



Cornell University
Cooperative Extension

Eastern NY Commercial Horticulture Program

Vol. 3, Issue 6
May 29, 2015

Weekly Vegetable Update

ENYCH Program Educators:

Vegetables

Chuck Bornt

Cell: 518-859-6213

Email: cdb13@cornell.edu

Amy Ivy

Phone: 518-561-7450

Email: adi2@cornell.edu

Teresa Rusinek

Phone: 845-691-7117

Email: tr28@cornell.edu

Crystal Stewart

Cell: 518-775-0018

Email: cls263@cornell.edu

Maire Ullrich

Phone: 845-344-1234

Email: mru2@cornell.edu

Kevin Besler

Phone: 845-344-1234

Email: krb98@cornell.edu

Fruit

Laura McDermott

Cell: 518-791-5038

Email: lqm4@cornell.edu

Berries

James O'Connell

Phone: 845-691-7117

Email: jmo98@cornell.edu

Berries & Grapes

Dan Donahue

Phone: 845-691-7117

Email: djd13@cornell.edu

Tree Fruit

Anna Wallis

Phone: 443-421-7970

Email: aeu232@cornell.edu

Grapes & Tree Fruit

Business and Marketing

Bob Weybright

Phone: 845-797-8878

Email: rw74@cornell.edu

Jesse Strzok

Phone: 1-800-548-0881

Email: js3234@cornell.edu

Layout: Lindsey Pashow

Content Editor: Teresa Rusinek

Regional Updates

North Country—Clinton, Essex, northern Warren and Washington counties

Conditions remained dry and windy last week. Temperatures fluctuated like crazy and are predicted to keep fluctuating this coming week. From the high 80's mid-week last week to frost warnings Friday night. Most areas in the north got through with no freezing damage although spots of light frost were reported Saturday morning.

Bugs are emerging with the warm temperatures. The dry field conditions have slowed weed emergence somewhat but where irrigation has occurred weeds, such as galinsoga which thrives under warmer conditions, are popping up in earnest now.

Capital District—Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, southern Warren and Washington counties

Some areas of the capital district were touched with frost late last week, though many areas managed to scoot by unscathed. Most farmers had row cover over sensitive plants, which was good even in areas that did not receive a frost because coming near freezing at all can damage crops like cucumbers and even tomatoes.

It's time to start peeking under the row cover if you aren't already removing it. Weeds are growing very fast in that nice warm environment, and some early planted crops might even be close to flowering. Wind has continued to be a concern, and removing cover does also remove a little bit of protection. As usual, it's a balancing act.

There are lots of weeds and insects in general out there, from asparagus beetle to corn flea beetle. Start looking more carefully at crops if you aren't already, and be ready to correct for issues before they reach economic threshold.

And drink lots of water! It's hot and dry earlier than usual—take care of yourselves, too.



Galinsoga seedlings just beginning to emerge in the aisles. Photo by: ADI



Close-up of galinsoga in bloom. Photo by: ADI

Continued on next page

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

Regional Update, continued from previous page

Mid-Hudson Valley—Columbia, Dutchess, Greene, Orange, Putnam and Ulster counties

In the black dirt- As expected, the recent precipitation led to an upsurge in weed germination and growth; yellow nutsedge has become a problem in many fields. We avoided the frost and potential damage to cucurbits and other warm-season crops. The hot, dry start to the season caused some onion plantings to burn off completely, although many stands recovered and are presently in decent shape. The unusual conditions also delayed onion seed germination in some plantings where plants were just knuckling up last week. Transplanted onions are looking good for the most part, although thrips have begun to invade fields. Begin scouting for thrips and pay close attention to crops near wooded areas or open fields.

In other parts of the valley- There were some areas that experienced light frost early Saturday morning. Temperatures dipped down to 30 F in some areas for just a few hours. Some sporadic damage to tender crops was reported. Growers who were able to get row cover on their crops fared well through this event, though it was labor intensive. In general, field conditions are on the dry side and with the heat over the past few days, showers are welcome as long as they are moderate.

It appears that the suspected case of bacterial disease in tomato transplants from last week is likely to be bacterial speck and canker. Chris Smart's lab are still working to confirm it. Please keep an eye on your transplants and if you had a problem last year with these diseases you really want to be vigilant with protective sprays, especially on those small forming fruits!

Herbicide options for Pumpkins and Winter Squash

I know a fair amount of pumpkins and squash have been and will be going into the ground in the next couple of weeks so I thought it was time to include this article.

However, if we don't get some rain to activate these pre-emergent materials it won't matter anyway! Remember that the herbicides labeled and mentioned below all work best as post plant, pre-emergent applications. They are mostly seed germination inhibitors or root inhibitors and in some cases they do have some post-emergent activity. In my opinion, there are three important factors for these herbicides to work their best:

- ⇒ **Field preparation:** Fit and plant the field as closely together as possible. Do not fit the field and let it set more than 2 or 3 days before planting it as this will allow weed seeds to germinate (if the conditions are right) and in the case of many of these products, their activity and efficacy is reduced when seeds are already germinated. If you have to wait for some reason, I would consider re-fitting the field with a shallow cultivation before planting. Also, make sure the field is not full of clumps as this will also reduce the efficacy of the herbicides.
- ⇒ **Application timing:** As with field fitting, do not delay your herbicide application more than a couple days after planting! The same reason applies—this gives seeds time to germinate and reduces their

activity. Planting and spraying your herbicide within a day or two will improve weed control.

- ⇒ **Moisture:** All of these materials require either a rain or irrigation after application in order to "activate" them. Not only does this activate the herbicide, but it also activates seed germination. If it looks like there is no rain coming for a while and you don't have irrigation, my suggestion is to go ahead and still get the herbicide on. It's better than waiting for a rain.

Lastly, I would not use any of these products pre-emergent/post plant by themselves with the exception of Strategy (already has 2 different active ingredients pre-mixed). We have seen that tank mixes are the best value and result in much better weed control. Many of these products are have a narrow range of weeds they target so tank mixing a couple of them improves overall weed control. For the last couple years the most widely used tank mix has been Sandea and Dual Magnum. It works fine but there were some other combinations that we found in our direct seeded pre-emergent pumpkin trials that did well and were reasonably priced including Sandea plus Dual Magnum plus Reflex; Sandea plus Command ME or Sandea plus Dual Magnum plus Reflex. As always, please read the label carefully and if you have questions about what you read below, please do not hesitate to call me at 518-859-6213 and I will do my best to answer them.

Continued on next page

Herbicide options for Pumpkins and Winter Squash, continued from previous page

Sandea (Profine generic version): Labeled on all cucurbits at a rate of 0.5 – 1.0 oz. (recommend the 0.5 oz/acre rate) and controls most broadleaves pre-emergent—does not control grasses so it needs to be tank mixed with grass material for pre-emergent applications. Another reason for using 0.5 oz. rate is it allows you to come later in the season with a post-emergent application of another 0.5 oz. This is important because Sandea has a fairly short residual of about 4 weeks and we typically see some weed species breaking through around the 4th of July. Therefore, using a 0.5 once pre-emergent followed by another 0.5 once post emergent (prior to female flower development) should result in good weed control and keeps you within the legal limits of the product. Very good on pigweed and Velvetleaf when used pre and very good against Yellow nutsedge when used post emergent. Weakness – short residual of about 4 weeks, Common lambsquarters breaks through as does Eastern Black Nightshade and grasses.

Dual Magnum: There is a lot of confusion out there about this label and how it can be used and I will try to explain it the best I can as I think it is an important tool to have. First, this is a 24 c Special Local Needs label and means you need to obtain a copy of the correct 24 (c) label and have it in your possession at the time of application. Second, this is an indemnified label which means that you accept the risk of using this material and any injury or crop loss is not the responsibility of the company. In order to obtain the correct label, you will need to register with Syngenta and indicate that you are using this product on those specific crops. The good news is, this process is simple and can be done via the internet. (More to follow below). If you have Dual Magnum or Dual II Magnum, you will note that “Pumpkins” are on both of those labels.

However, if you read that section of the label, you will see it stated clearly that it is labeled only as a banded application and the applicator must leave a 12 inch area over the seed row untreated. The SLN label for Dual Magnum does not have this restriction and it can be used as a broadcast application. And as far as I know, the use of generic “Dual” products is not legal to use on pumpkins or winter squash.

Registering with Syngenta and obtaining the 24 c SLN: First, go to www.farmassist.com where you will need to create a user name and password. Once logged in, select “Products” where a dropdown menu will appear. Under that, select “Indemnified Labels”. Next, select “New York” under the state and “Dual Magnum” under the “product”. It is very important to note here that only the Dual Magnum formulation is labeled on pumpkins and winter squash and not Dual II Magnum. Then the list of

Dual Magnum indemnified labels come up and you need to find the appropriate one (should be the one that included pumpkins and winter squash). Click the crop you are applying it to and the “submit” button. You will then be navigated to a “WAIVER OF LIABILITY AND INDEMNIFICATION AGREEMENT” page where you will either accept or decline the special instructions for using this product on the selected crops. If you accept it, the label you need to print will appear as a pdf file and you can then print it and you are ready to go. If you decline it, the labels will not appear and you legally cannot apply Dual Magnum to the selected crop. The good news is that Farmassist will save all of the indemnified labels you have agreed to in case you lose your label and need another one. If you need assistance you can call the Syngenta Customer Resource Center at 866-796-4368. Remember, you need to have a copy of the 24 (c) label in your possession when using this material.

So, once you have obtained the SLN label, the rates labeled on pumpkins and winter squash is 2/3 – 1.33 pints (depending on soil type). It controls most annual grasses with some broadleaf suppression. I have seen very good results and limited injury using the 1.0 pints per acre rate. Do not incorporate as this increases the risk of severe injury! Best if used as a post plant pre-emergent and can be used post transplant within 72 hours of planting (weed seed germination issues). It may also be used post emergent as a broadcast application (4 true leaves required) following a cultivation or post emergent to row middles (has no effect on emerged weeds which is why I would recommend it post cultivation). Strong points: Controls many of the annual grasses and Galinsoga but should not be used alone.

Command ME: Labeled on all cucurbits (Label actually says “Do not use on Jack-O-Lantern pumpkins”) at a rate of 2/3 – 1.33 pints per acre depending on soil type (Lower rates on light soils, higher rates on heavier soil types). It is labeled up to 2 pints on winter squash. However, I find that the 1.0 pint per acre rate provides good control. **Do not incorporate!** The new ME (micro-encapsulated) formulation does not need to be incorporated! May be used pre-plant, post plant pre-emergent or pre-transplant (make sure plants are planted below the chemical barrier). Strong points: Controls many of the annual grasses, Galinsoga, Common Lambsquarters, Velvetleaf (rate dependent) and fairly long residual. Weakness – Pigweed, Ragweed (esp. at lower rate) and the potential for fall grass cover crop injury (wheat and rye). Also, do not let FREEZE in storage. The label specifically says do not apply to soils that will be covered with plastic.

Continued on next page

Herbicide options for Pumpkins and Winter Squash, continued from previous page

If this product was frozen it could potentially settle out and clog your sprayer screens, tips etc.

Curbit EC: Labeled on all cucurbits at a rate of 3 – 4.5 pints per acre depending on soil texture and organic matter content. Do not incorporate! Controls most annual grasses and some broadleaf suppression (Pigweed, Lambsquarter, Purslane) and is recommended as a post plant pre-emergent application only within 2 days of planting or banded application between rows after crop emergence or transplanting (be very careful of drifting onto the crop). Strong points: Controls many of the annual grasses, Velvetleaf, Pigweed and lambsquarters with fairly long residual. Weakness – Ragweed and Smartweeds, soil texture and organic matter levels really impact efficacy. Do not use under plastic mulches or rowcovers and cold, wet soils can increase injury or even result in crop failure! Label recommends using a minimum of 20 gals/acre fixed spray volume.

Strategy: Pre-mix of Command and Curbit and is labeled on all cucurbits at a rate of 2.0 - 6.0 pints depending on soil texture (Do not incorporate!). Controls most annual grasses and some broadleaves (purslane, LBQ, Pigweed, Velvetleaf) but still weak on Common ragweed, and smartweeds. Recommended as a post plant pre-emergent or banded application between rows after emergence or transplanting. Do not broadcast apply and then transplant into treated soil as severe injury will occur. It can also be banded to row middles after a cultivation. Again, do not let this material freeze in storage as it could potentially settle out and clog your sprayer screens, tips etc. If it has frozen, be sure to contact the manufacturer for recommendations of how to proceed. Label also recommends the use 10 to 30 gallons per acre finished

spray volume. Be sure to check the label as there are crop rotational restrictions that are rate dependent.

Reflex: This material has a 24 c Special Local Needs label on pumpkins, summer squash and most varieties of winter squash. **It is not labeled for use on butternut squash which is very important to note.** It is an “indemnified” label like Dual Magnum which means you accept any crop losses associated with using this material. You will also need to register with Syngenta in order to print a copy of the label. See the “Registering with Syngenta and obtaining the 24 c SLN” section under Dual Magnum.

However, there are some labeling restrictions that you need to be aware of if you want to use Reflex this year. First, you cannot use it as a broadcast application on direct seeded pumpkins or squash! For direct seeded crops you need to apply to the row middles only or in other words leave the area over the seed furrow untreated. However, for transplants you can use it as a pre-transplant non-incorporated pre-emergence (weed seeds) broadcast application up to 7 days prior to transplanting. Apply Reflex at a rate of 0.5—1.0 pints per acre. Do not exceed 1 pint per acre of Reflex on pumpkins, winter or summer squash per season and do not harvest any of these crops within 32 days of the Reflex application. –Strong points: Improves efficacy of other materials and excellent on Eastern Black Nightshade, Common purslane, Lambquarters and Pigweed species. It also helps suppress some annual grasses and Yellow Nutsedge. Weakness – Potential for some crop injury, especially in cold, wet soils and long crop rotation restrictions for sweet corn (18 months). Potatoes and beans can be replanted immediately and tomatoes and peppers can be transplanted 4 months after last treatment as can most small grains. Do not use Reflex alone. –CB

Potatoes

So far, potato plantings look pretty good and they are enjoying this warm spring but could do with some much needed moisture! I personally haven't seen any yet, but be on the lookout for Colorado Potato Beetle as I'm sure they are out there! Be especially diligent on newly planted eggplants as they seem to be a favorite as well. For the most part we have been fortunate enough that the neonicotinoid insecticides (IRAC Group 4: Admire, Provado, Cruiser etc.) continue to provide pretty good control, however there are a few cases where I have seen a less than acceptable level of control so please consider other options. The Cornell Integrated Crop and Pest Management Guidelines for Commercial Vegetable Production (pages 305—311) does a great job of talking you through the steps of resistance management for Colorado potato beetle (CPB) and should be reviewed. However, as that is not always possible I will try to give you some management options.

- ⇒ If you used an in-furrow or seed piece application of a neonicotinoid (Group 4: Admire Pro, Tops-MZ-Gaucha, Cruiser or Cruiser Maxx, Platinum) do not use a Group 4 insecticide for foliar control of CPB. There are other options that can be found in Table 1.
- ⇒ Most controls should be focused on very small larvae as larger larvae become more difficult to control.
- ⇒ When possible, use the IRAC Group Codes given to you in the table and in the Cornell Vegetable Guidelines to choose the correct rotational materials. As part of an overall resistance management program, try not to apply insecticides in the Group back to back. -CB

Wild and Domestic Animal Management

While most of us enjoy the sight of a doe and her fawns in the field or a fox darting behind a building, wildlife can present several challenges and risks when it comes to vegetable production. For vegetable and fruit growers the most notorious wildlife species are deer, woodchucks, rabbits, small birds, geese, moles, voles, and mice. Animals can devastate crops in any stage from establishment to pre-harvest if they are not dealt with properly. It's not just crop yield that can be compromised when animals enter the field, it is also food safety. For these reasons, it is important to train all field workers to recognize and report significant wildlife activity. When animal impact occurs close to harvest, workers should be instructed to flag the areas where the crop has been visibly damaged, and not harvest within or immediately around that area if the crop has been contaminated with excrement. For crops growing close to the ground which will likely be consumed raw, extra vigilance is warranted. If you are interested in getting a good agriculture practices (GAPS) audit, recording these observations and actions is a requirement. For farms that are not looking to get a certification, recording is still recommended as a way to reduce liability. In the event that a foodborne illness outbreak occurs and the FDA comes to inspect the farm, records such as these will show the FDA that you take food safety seriously and might help to prove that you were not negligent.

Although in many instances wildlife are difficult or

impossible to control, it is much easier to reduce risks associated with domestic animals. In today's world of health initiatives to get people to eat more raw fruits and vegetables, producers need to do everything they can to reduce risks of contamination when possible.

Unfortunately, this means that dogs must be kept out of production areas at all times. If you have a PYO operation, make sure there is prominent signage letting visitors know to keep their pets at home. The farm dog must also be kept out of the fields, greenhouses, and packinghouses. The cats especially must be kept out of storage and packing areas as they can transmit *Toxoplasma gondii*, a dangerous parasite. With cats gone, a rodent control program using steel traps must be implemented in these indoor areas. Remember to NEVER use poison baits in areas where produce is stored or packed. Birds must not be allowed to roost in storage and packing areas, and wire screen can be installed so that the birds can't perch on the rafters.

Animals, domestic or wild, will always be present in an agricultural context. Total elimination isn't the goal, but the focus should generally be on risk reduction. A lone deer wandering through a pumpkin patch isn't of great concern, but a herd of deer walking through a field of greens can be as much of a food safety risk as it can be an economic loss.
– Erik Schellenberg - GAPs Education, CCE, ENYCHP

Bacterial Spot in Umbelliferae

Umbelliferae species also known as the "Carrot Family" are widely grown in our region. Herb crops such as: parsley, cilantro, dill, and root crops such as carrots and parsnips all belong in this family. There are several types of bacteria that are responsible for spotting on these crops, however, the symptoms are very similar; small, angular shaped spots that range in color from tan to dark brown. For more information on bacterial spot diseases of Umbelliferae and good photos see: <http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=4519>

While in the greenhouse, discard plants or flats with symptoms before the bacteria spread to other plants or crops. Once planted out in the field, applications of labeled copper compounds such as Cueva or biological control compounds like Double Nickel can help control spotting and spread. Parsley, coriander a.k.a. cilantro, and carrots are on the label of both these products. Read the labels fully and carefully for restrictions. Good sanitation, clean seed, and dry leaves are important in keeping bacterial disease off your crops! Coriander, parsley, carrot and celery seed can be treated with hot water to disinfect seed from bacteria and other pathogens, see <http://vegetablemdonline.ppath.cornell.edu/NewsArticles/HotWaterSeedTreatment.html> for directions which must be closely followed to avoid injuring seed. Also, septoria leaf spot is a common **fungal disease** that often shows up in parsley and other crops. If you are spraying a fungicide for what you believe is septoria and it turns out to be a bacterial disease, you will not get any control. In other words, proper diagnosis is important.-TR



Septoria Leaf Blight on Parsley
Inote black spots inside lesions—
Photo-Rutgers University

Managing Onion Thrips

Now is the time to start thinking about thrips control in onion plantings. Onion thrips infestations typically begin in early to mid-June for transplanted onions and 2 to 3 weeks later in direct-seeded plantings, although periods of hot and dry weather can lead to early season outbreaks. Thrips overwinter in grasses, clover, and/or alfalfa and growers often report them moving into the edges of their fields following the first cutting of hay in the spring. In addition to yield and bulb size reductions directly associated with thrips feeding, the insects are known to transmit iris yellow spot virus and have recently been shown to transmit *Pantoea ananatis*, the causal agent of center rot.



Onion thrips. Photo: Whitney Cranshaw

UGA1243058

Scouting is an important tool that can be used in controlling thrips infestations and may result in a reduction in the number of insecticide applications needed for adequate control. To scout for thrips, walk your fields in a “V” shaped pattern and select at least 20 (ideally 35) plants to examine. Thrips are often found feeding on young inner leaves so make sure you pull back the outer leaves and check down near the neck. Older leaves that are folded over are also popular feeding spots. Record the number of thrips per plant and divide by the average number of leaves per plant to determine the number of thrips per leaf. The following recommendations from Cornell entomologist Brian Nault can be used to determine if an insecticide application is warranted and the order in which products should be used. Please note that recent research has indicated that the fungicide chlorothalonil interferes with the ability of Movento and Agri-Mek to control thrips, so tank mixing these products should be avoided. -KB

Direct-seeded onion spray schedule		
Application #	Product	Action threshold/timing of spray to consider
1	Movento	1 thrips larvae per leaf
2	Movento	7 to 10 days after 1 st Movento if needed*
3	Agri-Mek	1 thrips larvae per leaf
4	Agri-Mek	7 days after 1 st Agri-Mek spray
5	Lannate**	1 thrips larvae per leaf
6	Lannate**	7 days after 1 st Lannate spray
7	Radiant	3 thrips larvae per leaf
8	Radiant	3 thrips larvae per leaf
Transplanted onion spray schedule		
Application #	Product	Action threshold/timing of spray to consider
1	Movento	1 thrips larvae per leaf
2	Movento	7 to 10 days after 1 st Movento if needed*
3	Agri-Mek	1 thrips larvae per leaf
4	Agri-Mek	7 days after 1 st Agri-Mek spray
5	Radiant	3 thrips larvae per leaf
6	Radiant	3 thrips larvae per leaf

* If the thrips population is reduced to a low level (e.g., below 1 thrips per leaf) after the first Movento spray and does not reach threshold again until 3 weeks later, consider avoiding another application of Movento to reduce the likelihood of insect resistance

** If control of thrips using Movento and Agri-Mek (first four sprays) has provided control up to 2 or 3 weeks before onions will be pulled, eliminate the Lannate applications and go to Radiant.

Note: If after using Movento and Agri-Mek (first four sprays) there are at least 4 weeks remaining before onions are pulled, consider inserting two applications of Lannate between the Agri-Mek and Radiant sprays. Conversely, if after using Movento there are only 2 to 3 weeks remaining before onions are pulled, eliminate the Agri-Mek sprays and go to Radiant.

Keeping Weeds From Encroaching On Tunnels

One of the best ways to reduce weed pressure inside your tunnels is to minimize the weeds immediately outside your tunnels. It's tricky and time consuming to use a string trimmer up against the outside edges of plastic film covered tunnels. Ground cloth, also known as landscape fabric, can be a huge help. Some growers use roadway fabric which is similar, but it isn't UV resistant so it won't last as long when exposed to sunlight.

Photo A shows how weeds crowd right up against the baseboards of tunnels. They not only harbor insect pests and produce lots of weed seeds that blow into the tunnel, but if allowed to grow tall, they will also cut down on the all-important air circulation into and through the tunnel.-ADI



Photo A: Weeds allowed to grow alongside tunnels harbor insect pests, produce weed seeds and block air circulation through the tunnel. Photo ADI



Photo B: Ground cloth, well anchored with ground pins is a handy way to prevent weeds long term. Photo ADI



Photo C: When constructing new tunnels, lay ground cloth under the side boards to keep weeds at bay inside and outside the tunnel. Photo ADI



Photo D: Ground cloth under a drip irrigation set-up in the field keeps weeds at bay and the filters, connectors and pressure regulators are easy to reach. Photo ADI

2015 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.

2015 Weekly and Seasonal Weather Information						
	Growing Degree Information Base 50⁰ F			Rainfall Accumulations		
Site	2015 Weekly Total 5/18 - 5/24	2015 Season Total 3/1 - 5/24	2014 Season Total 3/1 - 5/24	2015 Weekly Rainfall 5/18 - 5/24 (inches)	2015 Season Rainfall 3/1 - 5/24 (inches)	2014 Total Rainfall 3/1 - 5/24(inches)
Albany	60.9	394.8	276.0	0.25	2.76	6.57
Castleton	55.6	373.7	264.1	0.05	2.48	6.91
Clifton Park	57.4	386.9	242.7	0.20	1.99	7.64
Fishkill	57.8	380.8	Na¹	0.24	3.76	Na¹
Glens Falls	58.5	301.6	286.0	0.35	2.71	10.50
Griffiss	40.5	258.6	221.5	1.61	8.56	13.33
Guilderland	51.0	342.1	254.0	0.25	3.15	Na³
Highland	63.3	424.3	319.0	0.73	5.90	10.84
Hudson	66.7	415.7	300.2	0.75	4.07	8.37
Marlboro	56.7	380.4	273.1	0.26	4.92	11.05
Montgomery	64.9	391.6	292.0	0.12	4.32	10.85
Monticello	40.1	264.2	182.5	Na²	Na²	5.31
Peru	63.8	283.3	223.7	0.04	2.79	7.86
Red Hook	56.7	380.5	315.3	0.55	5.28	2.25[*]
Shoreham, VT	69.0	319.0	229.3	0.17	4.02	7.13
Wilsboro	57.2	258.9	206.5	0.08	4.25	4.09
South Hero, VT	58.7	279.3	206.0	0.08	3.95	8.78
N. Adams, MA	43.1	249.4	203.0	0.43	3.43	7.50
Danbury, CT	54.4	318.1	237.0	0.10	4.67	11.81

Na¹: The Fishkill site is new for 2015 so there is no historical data to report.

Na²: The Monticello station is not properly recording data at this time.

Na³: The Guilderland weather station was not properly reporting precipitation data in 2014 so no data will be shown for this site.

*: Precipitation data for this site did not begin until May of 2014.

Cornell Cooperative Extension and the staff assume no liability for the effectiveness of results of any chemicals for pesticide use. No endorsement of any products is made or implied. Every effort has been made to provide correct, complete, and current pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly and human errors are still possible. These recommendations are not substitutes for pesticide labeling. Please read the label before applying any pesticide. Where trade names are used, no discrimination is intended and no endorsement is implied by Cornell Cooperative Extension.

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.