Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

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Weekly Vegetable Update

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Regional Updates

North Country – Clinton, Essex, northern Warren and Washington Counties:

The cool, wet weather continues and many crops are very late, some are not even planted yet. Weed control with cultivation is challenging since soils can't dry out between rain events. Some seedlings were washed out by heavy rain and need replanting. Slugs and leafy greens are thriving. Brassicas look good, cucurbits are suffering from the chilly temperatures.

Capital District – Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, southern Warren and Washington Counties:

As usual it's feast or famine—too little rain, now too much rain and I can go on and on……The break in the rains last week really let growers get caught up with laying plastic and getting the rest of the tomato, pepper and eggplant transplants out in the fields along with various other crops. Early green and yellow squash harvest in some areas has begun or is just getting ready to start. We've also seen the first early sweet corn getting ready to tassel, a sure sign that we have entered summer!

Mid-Hudson Valley- Columbia, Dutchess, Greene, Orange, Putnam, and Ulster Counties:

Precipitation in the Hudson Valley has really picked up after a dry start to the season. Many areas have received 3 or more inches of rain in the past 2 weeks. This has led to an increase in weed pressure and resulted in some pretty severe cases of herbicide burn on crops. Be careful with your rates and remember to avoid overlapping passes when spraying. Mid-day applications can also increase the risk of burn, especially on hot, humid days. Colorado potato beetles (larvae and adult) have come on in full force and defoliated some small eggplant plantings. Septoria leaf spot was observed on tomato. Keep an eye out for this and other fungal leaf spots as the hot, humid weather continues.

In sweet corn many of the earliest plantings are now in full tassel. Last week we were finding just a few very tiny ECB larvae in the tassels. Over the past week trap counts have increased and I expect we will start seeing more damage next week. Also CEW has been caught over the past week in Orange and Ulster counties, so it seems they have arrived in the lower Hudson and will be a threat to silking corn in the upcoming weeks.

Powdery Mildew — Get to it before it gets to you!

We are sounding an alarm bell on Powdery Mildew in Central and Western New York. But we aren't talking pumpkins-this is a disease of tomatoes! This pathogen is a fungus of the Oidium genus, with species soon TBD by Cornell plant pathologists. Research has found that tobacco, eggplant and potato may host the pathogen, among many other families of ornamentals; although there is scientific debate on the exact species and host range.

Initial Powdery Mildew lesions on tomato

First detected in April of 2015 (in NYS), new cases are coming in every week. Given that the pathogen requires a living host how did this begin so early? Likely in overwintered plants and greenhouses that were not completely shut down over winter. High relative humidity is correlated with the disease, which given recent conditions has favored the development in many local greenhouses/high tunnels.

Powdery Mildew spores on this tomato were controlled with Stylet oil.

Powdery Mildew (Oidium sp.) of high tunnel tomatoes

Pruning is not a viable control option and there is very little (if any) cultivar resistance commercially available. Growers are reporting success with JMS Stylet Oil (available in organic or non-organic versions), sulfur products such as Microthiol Disperse.

Severe Powdery Mildew infection of high tunnel tomatoes.

Conventional fungicides with Powdery Mildew on their label include Inspire Super (difenoconazole+cyprodinil 0D PHI), Switch (cyprodinil+fludioxonil 0D PHI) and Revus Top (difenoconazole+mandipropamid). As this is a newer problem, we are still learning about product efficacy.

Photos and article by Judson Reid, Cornell Vegetable Program

Managing Basil Downy Mildew

Reports of basil downy mildew are beginning to pop up in several areas in the Northeast. Prevention is crucial for this pathogen as any amount of disease will render plants unmarketable for the fresh market. By the time symptoms are noticed it likely will be too late to implement effective control measures. - *KB*

The following recommendations were provided by Margaret McGrath, Plant Pathology and Plant-Microbe Biology Section, SIPS, Cornell University

Yellowing of the upper surface of affected basil leaves often occurs in sections of the leaf delineated by veins because the downy mildew pathogen cannot grow past major veins in leaves. Photo: Margaret McGrath

Management practices:

1. Start with pathogen-free seed.

Eurofins STA Laboratories in Colorado now tests basil seed for *Peronospora* spp (http://www.eurofinsus.com/stalabs/products-services-seed-health.html). It is sufficient to test only at the genus level with this pathogen since it is the only species of *Peronospora* that would be associated with basil seed.

Seed companies are starting to steam treat basil seed. Enza is one company that treats their seed. This seed is not amenable to hot-water treatment because while in water the seed produces a gelatinous exudate which makes the seed challenging to handle.

This is most important for greenhouse production when basil is not being grown outdoors. The pathogen is difficult to avoid during the summer because of the quantity of spores dispersed long distances by wind.

2. Select less susceptible varieties.

These are just starting to be available. Plant breeders at Rutgers are well on the way to developing highly resistant varieties of sweet basil. Eleonora is the first commercially-available variety with moderate resistance, a level not sufficient to achieve acceptable control without additional management practices, in particular applying fungicides. Symptom appearance has been observed to be delayed several days. Exotic, spice, and ornamental basils are less susceptible than the more popular sweet basil.

Purplish gray spores of the downy mildew pathogen only develop on the lower surface of leaves. Photo: Margaret McGrath

3. Avoid favorable conditions for disease development in the greenhouse.

The basil downy mildew pathogen needs humidity of at least 85% in the plant canopy to be able to infect. This disease can be controlled effectively by keeping humidity low. Practices to achieve this include base watering, wide plant spacing, circulating fans, lights, and increasing temperature. Base heating is an especially effective method to reduce humidity. Set up sensors in the plant canopy to monitor humidity to ensure implementing practices are sufficient.

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Managing Basil Downy Mildew, continued from previous page

4. Turn lights on during night in the greenhouse.

Illuminating either leaf surface of plants growing under protected conditions during nighttime was shown to effectively suppress downy mildew in basil by inhibiting spore production through a study conducted in Israel. Light was supplied in high tunnel-like structures with 20W Day Light fluorescent bulbs each equipped with a white metal reflector (30 cm diameter), with one bulb per meter row. Spores formed on leaf tissue shaded by other leaves, thus this procedure is most effective when plants are small. Initial experiments were done with illumination throughout night. Recent research has revealed light exposure is most important during the first 6 hours of night, and the pathogen needs at least 7 hours of darkness. Red light was shown to be the most inhibitory under laboratory conditions.

5. Apply fungicides.

A preventive program with conventional fungicides is considered necessary to achieve effective control based on results from replicated fungicide evaluations.

Ranman (cyazofamid; FRAC code 21), Revus (mandipropamid; FRAC 40), Ridomil Gold SL (mefenoxam; FRAC 4), Quadris (azoxystrobin; FRAC 11), and phosphorous acid fungicides (FRAC 33) can be used in conventional production of basil. All of these except Ridomil Gold and Quadris are permitted to be used in a greenhouse. There are several phosphorous acid (phosphanate) fungicides labeled for this disease, including ProPhyt, Fosphite, Fungi-Phite, Rampart, pHorsepHite, and K-Phite. This chemistry as well as Ranman was documented to be among the most effective in some university fungicide evaluations. These fungicides with targeted activity are prone to resistance development due to their single site mode of action and thus need to be used within a fungicide resistance management program.

6. Monitor plants for symptoms.

Yellow leaf tissue in bands delimited by large veins is distinctive for downy mildew. It is important to examine the underside of leaves for the pathogen's spores because there are other causes of leaf yellowing and spores can be present without yellowing. Photographs are posted at: http://livegpath.cals.cornell.edu/gallery/basil/downy-mildew/

7. Promptly destroy affected plants.

When downy mildew is found on a few plants in a greenhouse during winter, affected plants should be carefully bagged (after turning off fans) and thrown out immediately. If symptoms are very limited and found early, it might be possible to save some plants by subjecting the symptom-free plants to heat and then taking steps to improve the management program. High temperature is detrimental to the pathogen. Maximum temperatures for infection, colonization, and spore production are 80 – 88 F. Spores were found to be killed on plants exposed to 113 F for 2 days through research. Solar heating during 3 consecutive days was used in Israel to manage downy mildew in affected plants in shade houses.

More information about this disease plus images and links to monitoring pages are at http://vegetablemdonline.ppath.cornell.edu/NewsArticles/BasilDowny.html

Please Note: The specific directions on fungicide labels must be adhered to -- they supersede these recommendations, if there is a conflict. Any reference to commercial products, trade or brand names is for information only; no endorsement is intended.

Hot, cold, wet, dry….

This weather is hard on everyone, animal and vegetable. More than being hard, it can trigger plants to do things we are not very excited about. Here are some of the things we are seeing which are weather related this year:

Buttoning broccoli and cauliflower:

I've heard a fair amount of discussion about the hot weather causing problems with cole crops in the last week, but in reality some of the symptoms we are seeing on broccoli and cauliflower are due to the cold weather we had early in the season. Temperatures between 35 and 50 over extended periods of time (greater than 10 accumulated days) can trigger the plant to flower prematurely, leading to tiny, frustrating heads. Growers who got plants out on their normal schedule might have set plants into exactly this environment. There is nothing to do about it, except recognize it's happening and make room for another crop. Or harvest side shoots.

Chilling of cucurbits:

This is just about done now, but for a while there were a lot of wilted cucurbits out there due to cold stress. As a warm season crop, these plants are very touchy about soil temperatures. Watermelons seems to be the touchiest, and will sometimes die if placed in cool ground. Concern about this has passed, but if you lost plants and were not sure why, think about the soil temps.

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Hot, cold, wet, dry…. *continued from previous page*

Crispy high tunnel plants:

Those first few really sunny days can catch growers off guard, leading to temperature spikes in the tunnel before proper ventilation is employed. High temps (over 90 F) can lead to flower drop early and stop fruit ripening later on. The less established a plant's root system is when it experiences heat stress, the more likely it is to suffer severe damage. Plants cool themselves through evaporative cooling through the stomata, little vents on the leaf underside. If a plant can't get enough water through to the leaf to keep this process going, it wilts and then gets hot.

Black plastic injury:

Another danger of hot days early on is damage to transplants by black plastic. If the stem touches the plastic on a hot day it will burn it, often girdling the plant. If you see stems dying at the plastic level, don't think disease, think physical injury. Make the holes wider and/or plant when it's cool and cloudy so plants don't wilt and lean against the plastic. –CLS

This cauliflower bolted due to cold exposure early in the season, in addition to suffering from a nutrient deficiency. Image: CLS

Food Safety and Worker Health

If you've given your workers health and hygiene education as part of their training, then they know not to come to work sick, though sometimes this information seems to be forgotten. Although it can be difficult to send someone home when all hands are needed out in the field, this is a very important rule to follow as it is a very real food safety risk.

Workers come in direct contact with crops when they are picking, and whatever is on their hands goes on the produce. If they are sneezing, coughing or sniffling, it's unlikely they will be washing their hands after every single time they become contaminated. It could be as simple as a cold or flu virus, but it could also be something more serious like hepatitis A or Shigella.

Once the produce is contaminated, those pathogens are not coming off. Even if you dunk all the produce in chlorinated water you will not kill the pathogens on the produce. The chlorine is in the water to prevent contaminants from getting into the water and cross-contaminating other pieces of produce. For example, on netted melons there are little tiny air bubbles in between the bumps where bacteria and viruses can hide safely from the sanitizing water.

When you get into heavy harvesting time, it might be a good idea if you can have a back-up plan for when you identify a sick worker. Even though they are supposed to stay home if they are sick, they may want to work and they may try to get out into the field. One way to manage the issue is to develop a list of chores that can be done that do not involve touching produce. A sick worker could be put on facilities cleaning duty, equipment repair, counting inventory, repairing fencing, monitoring and scaring away wildlife, checking rodent traps, or any other necessary chores that don't involve contact with fresh fruit or vegetables.

It might also be advisable to reward a worker for staying home when sick with partial pay or some other reward. In some cases, it may be necessary to reprimand a worker who tries to work while sick so as to set an example for other workers to follow. Whatever methods you decide on, just remember that sick workers (yourself included) should not be handling fresh produce.

Written by Erik-John Schellenberg- Cornell Cooperative Extension, GAPS/Post Harvest Resource Educator

Vegetable Alerts

Late blight was reported on potato in northern North Carolina near the Virginia border on this past week. There have been no reports of late blight in the region to date. To track late blight in the US please visit http://usablight.org/

Cucurbit downy mildew has been reported on cucumber, butternut, acorn, and yellow summer squash as far north as central South Carolina. To track the progress of CDM in the US please visit http://cdm.ipmpipe.org/

Warning to Growers in the Northeast to Observe ENTRUST SC Resistance Management

A few weeks ago, Dow AgroScience, manufacturer of Entrust, sent out a letter to University researchers and extension personnel asking for assistance in alerting growers to the over-use of Entrust against Spotted Wing Drosophila and Colorado potato beetle. Their letter addresses issues with "non-compliance with labelled resistance management restrictions for Entrust SC in organic cropping systems". The letter goes on to say that "they have been made aware that Entrust SC is allegedly being used at a greater frequency than the label allows per crop. Dow is monitoring the situation to understand if these are isolated cases or more widespread occurrences… if the non-compliance issue continues then Dow will pursue corrective action which could include a withdrawal of the product from the Northeastern United States."

Dow is concerned that resistance to Entrust SC (group 5 insecticide) will translate into pest resistance to their conventional spinosad-analogue products, Radiant SC and Delegate (also Group 5 chemistry), resulting in the loss of efficacy for conventional growers as well. The possibility of resistance developing in Colorado potato beetle and Spotted Wing Drosophila to Entrust will eliminate one of the most effective tools organic growers have in managing these pests. Withdrawal of Entrust from the Northeast would also eliminate its use for a host of other hard to control pests.

Resistance Management directions on the label state that rotation to other insecticide classes should occur after two consecutive applications, check the label for details.

Markets looking for items/vendors.

Please respond to market managers directly.

The West Point Town of Highlands Farmers Market:
looking for vendors of flowers and vegetables.
Market runs from June 14 - thru October in Highland Falls from 9 am - 2 pm every Sundays.
Space is $20 per week for 12 feet.
Call Hannah Decker, Market Manager at 205-613-0309 for more information and to register

Newburgh (Healthy Orange-Health Dept):
Want honey, baked goods, plants, herbs. Open to meat and eggs but reliance on WIC and FMNP is notable.
Broadway between Launders and Johnson
Tuesday, 10am-2pm
Contact: Meg Oakes, (845) 360-6691
moakes@orangecountygov.com

Cornwall:
Looking for various vendors
183 Main Street (Town Hall)
Saturday market:10am-2pm
Wednesday market:12noon-6pm
Contact: Erin O'Dell, (845) 360-6691
marketmanager@cornwallny.gov

Walden:
Looking for Produce, Village Square, Thursday, 2-7pm
Contact: Kerri-Ann Lynch, (845) 476-6241, waldenfarmersmarket@yahoo.com

Montgomery:
Looking for pickles, breads, jams. Would also welcome hot food, musical talent, winery and brewery. Saturdays 9-2, June 6th - October
On the lawn at Crossroads Intersection of 17K & Rt 208, Montgomery.
Contact: Roxanna Baty, roxremedies@gmail.com

In-Season Labor Reminders

- On December 31, 2014, New York State's minimum wage increased to $8.75 per hour. Be sure your posters reflect this accurately to be in compliance!!!
- Have all of your posters in order. Posters can be viewed and ordered from: https://labor.ny.gov/workerprotection/laborstandards/employer/posters.htm
- Remember to have workers WPS trained. ALL workers who may enter fields need to be trained. See: http://www.epa.gov/agriculture/twor.html
- Don't forget Workman's Compensation.
- Coverage must be obtained effective April 1st of the year immediately following the year where the farm had $1,200 of payroll.
- The spouse and minor children (under 18 years old) of a farmer are NOT counted as employees under the WCL as long as they are NOT under an express contract of hire.
- If a farm labor contractor recruits or supplies farm laborers for work on a farm, such farm laborers are generally deemed employees of the farmer.
- Source (and for more): http://www.wcb.ny.gov/content/main/Employers/Coverage_wc/empWhoCovered.jsp

Sweet Corn Pest Trap Catches
(Week ending 6/16/15)

Location	ECB-E	ECB-Z	CEW
Central Clinton	0	0	0
South Clinton	0	0	0
Essex	0	0	0
Orange	2	7	2
C. Ulster	5	0	N/A
N. Ulster	10	8	8

The migratory CEW and FAW usually arrive late June to late July, depending on location, and can infest mid-late planted sweet corn. ECB occurs throughout the growing season. There are three races of ECB in the Northeast: a univoltine Z-race, a bivoltine Z-race, and a bivoltine E-race. The univoltine race has one generation per season (one flight in July) while the bivoltine races have two or more generations per season (one flight each in June and August). Although not all races of ECB are present in all sweet corn growing regions, traps for both Z-and E-races are recommended at each field site. The Z-race of ECB is also known as the Iowa strain and the E-race as the New York strain. Source: NYS IPM - http://www.nysipm.cornell.edu/factsheets/vegetables/swcorn/pheromone_traps.pdf

European Corn Borer Moth– Photo NYS IPM

Corn Earworm Moth—Photo NYS IPM

Best Management Practices for Using Commercial Bumble Bees on Horticultural Crops in Delaware

Jacquelyn Marchese, Graduate Student, Department of Entomology & Wildlife Ecology, *Deborah Delaney, Assistant Professor Entomology & Wildlife Ecology*,and *Gordon Johnson, Extension Vegetable & Fruit Specialist, University of Delaware Cooperative Extension*

Editor's note: I came across this article regarding bumble bees and I thought that with green and yellow summer squash harvest beginning and other vegetables to follow shortly, it would be a good time to include it in our weekly newsletter. Many high tunnel growers have been using bumble bees for many years and have noted an increase in size and yield, especially in tomatoes. And many of you have asked in the past what I thought of bumble bees and I've always been impressed with what they can do! So, take a look and learn more for yourself - CDB

A common native pollinator in Delaware is the Common Eastern Bumble Bee (*Bombus impatiens*). The behavior, physiology and morphology of bumble bees make them ideal pollinators because of the speed at which they transfer pollen, the efficiency with which they gather pollen within various crops, and the increased endurance to fly in adverse weather for longer periods of time. The bumble bee also has the ability to buzz pollinate the flower for pollen, a pollination technique not seen in honey bees. Buzz pollination occurs by bumble bees vibrating the flower by pumping their wings at a certain frequency, to dislodge pollen. Bumble bee foraging activity starts earlier and ends later in the day than managed honey bees and they forage in lower temperatures.

In the early 1980s, commercial rearing of bumble bees for pollination services was developed in The Netherlands. By the 1990s commercial bumble bee production made its way to the United States. In the United States, there are two companies that distribute commercial nests of *B. impatiens*, Koppert Biological Supply Company and Biobest®. Bumble bee colonies are reared and placed within plastic boxes, equipped with enough pollen and a sugar substance to sustain bumble bee during shipping. Two holes are engineered into each plastic box that allows the grower to control the activity of their bumble bee nest. These entrance holes are controlled by a plastic flap that either opens or closes all or one entrance hole (Figure 1).

Bumble bees differ greatly from their more popular, honey bee, counterpart and thus have different biological requirements in order to optimize their use to growers in the field.

Bumble bees were studied in 3 crops in Delaware: Strawberries, watermelons, and pickling cucumbers. We found that bumblebees are a viable alternative pollinator for strawberry and watermelon and can be considered for those crops. During our two year study that looked at bumble bees in strawberry and watermelon field crops, bumble bees were constantly and consistently detected in the fields throughout both seasons. Although we determined that strawberry and watermelon pollen were not the main pollen sources being brought into the colonies, foragers were seen with enough frequency and abundance that we are confident in their ability to pollinate these crops. The bumble bees observed on strawberry and watermelon blooms were most likely nectar foragers, but if foragers are strictly on the crops for the intention of gathering nectar, transfer of pollen should still be occurring.

Bumblebees did not perform well in pickling cucumbers in our studies. In two years of sampling pickling cucumber fields with commercial bumble bees, we found that they made up at most 8% of all pollinators collected and they were frequently seen on weedy forage such as morning glory, ragweed, horse nettle and other common flowers. Honey bees were the most abundant pollinator found in these fields, followed by native sweat bees and pollinating hover flies. Therefore, at this time, without additional research, we cannot recommend bumblebees in pickling cucumber crops. Growers should continue to rely upon and use honey bees in pickling cucumber plantings.

Place bumble bees in the field after crops have begun to bloom. Like honey bees, bumble bees need access to forage to sustain themselves. Bees that have found unintended forage in the beginning of the season are likely to continue to forage on this unintended source, especially if it is more favorable than the intended crop. Place bees in the middle of the field to encourage in field foraging.

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Best Management Practices for Using Commercial Bumble Bees on Horticultural Crops in Delaware, *continued from previous page*

Allow time for bees to settle before opening units. Always follow instructions provided by the bumble bee supplier when placing bees within the field. Give the allotted time before opening up the colonies for the first time. Although bumble bees will need to chew out of the hole in order to begin foraging, colonies should be given at least 30 minutes to settle after being handled during shipment and placement. Also, be sure to check on each colony 2-3 hours later to make sure that the bees have successfully chewed out of the hole and exited the nest. On occasion, bees will not successfully chew out of the hole and will need to be cut out of the colony. Although this has been known to occur, it is not common and most colonies will successfully find their way out of their colony and into the crop, on their own.

Close bumble bee units before each pesticide application. During the season, change each bumble bee colony entrance to one open hole at least two hours before all pesticide applications. This will allow time for bumble bee foragers to return and be kept in the colony in order to limit forager exposure to pesticides, see the pesticide section below for more information.

Place bumble bees under shade, to increase their productivity and longevity. Bumble bee units placed in natural shade (along forest/field edges) or fitted with a shade structure last longer and are significantly more productive than units in the sun. Placing bees under shade is especially important during the warm summer months of Delaware's watermelon bloom. Bumble bees constantly and actively strive to keep their colony temperature at around 86°F. Colonies exposed to direct sunlight have to work harder and use more energy to thermoregulate. Colonies placed in full sun without shade cannot maintain normal worker activity (pollen and nectar foraging and duties within the colony) for as long as the colonies with shade.

Keep bumble bees away from honey bees. Bumble bees should be placed as far from honey bee hives as possible. This is especially true when crops are not in bloom. When forage is low for the commercial pollinators they should be greater than 1 mile from each other. Honey bees are very resourceful and a bumble bee colony is a great source of pollen and nectar which honey bees are constantly seeking. If surrounding forage is low or not agreeable to honey bees, bumble bees will be susceptible to honey bee robbing causing a weakened colony and overall loss in productivity from both pollinator species.

Bumble bee units should be weighed or strapped down, especially when placed within a shade structure. These units may be susceptible to being flipped or carried by strong winds. Not only does this disrupt the normal orientation of the colony, causing helpless larvae, nectar and pollen to fall out of their individual waxen cells, but can cause blockage to the unit openings, trapping bees within the unit.

Bumble bees may be transferred to another field for additional pollination services throughout a season. Before moving, close the plastic opening tab to the one-hole open position. Allow forager bees at least two hours to return to the colony. The bumble bee colony may then be transferred to another site.

Close up colonies before each pesticide spray. Bumble bees very easily accumulate pesticides within the wax of their brood clump and their bodies by foraging in crops that have been treated with various chemistries. Although bumble bees will inevitably have some exposure to sprayed pesticides within the field, growers can limit exposure by using the plastic opening tab within each colony box. Growers are urged to close up the commercial nests at least two hours before spraying to decrease the exposure of bees to the pesticides.

Dispose of bumble bee colonies in a timely and humane fashion. There is a risk of commercial bees breeding with native populations. Commercial bumble bees are mass reared, and therefore the genetic diversity of the commercial bees does not mirror what is naturally found and occurring in the wild bees. The integrity of this wild genetic stock is important because it allows for the bees to be adapted to a wide variety of environmental conditions and exposure to various pathogens that they may encounter. If commercial bees mate with wild bees, the commercial bees will be diluting the genetic stock of the wild bee population.

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 50^{O} F			Rainfall Accumulations		
Site	**2015 Weekly Total** 6/08- 6/14	**2015 Season Total** 3/1 –6/14	**2014 Season Total** 3/1 - 6/14	**2015 Weekly Rainfall** 6/08- 6/14 (inches)	**2015 Season Rainfall** 3/1 –6/14 (inches)	**2014 Total Rainfall** 3/1 - 6/14 (inches)
Albany	**148.5**	**764.4**	**616.5**	**2.98**	**7.63**	**9.69**
Castleton	**141.2**	**722.1**	**588.0**	**3.61**	**8.08**	**9.36**
Clifton Park	**143.8**	**734.8**	**555.9**	**2.57**	**8.65**	**9.02**
Fishkill	**150.2**	**728.6**	**Na[1]**	**0.02**	**4.05**	**Na[1]**
Glens Falls	**132.7**	**623.6**	**581.0**	**1.57**	**1.57**	**13.81**
Griffiss	**124.1**	**579.6**	**517.0**	**3.06**	**13.23**	**17.28**
Guilderland	**Na**	**Na**	**Na**	**Na**	**Na**	**Na[2]**
Highland	**149.8**	**786.8**	**653.3**	**1.49**	**11.03**	**13.02**
Hudson	**151.7**	**788.4**	**639.9**	**1.60**	**7.53**	**12.93**
Marlboro	**149.8**	**733.1**	**595.4**	**1.21**	**8.64**	**11.84**
Montgomery	**152.1**	**753.1**	**616.0**	**2.18**	**9.72**	**13.68**
Monticello	**124.2**	**558.6**	**434.0**	**0.37**	**7.74**	**6.65**
Peru	**113.1**	**566.0**	**517.2**	**3.04**	**7.98**	**11.26**
Red Hook	**146.6**	**735.8**	**636.6**	**0.67**	**8.54**	**5.22[3]**
Shoreham, VT	**132.3**	**640.1**	**537.2**	**1.56**	**8.02**	**9.71**
Wilsboro	**117.5**	**546.3**	**486.6**	**2.60**	**10.18**	**4.55**
South Hero, VT	**116.6**	**570.5**	**506.0**	**3.20**	**10.86**	**11.85**
N. Adams, MA	**134.5**	**557.5**	**466.5**	**2.79**	**7.90**	**10.05**
Danbury, CT	**144.7**	**643.2**	**531.0**	**0.14**	**10.01**	**13.41**

Na[1]: The Fishkill site is new for 2015 so there is no historical data to report.
Na[2]: The Monticello station is not properly recording data at this time.
Na[3]: The Guilderland weather station was not properly reporting precipitation data in 2014 so no data will be shown for this site.