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## Grapes News

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### Phenology Updates

Highland Lab: 10-16" growth stage (about 2wks pre-bloom).

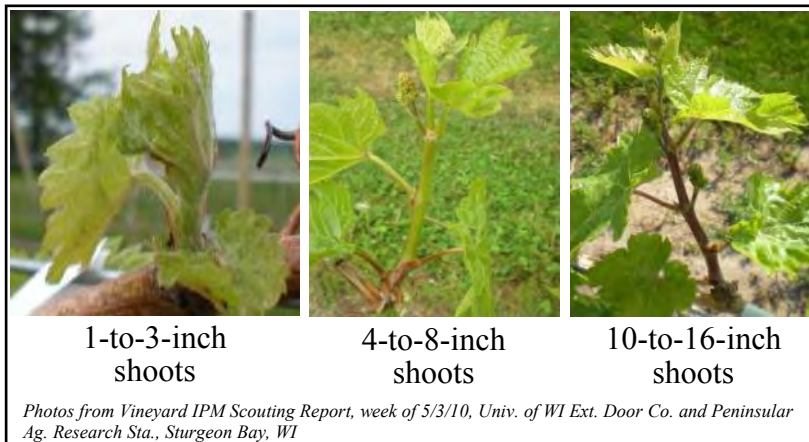
Willsboro Vineyard: 1-3" shoot growth.

### Pest Updates

North Country growers should begin scouting for flea beetle and cutworm. Growth stage of the vines is quickly moving past the 1-3" stage and sprays for powdery mildew, phomopsis and black rot should begin if not already started.

Hudson Valley growers should continue scouting for flea beetle and cutworm and continue to manage for powdery mildew and phomopsis.

We are approaching immediate pre-bloom in Hudson Valley, which is a critical time to manage black rot, downy mildew and grape phylloxera (see articles pages 2-4).



### Orange Slime on Pruning Cuts

While out in the vineyard, some of you may have noticed an orange fungal growth on pruning cuts. It is easily noticeable and while it looks unsightly, it is harmless. This fungus feeds on the nutrients from the sap flow of pruning cuts.

For more information, including an article from Wendy McFadden-Smith, Tender Fruit & Grape IPM Specialist Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) check out Tim Martinson's blog <http://blogs.cornell.edu/nnygrapeupdate/>. -JMO



Photo by Lindsey Pashow

## What to Do if Hail Hit Your Vineyard

By P. Oudemans and D. Ward, May 27, 2014 *Plant & Pest Advisory*, Rutgers Cooperative Extension, <http://plant-pest-advisory.rutgers.edu/?p=10119>

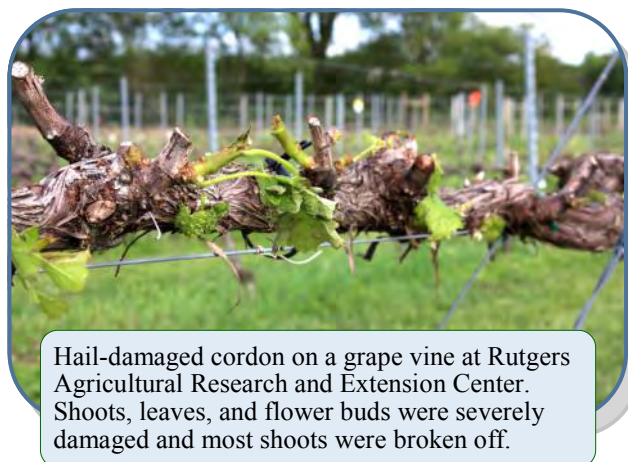
If you were hit by a hailstorm on May 22nd, as we were at RAREC, you are probably making some hard decisions on what to do in the vineyard.

Removal of dead and compromised leaves and flower clusters will help reduce development of fungal pathogens.

Stem wounding will be a big concern especially for vineyards with crown gall. Treatments that aid in wound healing or have bactericidal effects may provide some help. However, shoots severely damaged by hail may need to be pruned out.

New growth will continue to push as weather conditions allow. This new growth should be protected against black rot, powdery and downy mildews as you would in any other year.

Hail-damaged spur and shoot on RAREC grape vine. Winter cold had killed many primary buds so these shoots were from mostly secondary buds. Now regrowth will come mostly from tertiary buds.



Hail-damaged cordon on a grape vine at Rutgers Agricultural Research and Extension Center. Shoots, leaves, and flower buds were severely damaged and most shoots were broken off.

Hail causes significant damage to leaves, stems and flower clusters. Following a hail storm plants respond by forming secondary compounds such as tannins and polyphenols to heal wounds on the remaining tissues. Since there are significant amounts of dead tissues following a hailstorm, such as the one last Thursday, some pathogens will be promoted while others will be unaffected.

Botrytis will likely increase on dying tissues. This could lead to an increase in inoculum leading to problems during bloom. This will be very dependent on weather conditions leading up to the bloom period.

Colletotrichum, although relatively rare, thrives under conditions following wounding of tissues. If you have seen anthracnose fruit rot on your grapes in previous years there may be a small increase due to the presence of dead tissues.

### Black Rot

Black rot is a fungus that overwinters as mummified fruit (i.e. mummies) located either in the vine or on the ground below the vines. These mummies serve as the overwintering source of the black rot fungus and the primary source of infection during the spring.

Black rot has a long infection period. Spores from these mummies continue to be produced through post-bloom, with symptoms first appearing two weeks post infection (early season) and three to five weeks post infection (late season). Infection occurs during warm rains. The splashing disperses the spores from infected berries to non-infected berries, effectively spreading the disease throughout the clusters.

Sanitation is a key component of managing black rot. As previously stated, the mummies serve as a major source of inoculum and, mummies in the canopy produce 10-20x as many spores throughout the season. Therefore, it is important to remove or bury (mulch, tillage) all these mummies. Proper timing of fungicide applications is also

important. The critical time for managing black rot with fungicides is the immediate pre-bloom to 4 weeks post bloom. However, in vineyards with high inoculum, where black rot was previously a problem, it is recommended to start the fungicide program 2 weeks pre-bloom.

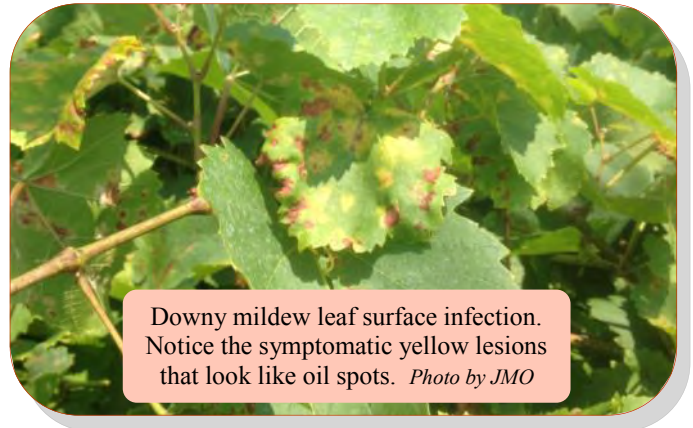
There are several types of fungicides labeled for black rot. Mancozeb, ziram, and ferbam are the standards and offer very good control. The strobilurin fungicides (Abound, Flint, Pristine), are great materials to use; they are longer lasting and offer protection. Use of these materials is limited though, because of resistance concerns and should be timed for critical applications (bloom, early postbloom). The sterol inhibitors (DMIs) consisting of revus top, mettle, and the tebuconazoles offer good post-infection and are rainfast. Please consult the 2014 New York and Pennsylvania Pest Management Guidelines for rates and varietal concerns (phytotoxicity). For additional information and pictures go to [http://nysipm.cornell.edu/factsheets/grapes/diseases/grape\\_br.pdf](http://nysipm.cornell.edu/factsheets/grapes/diseases/grape_br.pdf). -JMO



## Downy Mildew

Downy mildew is a fungus that originated in North America and therefore, all *V. vinifera* species of grape are highly susceptible. Susceptibility, though, of natives and hybrids to downy mildew varies. The fungus overwinters in the soil as resting spores, which originated from fallen leaves. These resting spores are the source of the inoculum for the first infections. Therefore, the levels of inoculum present at the start of the year are directly influenced by the level of downy mildew control in the vineyard last year (good control = less inoculum, bad control = more inoculum). During favorable weather conditions, infections generally occur 2-3wk pre-bloom. Plant tissues closest to the soil level (i.e. suckers, volunteer seedlings) are readily infected. Spores released from infected tissue infect new tissue, and continue to spread the disease over the course of the season.

For downy mildew to spread, conditions need to be just right. At first glance these may seem like an impossible scenario, however, when these conditions align, the results can be destructive. Nights need to be warm and humid with temperatures in the range of 64°F-72°F, along with



rain that night or the following morning. Additionally, days of cloudy weather can hasten the spread of the disease. At optimal temperatures, the germination time of the spores is 4 days, which if left unchecked, can lead to rapid spread of infection through the canopy.

Downy mildew is best managed through prevention. Don't let the disease get started in your vineyard; but if it does, don't let it spread. Materials such as copper, captan, and mancozeb are effective against downy mildew. They are prophylactic materials with no significant post infection or anti-sporulant activity. They are also subject to removal by rain. The strobilurin fungicides (Abound, Pristine, etc) offer strong protection and are not removed by rain. Though post infection activity is limited, anti-sporulant activity is strong. Other options include ridomil (considered by Wayne Wilcox to be, "the nuclear option"), revus/revus top, as well as several new downy mildew specific chemistries. Please consult the 2014 New York and Pennsylvania Pest Management Guidelines for more chemicals, rates and varietal concerns (phytotoxicity). -JMO

## Governor Announces \$20.5 Million in Farmland Protection Grants

By Ted Booker, published in Watertown Daily Times  
May 16, 2014

A total of \$20.5 million in grant funding to aid farmland protection efforts is now available for municipalities, soil and water districts and nonprofit conservation organizations, Gov. Andrew M. Cuomo announced this week.

Offered for the first time in five years, the grant funding is available through the Environmental Protection Fund and administered by the state Department of Agriculture and Markets. Applicants may apply for grants under the Round 13 Farmland Protection Grants Request for Proposals.

Because the grants have not been offered in several years, Ag and Markets anticipates a large number of proposals will be submitted this year.

In addition, revisions to state law have boosted the state contribution toward grants to a maximum of 87.5 percent, up from 75 percent; criteria for grant applicants have been revised to include land trusts and soil and water conservation districts for the first time

The funding aims to help municipalities and conservation groups protect at-risk farmland through the use of permanent conservation easements or incentive payment agreements, according to the governor's office. The

*continued on next page*

*Governor Announces \$20.5 Million in Farmland Protection Grants, continued from previous page*

majority of the funding will go toward the establishment of permanent easements, but incentive payment agreements will be offered for the first time. Those payments will allow eligible entities to make multiyear commitments to landowners of at least five years, but no more than 10.

Entities would collaborate with landowners to seek funding for conservation easements. Up to \$2 million in overall grant funding will be made available for those projects.

The move to make farmland protection grants available was praised in a prepared statement by Senate Agriculture Committee Chairwoman Patricia A. Ritchie, R-Heuvelton.

“It goes without saying that quality, well-protected land is the basis for any successful family farm operation,” Mrs.

Ritchie said. “I’m pleased that the newly enacted state budget increases funding to \$20 million for key farmland protection programs, which will ensure this limited resource remains available for the next generation of New York’s farmers. This builds upon the work we have done recently — namely boosting funding for specific agriculture programs and launching an initiative to attract younger people to careers in farming — and will only help to further grow New York’s biggest industry.”

Application materials and webinar information for the Round 13 Farmland Protection Implementation Grants RFP are available for download on the Ag and Markets website at [www.agriculture.ny.gov/RFPS.html](http://www.agriculture.ny.gov/RFPS.html).

Call the department directly to receive application materials at 1-800-554-4501.

## Grape Phylloxera

*Excerpt from article by Greg Loeb, Cornell Dept. of Entomology, published in May 2014 issue of Finger Lakes Vineyard Notes*

Grape phylloxera is an aphid-like insect with a complex lifecycle that causes feeding galls on either roots or leaves. Leaf galls are in the shape of pouches or invaginations and can contain several adults and hundreds of eggs or immature stages (Fig. 12). Root galls are swellings on the root, sometimes showing a hook shape where the phylloxera feed at the elbow of the hook. At high densities, leaf galls can cause reduced photosynthesis. Root galls likely reduce root growth, the uptake of nutrients and water, and can create sites for invasion of pathogenic fungi.

There is a wide range in susceptibility of grape varieties to both gall types. Labrusca-type grapes and vinifera grapes tend not to get leaf galls. Some hybrid grapes, such as Baco Noir, Seyval, and Aurora, can become heavily infested with leaf galls. Labrusca grapes will get root galls but these tend to be on smaller diameter, non-woody roots that may reduce vine vigor in some cases, but are not lethal. The roots of vinifera grapes are very susceptible to the root-form of phylloxera, including galls on larger, woody roots that can cause significant injury and even vine death. Indeed, most vinifera grapes grown in the eastern US are grown on phylloxera-resistant rootstock and this is the primary method for managing the root-form of phylloxera.



A single grape phylloxera leaf gall, with the side of the gall opened to show adult female and many yellowish eggs. Photo by J. Ogrodnick.

There are a couple of insecticides labeled for the control of leaf-form phylloxera, although we do not have a well-defined treatment threshold at this time. The neonicotinoid Assail (acetamiprid) and the pyrethroid Danitol (fenpropathrin) are also labeled for the leaf-form of

grape phylloxera as is the systemic insecticide Movento. Soil applied Admire Pro is also systemic to the foliage and therefore will provide control of leaf-form phylloxera as well as some other sucking insects such as leafhoppers. Similarly, the neonicotinoid Platinum is also labeled against grape phylloxera. Leafgalls first appear at low densities on the third or fourth leaf, probably originating from overwintered eggs on canes. The crawlers from these first generation galls disperse out to shoots tips and initiate more galls around the end of June or beginning of July. These second generation galls tend to be more noticeable to growers.

As noted above, imidacloprid applied through the soil (e.g. Admire Pro) is labeled for the grape phylloxera as is Platinum and can provide some control, especially when applied through a drip system. Movento, applied as a foliar spray, has also shown some reasonably good efficacy on root-form phylloxera in our trials both with *V. vinifera* vines, but also with Concord.



## Shoot Thinning

Excerpt from article by Hans Walter-Peterson, Cornell Univ. Finger Lakes Grapes Program, published in 5/21/14 issue of Finger Lakes Vineyard Update

Shoot thinning is the first canopy management practice to take place during the growing season. It is best done when shoots are relatively short (4-12") because it is still easy to distinguish where each shoot is coming from on the vine and they are easy to remove at this point.



Shoot thinning can have several benefits in the vineyard:

- Increasing air movement through the fruiting zone, which can reduce disease pressure;
- Improving bud fruitfulness by reducing shading in the canopy interior;
- Improving light penetration into the fruiting zone, which may impact both disease development and fruit composition; and
- Removing excess shoots and bringing vines closer to a "balanced" state.

The impact of shoot thinning on fruit and wine quality is not as defined as some of these other benefits, mostly because the impact will depend on the vines' cropload (balance of yield and vegetative growth) before the thinning is done. But even without the certainty of the impacts on fruit composition, the viticultural benefits of shoot thinning can often make the practice worthwhile.

Shoot thinning this year may actually be even a bit more important than in most, as the loss of count buds on canes and spurs may cause more shoots to emerge from places on the vine where they are not wanted, particularly in the head region. In most years, growers will often remove shoots that have little or no crop on them. This year, however, it might make sense to retain more non-fruitful shoots in blocks with higher levels of bud injury in order to try to contain some of the increased vigor that they vines will have due to having less fruit to act as a sink for water and nutrients.

## What to Do with Old Pesticides

The season is underway and so is the pest management. You have a program in place, and the necessary products are stored safely in your pesticide shed. As you are inventorying your materials for that next spray, you come across some old pesticides. Companies will sometimes make changes to their products. A pesticide that once may have come in a powder form, was reformulated to a liquid. Sometimes too, the pesticide is removed completely from the market (i.e., canceled). The first question that comes to mind when you find an old pesticide is: Can I still use it? As long as the pesticide has a current New York State (NYS) pesticide label for the crop and pest, it can be used.

All products labeled for use in NYS can be found on the PIMS website <http://pims.psur.cornell.edu/>. If the product



is not listed there, then it is not legal to use. What then do you do with the pesticide? Because pesticides are regulated waste they must be disposed of properly and

cannot be placed in the regular trash. New York Department of Environmental Conservation (NY DEC) has teamed up with [Clean Sweep NY](#) to properly dispose of cancelled,



unwanted, unusable, or otherwise obsolete pesticide chemicals from agricultural or non-agricultural entities such as farmers and commercial pesticide applicators. The program was recently run in Western NY and there are plans to bring it to Eastern NY. In the meantime make sure all pesticides are properly labeled. Pesticides that are meant for disposal should be clearly marked as such (e.g. Clean Sweep Disposal) and grouped separately from the actively used materials in your sheds.

If you are not sure if a product is labeled and/or you are not sure how to find it on the PIMS site, contact your local extension agent.

More information about NY DEC Clean Sweep can be found at <http://www.dec.ny.gov/chemical/45366.html> -JMO

## Farm Credit East's Annual Winery Benchmarks Program Kicks Off

Farm Credit East's Winery Benchmarks program is currently underway and accepting sign-ups for the 2014 benchmark! This unique program allows Northeast wineries to measure their business against industry peer data.

"The Farm Credit East Winery Benchmarks program is an opportunity for Northeast winery owners to join together to create a better understanding of the industry and develop practical business solutions," said Gregg McConnell, director of the benchmark program. "Participants receive in-depth financial and operational analyses of their business, interact with other successful winery owners, take part in dialogue to better understand the industry and gain constructive feedback from an experienced Farm Credit East consultant."

Winery owners throughout the Northeast use the benchmarking program to identify the strengths and weaknesses of their businesses, find strategies to capture

the full market value of their products, create marketing that matches the quality of their wine and to find new ways to control costs and gain efficiencies.

Data collection for this year's program is currently underway. If you'd like your winery to be included in this year's benchmark, please contact Bill Martin at 800-362-4404 or email [Bill.Martin@farmcrediteast.com](mailto:Bill.Martin@farmcrediteast.com), or Gregg McConnell at 800-929-7102 or email [Gregg.McConnell@farmcrediteast.com](mailto:Gregg.McConnell@farmcrediteast.com).

Results will be compiled in July and individual benchmark reports will be provided to each of this year's participants just in time for the annual meeting to be held in the Finger Lakes Region on August 6<sup>th</sup>, 2014. For more information on the Farm Credit East Winery Benchmarks program and to watch a short video about the program, visit the following link: <https://www.farmcrediteast.com/winerybenchmarks.aspx>



*Farm Credit East extends more than \$5.5 billion in loans and has 21 local offices in its seven-state service area. In addition to loans and leases, the organization also offers a full range of agriculturally specific financial services for businesses related to farming, horticulture, forestry and commercial fishing. Farm Credit East is governed by a 17-person board of directors. For more information, go to [FarmCreditEast.com](http://FarmCreditEast.com)*

## 2012 Census of Agriculture Released

Source: U.S. Dept. of Agriculture, [http://www.agcensus.usda.gov/About\\_the\\_Census/](http://www.agcensus.usda.gov/About_the_Census/)

The Census of Agriculture is the leading source of facts and figures about American agriculture. Conducted every five years, the Census provides a detailed picture of U.S. farms and ranches and the people who operate them. It is the only source of uniform, comprehensive agricultural data for every state and county in the United States. Participation by every farmer and rancher, regardless of the size or type of operation, is vitally important. By responding to the Census, producers are helping themselves, their communities and all of U.S. agriculture.

The 2012 Census of Agriculture collected information concerning all areas of farming and ranching operations, including production expenses, market value of products, and operator characteristics. This information is used by everyone who provides services to farmers and rural communities - including federal, state and local governments, agribusinesses, and many others. Census data is used to make decisions about many things that directly impact farmers, including:

- community planning
- store/company locations
- availability of operational loans and other funding
- location and staffing of service centers
- farm programs and policies

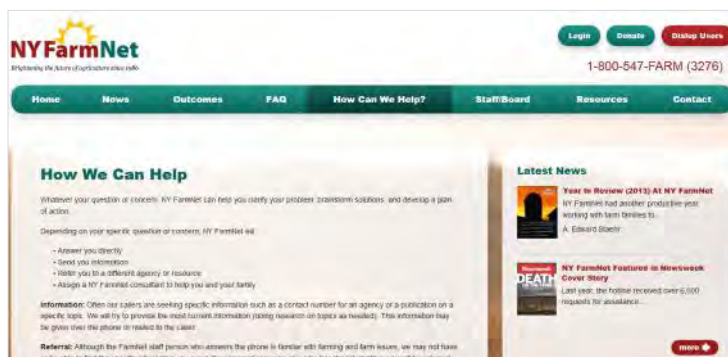


For 2012 Census of Agriculture results, go to <http://www.agcensus.usda.gov/Publications/2012/>

## FarmNet Provides Counseling Resources for Farmers

If you are feeling overwhelmed by your financial situation in light of a challenging season, or you are feeling overwhelmed by your emotions (or both), FarmNet can connect you with people who will listen and provide guidance. All consulting is completely confidential, and is free. Please call 1-800-547-FARM or visit <http://www.nyfarmnet.org/> if you need help.

New York FarmNet was established in 1986 to provide farm families with a network of information, contacts and services that are uniquely suited to the financial and personal challenges of agricultural business management. This network covers every aspect of high-pressure decision making from partnerships and transfers to stress management, family communication, domestic concerns, and disaster response. FarmNet is a working resource to help build positive solutions for future success. Key program support is provided by the New York State Department of Agriculture and Markets and NY Farm Viability Institute.



### Enrollment Reminder — Don't Miss Out!

Thank you to those of you that have enrolled in CCE Eastern NY Commercial Horticulture Program—we appreciate your support. You should have received your complimentary Cornell University Integrated Pest Management Guidelines and the seasonal newsletters you chose as part of your enrollment.

For those of you that have not enrolled, we invite you to do so as soon as possible by completing the enrollment forms that were mailed to you in early April. If you do not think you received them or misplaced them, contact Marcie Vohnoutka at 518-272-4210 or [mmp74@cornell.edu](mailto:mmp74@cornell.edu) for a copy.

**Unless we receive your enrollment information by June 20th, any publications that you are currently receiving from the ENYCHP will end.**

If you have questions about enrollment please contact one of the educators listed on the cover of this publication or call Chuck Bornt at 518-272-4210 or email [cdb13@cornell.edu](mailto:cdb13@cornell.edu)

### Cornell Pest Management Guidelines

Please note that the 2014 Cornell Pest Management Guidelines for Commercial Grapes Production is available only as a hard copy this year. A visit to the PMEP website (<http://ipmguidelines.org/Grapes/>) gives the following explanation:

“Due to budgetary constraints, the 2014 New York and Pennsylvania Pest Management Guidelines for Grapes will not be available online. We are currently exploring options that will allow us to recover the costs of posting this publication online. We hope to have the Guidelines back online in 2015.”

Guidelines can be purchased with enrollment in the CCE Eastern NY Commercial Horticulture Program – **1 free copy of a pest management guidelines comes with enrollment** (contact Marcie at 518-272-4210) – or order directly from the Cornell Store, online at <http://store.cornell.edu/c-875-guidelines.aspx>.





For important updates, and access to more grape information (fruit school talks, fact sheet links, etc.), check out Jim’s blog. -JMO

<http://blogs.cornell.edu/hudsonvalleygrapes/>



**2014 Weather Table**—This chart is compiled using the data collected by Northeast Weather Association (NEWA) weather stations. 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.

<b>2014 Weekly and Seasonal Weather Information</b>						
	<b>Growing Degree Information Base 50<sup>o</sup> F</b>			<b>Rainfall Accumulations</b>		
<b>Site</b>	<b>2014 Weekly Total</b> 5/26-6/1	<b>2014 Season Total</b> 3/1 - 6/1	<b>2013 Total</b> 3/1 - 6/1	<b>2014 Weekly Rainfall</b> 5/26-6/1 (inches)	<b>2014 Season Rainfall</b> 3/1 - 6/1 (inches)	<b>2013 Total Rainfall</b> 3/1 - 6/1 (inches)
<b>Albany</b>	<b>95.0</b>	<b>383.7</b>	<b>406.0</b>	<b>0.11</b>	<b>7.39</b>	<b>11.51</b>
<b>Castleton</b>	<b>87.0</b>	<b>365.2</b>	<b>409.5</b>	<b>0.33</b>	<b>8.61</b>	<b>7.45</b>
<b>Clifton Park</b>	<b>89.5</b>	<b>345.3</b>	<b>382.4</b>	<b>0.55</b>	<b>8.95</b>	<b>13.87</b>
<b>Clintondale</b>	<b>103.0</b>	<b>433.0</b>	<b>452.4</b>	<b>0.16</b>	<b>10.18</b>	<b>6.84</b>
<b>Glens Falls</b>	<b>74.9</b>	<b>372.9</b>	<b>349.0</b>	<b>0.34</b>	<b>8.49</b>	<b>9.63</b>
<b>Guilderland</b>	<b>93.5</b>	<b>362.5</b>	<b>359.5</b>	<b>0.03</b>	<b>1.31</b>	<b>1.99</b>
<b>Highland</b>	<b>100.1</b>	<b>432.1</b>	<b>459.5</b>	<b>0.07</b>	<b>10.20</b>	<b>5.56</b>
<b>Hudson</b>	<b>98.2</b>	<b>413.1</b>	<b>404.9</b>	<b>0.16</b>	<b>8.60</b>	<b>7.87</b>
<b>Marlboro</b>	<b>97.6</b>	<b>384.6</b>	<b>422.6</b>	<b>0.10</b>	<b>11.50</b>	<b>6.79</b>
<b>Montgomery</b>	<b>89.7</b>	<b>395.2</b>	<b>396.5</b>	<b>0.11</b>	<b>12.05</b>	<b>8.06</b>
<b>Monticello</b>	<b>73.8</b>	<b>264.2</b>	<b>300.0</b>	<b>0.01</b>	<b>5.48</b>	<b>0.12</b>
<b>Peru</b>	<b>70.4</b>	<b>307.3</b>	<b>377.1</b>	<b>0.25</b>	<b>7.96</b>	<b>4.13</b>
<b>Shoreham, VT</b>	<b>71.5</b>	<b>314.8</b>	<b>392.8</b>	<b>0.40</b>	<b>7.54</b>	<b>8.26</b>
<b>Willsboro</b>	<b>66.7</b>	<b>284.4</b>	<b>351.2</b>	<b>0.03</b>	<b>4.14</b>	<b>7.30</b>

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.