



White mold can appear anytime during the growing season during favorable environmental conditions. Many fresh market vegetables are susceptible.

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Weather fluctuations are creating an environment where diseases are showing up in lettuce. Read about the symptoms and management tips.

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Boxes of single varieties of hot peppers will be more valuable than mixed boxes. Learn how to properly market and price hot peppers.

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Downy mildew of Cole crops is caused by a pathogen that thrives in cool, wet conditions. It is a common problem in the fall when there is a lot of dew.

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VEGEEdge

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Photo: Christy Hoepting

Cornell University
Cooperative Extension
Cornell Vegetable Program

Pest Patrol: White Mold

Darcy Telenko, CCE Cornell Vegetable Program

White mold, caused by the soilborne fungus *Sclerotinia sclerotiorum*, has been identified and is actively growing on numerous fresh market vegetables. It will commonly infect the plant stem at the soil line, but all parts of the plant are susceptible. Field symptoms may include bleached lesions on stem and may include dense, cottony, white growth during periods of high humidity. Sclerotia – hard, black, irregularly-shaped structures may be found on infected tis-



Cottony white fungal growth of white mold on potato leaf (left), cucumber stem (left center), broccoli floret (right center), and cabbage head with black sclerotia (right). Photos: Darcy Telenko, CVP

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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.

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The next issue of VegEdge will be produced September 2, 2015.

Melons Attacked by Turkeys?

Elizabeth Buck, CCE Cornell Vegetable Program

Turkey damage? Most likely.

A big section of a melon field near a hedge row was found to have large, 1"+ diameter and 2-3" deep peck marks in nearly every melon. Melons then rot and occasionally ferment (see photo below). It's hard to stop, though stronger foliage cover would have helped hide the melons. ●



Photos: Elizabeth Buck, Cornell Vegetable Program

sues. These structures provide for long-term survival of this disease in the soil. The sclerotia will germinate and produce a tiny, cup-shaped mushroom called an apothecia that can release ascospores (carpogenic germination-fruited body (apothecia) germination). These wind-blown spores will infect senescent tissues such as dying flowers leading to the localized spread of this

disease within a field. These spores do not lead to the long-distance spread of this disease. The movement of infested tissue or soil contributes to the movement of white mold into previously infested areas. In addition, the sclerotia can germinate and directly infect susceptible plants (myceliogenic germination – formation of the mycelium, the main body structure of a fungus).

Fresh market vegetables that are susceptible to white mold include tomato, potato, cucumber, squash, cole crops, beans, lettuce, spinach and many others. This disease can appear anytime during the growing season during favorable environmental conditions.

Management options for White mold include:

- ✓ Three to four year rotation to non-hosts which include corn and most grains can help reduce soil population.
- ✓ East – West row direction can increase airflow and decrease humidity.
- ✓ A biological fungicide – Contans WG, *Coniothyrium minitans*, a mycoparasite of *Sclerotinia sclerotia*, is available to help reduce viable sclerotia in the soil. It must come into contact with the sclerotia to kill them. It required 3 to 10 weeks to effectively colonize and destroy the sclerotia and may be an option in areas with persistent *Sclerotinia* disease issues.
- ✓ Clean, weed-free fields can help reduce plant canopy for airflow
- ✓ Fungicides labeled for white mold control

Trade name	Common name	FRAC Group	Labelled vegetables in NY
Endura 70 WDG	boscalid	7	potato; cole crops; dry, snap and lima beans; head and leaf lettuce
Omega 500F	fluazinam	29	potato, carrot
Rovral 4F	iprodione	2	potato
Quash	metconazole	3	potato
Cabrio Plus	pyraclostrobin + metiram	11 + M3	potato
Headline SC	pyraclostrobin	11	potato
Topsin M 70WP	thiophanate-methyl	1	potato



CROP INSIGHTS

COLE CROPS

Flea beetles are back and voracious! Otherwise, things are looking pretty good with late season fresh market plantings. Keep an eye out for downy mildew (*see article, pg 8*) and alternaria as we head into cooler night temperatures.

DRY BEANS

The earliest fields are drying down, while beans in later fields are growing and filling pods. Western bean cutworm (WBC) moth catches on August 25 were down a lot at all locations.

Dry bean defoliation is recommended when at least 80% of seed is physiologically mature to speed harvest without loss of yield. Open pods and scratch off seed coat. Bean should be white, not green under the seed coat. Pods are not necessarily dry at this stage. Do a good job of sampling pods from all over the field, and from the most to the least mature pods. Kill will be quicker in warm, sunny weather.

Gramoxone Inteon (paraquat) – Plants should be mature with 80% yellow pods, no more than 40% green leaves. Use 1.2 – 2 pts/acre, split if foliage is dense. Addition of crop oil concentrate (COC) or methylated seed oil (MSO) enhances bean and weed desiccation compared to a non-ionic surfactant (NIS).

Defol 750 (sodium chlorate) – Use 3.2 qts/acre, repeat if needed. Apply 7-10 days before harvest, longer if temperatures are below 60°F. Use a NIS or COC. Good coverage is essential. Weak against weeds.

Sharpen (saflufenacil) – Use 1-2 oz/acre when there are no more than 30% green leaves on vining beans; 40% on bush beans. Add a methylated seed oil (MSO) plus ammonium-ased adjuvant for optimum desiccation.

Touchdown Total, Roundup, OLF (glyphosate) – Apply a max of 0.75 lb/acre active ingredient at the hard dough stage (max 30% moisture), and when no green leaves are visible. Broad spectrum weed burn down, with no bean re-growth. Some importing countries have a low residue tolerance for glyphosate so check with your buyer before spraying!

Valor SX (flumioxazin) – Use 1.5-2 oz/acre. Use a COC or MSO, PLUS spray grade AMS or liquid N to enhance desiccation. In Robin Bellinder's trials flumioxazin outperformed paraquat in terms of bean desiccation but weed control was not as good. Use special tank cleaners after Valor. Wait 30 days after application before planting wheat; 3 months for barley, rye.

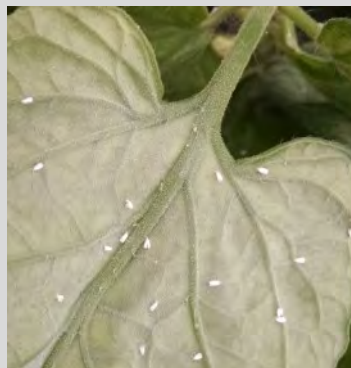
EGGPLANT

Flea beetles are causing a lot of foliar damage. Early blight is showing up on eggplant, but it is not an aggressive pathogen in this crop.

HIGH TUNNELS

Keep scouting your tunnel crops! Overall yields and crops look good. We're seeing an uptick in pest and disease pressure - early detection is the best tool for preventing potential yield losses. **Two spotted spidermites (TSSM)** are present in many greenhouses. Most populations are holding steady, but some have rapidly increased and stripped the foliage of their color. TSSM will overwinter and come back next year, so consider treating known infestations this season. **White flies** are breaking out in several tunnels across the region. This is an occasional, but potentially challenging pest. Look for snowy, pure white flies coming up from the leaf undersides when the canopy is disturbed.

Brown leaf mold and **powdery mildew** are both common in tomatoes. CVP staff are collecting samples/reports of these diseases for on-going disease control studies and want to hear about new cases.



White flies on high tunnel tomato.
Photo: Elizabeth Buck,
Cornell Vegetable Program

LETTUCE

See article, Disease Management in Lettuce, pg 6. Aphids, tarnished plant bugs, and slugs are becoming problematic. Weed management in and around the fields will help in reducing launching off points for the aphids and tarnished plant bugs. At the first sign of these pests, treat quickly to knock down before populations have a chance to build up.

ONIONS

A lot of onions lodged during this past week, as it is that time of year after all. Several fields have already had their last fungicide and insecticide sprays and have been treated with sprout inhibitor. But there are still a few fields that have a couple more sprays left. **Downy mildew was active again over this past week with several new infection sites being detected this week.** It is expected that this disease will continue to be active for the rest of the growing season as nighttime temps dip into the 50s and daytime temps stay in the 70s. In fields where downy mildew has been detected and that have at least 2 weeks before 50% lodging, it is worthwhile to manage this disease with fungicides. This includes a Ridomil Gold product in combination with a good target spot fungicide. See August 5th and 12th issues of Veg-Edge for articles on managing downy mildew in onion.

It seems to be during the last 2-3 weeks before the onions lodge when we start to see outer leaf and leaf tip dieback progress from occurring normally to excessive, and in some fields or parts of fields to the extent that the onions "die standing up". In some cases, diagnostic target spot lesions occur on the necrotic tissue of the dieback areas, which are mostly tan in color, but also purple and black (Fig. 1). Or,

continued on next page

excessive dieback is associated with downy mildew infections that were invaded by secondary target spot diseases (Fig. 2). But in some fields, excessive dieback does not appear to be associated with diagnostic target spot lesions or downy mildew (Fig. 3). In several cases, excessive leaf dieback can be associated with plant stress, such as from compacted or saturated soil, soil nutrient imbalances, leaf injury or from poor leaf disease or thrips control. Iris yellow spot virus seems to have lit up in spots over the past week as well; target spot lesions are often found invading IYSV lesions and this disease complex can also result in excessive leaf dieback. We have several projects underway this growing season to get a better understanding of the target spot diseases and how to manage them effectively.

PEPPERS

Peppers are doing well and most have overcome (effectively suppressed) earlier bacterial infections. Colored peppers are starting to turn in several locations. Slugs, blossom end rot, aphids, and sun scald are the most common problems.

POTATO

Don't miss the Fresh Market Potato Varieties, Late Blight & Insect Management Meeting, Wednesday, Sept. 2nd, 5:30 PM, at Williams Home Farm, Marion! Preregister no later than noon on Monday, Aug. 31.st

Contact Carol MacNeil at crm6@cornell.edu or 585-313-8796. View the Cornell variety/breeding line trial, hear an update on late blight from Bill Fry, and discuss options for Colorado potato beetle control. 1.25 DEC credits, also CCA credits. For more details go to: <http://cvp.cce.cornell.edu/event.php?id=422>

More of the earlier potato fields are maturing and growers are doing more vine-killing. If your later varieties have delayed maturity or are hard to kill you may have used too much nitrogen. This is less likely this year with all the rain, but if you put on a late side-dress it could still be an issue. Be sure to continue applying fungicides regularly for late blight (LB), and delay harvest, until foliage and stems are dead and dry.

Vine-Killing Options for 2015, from Sandy Menasha, CCE, Suffolk Co.: - Always read and follow the pesticide label.

Reglone 2L (diquat dibromide) - Application rate is 1-2 pts/A. A nonionic surfactant should be added according to the label. If vines are dense, a second application can be made 5 days after the first. A 30-minute rain free period is needed post application. Reglone provides fair control of grasses and ragweed.

Quick Quat, Firestorm and Parazone 3SL (paraquat dichloride) - Labeled for fresh market potatoes only. The best materials for grassy fields. Do not apply to vigorously growing vines. A nonionic surfactant or crop oil concentrate should be included according to the label. Application rate is 0.7-1.3 pts/A. Two applications can be made per season. Split applications must be applied a minimum of 5 days apart. A minimum 30 minute rain-free period is needed after application.

Vida (pyraflufen-ethyl) - Vida is labeled for all potato varieties during the early stages of vine dessication and provides effective control of late season broadleaf weeds. The application rate is 2.75 – 5.5 fl

oz/A. A second application may be necessary but should not be applied before 7 days from the last application. Apply with a non-ionic surfactant or crop oil concentrate in 20-50 gallons of water/acre and use an approved buffering agent if the pH is greater than 7.5. A grass herbicide or desiccant like diquat can be tank-mixed for improved desiccation. Vida is rainfast within an hour.

For Upstate NY, from the 2015 Cornell Vegetable Guidelines:

Rely (flufosinate-ammonium) - Make only 1 application. Do not apply to potatoes for seed. A non-ionic surfactant and anti-foaming agent may be helpful in soft water. There is a plant-back restriction of 30 days for buckwheat and most grasses; 120 days for all other crops except corn and soybeans.

VINE CROPS

As the fruit matures and the plants are under more stress, some fields are beginning to suffer from low-level, season long problems like soil borne disease and bacterial infections.



Figure 1. Most target spot lesions that we are seeing now are tan in color (a), but there are also some that are purplish and black in color (b).
Photos: C. Hoepting, CVP



Figure 2. Excessive leaf dieback caused by downy mildew infection sites that are invaded by secondary target spot diseases (left).
Photo: C. Hoepting, CVP



Figure 3. Excessive leaf dieback not associated with diagnostic target spot lesions or downy mildew (right).
Photo: C. Hoepting, CVP

Disease Management of Lettuce

UMass, <http://people.umass.edu/jmeagy/Disease%20management%20of%20lettuce.htm>; edited by R. Hadad, CVP

[The weather fluctuations are creating an environment where various diseases are showing up across the region in lettuce. The listing below is adapted from an Extension publication from UMass – Disease Management of Lettuce. ed. R. Hadad, CVP]



Rhizoctonia Bottom Rot

Bottom rot, *Rhizoctonia solani*

Symptoms: Usually wilting of the outer leaves.

Management: Provide good drainage and weed control.



Botrytis Gray Mold

Gray mold, *Botrytis cinerea*

Symptoms: Water soaked, then grayish green or brown, and finally turn into a brownish-gray, slimy mass.

Management: Keep the humidity low and the temperature warm and sterilize soil before planting. Keeping the plants as dry as possible helps prevent infection, so avoid overhead watering.



Downy Mildew

Downy mildew, *Bremia lactucae*

Symptoms: Appear first on oldest leaves. Yellowish or light green blotchy areas appear on the upper sides of leaves.

Management: Use resistant varieties.



Fusarium Wilt, *Fusarium oxysporum*

Symptoms: The first symptoms may occur in seedlings that wilt and die. Mature plants have a characteristic red-brown streak.

Management: Avoid planting head lettuce in infested fields for at least several years.



Sclerotinia Drop

Leaf Drop, *Sclerotinia minor* & *Sclerotinia sclerotiorum*

Symptoms: First symptom that is noticed is wilting of the outermost leaves.

Management: Use long rotations away from lettuce, beans, celery, or carrots. Well-drained soil and/or use raised beds.



Powdery mildew, *Erysiphe cichoracearum*

Symptoms: Covered by the fungal hyphae, giving it a powdery or dusty appearance.

Management: Can be managed if tolerant varieties of lettuce are available.



[Abiotic condition we have seen this season. ed. R. Hadad, CVP]

Tip burn – Calcium deficiency or excessive nutrients or warm temperatures, low moisture, or enhanced light can trigger the problem.

Symptoms: Dark brown spots near the leaf margin followed by marginal necrosis of leaves.

Management: Consistent irrigation is the best defense. Can provide additional Ca application. 🍷

Hot Peppers Prices

Judson Reid, CCE Cornell Vegetable Program

Hot peppers (or 'chiles') are now entering the main harvest in New York and there are questions as to proper marketing. First, hot peppers should be segregated by variety. Jalapenos, cayenne, serranos and cherries all have distinct flavors and are linked to different cuisines. A chef working with a mix of hot peppers would be challenged to create a consistent dish. Boxes of single varieties will be more valuable. An habanero mix or 'super-hot' mix may be acceptable in retail sales.

Wholesale prices vary widely on these items, although auction prices in the Finger Lakes are currently between 10-12.00 per ½ bushel. A bushel of hot peppers weighs around 30 lbs (although there is considerable variability among varieties). At \$20/bu this would be a price of 0.66 per pound. Prices between varieties might not be very different, but smaller peppers such as habanero take longer to fill a box, so charging a bit more is justified.

According to the National Ag Statistics Service, "In 2014, the average national price for bell peppers was \$40.30 per hundredweight and \$46.70 for chile peppers." People are eating



Peppers at the Finger Lakes Produce Auction. Photo: Judson Reid, CVP

more and more hot food recently. U.S. consumption of chile peppers in 2014 per person was 7.2 pounds (ERS 2014). As a point of reference, spinach consumption was 1.7 pounds per person.

Thanks to Don G. of Wyoming County for the inquiry and prompting this article. 🍅

Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

Late blight (LB) pressure is heating up again, with Ontario and Orleans Counties now on the list with confirmed LB. Counties within or adjacent to the CVP area with LB now include: Erie, Genesee, Livingston, Monroe, Ontario, Orleans, Steuben, Tompkins, Wayne, Wyoming, and Yates. Some counties have multiple confirmations in potatoes and/or tomatoes, and in commercial fields and/or gardens. All samples tested have been US-23, sensitive to mefenoxam (Ridomil, etc.). You can use a non-ionic surfactant, but do not use a sticker with Ridomil. Aroostock Co, ME, has five new confirmations in the past week, and Penobscot and Somerset Counties, ME, have three.

According to the LB Decision Support System (DSS) on the DSS website (see chart), blight unit (BU) accumulations during the past week have been moderate to high, with some exceptions. In most locations where the 30 BU threshold has not been reached, the fungicide (loss) unit (FU) threshold has been reached, or the BU threshold will be reached in a day or two. If BU accumulations are high at a weather station near your farm use a fungicide with a longer residual.

Note: Do not use IPM's NEWA website, Simcast page, for LB DSS BU accumulations. Instead, to use a simplified DSS forecast without an account use the quick Critical Threshold Tool at: <http://blight.eas.cornell.edu/blight/upstate> Click on the closest weather station. Find your last spray date at the top, and where it intersects with your last fungicide and your varietal susceptibility. That's the suggested next spray date. (See potato/tomato varietal susceptibility at: <http://newa.cornell.edu/index.php?page=potato-simcast>) The dates in **red** are based on the next 3 days of weather forecasts (more accurate) at the weather station. The dates in black are based on weather forecasts after that (less accurate). Changes in the weather forecast will change the suggested spray date, so check back. The DSS cannot forecast for high risk areas such as next to tree lines, low spots in fields, etc. More fungicide choices, and disease forecasts at your farm/field location, are available on the DSS website to those with an account (free).

If you are interested in more information about LB contact Carol MacNeil at crm6@cornell.edu or 585-313-8796. 🍅

Late Blight Risk Chart, 8/25/15³

Location ¹	Blight Units ² 8/19-8/25	Blight Units ² 8/26-8/28	Location ¹	Blight Units ² 8/19-8/25	Blight Units ² 8/26-8/28
Appleton	17	17	Kendall	46	19
Arkport	54	19	Lodi	39	21
Baldwinsville	38	19	Lock/Niag F.	20	18
Bergen	4	17	Lyndonville	45	20
Buffalo	15	18	Medina	29	19
Butler	10	19	Penn Yan	44	21
Ceres	42	17	Rochester	31	19
Elba	50	19	Sodus	36	21
Farmington	32	21	Versailles	11	20
Gainesville	54	19	Wellsville	40	17
Geneva	32	19	Williamson	33	19

¹ Past week Simcast Blight Units (BU)

² Three day predicted Simcast Blight Units (BUs)

³ Threshold = 30 BUs (susceptible variety, last fungicide-shorter residual)

Managing Downy Mildew in Cole Crops

Christy Hoepting, CCE Cornell Vegetable Program

Downy mildew (DM) of Cole crops is caused by the fungus-like water mold *Hyaloperonospora parasitica*. This pathogen thrives in cool, wet weather. Temperatures of 50 to 60°F and abundant moisture from rain or dew are optimum for disease development and spread. We see this disease most often on young transplants in early spring, or older plants in the late fall (when there is lots of dew). The pathogen survives in crop debris and in soil. Seedlings and seed may become infected from soil. An infected seedling may grow out of DM symptoms, but the disease can remain in a latent (no symptoms) state within the plant, and flare up when favorable conditions resume later in the season.

Know how to recognize downy mildew.

On older leaves, DM causes irregular, yellow to brown spots on the upper side of the leaves (Fig. 1) with a grayish, white mildew on the underside of the leaves (Fig. 2) during cool, moist conditions. As soon as lesions are evident on older leaves, spores can spread to marketable portions of the crop. Late season infections can cause losses in cauliflower and broccoli by internal discoloration of the heads (Fig. 3). It also leaves the heads more susceptible to soft rot bacteria and other storage rots, especially in cabbage and broccoli (Fig. 4).

During favorable conditions, it is important to apply fungicides preventatively to prevent DM from spreading from the lower frame leaves to the head of broccoli where it can cause economical losses.

Choose DM-tolerant varieties especially for late season broccoli. Differences in susceptibility to DM commonly occur among varieties. And scout varieties known to be susceptible to DM more diligently; for example, the Superstar cabbage variety and Bay Meadows broccoli variety. 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.

Several fungicide options, most are better than Bravo in Cornell studies. Use of fungicides can alleviate development and spread of downy mildew, although most plants will still be infected, at least at low



Figure 1. Downy mildew causes irregular, yellow (a – early infection) to brown spots (b – older infection) on the upper leaf surface, which shows up on lower frame leaves first.
Photos: Christy Hoepting, Cornell Vegetable Program



Figure 2. On the underside of the leaf, the lesions of downy mildew have a grayish, white mildew. Photo: C. Hoepting, CVP



Figure 3. Internal discoloration caused by downy mildew in broccoli. Photo: C. Hoepting, CVP



Figure 4. Secondary bacterial rot following downy mildew infection in broccoli (a) and cabbage (b).
Photo a): Christy Hoepting, Cornell Vegetable Program; Photo b): Chris Smart, Cornell

levels. In addition to Bravo, Quadris, Quadris Top and Cabrio, which are also labeled for Alternaria leaf spot, several other fungicides are labeled for DM including Ridomil Gold Bravo, Reason, Presidio, Ranman, Phostrol/Prophyt, mancozeb, Forum, Alliette, copper compounds (several OMRI approved) and Actigard.

In Cornell and other university studies, **Presidio has consistently provided best control of downy mildew.** Bravo and mancozeb also provided good control of DM, while Actigard did not work. In 2014, Presidio, Cabrio and Champ (a copper) all provided significantly better control of DM than Bravo in cabbage (Fig. 5). For resistance management, Presidio must be used in a tank mix with another fungicide for DM with a different mode of action, such as Bravo. Some growers also use a copper based bactericide in addition to fungicide to help to prevent secondary bacterial rots.

To prevent inoculum buildup in the soil, destroy crop debris as soon as possible after harvest. Rotate ground away from crucifers for at least 3 years.

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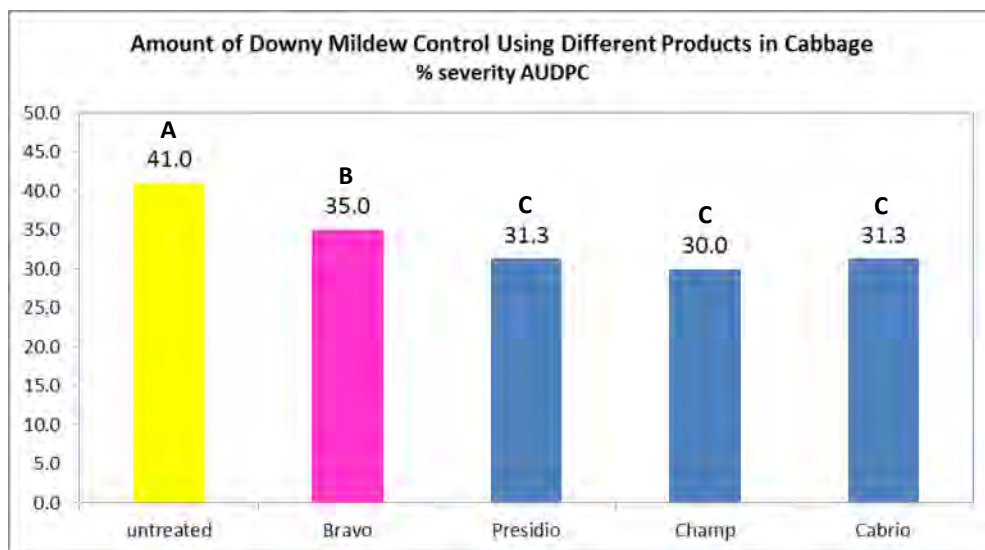


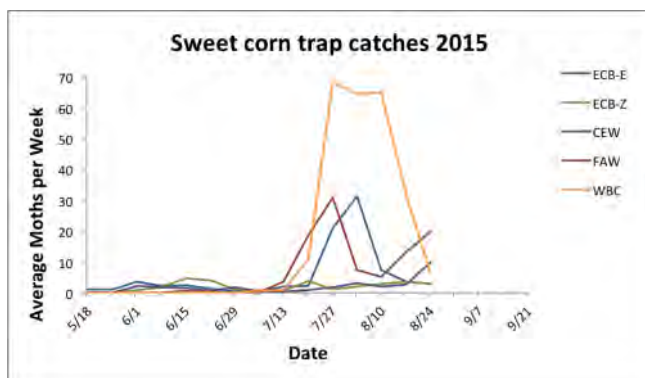
Figure 5. Control of cabbage downy mildew using four different control products. Cabbage plants were sprayed 5 times on a 7 day interval beginning in August and into September. The results shown are the area under the disease progress curve (AUDPC = amount of disease over time). Bars with different letters are significantly different from each other. ●

WNY Sweet Corn Trap Network Report, 8/25/15

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

Twenty-one sites reporting this week. Five sites reporting European corn borer (ECB)-E and eight sites reporting ECB-Z. Both corn earworm (CEW) and Fall armyworm (FAW) have increased over the last week (see graph below). CEW was caught at thirteen sites with all but one site high enough to require either a 6, 5, or 4 day spray schedule and twelve sites reporting FAW. Western bean cutworm (WBC) continues to decline and was caught at fairly low numbers at twelve sites.

Often at this time of year we are catching CEW at most locations and in high enough numbers that other moths will be controlled by the spray timing needed for CEW. In the absence of CEW, continue to scout for ECB egg masses, and ECB and FAW larvae and feeding damage, using a threshold of 5% infested plants for silking corn.



Average sweet corn trap catches for all reporting sites from 5/25/15 – 8/25/15

WNY Pheromone Trap Catches: August 25, 2015

Location	ECB -E	ECB -Z	CEW	FAW	WBC	WBC to Date
Baldwinsville (Onondaga)	0	2	9	22	3	139
Batavia (Genesee)	NA	NA	NA	NA	NA	22
Belfast	NA	NA	NA	NA	NA	4
Bellona (Yates)	5	8	12	70	6	200
Eden (Erie)	0	3	9	38	11	952
Farmington (Ontario)	1	0	1	1	0	20
Hamlin (Monroe)	NA	NA	NA	NA	NA	88
LeRoy (Genesee)	0	0	0	0	0	74
Lockport (Niagara)	1	2	0	1	NA	29
Pavilion	0	1	8	47	6	519
Penn Yan (Yates)	0	7	7	7	0	65
Seneca Castle (Ontario)	0	0	0	1	0	18
Spencerport (Monroe)	2	3	6	0	0	8
Waterport (Orleans)	0	0	2	0	0	7
Williamson (Wayne)	0	0	0	0	0	0

ECB - European Corn Borer

CEW - Corn Earworm

FAW - Fall Armyworm

WBC - Western Bean Cutworm

NA - not available

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. ●

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

Aphid Control Demo and Crop Walk

September 1, 2015 | 6:00 PM - 7:30 PM

McCracken Farm, 701 White Rd, Brockport, NY 14420



Aphid control demonstration in vine crops comparing pyrethroids against aphid-specific materials Beleaf, Assail, and Fulfill. Followed by a crop walk discussing pest, disease and weed control in fresh market vegetables. 1.25 DEC in categories 1a, 10 and 23. Contact Judson Reid at 585-313-8912 or jer11@cornell.edu, or Elizabeth Buck at 607-425-3494 or emb273@cornell.edu for more information.

Organic Management of Swede Midge Twilight Meeting

September 1, 2015 | 6:30 PM

Muddy Fingers Farm, 3859 Dugue Rd, Hector, NY



Christy Hoepting and Cordelia Hall will share their recent research findings regarding management of this serious pest of at-risk small-scale organic Brassica growers, including a demonstration of insect exclusion netting. Contact Christy at 585-721-6953 with questions.

Fresh Market Potato Varieties, Late Blight, and Insect Management Meeting

September 2, 2015 | 5:30 PM - 8:45 PM

Williams Farms, 5077 Russell Rd, Marion, NY 14505



View standard and new fresh market potato varieties and lines in potato breeder Walter DeJong's Cornell trial, hear how to reduce risk in this year's late blight epidemic from Plant Pathologist Bill Fry, and discuss Colorado potato beetle and other insect management. 1.25 DEC credits and CCA credits will be available. *Sponsored by Bayer CropScience and Crop Production Services.*

Cost: Enrolled in the Cornell Vegetable Program - \$10; Not enrolled in the CVP - \$15. **Preregister for dinner by Thursday, August 27** – Carol MacNeil at crm6@cornell.edu or 585-313-8796. If you have special needs: Call a week ahead so we can accommodate you.

Interested in sponsor opportunities? Contact Angela Parr at: aep63@cornell.edu

WNY Soil Health Field Day

September 2, 2015 | 12:30 PM - 6:00 PM

Duppengiesser Dairy Co., 7835 Butler Rd, Perry, NY



Nationally recognized soil health experts Ray Archuleta, "Ray the Soils Guy," NRCS, and Frank Gibbs, known for his "tile line smoke machine," formerly NRCS, will be speaking on good soil health, and demonstrating how to evaluate your soil's health. Cover crop planting equipment will be on display and discussed, and there will be a Cover Crop Walk. \$10 if preregistered by 8/19, \$15 at the door, for the afternoon and dinner.

An Advanced Soil Health Morning Session will be held from 10 AM – noon, limited to 50 preregistrations. Bring a root ball, your soil health test results, and questions for discussion. \$50 for the Advanced Morning Session, lunch, afternoon, and dinner.

Preregistration or questions: Wyoming Co. SWCD at: wcsxcd@frontiernet.net or 585-786-5070. *Sponsored by WNY Crop Management Assoc., USDA, and American Farmland Trust*

Central NY Soil Health Field Day

September 4, 2015 | 9:30 AM - 3:00 PM

Cuddeback Farms, 466 State Rte 38A, Skaneateles, NY 13152



Nationally recognized soil health experts Ray Archuleta, "Ray the Soils Guy," NRCS, and Frank Gibbs, known for his "tile line smoke machine," formerly NRCS, will be speaking on good soil health, and demonstrating how to evaluate your soil's health. Also, taking advantage of the Cornell Soil health Test, and interseeding cover crops into cash crops. FREE but **pre-register by September 1** to Jason Cuddeback, Cayuga County SWCD, jcuddeback@cayugaswcd.org or 315-252-4171 x3.

2015 NYS Dry Bean Field Meeting

September 17, 2015 | 5:15 PM - 7:45 PM

Paul Stein & Sons Farm, Caledonia, NY



View six standard and new black bean varieties in a grower-planted trial. Get an update on Sclerotinia white mold control, including info on fungicide resistance, and bacterial diseases. Hear about progress in breeding varieties with pods high on the plant, ensuring not only easier harvest, but also foliage drying to reduce disease pressure. Western bean cutworm moth counts were very high this year. Hear reports on pod and/or bean damage. 1.0 DEC and CCA credits will be available. *Sponsored by Goya Foods and New York Bean LLC.*

Cost: Enrolled in the Cornell Vegetable Program - \$10; Not enrolled in the CVP - \$15. **Preregister for supper by Monday, September 14** – Carol MacNeil at crm6@cornell.edu or 585-313-8796. If you have special needs: Call a week ahead so we can accommodate you.

Interested in sponsor opportunities? Contact Angela Parr at: aep63@cornell.edu

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/18 – 8/24/15

Location	Rainfall (inch)		Temp (°F)	
	Week	Month August	Max	Min
Albion	0.86	3.35	92	51
Appleton, North	0.82	1.98	85	51
Baldwinsville	0.63	1.90	89	57
Buffalo*	0.82	4.27	89	57
Butler	1.99	3.93	85	53
Ceres	0.99	2.67	83	49
Elba	0.78	3.35	86	50
Farmington	1.15	2.68	86	52
Gainesville	0.95	2.53	84	49
Geneva	1.57	2.25	87	54
Lodi	0.52	1.38	90	53
Niagara Falls*	0.69	2.20	86	53
Penn Yan*	1.27	2.17	86	55
Rochester*	1.83	4.67	87	56
Romulus	NA	NA	86	54
Silver Creek	1.90	3.07	83	54
Sodus	1.96	5.09	87	49
Versailles	NA	NA	89	50
Williamson	2.28	7.44	88	52

Accumulated Growing Degree Days (AGDD)

Base 50°F: April 1 – August 24, 2015

Location	2015	2014	2013
Albion	2023	1811	1948
Appleton, North	1751	1600	1748
Baldwinsville	2027	1954	2000
Buffalo	2063	1893	2052
Butler	2034	1907	NA
Ceres	1770	1637	1644
Elba	1551	1470	1721
Farmington	1924	1796	1842
Gainesville	1595	1441	NA
Geneva	1964	1842	1932
Lodi	2133	2022	2143
Niagara Falls	1928	1813	1955
Penn Yan	2078	1959	2022
Rochester	2126	1967	2107
Romulus	2009	1896	NA
Silver Creek	1894	1805	1942
Sodus	1808	1734	NA
Versailles	1884	1766	1899
Williamson	1848	1733	1937

* 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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