Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

Vol. 4, Issue 8
June 15, 2016

Vegetable News

In this issue of Vegetable News:

New This Season!

This summer, our intern Lindsey McMahon we will be travelling to the farmers' markets in our region and recording price information for various commodities. This information will be available each week in our Vegetable and Berry News. This data can be used by vendors to adjust prices during the season and, hopefully, increase revenue and profit.

Average Weekly Farmers' Market Prices

Saratoga and Lake George

Commodity	Unit	Average Price
Beefsteak Tomato	1 lbs	$ 3.95
Red Potato NC	3 lbs	$ 4.00
Russet Potato NC	3 lbs	$ 4.00
Salad Mix (mesclun) NC	1/2 lbs	$ 5.00
Salad Mix (spring) NC	1/2 lbs	$ 6.00
Strawberries	**Pint**	**$ 5.00**
Strawberries NC	**Pint**	**$ 6.00**
Yellow Potato	3 lbs	$ 4.00
Yellow Potato NC	3 lbs	$ 4.00

NC = non-conventional

Capital Region

Commodity	Unit	Average Price
Beefsteak Tomato	1 lbs	$ 4.32
Beefsteak Tomato NC	1 lbs	$ 5.00
Carrots	1 lbs	$ 3.00
Cherry Tomatoes NC	Pint	$ 4.83
Salad Mix (mesclun)	1/2 lbs	$ 7.00
Salad Mix (mesclun) NC	1/2 lbs	$ 5.56
Shelled Peas	Pint	$ 2.50
Strawberries	**Pint**	**$ 4.10**
Strawberries NC	**Pint**	**$ 4.50**
Sugar Snap Peas	Pint	$ 3.34
Sugar Snap Peas	Pint	$ 4.00

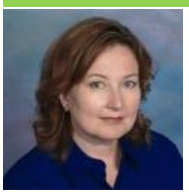
Mid-Hudson

Commodity	Unit	Average Price
Carrots	1 lbs	$ 2.00
Cherry Tomato	Pint	$ 5.00
Heirloom Tomato	1 lbs	$ 3.75
Red Potato	3 lbs	$ 3.75
Russet Potatoes	3 lbs	$ 3.75
Salad Mix (mesclun)	1/2 lbs	$ 2.50
Salad Mix (mesclun) NC	1/2 lbs	$ 6.86
Shelled Peas	Pint	$ 4.51
Shelled Peas NC	Pint	$ 2.50
Strawberries	**Pint**	**$ 4.33**
Strawberries NC	**Pint**	**$ 5.60**
Sugar Snap Peas NC	Pint	$ 5.00
Yellow Potato	3 lbs	$ 3.75

Serving the educational and research needs of the commercial small fruit, vegetable and tree fruit industries in Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Montgomery, Orange, Putnam, Rensselaer, Saratoga, Schoharie, Schenectady, Ulster, Warren and Washington Counties

Identifying Cabbage Worms and Determining the Best Control

Teresa Rusinek, ENYCHP



Cabbage worms are out and about! Last Friday evening I found a very early infestation of diamondback larvae in collard greens. Regular scouting helps you catch pests early before there's significant damage to the crop and gives more options for effective control measures. As we head later into the growing season, Lepidopteran or worm pests of Cole crops are sure to ramp up. The following is useful information my colleague Chuck Bornt put together last growing season (with a few bits I added!). If you grow cole crops you'll want to keep this as a handy reference. –TR

Imported Cabbageworm & adult butterfly- Photo Dan Gilrein- Cornell University

Cabbage Lopper & Moth—Alton Sparks, University of Georgia , Bugwood.org

It's important to know which pest (s) you are dealing with, because they have different sensitivities to available insecticides. Not only that, but you want to try and control these pest early before they make their way into the heads of cabbage or heads of broccoli! Once they get into a protected environment they become very hard to control with products like Bt's and pyrethroids. Below are detailed descriptions, followed by a table which lists the organic and conventional pesticides available along with their effectiveness for each pest.

Imported Cabbage Worm: Eggs of the ICW are laid singularly on the underside of the leaves and are bullet shaped and off-white when first laid, turning light to dark yellow in color. The larvae start out as small velvety green caterpillars and after feeding for 2 to 3 weeks turn dark velvety green with a light yellow stripe down their back and a broken stripe along each side of the body. When mature, they are approximately 1 1/4 inches long.

Diamondback Moth: Eggs of the DBM are small round, yellowish-white and laid singly or in groups of two or three on the underside of lower leaves or stalks. Upon hatching, larvae begin mining within leaf tissue and later instars feed on heart leaves of young plants and underside of the leaf surfaces of more mature plants. Mature larvae are 1/3 inch long, pale greenish-yellow, and pointed at both ends. DMB larvae can be distinguished from other young pest species by their habit of actively wriggling or dropping from the leaf on a silken thread when disturbed. The pupa develops within a delicate, loosely spun, open lacework cocoon that is attached to the leaves and stems of the plant.

Cabbage Looper: Eggs are normally laid on the underside of the lowest leaves and are round, ridged, white, and approximately the size of a pinhead. Looper larvae feed for 2 to 4 weeks and pass through five instars. Older larvae are light green with a white stripe along each side of the body and two white stripes along the back. First instar larvae have a black head capsule, but by the second instar, this is lost and the head capsule remains green. Mature larvae are approximately 1-1/2 inches. When disturbed the larvae will raise its back causing a "looping" movement. Young pupae are a light greenish color and gradually turn dark brown when mature. They are 3/4 inch long and wrapped in a delicate cocoon of white tangled threads. Pupae are usually found on the underside of lower leaves. -CDB

Source "Pests in the Northeastern United States" edited by W.T. Wilsey, C.R. Weeden, and A.M. Shelton, Cornell University.

DBM pupa (left) and larva (right). Note the forked tail on the larvae. *Photo courtesy of Manitoba Agriculture, Food and Rural Initiatives*

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Relative Efficacy of Insecticides for Control of Worm Pests in Cole Crops

Following is a list of insecticides labeled for use on various cole crops with tentative efficacy ratings for control of imported cabbage worm (ICW), small and large cabbage looper (CL) and diamondback moth (DBM), which was put together by Cornell researchers in Long Island. Growers and other researchers may have somewhat different opinions and results vary according to rates, application method and frequency, location, etc. so selection of controls should not be made solely based on this chart. Not all materials are labeled for all crops or areas - check labels. For most cole crops, addition of a spreader-sticker is advised. *Source: Veg Edge Weekly July 30, 2014*

Table Key and Footnotes:
xxx = most effective (usually good control expected)
x = least effective (fair or poor control)
- = not labeled or not effective.
Not all formulations listed.
Rates in amount of formulated product unless otherwise indicated.

[1] 4.5 – 6 oz for CL
[2] higher rates needed
[3] Where insecticide resistance is not a problem better control of DBM with some materials may be expected
[4] *Bt aizawai* may provide better control of DBM where populations are resistant to *Bt kurstaki*
[5] Avaunt is not labeled for use on Long Island.
[6] Has not been trialed in University studies.
[7] a premix of Warrior + Actara/Cruiser.
[8] A premix of Coragen + Warrior.
[9] Continued registration status for Belt is expected July 6. It can't be sold, but growers with Belt on hand can still use it.
[10] Ambush and Larvin are still registered but in 'discontinued' status (ending in 2017)

Notice: The information in this chart *(right)* was updated 6/2016

Material, Formulation and Rate	ICW	Sm CL	Lg CL	DBM [3]
Diamides (Group 28):				
Coragen *(3.5 – 5 fl oz)*	xxx	xxx	xxx	xxx
Voliam Xpress[8] (5-9 fl oz)	xxx	xxx	xxx	xxx
Exirel (7 -13.5 fl oz)	xxx	xxx[2]	xxx[2]	xxx
Belt SC *(2-2.4 fl oz)*[9]	xxx	xxx	xxx	xx
Spinosyns (Group 5):				
Radiant SC *(5-10 fl oz)*	xxx	xxx	xxx	xx
Entrust SC *(1.5 – 4 fl oz)*	xxx	xxx	xx	xx
Indoxacarb (Group 22):				
Avaunt 30WG[5] *(0.15 – 0.22 lb)*	xxx	xxx	xxx	xxx
Avermectin (Group 6):				
Proclaim 5G *(2.4 – 4.8 oz)*	xxx	xxx	xx[2]	xxx
Pyrethroids (Group 3A):				
Warrior II w/ Zeon Technology *(1.28 – 1.92 fl oz)*	xxx	xxx	xx	x
Endigo ZC *(4 – 4.5 fl oz)*[7]	xxx	xxx	xx	x
Danitol 2.4 EC *(10.6 – 16 fl oz)*	xxx	xxx	xx	x
Brigade/Capture 2EC *(2.1 – 6.4 fl oz)*	xxx	xx	xx	x[2]
Pounce/Ambush *(0.05 – 0.2 lb ai)* [10]	xxx	xx	x	x
Baythroid XL (1.6 – 2.4 fl oz)	xxx	xx	x[2]	x
Perm-Up 3.2 EC *(2-4 fl oz)*	xxx	xx[2]	x[2]	-
Mustang Maxx *(2.24 - 4 fl oz)*	xxx	xx[2]	x[2]	-
Asana XL 0.66EC *(5.8 – 9.6 fl oz)*	xxx	x[2]	x[2]	-
Hero *(4-10.3 oz)*	?[6]	?	?	?
Bts (Group 11):				
Bt kurstaki (see labels) (Biobit, Javelin, DiPel, Crymax)	xxx	xx[2]	x[2]	x[2]
Bt aizawai (see labels) (Xentari, Agree)	xxx	x	x	xx[4]
OPs (Group 1B):				
Orthene 97 *(1.0 lb)*	xxx	xx	xx	x
Carbamates (Group 1A):				
Lannate LV 2.4L *(1.5 – 3 pt)*	xxx	x[2]	x[2]	x[2]
Larvin 3.2F *(16 – 40 fl oz)*[10]	xxx	x[2]	x[2]	x[2]
Sevin 4F (1-2 qt./A)	x	-	-	x

Foliar Feeding Vegetable Crops– Is there a Time and Place for it?

Chuck Bornt, ENYCHP & Steve Reiners, Cornell University

Those of you that have worked with me long enough know that I have some pretty strong opinions when it comes to certain things and foliar feeding vegetable crops is one of those topics on which I have some opinions. The bottom line is, I can't really find good research information on what to use or what rates etc., but over the years I have learned a couple of things that I would like to share with you.

Let's define the nutrients I'm talking about. Micronutrients are needed by plants in low amounts, from just a few ounces per acre for molybdenum to a few pounds per acre for zinc, manganese, boron, copper and iron. Compare that to macronutrients like nitrogen, phosphorus and potassium that are needed in amounts ranging from 40 to 150 pounds per acre. Also considered macronutrients are sulfur, calcium and magnesium which may be needed in the 20 to 40 pound range. First, I believe foliar feeding micros is only part of the solution and is meant as a temporary corrective measure! Foliar forms of these micros may be more readily available to plants compared to soil applied forms. However, foliar feeding should be considered only part of the nutrient management plan. Continue to soil sample and address micronutrient deficiencies through liming/pH corrections when possible. In many cases, these materials can be added to many of the dry or liquid starter fertilizers we use.

Table 1. Nutrient sufficiency ranges for vegetables, potatoes and corn*

ELEMENT	VEGETABLES Most recently mature leaf	POTATOES Petioles most recently mature leaf sampled at midseason	CORN Ear leaf sample at initial silk
Percent (%)			
NITROGEN	2.5 - 4	2.5-4	2.76-3.5
PHOSPHORUS	0.25 - 0.8	0.18-0.22	0.25-0.5
POTASSIUM	2 - 9	6-9	1.7-2.5
CALCIUM	0.35 -2	.36-.5	0.2-1
MAGNESIUM	0.25 - 1	0.17-0.22	0.15-0.6
SULFUR	0.16 - 0.5	0.21-0.5	0.15-0.5
Parts per million (ppm)			
MANGANESE	30 - 200	30-200	20-150
IRON	50 - 250	30-300	20-250
BORON	30 - 60	15+40	4-25
COPPER	8 - 20	7-30	6-20
ZINC	30 - 100	30-100	20-70
MOLYDENUM	0.5 - 5	0.5-4	0.1-2

*Vitosh, M.L., D.D. Warncke, and R.E Lucas. 1994. Secondary and Micronutrients for Vegetables and Field Crops. https://www.msu.edu/~warncke//E0486.pdf

Foliar feeding works well for micronutrients because they are needed in relatively small amounts. We may be able to apply an entire season's worth of micros in a few foliar sprays. For a macro like nitrogen or potassium, we might be lucky to apply a couple of day's worth for the plant. If we see a deficiency it might be due to a pH imbalance in the soil or environmental conditions such as saturated soils, which many of us are experiencing now. There is an excellent publication available on the web from my colleagues at Michigan State University. "Secondary and Micronutrients for Vegetables and Field Crops" by Vitosh, Warncke and Lucas can be found on the web at https://www.msu.edu/~warncke//E0486.pdf . It does a great job discussing secondary and micro nutrient deficiencies and toxicities in vegetables and field crops and has great pictures. It also has several tables that are important in understanding nutrients in our vegetables. I've summarized one of their tables on nutrient sufficiency ranges for corn, potatoes and vegetables (Table 1). This gives an idea of nutrient levels needed for optimum crop production. Another useful take home message is that not all crops respond the same to micro nutrient applications as seen in Table 2.

Determining if you have a micronutrient deficiency is sometimes very difficult as often the symptoms look the same as some environmental issues. The best way to tell if you have a micronutrient issue is to collect a foliar sample and send it to a lab that can run an analysis for you. I have had good luck with Waters Agricultural Labs in Kentucky: www.watersag.com (also a location in Georgia). Their turnaround time is usually quick and they supply you with recommendations including foliar feeding recommendations. You can also submit a soil sample from the same field to determine if your soil levels are also low. When looking to take a foliar sample, the recommendation for most crops is the youngest fully expanded leaf. Collect at least 15—20 leaves from across the planting (composite sample like you do with soil sampling) and put them in a paper bag (do not use plastic bags) and get them in the mail as soon as possible. I would recommend that you not pull samples on a Thursday or Friday since they could sit in the post office for a day or two before being delivered. You can find more information at their website on nutrients they analyze for, contact information and fees.

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I also thought this information from the Michigan State Bulletin was important when treating a micronutrient deficiency: "For a preventive spray program, spray the crop about four weeks after emergence or transplanting. Because many micronutrients are not readily translocated within the plant, a second spray will be needed two weeks later to cover the new foliage. When a known nutrient deficiency develops, spray the crop with the appropriate nutrient at the recommended rate every 10 days until the deficiency is corrected. Complete coverage of the foliage is important, especially for iron. Adding a wetting agent to the spray solution will improve the coverage and may increase absorption, especially in crops with waxy surfaces, such as cauliflower and onions.

Micronutrients may be mixed with most fungicides and insecticides. However, some combinations are incompatible and may injure crops. When in doubt, spray only a limited acreage until compatibility is established. Any injury will usually appear within 48 hours." I should also add that a minimum of 30 gallons of water per acre should be used.

I am not a believer in delivering the necessary macronutrients such as nitrogen, phosphorous and potassium by foliar means—but with that said, I do think that there are times when plants may respond to these nutrients being applied as a foliar. Most vegetables require these three nutrients in large quantities (40—150 lbs per acre). Soil biological processes make these nutrients available, and plants have been evolved to take these nutrients up most efficiently through their roots, not their leaves and stems. Here comes the "however" - over the last couple of years I have seen where adding a couple of pounds of these nutrients, especially nitrogen during stressful times does seem to help the plant "weather" the stress and help it recover quicker when the environment turns more favorable. In particular I have seen where a foliar feeding nitrogen on sweet corn damaged by hail did help the plant recover quicker. However, the key is making sure you have some foliage left there for the nutrients to be taken in. Calcium and magnesium sprays can also help feed plants when soil application is not practical.

Table 2. Relative response of selected crops to micronutrient fertilizers*

Crop	Mn	B	Cu	Zn	Mo	Fe
Asparagus	L	L	L	L	L	M
Broccoli	M	H	M	--	H	H
Cabbage	M	M	M	L	M	M
Carrot	M	M	M	L	L	--
Cauliflower	M	H	M	--	H	H
Celery	M	H	M	--	L	--
Cucumber	H	L	M	--	--	--
Lettuce	H	M	H	M	H	--
Onion	H	L	H	H	H	--
Parsnip	M	M	M	--	L	--
Pea	H	L	L	L	M	--
Pepper	M	L	L	--	M	--
Potato	H	L	L	M	L	--
Radish	H	M	M	M	M	--
Snap beans	H	L	L	H	M	H
Spinach	H	M	H	H	H	H
Sweet corn	H	M	M	H	L	M
Table beet	H	H	H	M	H	H
Tomato	M	M	H	M	M	H
Turnip	M	H	M	--	M	--

Highly (H) responsive crops will often respond to micronutrient fertilizer additions if the micronutrient concentration in the soil is low. Medium (M) responsive crops are less likely to respond and the low (L) responsive crops do not usually respond.

Table 3. Suggested rates and sources of secondary and micronutrients for foliar application*

Element	Pounds of element/ acre	Suggested Source
Calcium (Ca)	1-2	Calcium chloride or calcium nitrate
Magnesium (Mg)	1-2	Magnesium sulfate (Epsom salts)
Manganese (Mn)	1-2	Manganese sulfate or finely ground manganese oxide
Copper (Cu)	0.5-1	Copper sulfate or copper oxide
Zinc (Zn)	0.3-0.7	Zinc sulfate
Boron (B)	0.1-0.3	Soluble borate
Molybdenum (Mo)	0.06	Sodium molybdate
Iron (Fe)[1]	1-2	Ferrous sulfate

[1]Iron is not usually deficient in New York vegetable soils
*Vitosh, M.L., D.D. Warncke, and R.E Lucas. 1994. Secondary and Micronutrients for Vegetables and Field Crops. https://www.msu.edu/~warncke//E0486.pdf

See Table 3 for rate recommendations. This foliar application followed by either a sidedress application or injection via a drip system for crops on plastic would be a way to promote nutrient uptake and keep that plant moving along.

I think and hope that most crop advisors and salesman would think along these same lines and tell you that you need to make sure you're doing your best to provide the crop with the nutrient needs through amending your soils and not through relying on foliar applications. With that said, if you have questions about foliar nutrients, sampling or other fertilizer questions, feel free to call Chuck Bornt at 518-859-6213.

Which Suckers to Keep?

Amy Ivy, ENYCHP

Regular readers have seen my past articles about pruning tomatoes to the 'Strong Y'. This applies to all determinate tomatoes that will be trained to a stake and weave type systems and any indeterminates that are being trained to a double leader or more.

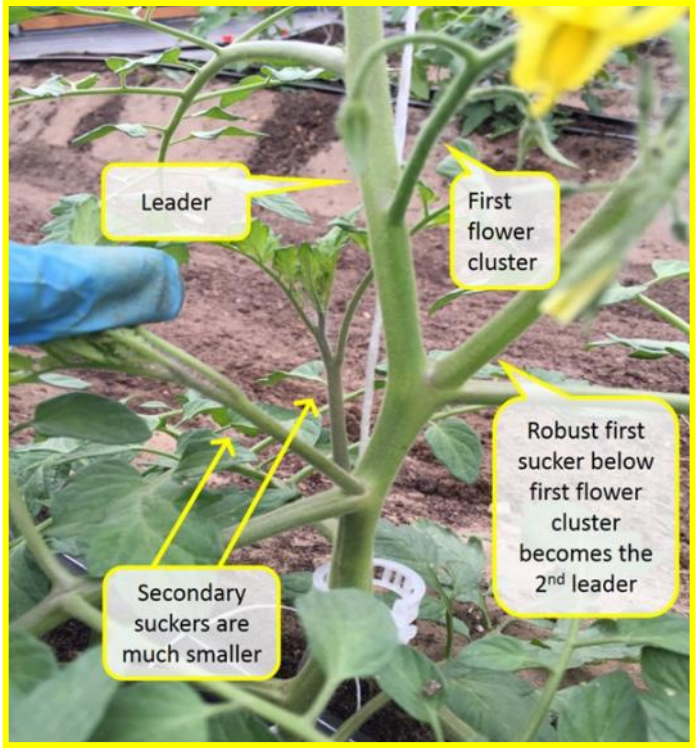
The key to establishing the Strong Y is to identify and leave in place the first sucker under the first flower cluster. This sucker is much more robust than the others, so it makes a natural second leader.

The photograph shows an excellent example of this difference in vigor. You can clearly see the difference in diameter, and therefore the vigor, and see the beginning of that Strong Y framework.

To review, determinate tomatoes only need to be pruned until this Strong Y is established. Suckers that form above the Y can be left alone. Some growers do some more thinning of the excessive growth while others do not. With indeterminate tomatoes that are trained to just 2 leaders, you need to remove any future suckers that form on either of the 2 remaining leaders for the rest of the season.

Keep removing the lower leaves as the fruit is harvested, up to the first ripening cluster to maximize air circulation around and under the plants.

This helps reduce some disease pressure, makes it easier to harvest and lets the plant focus its resources to the ripening fruit and new growth.



Striped Cucumber Beetles are Active and Feeding

Maire Ulrich, ENYCHP

Down in the Southern part of the region cucumber beetles have been seen in noticeable numbers. Keep an eye on your cucumbers and other cucurbits for their presence. Of course, it is not just the feeding damage that causes a field loss but their transmission of bacterial wilt is the real profit breaker if you have planted susceptible varieties.

Bacterial wilt can easily cause entire crop loss in a matter of a week or so once it is identified but it can take weeks after the plant is infected for symptoms to appear. All the while, you are managing a crop that likely will not produce much of a crop

Striped cucumber beetle adult. Photo by M. Hoffmann, Cornell University

Even if you do not see one beetle, there may be feeding. They are somewhat elusive for such a large bug so look at the stem of the plant and look for bit marks/scars from feeding.

Feeding damage at base of cucurbit plant. Photo G. Brust, University of Maryland

For organic producers, management is based in being proactive and discouraging, excluding or delaying their interest in your crop. There is a good resource at: https://attra.ncat.org/attra-pub/summaries/summary.php?pub=133

Aphids Abound!

Crystal Stewart, ENYCHP

There seems to be really high aphid pressure this year on a variety of crops. Growers are experiencing control failures using their usual controls, leading to lots of questions about what can be done differently to improve control. Strategies vary a bit when considering greenhouse/high tunnel or field production, so let's discuss the two separately.

High Tunnel Aphids:

The last few years the populations of potato aphid seem to be increasing on high tunnel tomatoes. They don't seem to be decreasing yield in most cases, but they can vector viruses and leave honeydew on fruit and leaves which fosters fungal growth. These aphids are not beign controlled well by beneficials in our experience, and Mycotrol, a go-to especially for organic growers, has not been working either (and it has been pulled from the OMRI listing). Dan Gilrein, the entomologist on Long Island, suggests trying M-Pede with an oil as a good contact control. The most common rate is 2% v/v M-Pede, which is 5 tablespoons per gallon of water. Note that hard water can neutralize this insecticidal soap, and a pH of above 8 can help reduce phytotoxicity. Dan also notes that washing aphids off in the high tunnel can be very helpful, since the legged ones are not particularly mobile. Washing the plants can also help remove honeydew. Of course you want to do this in the morning, before the sun is high but when the plants will dry as quickly as possible.

Field Aphids:

So far the most common aphid we are seeing in the field is one which may have migrated from the greenhouses—Green Peach Aphid. I would personally like to rename this the Green Gets on Everything Aphid, but I don't have any control of these things, so we will keep calling it Green Peach Aphid. Crops which we tend to find damage from these critters on often include peppers and cucurbits. Peppers probably show damage the worst, but feeding is also serious on cucurbits because aphids can spread virus through the field.

Recommended conventional aphid products from Dr. Brian Nault include Assail, Beleaf, Fulfil, and Endigo (pumpkins, not peppers-check the label to make sure the crops you want to spray are listed, and note the PHI). Organically, M-Pede is still going to be an option, taking care to ensure the best coverage possible. Because aphids are mobile and reproduce rapidly, scouting and re-applying as needed is an important strategy in gaining control in any system.

UPCOMING EVENT

Worker Protection Standard
Mock Inspection—Tuesday June 21

Pavero Farms
185 Ridge Road, Marlboro NY 12542
10 am-noon

As many of you already know, the EPA passed legislation in 2015 that institutes changes to the Farmworker Protection Standard. **The new rules will be in effect and enforced as of January 1, 2017.** "The Worker Protection Standard seeks to protect and reduce the risks of injury or illness resulting from **agricultural workers'** (those who perform hand-labor tasks in pesticide –treated crops, such as harvesting, thinning, pruning) and **pesticide handlers'** (those who mix, load, and apply pesticides) use and contact with pesticides on farms, forests, nurseries and greenhouses. The regulation does not cover persons working with livestock." *source: https://www.epa.gov/sites/production/files/2015-09/documents/worker-protection-factsheet.pdf*

The WPS does apply to farms using Organic OMRI listed Pesticides who have workers and handlers. The only exemption is for farm owners and their immediate families.

On Tuesday, June 21 the DEC will be conducting a mock WPS inspection at a local fruit farm in the Hudson Valley in an effort to help farmers in the area understand the WPS regulations, changes that will soon be in effect, and what farmers need to do on their farms in order to comply. We encourage all growers to attend as the information will be relevant whether you are a large-scale conventional fruit farm with 60 workers or small scale organic vegetable producer with 2 workers. ENYCHP educators/specialists will be on hand to help facilitate the meeting.
Registration will begin at 9:15. The start time for the program is 10 am through noontime.

The DEC will be issuing 2 pesticide applicator's recertification credits in the following categories – commercial 1A, 1D, 10 and private 21, 22, 23, 24, 25. You must be in attendance for the full two hour course/mock inspection in order to receive credits. Please arrive early to register and sign the roster for credits. Please bring your pesticide applicator's license. There is no charge.
(just a heads up that Ridge Rd from Prospect to Lattintown Rd in Marlboro will be under construction later this month, give yourself extra time for detours). You can call Teresa Rusinek or Dan Donahue for more information at 845 691-7117.

2016 Weekly and Seasonal Weather Information

	Growing Degree Information Base 50^{O} F			Rainfall Accumulations		
Site	2016 Weekly Total 6/6-6/13	2016 Season Total 3/1-6/13	2015 Season Total 3/1-6/13	2016 Weekly Rainfall (inches) 6/1-6/13	2016 Total Rainfall (inches) 3/1-6/13	2015 Total Rainfall (inches) 3/1-6/13
Albany	73.1	616.2	742.0	0.66	6.74	8.73
Castleton	74.1	590.2	708.7	0.76	9.74	7.7
Glens Falls	70.4	525.1	604.5	0.36	8.27	9.67
Griffiss	45.6	461.3	559.5	1.06	12.32	15.32
Guilderland	63.0	547.5	653.5	0.78	11.82	14.23
Highland	93.2	688.5	765.8	0.46	11.55	13.14
Hudson	81.4	653.2	767.5	0.83	11.29	12.06
Marlboro	85.0	636.2	711.4	0.31	8.07	10.1
Montgomery	93.6	631.7	735.5	0.13	7.26	10.81
Peru	46.2	459.7	550.2	0.05	6.51	10.3
Red Hook	85.9	628.3	715.6	0.54	7.18	8.01
Willsboro	51.3	455.3	530.6	0.37	7.23	11.91
N. Adams, MA	56.5	453.7	539.5	0.74	10.32	9.9

2016 Weather Table—The weather information contained in this chart is compiled using the data collected by Network for Environment and Weather Applications (NEWA) weather stations and is available for free for all to use. For more information about NEWA and a list of sites, please visit http://newa.cornell.edu/ This site has information not only on weather, but insect and disease forecasting tools that are free to use.

Sweet Corn Pest Chart (week ending 6/13)

Location	CEW	ECBZ	ECBE	FAW	WBC
N. Clinton	0	0	0	0	0
N. Washington	NA	0	1	0	0
S. Washington	NA	0	0	0	0
Albany	0	0	1	0	0
Fulton	0	0	0	0	0
Orange	0	0	0	0	0
Ulster	1	0	0	0	0

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