



Late blight can be difficult to control with fungicides after disease onset. Resistant

tomato varieties are a valuable tool for managing late blight.

**PAGE 1**



DEC Special Permit allows non-certified workers to apply and handle federally

restricted use pesticide. Trainings are being held soon!

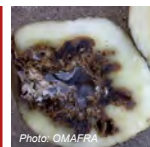
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A successful greenhouse tomato crop starts now. Here's a quick checklist to

ensure a great season!

**PAGE 5**



Wet, cool soils delay germination and emergence of potatoes and also promote activity of plant

pathogens. How can you manage early season potato diseases?

**PAGE 7**

A large photograph of a greenhouse interior, showing rows of tomato plants growing in white containers. The plants are lush green, and the greenhouse structure is visible in the background.

# VEGEEdge

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The Cornell University logo, featuring a shield with a book and the text "CORNELL UNIVERSITY" and "FOUNDED 1826".

**Cornell University**  
Cooperative Extension  
Cornell Vegetable Program

## Late Blight Effectively Managed with Resistant Tomato Varieties

*Meg McGrath, Cornell - Riverhead, and Sandy Menasha, CCE Suffolk County*

Late blight (LB) has been occurring routinely, sometimes severely impacting tomatoes, since 2009. During the past four years LB has been first seen in late May to mid-June on Long Island. This disease occurred sporadically before 2009, with symptoms not seen until October in most years. Change in occurrence of LB is at least partly due to the new genotypes (strains) of the pathogen. Many are more aggressive on tomato and more tolerant of warm temperatures than US-1 and US-8 that previously were dominant. Resistant varieties are a valuable tool for managing LB because it can be very difficult to control with fungicides after onset of disease. Left unmanaged, LB is much more likely than other diseases to completely destroy a crop and also to have devastating impact on other tomato plantings in a region due to the quantity of pathogen spores that can be produced and easily dispersed by wind.

An experiment was conducted at the Long Island Horticultural Research and Extension Center in 2013 to evaluate new varieties that have resistance to LB, in terms of horticultural traits and susceptibility to LB. Mt Fresh Plus was included as the susceptible industry standard. One variety, Iron Lady, from the Cornell Breeding Program, also has resistance to early blight and Septoria leaf spot.



Mountain Fresh Plus, late blight susceptible red slicer.  
Photo: M. McGrath, Cornell - Riverhead



**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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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.

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# <<< BREAKING NEWS >>>

## SNAP for Direct Marketing & Farmers Markets Webinars

From Laura Biasillo, CCE Broome County - USDA has appropriated \$4 million to help direct marketing farmers and farmers markets join the Supplemental Nutrition Assistance Program (SNAP). The Farmers Market Federation of NY is holding free webinars to walk attendees through the SNAP application process.

### SNAP for Direct Marketing Webinars

Tuesday, April 8, 11:30 AM – 1:00 PM

Wednesday, April 16, 11:30 AM – 1:00 PM

Thursday, April 24, 11:30 AM – 1:00 PM

An eligibility assessment must first be completed to determine whether USDA funds can supply a free terminal (iPhone 5 with data plan, card reader and printer) or whether NYS funds can assist you in using your own iPhone or iPad. Then the online USDA SNAP retailer application, and application for WorldPay to process transactions, must be completed. Register now for the webinar to reserve your space. To register, go to <http://nyfarmersmarket.com/work-shop-programs/webinars/snap-for-direct-marketing-farmers-and-farmers-markets.html>. Then click on the link for your choice of dates and complete the form. A link to access the webinar will be sent. Questions? Contact the Farmers Market Federation of NY at: [deggert@nyfarmersmarket.com](mailto:deggert@nyfarmersmarket.com) or 315-637-4690.

The experiment was conducted in a field dedicated to research on organically-produced crops since 2001. Tomato seedlings were transplanted on 17 June into holes in plastic mulch. Plants were staked and trellised. No fungicides were applied. Leaves were examined for symptoms of disease 31 July to 10 October. LB was assessed by estimating the percentage of leaves with symptoms and the severity of symptoms on these leaves, used to calculate LB canopy severity. Area Under the Disease Progress Curve (AUDPC) is a summary of disease intensity over the season. Fruit quality was evaluated for appearance, taste, and overall quality.

## RESULTS AND DISCUSSION:

(The complete report will be posted with photographs at <http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Tomatoes-LB-Resistant.html>) Note: Canopy severity does not necessarily increase over the season because favorability of weather for disease varies over the season and because dead leaves are not counted in the calculation. ed. C. MacNeil, CVP)

All entries with *Ph2* and *Ph3* major genes for resistance exhibited good suppression of LB, confirming results obtained in 2012 (Table 1). Canopy severity of LB on 12 September was 72% for Mountain Fresh Plus, the susceptible variety included for comparison, and 1-3% for the four resistant varieties. Canopy severity was 31% for the entry with just *Ph3*, Plum Regal. Four entries with unknown resistance also effectively suppressed LB: Matt's Wild Cherry, Lemon Drop, Jasper, and Mr Strikey. Mountain Magic and Matt's Wild Cherry were the most effective of all entries exhibiting resistance. They exhibited 93% and 98% control, respectively, over the entire assessment period (AUDPC) compared to Mountain Fresh Plus. Both New Yorker (*Ph1*) and Legend OP (*Ph2*) were as severely affected by LB as the susceptible variety, which suggests neither *Ph1* nor *Ph2* on their own are effective against US-23, which was the most common genotype in 2012 and 2013. (Plum Regal and Legend OP provided some suppression in a 2012 trial; however, all plants were sprayed five times with organic fungicides labeled for managing LB.) Organic growers on Long Island who grew LB-resistant varieties in 2013 were satisfied with the varieties and control achieved.

The susceptible variety, Mountain Fresh Plus, produced the fewest marketable fruit. Defiant yielded the most fruit among all varieties producing red slicer-type fruit. The red slicers did not differ significantly from each other, however. Cherries were not evaluated for yield. Jasper, Matt's Wild Cherry, and Mountain Magic were the varieties that rated highest for taste and 'would buy' (>89%) by public groups evaluating. Lemon Drop also was rated high. Among red slicer-types, Defiant and Mt Merit rated similarly high for taste and 76-77% indicated they would buy.

This project was funded by the Agriculture and Food Research Initiative Competitive Grants Program Grant 2011-68004-30154 from the USDA National Institute of Food and Agriculture. ●

**Table 1.** Severity of late blight on tomato varieties evaluated in 2013.

Variety	Late blight canopy severity (%) <sup>z</sup>			AUDPC <sup>x</sup>	
	6 Sep	12 Sep			
Mountain Fresh Plus (none; red slicer)	78.9 a	71.8 abc		1058.1 a	
West Virginia ( <i>Ph2</i> ; red slicer)	97.3 a	ND		ND	
New Yorker OP ( <i>Ph1</i> ; red slicer)	96.0 a	86.0 ab		1285.0 a	
Legend OP ( <i>Ph2</i> ; red slicer)	55.5 ab	42.5 bcd		728.3 abc	
Plum Regal ( <i>Ph3</i> ; plum)	25.0 bc	31.3 cd		894.5 ab	
Mountain Merit ( <i>Ph2</i> + <i>Ph3</i> ; red slicer)	17.8 bc	3.1 d		220.9 bcd	
Defiant PHR ( <i>Ph2</i> + <i>Ph3</i> ; red slicer)	8.9 bc	2.3 d		137.2 cd	
Iron Lady ( <i>Ph2</i> + <i>Ph3</i> ; red slicer)	4.9 bc	1.6 d		125.2 cd	
Mountain Magic ( <i>Ph2</i> + <i>Ph3</i> ; campari <sup>y</sup> )	0.6 c	1.3 d		78.3 d	
Mr Strikey (unknown; slicer)	30.0 bc	11.9 d		203.6 bcd	
Lemon Drop (unknown; cherry)	2.4 c	6.0 d		120.6 cd	
Jasper (unknown; cherry)	20.2 bc	8.6 d		99.3 cd	
Matt's Wild Cherry (unknown; cherry)	0.3 c	0.0 d		26.4 d	
<i>P-value (treatment)</i>	<0.0001	<0.0001		<0.0001	

<sup>z</sup> Numbers in each column with a letter in common are not significantly different from each other.

<sup>y</sup> Campari (large cherry)

<sup>x</sup> AUDPC = Area Under the Disease Progress Curve, a summary of disease intensity over the season.

## New Food Safety Guide to Safeguard Against Listeria

United Fresh Produce Association (The Produce Pages, 2/14/14, Eastern NY Commercial Horticulture Program)

The United Fresh Food Safety & Technology Council has developed a document, "Guidance on Environmental Monitoring and Control of Listeria for the Fresh Produce Industry," that is designed to help guide the fresh produce industry in developing practical and scientifically sound "search and destroy" programs for the human pathogen Listeria. The guide is free and available online. Two recent outbreaks

have demonstrated the vulnerability of some fresh and fresh cut operations to Listeria leading to product contamination. This guide describes in depth, handling techniques for fresh and fresh cut produce. The guide is applicable to all fresh produce operations, including field and field packing, packinghouse, value added and transport/distribution to retail/foodservice. All produce handling operations are encouraged to use

this guide to 1) determine their level of vulnerability to Listeria that may lead to produce contamination, and 2) if vulnerable, to develop and implement an effective Listeria monitoring and control program. To download a free copy of "Guidance on Environmental Monitoring and Control of Listeria for the Fresh Produce Industry", visit [www.unitedfresh.org/listeria\\_guide](http://www.unitedfresh.org/listeria_guide) ●



# Videos from the February 18th National Cover Crop Conference

Sustainable Agriculture Research and Education Program

The *National Conference on Cover Crops and Soil Health*, held Feb. 17-19, 2014 in Omaha, Nebraska, brought together 300 agricultural leaders and innovators to explore how to make American agriculture more sustainable through improved soil health. Attendees represented agricultural industry, the farm community, academia, government, commodity and conservation organizations.

As part of this landmark event, Cover Crops and Soil Health Forums took place February 18 at over 200 Natural

Resources Conservation Service (NRCS) and Extension offices nationwide (including CCE Ontario County, Canandaigua). These forums gave farmers and other agricultural professionals the opportunity to send their thoughts to the national conference and engage in local conversations on cover crops and soil health. Forums were attended by an estimated 6,000 people. To view videos of key farmers in their fields and at the conference, and others from the February 18th National Cover Crop Conference, go to:

<http://www.sare.org/Events/National-Conference-on-Cover-Crops-and-Soil-Health>

**Conference organizers are developing a report on recommendations to increase cover crop adoption based on discussions at the conference and local forums.** To see it when it becomes available, keep an eye on these pages, [join SARE's mailing list](#) or [follow us on social media](#). ●

## UPCOMING EVENTS

### Vegetable Grower Meeting

April 3, 2014 | 9:15 AM - 4:00 PM

CCE Erie County, 21 S Grove St, Suite 240, East Aurora 14052



CCE Erie and the Cornell Vegetable Program have teamed together to offer a comprehensive grower meeting. Topics include managing pests in transplants, weed management, growing for late season winter markets and CSA sales, the markets and economics of producing tomatoes, management of powdery mildew in vine crops, disease management in green beans, and using apps for your vegetable business. Updates on the HarvestNY Program and the NY Invasive Species Program will be presented. Plus growers will hear from the newest Cornell Vegetable Program Specialist, Darcy Telenko, on her experiences and what she plans to bring to the Cornell Vegetable Program region. The full agenda is available on the CVP website: <http://cvp.cce.cornell.edu>.

DEC credits will be available. Cost: \$20 for CCE Erie Ag or Cornell Vegetable Program enrollees; \$30 all others. To register, contact Kim Howell at 716-652-5400 x176 or [kkh59@cornell.edu](mailto:kkh59@cornell.edu).

### DEC Special Permit Training

April 8, 2014 | English Session 8:30 AM - 12:30 PM | Spanish Session 1:00 - 4:30 PM  
CCE Wayne County, 1581 State Route 88, Newark 14513



April 9, 2014 | Concurrent English & Spanish Sessions 8:30 AM - 12:00 PM  
CCE Orleans County, 12690 Rte 31, Albion 14411

DEC Special Permit allows non-certified workers to apply and handle federally restricted use pesticides. The Special Permit does not relieve the responsibility of the certified applicator who supervises these employees, but it does relieve the requirement of "on-site, within voice contact" supervision while federally restricted pesticides are being applied. Several of the pyrethroid, organophosphate, and carbamate insecticides such as Warrior, Capture, Diazinon, Lorsban and Lannate, and herbicides such as Gramoxone are federally restricted-use materials.

This permit is renewed annually through Special Permit Trainings. Trainings include Worker Protection Safety, non-target and environmental hazards, and prevention of the risk of exposure.

\$20 per DEC Special Permit. Pre-register your non-certified applicators for this training by April 3 by calling Kim Hazel at 585-798-4265 x26 or email [krh5@cornell.edu](mailto:krh5@cornell.edu). A mail-in registration form is available at [http://rvpadmin.cce.cornell.edu/pdf/event/pdf198\\_pdf.pdf](http://rvpadmin.cce.cornell.edu/pdf/event/pdf198_pdf.pdf).

### Soils 101 for Improved Crop Fertility Management (Walk & Talk Discussion Group)

April 9, 2014 | 5:00 PM

CCE Allegany/Cattaraugus, 5435A County Rd 48, Belmont 14813

A foundation in basic soil science - like understanding how your soil type behaves physically and chemically - gives you a strong basis for making field-level decisions that save you time, energy, and money. This meeting will focus on helping growers work **with** instead of **on** their fields to improve fertility and other management areas.

Contact Elizabeth Buck at 607-425-3494 or [emb273@cornell.edu](mailto:emb273@cornell.edu) for more info, no pre-registration required.

## Early Spring Greenhouse Tomato Checklist

Judson Reid, CCE Cornell Vegetable Program

A successful 2014 greenhouse tomato crop starts now. Here is a quick checklist to make sure this is a great season.

- 1. Proper Variety**
  - ✓ Leaf Mold resistance (*Passalora* or *Fulvia fulva*)
  - ✓ High yielding
  - ✓ Market acceptance
- 2. Healthy Transplants**
  - ✓ Larger transplants will flower sooner and fruit earlier than undersized ones.
  - ✓ Oversized transplants (ie bearing fruit) will underperform as the plant is forced into a generative mode too soon.
  - ✓ Mites, thrips, and diseases are in control with sanitary transplant production.
- 3. Proper spacing once plants are set**
  - ✓ Overcrowding reduces fruit size, labor efficiency and increases disease.
  - ✓ Budget 5 sq. ft. per plant.
- 4. Climate control in place**
  - ✓ 'Unheated' high tunnels need to have row cover and hoops ready (two layers are better than one).
  - ✓ Heated structures have gas lines and combustion chambers inspected for leaks.
- 5. Soil test and appropriate fertility plan in place**

A fancy phrase for these steps is 'Best Management Practices' or BMPs. The BMP that focuses on soil and fertility is the subject of a new project the CVP has initiated with funding from the New York Farm Viability Institute (see sidebar, Increasing High Tunnel Profitability with Improved Soil Management). More could be added, but this is a good review for early spring tomato houses. By having this checklist complete, a successful tomato crop is much more likely. ●

## Increasing High Tunnel Profitability with Improved Soil Management

Judson Reid, CCE Cornell Vegetable Program

The Cornell Vegetable Program is pleased to announce a new project sponsored by the New York Farm Viability Institute. "Increasing High Tunnel Profitability with Improved Soil Management" involves a project team composed of Extension Educators covering more than 30 NY counties, with Judson Reid of the CVP serving as Project Investigator. The team will work one-on-one with 20 producers who are new high tunnel operators unfamiliar with potential soil health problems and experienced high tunnel operators trying to correct soil health problems.

An extensive on-farm and educational outreach will reach over 100 NY growers on the subject of high tunnel soil management. We anticipate that producers who adopt soil health management Best Management Practices will experience yield increases and/or input decreases, resulting in a 25% net increase in high tunnel profitability per farm. Our project is now underway with soil sampling/testing at cooperating farms throughout the region! Contact Judson at [jer11@cornell.edu](mailto:jer11@cornell.edu) or 585-313-8912, or Elizabeth at [emb273@cornell.edu](mailto:emb273@cornell.edu) or 607-425-3494 for more details. ●

## 2014 Cornell Guidelines Available

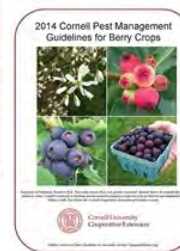
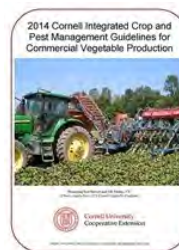
Pest Management Education Program, Cornell

The Pesticide Management Education Program (PMEP) at Cornell University announces the availability of the 2014 Cornell Crop and Pest Management Guidelines. Each "Cornell Guideline" is updated annually by Cornell University researchers and Extension specialists to provide the latest information on pest management and crop production. The following "Cornell Guideline" titles are available:

**2014 Cornell Integrated Crop and Pest Management Guidelines for Commercial Vegetable Production.** Includes crop and pest management information for a wide range of vegetable crops, dry beans and potatoes. Cost for this Guide is \$33 plus shipping.

**2014 Cornell Pest Management Guidelines for Berry Crops.** Covers crop and pest management information for many kinds of small fruit including currants, gooseberries, cranberries, and juneberries (saskatoons). Cost for this Guide is \$28 plus shipping.

**2014 Cornell Guide for Integrated Field Crop Management.** Covers crop and pest management information for field crops, and soils management. Cost for this Guide is \$25 plus shipping.



These publications can be purchased (or many have already been ordered during local county enrollment) through your local [Cornell Cooperative Extension office](#) or through the Cornell Store. To order through the Cornell Store, order online at <http://store.cornell.edu/c-875-guidelines.aspx> or call (800) 624-4080. ●

# Corn Flea Beetle and Stewart’s Wilt Predictions for 2014

Ward Tingey, Cornell, John Gibbons, CCE Cornell Vegetable Program, and Keith Eggleston, NE Regional Climate Ctr

Stewart's wilt is an important disease of sweet corn in New York. The disease is caused by a bacterial pathogen that is vectored almost exclusively by the corn flea beetle. The bacteria overwinter in the gut of adult flea beetles. In the spring, beetles infest early plantings of corn and transmit the pathogen to the plant by feeding and defecating on leaves. Stewart's wilt is characterized by de  
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# Potato Early Season Disease Considerations

Amanda Gevens, UW-Madison (U WI Extension Veg Crop Update, 3/14)

(Edited by C. MacNeil, CVP. For info on the susceptibility of potato varieties to common scab, silver scurf, black dot, pink rot and early blight go to: [http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Potato\\_Strategies\\_Combined.pdf](http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Potato_Strategies_Combined.pdf) and scroll down to pages 4-5. Plant susceptible varieties in fields where the disease has not occurred, or where it has not been a problem for several years. If you are not on the internet call Angela, 585-394-3977 x426 for a hard copy.)

Wet, cool soils delay germination and emergence of potatoes. Such conditions also promote activity of plant pathogens, such as *Rhizoctonia solani*, a seed-, soil-, or debris-borne fungal pathogen which causes stem or stolon cankers resulting in reduced stands, stunted plants, and/or reduction in tuber number, or size. Later, **Rhizoctonia** can cause black scurf on tubers. Cultural management such as planting when soil temperatures are above 46°F, soils are well-drained, and avoiding deep planting can limit early season stem and stolon canker.

Several other seed-, soil-, and/or debris-borne diseases can also impact potatoes, including **Fusarium seed piece decay**, **Silver scurf**, and **Late blight (LB)** caused by the oomycete *Phytophthora infestans*. While optimum temperatures for each of these diseases vary, all require high soil moisture. **Fusarium**, is a dry rotting pathogen which requires wounds for entry, can affect quality of seed potatoes in storage and lead to further disease when potatoes are warmed for planting. As a seed piece decay pathogen, *Fusarium* can affect seed from cutting to sprouting. If sprouts continue to be affected, the seed piece loses vigor and stand is reduced. The **Silver scurf** pathogen is favored by warmer conditions and is a weak soil-borne and a stronger seed-borne pathogen.

**Late blight (LB) in 2014?** LB continues to be a risk in potato and tomato production. In 2013 LB was confirmed in over a dozen states with the US-23

genotype (strain) predominating in most epidemics (including in NYS). The US-23 genotype is sensitive to mefenoxam and metalaxyl products and can be well-controlled with fungicides containing such ingredients (ie: Ridomil). (Note: These products must be applied well before 5% of the foliage is affected by LB or unacceptable disease development may occur. They work better than other products, however. Avoid adding a spread-sticker to foliar sprays. ed. C. MacNeil, CVP) Acquire disease free seed from a reputable certified source – infected seed poses great risk for introduction. If there is a risk of disease associated with seed, use seed treatment or in-furrow application of effective LB controlling fungicides (seed treatment is best).

Fungicide seed treatments have a place in an integrated pest management (IPM) plan which includes cultural practices such as i) planting certified potato, ii) proper handling and sanitation of storage/cutting/curing facilities prior to planting, iii) cultivar resistance, iv) biological control, and v) chemical control. In combination, IPM practices minimize economic losses to disease, limit development of fungicide-resistant pathogen strains, and limit development of pathogen strains which may overcome host disease resistance. Read and follow the pesticide label prior to use.

Seed cutting and planting provide opportunities for application of fungicides to reduce diseases. While seed-applied fungicides can enhance disease control and crop success, note that some of the fungicides are contact only (ie: mancozeb and fludioxonil) and only reduce direct infection to the protected seed piece. Systemic fungicides (ie: flutolanil and cymoxanil) are xylem mobilized, moving upward and outward. Generally, seed-applied fungicides provide, at most, 10-14 days of disease protection. Avoid clumping or thick coating of the treatment as oxygen to the seed piece can be cut off and suberization limited (promoting

bacterial soft rot). Good suberization of cut seed is critical for potato disease management and should include a 3-4 day, 50-55°F, 90-95% relative humidity period with cut seed piled no deeper than 6 ft to maximize airflow through the pile, or in half-full boxes.

(ed. C. MacNeil, CVP: For a chart of in-furrow and seedpiece fungicides as well as seedpiece treatment fungicides, and organic as well as conventional fungicides see: *Potato Seed Piece Fungicides Arranged by Chemical Groups* (November 2013), from Tom Zitter, Cornell, at: <http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Potato-Seed-Piece-fungicide-chemicalgroup.pdf> Disease control ratings are: No – no control; X – some control; and XX – good control.) ●

## Improving Crop Insurance Programs for Growers

Jen Miller, University of Vermont

Please complete this short survey aimed at improving crop insurance programs for growers. Help us identify the methods vegetable and fruit growers currently use to manage production risk, and their experience with crop insurance policies, so we can determine how well crop insurance programs serve vegetable and fruit growers and so we can make suggestions for improvement. Individual replies are anonymous; the aggregate results will be shared to inform farmers, technical service providers, program staff, and policymakers about the effectiveness of crop insurance from farmers' perspectives and to suggest possible program improvements.

The survey takes about 5 minutes to complete and you can enter for a raffle prize of a \$50 VISA gift card. Questions? Jen Miller at [jmille30@uvm.edu](mailto:jmille30@uvm.edu)

The survey web link is: <https://survey.uvm.edu/index.php/257185/lang-en> ●



# New Water Resources Law May Affect You!

Teresa Rusinek, CCE ENY Commercial Horticulture Program, (The Produce Pages, Vol. 1, Iss. 4)

## Background

In 2011 Governor Cuomo signed legislation to further protect New York's waters, including the Great Lakes, by requiring a DEC permit for water withdrawal systems having the capacity to withdraw 100,000 gallons per day (gpd) or more of surface or groundwater. The law also requires statewide **registration of existing agricultural withdrawals** that are greater than 100,000 gpd (30 day average). The law became effective on February 15, 2012 and final implementing regulations became effective on April 1, 2013.

Depending on several factors, agricultural facilities may be required to register, obtain permits, and/or report water withdrawals annually.

**If you have the capacity to withdraw 100,000 gallons of water per day, this law affects you.**

## Water Sources and Multiple Farm Parcels

Regulations cover withdrawals from water sources including wells and surface water sources such as ponds and creeks. Farms with multiple locations withdrawing water are considered a unit, i.e., one agricultural facility, as long as parcels are within 40 miles.

## Agricultural Facility

The DEC defines an agricultural facility as "farming for crops, plants, vines and trees, and the keeping, grazing, or feeding of livestock for sale of livestock or livestock products, and the on-farm processing of crops, livestock and livestock products."

## Annual Reporting

All agricultural facilities with the **capacity** to withdraw water equal to or in excess of an average of 100,000 gallons per day in any thirty day consecutive period (3 million gallons during a 30 day period) must file an annual report with the New York State Department of Environmental Conservation on an annual basis.

Annual reports are due by March 31st of each year.

## Registration

Registration is required if water use in any 30-day period exceeds 3 million gallons. This is equal to 110.5 acre-inches per 30 days or a daily average water use of 100,000 gallons (3.7 acre-inches). A 30-day running total record of the days that irrigation took place and the amount of water applied per acre will help determine the need for registration.

## Permits

Any agricultural facility with a water source over the threshold volume but did not register or report usage to NYSDEC prior to February 15, 2012 must file for a water withdrawal permit.



Crucifer field irrigation.

Photo: Julie Kikkert, Cornell Vegetable Program

## How to estimate water withdrawals

- One 70 gpm pump operating for a 24-hour period will withdraw 100,800 gpd.

The DEC website <http://www.dec.ny.gov/lands/25677.html> gives more detail on estimating withdrawals for reporting as well as a worksheet and other handy resources.

## More about Registering, Reporting, & Permitting

Interpreting the new regulations can be a little tricky, so NYSDEC Division of Water in Albany was called to get clarification. The key points are these:

- Registration is basically filling in your name and location on the Ag Withdrawal Reporting Form, but not necessarily filling in the numbers on how much water you estimate you used. Why would you do this? Some farm operators may have no idea how much water they use. Sending in a registration with or without the water use report, will let the DEC know you are out there. They will work with you to determine if you need to report water withdrawals and or obtain a permit in the future.
- If you registered/reported by Feb. 15 in 2012, you are now exempt from having to get a permit if you withdraw at or over threshold. Whether or not you reach threshold, you have to report annually by March 31, if you have the capacity to withdraw 100,000 gpd.
- At this time the DEC is encouraging farm operations to use this reporting system as a tool to learn about their water usage. If you are over the pumping threshold and have not registered or reported, the DEC suggests that you do as soon as possible so they can evaluate your situation and help you comply without taking regulatory actions.

If you have questions, I encourage you to contact Richard Kruzan-sky, NYSDEC Div. of Water, 518-402-8182. He is very helpful and welcomes questions from farm operators. Also, for more information and reporting forms, visit the NYS DEC website Water Withdrawals for Agricultural Facilities found at <http://www.dec.ny.gov/lands/86747.html> •





**Spring 2014 CleanSweepNY will target NYSDEC Region 9:  
Allegany, Chautauqua, Cattaraugus, Erie,  
Niagara, and Wyoming Counties.**

**April 29, 2014  
Cattaraugus County DOT  
4474 Route 353, Salamanca, NY**

**April 30, 2014  
Wyoming County DOT  
3879 State Route 19 South, Warsaw, NY**

**May 1, 2014  
Niagara County DOT  
5055 Lockport Junction Rd, Lockport, NY**

CLEANSWEEPNY IS AN ENVIRONMENTAL BENEFIT PROJECT that provides for the environmentally safe and economic collection and disposal of unwanted or unusable pesticides, school chemicals, golf course chemicals, and elemental mercury and mercury-containing devices (e.g. manometers and thermometers). CleanSweepNY also collects and recycles triple-rinsed HDPE plastic containers from agricultural and certain non-agricultural entities. The NYS Department of Environmental Conservation administers the CleanSweepNY project through its Albany, NY Central Office Pesticides Program. Funding for this environmental benefit project is administered by the Natural Heritage Trust.

CleanSweepNY is supported by Cornell Cooperative Extension, the Agricultural Container Recycling Council, Soil and Water Conservation Districts, New York Farm Bureau, and related grower associations. These services will be provided to New York State farmers and other entities within the New York agriculture community, certified pesticide applicators, and schools.

*These services are NOT available to homeowners.*

**Pre-registration is required by April 4 for participants with unknown products and gas cylinders; by April 25 for all other participants.** Interested individuals should call the local DEC office at 716-851-7220 or the Albany office at 877-793-3769 to obtain a signup packet. E-mail questions to [info@cleansweepny.org](mailto:info@cleansweepny.org).



*Since CleanSweepNY's inception in 2002, over 1.2 million pounds of chemical wastes have been collected for disposal.*

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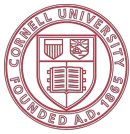
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# VEGEdge

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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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