8/22	Location[1]	Blight Units[2] 8/13-8/19	Blight Units[3] 8/20-8/22
Albion	NA	NA	Lodi	37	5
Appleton	14	0	Medina	33	5
Baldwinsville	40	0	Penn Yan	37	5
Buffalo	30	0	Ransomville	40	0
Ceres	39	0	Rochester	43	0
Elba	52	5	Romulus	NA	NA
Farmington	22	0	Silver Creek	31	0
Gainesville	NA	NA	Sodus	29	0
Geneva	23	5	Versailles	25	0
Kendall	36	5	Williamson	36	0

1 Weather stations. For more sites, and varietal susceptibility to LB: http://newa.cornell.edu
2 Passed Week Simcast Blight Units (BUs)
3 Three days predicted Simcast Blight Units (BUs)

Black Rot After Hail in Cole Crops

Christy Hoepting, CCE Cornell Vegetable Program

This past week, we noticed yellowing of Brussels sprouts leaves where the leaves had been damaged by hail 1 week prior (Fig. 1). The sample was sent to Chris Smart, Plant Pathologist, NYSAES, and the bacterium responsible for Black rot was detected. The hail occurred on a diversified fresh market vegetable farm and the Black rot first appeared on one of two varieties of Brussels sprouts. One week later, the black rot on the leaves that were originally showing early symptoms had developed further (Fig. 2) and early symptoms appeared in the romanesco, while the cabbage and broccoli were symptomless. In this situation, it is suspected that the injury caused by the hail provided an entry point for the black rot bacteria to infect the plants. Since it has been such a wet growing season, bacteria are everywhere! It is not suspected that the one variety of Brussels sprouts was already infected, rather, it and the romanesco are more susceptible than the other Cole crops, and thus, when the bacteria was introduced during the rain and hail event, they were the ones that got the disease and the first to show symptoms. It is well known that varieties and crop type differ in their relative susceptibility to black rot. In time, the lesser susceptible Cole crops may eventually develop symptoms along the hail wounds.

Black rot can be a very serious bacterial disease of Cole crops and is very challenging to control when weather conditions are favorable. Optimum conditions for BR are moist and warm temperatures (75°F to 95°F), the bacteria do not spread below 50°F or during dry weather. UNLESS, there is dew during the night and morning, those dew drops on diseased plants will contain the pathogen. Black rot does not spread without water, but irrigation can provide water to spread this disease in dry weather. Hopefully, the outer leaves of the infected plants will die and the plants will continue to grow disease free. Alternatively, the disease could become systemic within the plant, causing the entire vascular system to turn black (Fig. 3). It is important to try to prevent spread to healthy plants. New infections caused by secondary spread are most likely to enter into the plant via the hydathodes and cause the characteristic V-shaped lesions on the margins of the leaves (Fig. 4). To prevent secondary spread of black rot, apply copper bactericides on a 7-10 day schedule, especially targeting before and after rainfall. While not all coppers are the same (make sure to follow the label), they all work equally well to reduce the spread of BR. Maneb and mancozeb are not labeled for black rot (rather, Alternaria leaf spot and downy mildew), but have reportedly worked well tank-mixed with copper for control of bacterial diseases in other crops. It is also very possible that Alternaria leaf spot (ALS) could get a foot hold once the hail damaged tissue becomes necrotic. Once you start to see this, add an ALS fungicide such as Bravo, Quadris Top, Endura, Inspire Super or Cabrio to your spray program.

Avoid entering fields when foliage is wet. People, animals, and equipment can all spread BR bacteria throughout a field and into other non-infested fields.

Figure 1. Brussels sprouts leaves showing yellowing around hail wounds approximately 1 week following the hail event. The yellowing was diagnosed as early symptoms of the black rot disease.
Photo: Cordelia Hall, Cornell Vegetable Program

Figure 2. Brussels sprouts leaf showing yellowing and necrosis caused by Black rot around hail injury (more advanced than Figure 1).
Photo: Cordelia Hall, CVP

Figure 3. Systemic infection of Black rot in cabbage where the veins turn black.
Photo: Christy Hoepting, CVP

Figure 4. Diagnostic target-spot lesions along leaf margins of Black rot.
Photo: Chris Smart, NYSAES

WNY Sweet Corn Trap Network Report

Marion Zuefle, NYS IPM Program

Nineteen sites reporting this week. Seven sites had European corn borer-E (ECB-E) and six sites had ECB-Z. Both corn earworm and fall armyworm numbers are up this week as compared to last week. CEW was reported at six sites, all six sites were high enough to require a 4, 5, or 6 day spray interval. Please see the chart at the bottom to determine the correct spray interval for your site. Fall armyworm (FAW) numbers were also up this week with 11 sites reporting trap catches. Western bean cutworm (WBC) numbers are down but the total number of sites reporting remains high at 17 sites.

For sites with high enough CEW trap catches, the recommended spray intervals for CEW should be adequate to control ECB, FAW and WBC. But at sites where corn earworm are not being caught in high enough numbers to determine the spray schedule, you should scout fields in the late whorl stage through silking for ECB, FAW, and WBC eggs and larvae. Here is a link to a video on how to scout for WBC.

WNY Pheromone Trap Catches: August 19, 2014

Location	ECB -E	ECB -Z	CEW	FAW	WBC
Baldwinsville (Onondaga)	NA	NA	NA	NA	NA
Batavia (Genesee)	2	0	2	1	5
Bellona (Yates)	23	0	0	13	1
Eden (Erie)	0	0	2	31	46
Farmington (Ontario)	0	0	0	0	0
Hamlin (Monroe)	1	2	4	1	8
LeRoy (Genesee)	2	0	0	0	5
Lockport (Niagara)	3	0	0	0	5
Pavilion	0	0	0	41	17
Penn Yan (Yates)	0	1	0	1	2
Seneca Castle (Ontario)	1	1	0	0	3
Spencerport (Monroe)	0	10	12	0	4
Waterport (Orleans)	0	0	0	0	7
Williamson (Wayne)	4	1	0	0	2

ECB - European Corn Borer
CEW - Corn Earworm
FAW - Fall Armyworm
WBC - Western Bean Cutworm
NA - not available

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.

Weed of the Week

WILD MUSTARD

Darcy Telenko, Cornell Vegetable Program

Wild mustard (*Brassica kaber* (DC.) L.C. Wheeler) is a winter and sometimes summer annual. It is a member of the Cruciferae (mustard) family and is widespread throughout United States. Seedlings emerge anytime from spring, to late summer, or early fall. The seedling has kidney-shaped cotyledons with a distinct indentation at the tip. Young leaves are egg-shaped (elliptically oblong) with a wavy-toothed margin and hairy on both sides. Upper leaves will progressively be smaller, roughly haired to smooth and hairless. Wild mustard starts as a basal rosette but then grows erect 8 to 40 inches tall. The stem will branched near top and have course hairs on lower portion. Flowers will form in clusters at the end of branches with 4 yellow petals. Seeds are smooth, round and can be black or dark purplish brown. Wild mustard is often confused with wild radish, veins in cotyledons and leaves are not as apparent as in wild radish.

There are a number of herbicides with good to excellent preemergence activity on mustard including AAtrex, Chateau, Karmex, Matrix, Princep, Sandea, and metribuzin. Herbicides with excellent postemergence activity on mustard in vegetables include AAtrex+oil, Callisto, Clarity, Gramoxone, Impact, Laudis, Matrix, Raptor, Reflex, Roundup, Sandea/Permit, and metribuzin. See product label for specific crop uses.

CROP INSIGHTS

DRY BEANS

Sclerotinia white mold (WM) is present in some dry bean fields at high levels, with infected pods, stems and leaves. If pods are infected at this time they will not produce beans. Defoliating as soon as the majority of seeds are mature (not green when you scrap away the seed coat) to open up the canopy and promote drying, is the only thing you can do at this point. WM potential has been extreme this year due to the continued wet weather and due to the large bean bushes. At least a three year rotation between host crops (beans, soybeans, clover, vegetables) is recommended to reduce WM sclerotia, which overwinter in the soil. Contans biofungicide, applied in the fall or the early spring, and worked into the soil can help reduce overwintering sclerotia somewhat. Properly timed fungicide sprays at very early flowering can protect against WM infection from spores, but ideal timing and two applications would likely have been needed with this year's intensely favorable weather. In addition, any dead bean leaves touching the soil can be directly infected, without the need for spores. Infection then spreads to healthy leaves, stems and pods.

Western bean cutworm (WBC) trap catch numbers are dropping off. Growers around Attica especially, should scout dry bean pods for signs of feeding, as the total WBC trap catch in that trap in dry beans far exceeded the 100 moth threshold, reaching 337 by last week. Other areas of concern, with high trap catches, but based on traps in corn fields, are Eden, Barker, Hamlin, Pavilion, and just reaching the threshold, Kendall, in Western NY/Finger Lakes Region. Once corn enters the silking stage dry beans become more attractive to WBC than corn. Check all pods on 5 dry bean plants in several spots in the field this week. If damage is found one insecticide spray, such as would be applied for potato leafhoppers, should be applied.

USDA National Ag Statistics, 8/15: Dry bean production in New York is forecast at a record low 148 thousand hundredweight (cwt), down 8% from the 160 thousand cwt produced last year. Harvested acreage is expected to total a record low of 7,800 acre, down 1,000 acres from 2013. U.S. dry edible bean production is forecast at 28.7 million cwt for 2014, up 17% from last year. (from www.nass.usda.gov/ny)

GREENS

At least most of the greens production have benefitted from this prolonged weather pattern. The brassicas, spinach, chard, and lettuce have been looking good. Flea beetles are still persistent while tarnished plant bugs (Lygus bugs) are the biggest concern. Mowing down weeds from around field plots can help reduce the habitat for the TPB. On lettuce, browning of the midrib is common. Brassicas can have brownish or rusty looking areas on leaves and shoot tips.

Tarnish Plant Bug
Photo: MSU Extension

TPB feed on plants by sucking sap and through this feeding the tissue gets injected with enzymes. This causes the tissue to break down. It doesn't take large numbers to cause damage. Feeding damage is seen on buds, flowers, young developing fruit, and young leaves. Depending on the plant type and time of attack, we tend to see the loss of buds and small fruit, fruit that is deformed, browning of leaf tissue where feeding took place, deformed leaf growth, or damage to seeds.

ONIONS

Many fields lodged over the past week with roughly half of them already been treated with maleic hydrazide. Onions are bulbing very nicely. Even in the spots where the onions were standing in saturated soils for several days look like they will make a marketable crop. Yields of harvested transplanted fields are reportedly excellent with very good quality. The concern now is that the current cool and wet weather will delay maturity and prevent drying of windrowed onions.

Onion thrips pressure increased again this week as there is a lot of influx from lodged/pulled/harvested fields into fields where the onions are still green and standing. Radiant is the insecticide of choice when thrips numbers exceed 3.0 per leaf. Use 8 fl oz of Radiant when thrips numbers exceed 5.0 per leaf. Once Radiant has knocked the population down to 1.0 thrips or less, Warrior + Lannate or Agri-Mek may be used in rotation. See last week's article for info on later season management of onion thrips.

New outbreaks of downy mildew also occurred over the last week, which is especially of concern in fields that are still green and standing. Once downy mildew is known to occur, a Ridomil Gold product should be used – see July 23rd issue for more info. A fungicide for Stephylium Leaf Blight (SLB) such as Inspire Super, Quadris Top or Pristine is also recommended in the tank mix, as SLB can move quickly from a secondary pathogen to an aggressive defoliator when it follows downy mildew. In general, SLB has not been as serious as last year where several fields of onions "died standing up" due to excessive leaf dieback, in part due to a less stressful growing season and fungicide programs more targeted at this disease. Now, more browning and straw-like leaves, and excessive leaf dieback (Fig. 1) can be seen in some fields, but for the most part, they look like they will lodge naturally.

Figure 1. Straw-like leaves and browing caused in part by Stemphylium Leaf Blight in onions.
Photo: Christy Hoepting, CVP

Muck Donut Hour is Closed for the Season. Thank you to all the growers, industry representatives and special guests for participating in this special outreach activity. What a great season!

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PEPPERS

Superficial cracking on pepper. *Photo: Darcy Telenko, Cornell Vegetable Program*

Fluctuating day and night temperatures along with heavy rainfall and water supply can lead to superficial surface cracking in peppers. Splitting occurs in fruit during stages of rapid growth stress at maturity. Proper irrigation and nutrition management can reduce cracking and some cultivars as the red sweets picture below may be more susceptible.

POTATOES

Don't miss the Fresh Market Potato Variety, Disease/Late Blight, and Insect Meeting, Thursday, August 28, 5:30 – 8:30 pm, Williams Farms, starting in the field on Decker Rd. Free! 1.25 DEC credit. Preregister by Aug. 25th by contacting Angela Parr at 585-394-3977 x426 or aep63@cornell.edu . For details go to Upcoming Events at: http://cvp.cce.cornell.edu/ and click on View Details. Sponsored by Williams Farms, Gowan Co, and Syngenta.*

Recent rain has again slowed field work in some locations. Growers are spraying fungicides, spraying sprout inhibitor, or are vine-killing more mature fields, where they can. Foliage is very lush this year due to all the rain. Late blight is being found in more fields across the area. See the *Late Blight Risk* section in this issue. Unfortunately there are dead areas in fields from excess rain in some areas, and pink rot (PR) and bacterial soft rot are concerns. Mefenoxam fungicides (Ridomil and others) provide inconsistent control of PR. Ranman in-furrow or foliar may reduce pressure. High rates of phosphorus acid fungicides (Phostrol, others) may suppress PR. Varieties differ in their susceptibility to PR with Norland, Superior and Yukon Gold being especially susceptible. See: http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Potato_Cultivars_NE_Production.pdf Sclerotinia white mold (WM) has also been seen. Only Quash, a locally systemic foliar fungicide, is rated good for control of WM, and it must be mixed with a LB fungicide to control the latter disease. The spray must reach the foliage needing protection, difficult with the dense canopies this year. Contans is also rated good for WM control, but it must be applied in the fall or well before planting and incorporated into the surface soil. Go to: http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Potato_Strategies_Combined.pdf and scroll down to the charts.

SWEET CORN

Bird damage has been high in many locations with more than 50% losses reported. CEW activity has also been high. **Anyone who is still experiencing damage, please let us know (rgh26@cornell.edu 585-739-4065)**

TOMATO

Diseases are starting to take their toll on early, susceptible tomato varieties. Now is the time to take note of the diseases that having the most impact and look to selecting resistant varieties for next season if available. Late blight is continuing to spread, so continue to stay on top of your management programs to protect against late blight.

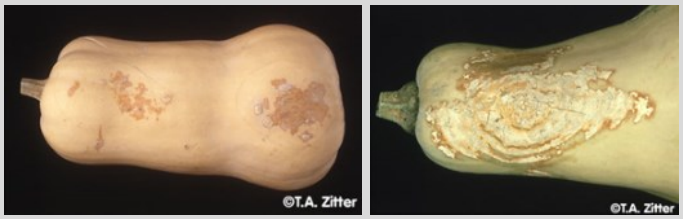
VINE CROPS

Too much rain, moderate temperatures, and cool damp nights aren't letting up and the disease pressure is still high. Powdery mildew is still pretty active in many cucurbits, keep an eye on second plantings in a number of locations I've found powdery starting down inside the plants on young tissue and it is moving into pumpkins and gourds. Downy mildew has been spreading around in MI, WI, and OH as well as blowing up throughout the Ontario, Canada region. From the south, it has moved up into PA. It is amazing we haven't found it yet in WNY though it is probably only be a short time before we see it here.

Gummy stem blight and black rot on watermelon. *Photo: Elizabeth Buck, CVP*

Gummy stem blight continues to be found in melons. Symptoms on leaves range from water-soaked margins to individual, circular tan to dark spots; while on stems brown cankers will form and may produce a red to black exudate (gummy), fruit infection causes a black rot phase. A number of fungicides area available and should be used in preventative manner and applied on 7-14 day interval, these include Quadris, Bravo WS or other labelled product (OLP), Champ, Switch, Inspire Super, Sovran, Diathane DF or OLP, Cabrio, Pristine, Topsin. Resistance to Quadris and Topsin has occurred in the United States, but not in New York yet, so make sure products are alternated with different modes of action, combined with other protective fungicides such as Bravo, and limited to one use per season when necessary.

Fruit rots are the issue of concern with black rot (the infected fruit version of gummy stem blight), anthracnose, and Choanephora wet rot. Wet field conditions and fruit touching the ground makes infection more likely. Keeping up with the preventative spray schedule is critical. *From Veg MD Online:* Black rot is the most important disease contracted during storage of squash (butternut, Hubbard, and others), pumpkin, and even gourds in the Northeast. Affected fruit may show black rot lesions in the field before harvest, collapse soon after harvest, or exhibit lesions some time later in storage.



Black rot on butternut.

Anthracnose on butternut and pumpkin.

N Shortage – The later planted crops of summer squash, zucchini, and cucumbers have been suffering from insufficient N mostly from the heavy rains. Especially in organic operations, adding a blast of fertilizer would help keep production going for those hopeful of having a warm and dry late season.

UPCOMING EVENTS

Processing Snap Bean and Sweet Corn Variety Field Day

August 21, 2014 | 1:00 PM Snap Beans; 3:00 PM Sweet Corn; 5:30 PM Dinner
Vegetable Research Farm, County Road 4, Geneva (1 mile west of the NYS Ag Experiment Station)

For more information or to RSVP for dinner, contact Jim Ballerstein 315-787-2223 or jwb2@cornell.edu.

Bejo Seeds Open House and Demonstration Trials 2014

August 26-27, 2014 | 10:00 AM - 6:00 PM
4188 Pre Emption Rd, Geneva 14456

View a wide variety of vegetable crops at Bejo's Research & Demonstration Farm. FREE! Lunch served August 26. RSVP to 315-789-4155.

Fresh Market Potato Varieties, Disease & Insect Management Meeting

August 28, 2014 | 5:30 PM - 8:30 PM
Williams Farm, Decker Rd, just west of Minstead Rd, Marion 14505

This meeting will include updates on late blight and other potato diseases, management of Colorado potato beetle and other insects, and the opportunity to see the 2014 Cornell fresh market muck variety and breeding line trial. Dinner provided. 1.25 DEC recertification credits, CCA credits available. *This meeting is FREE for growers due to the support of our meeting sponsors: Williams Farms, Gowan Company and Syngenta.* Pre-register to Angela Parr at aep63@cornell.edu, 585-394-3977 x426 by 8/22/14 so that we know how much food to order.

Cornell Vegetable Program Research Updates: Grafting, Living Mulch & More

August 29, 2014 | 6:00 PM - 8:00 PM
Maple Lane Produce (Nelson Hoover farm), 3039 Bath Rd, Penn Yan 14527

Vegetable Specialist Judson Reid will give updates on his fresh market research program, with a major focus on grafting in tomatoes, the use of living mulch in a variety of crops, and varietal resistance to brown leaf mold of tomatoes. The meeting will include a tour of research plots. Cost: $20/person. Space is limited to 30 participants. Pre-registration is required by August 25. Send your name, farm name, # attending and payment of $20 per person (check payable to *Cornell Vegetable Program*) to Karen Gavette, CCE Yates Co., 417 Liberty St, Penn Yan, NY 14527. Indicate that your payment is for Judson Reid's Research Updates Meeting.

Disease and Weed Management Workshop

September 29, 2014 | 8:30 AM - 12:00 PM
CCE Allegany-Cattaraugus Belmont Office, 5435A County Road 48, Belmont 14813

Topics covered will include: Vegetable disease control; focusing on the main diseases of vegetable crops in NYS and their management options; both organic and conventional. Weed topics include: weed biology and identification, difference between annual, perennial and biennial weeds, grasses, sedges and broadleaf, and cool vs. warm season. The major weeds that affect vegetable crops in NYS will be discussed and their management options reviewed. Growers are encouraged to ask questions and actively participate in the course. Hands on examples will be used if available. Pesticide recertification credits will be available.

Cost of the program is $15.00 per person or $25.00 for two people from the same farm. If you are interested in signing up for this program, please contact Colleen Cavagna at 585-268-7644 ext. 12. Hosted by CCE Allegany-Cattaraugus and the Cornell Vegetable Program.

2014 NYS Dry Bean Field Meeting

September 18, 2014 | 5:15 PM - 7:45 PM
Tom Corcoran's farm, 1302 McEwen Rd, Caledonia 14423

Tour the Cornell dry bean variety trial and nearby strip trials. Cornell professors will share research-based ideas on pest issues and management including bacterial diseases and Western bean cutworm updates. Changing bean plant architecture to improve yields will also be discussed. DEC pesticide recertification and CCA credits will be available. A light supper will be provided. Cost: $5 for Cornell Vegetable Program enrollees; $10 for all others. The full agenda and directions to this event can be found on our website. Pre-register by contacting Angela Parr at aep6@cornell.edu or 585-394-3977 x426 by September 12. *Meeting sponsored by Genesee Valley Bean and King Cole Bean.*

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/12 – 8/18/14

Location	Rainfall (inch)		Temp (°F)	
	Week	Month August	Max	Min
Albion	NA	NA	NA	NA
Appleton, North	0.86	1.20	81	52
Baldwinsville	1.52	2.27	74	52
Buffalo*	0.90	2.45	78	55
Ceres	1.89	3.52	77	43
Elba	0.61	1.19	74	49
Farmington	1.03	1.61	74	50
Gainesville	1.36	3.07	73	47
Geneva	0.49	1.59	72	51
Kendall	0.62	1.77	78	50
Lodi	0.54	2.49	75	54
Penn Yan*	0.67	3.12	73	54
Ransomville	NA	NA	79	50
Rochester*	1.26	2.12	75	52
Romulus	NA	NA	74	55
Silver Creek	1.36	2.66	80	56
Sodus	2.56	3.30	74	48
Versailles	NA	NA	78	52
Williamson	3.74	5.92	72	48

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – August 18, 2014

Location	2014	2013	2012
Albion	NA	NA	NA
Appleton, North	1505	1630	1959
Baldwinsville	1841	1882	2148
Buffalo	1765	1883	2231
Ceres	1525	1543	1760
Elba	1376	1625	1881
Farmington	1689	1733	1958
Gainesville	1345	NA	1844
Geneva	1736	1818	2121
Kendall	1711	1931	NA
Lodi	1898	2022	NA
Penn Yan	1845	1857	2136
Ransomville	1588	1564	2052
Rochester	1848	1942	2180
Romulus	1783	1898	NA
Silver Creek	1681	1830	2055
Sodus	1633	1658	1921
Versailles	1644	1798	1993
Williamson	1607	1859	2120

* 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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Cooperative Extension
Cornell Vegetable Program

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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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