Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

Vol. 2 Issue 4
July 17, 2015

Grapes News

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Phenology Updates

Hudson Valley	Champlain Valley
Bunch Closure	Approaching Bunch Closure

Bunch closure

Photos from Vineyard IPM Scouting Report, week of 5/3/10, University of Wisconsin Extension of Door County and Peninsular Agricultural Research Station, Sturgeon Bay, Wisconsin

Weather Update

	Rainfall (in)			Temperature (F)			
Weather Station	**May**	**June**	**July 1-10**	**June High**	**June Low**	**July 1-10 High**	**July 1-10 Low**
Chazy	2.72	7.44	0.63	81.6	38.4	81.8	54.7
Peru	1.69	8.31	1.15	80.7	38.2	83.2	54.4
Willsboro	3.41	9.17	2.21	82.1	39.8	81.6	51.5
Clifton Park	2.32	6.50	0.52	87.4	40.4	86.8	49.9
Hudson	1.77	6.85	0.96	87.9	41.3	85.4	54.2
Red Hook	1.86	6.62	1.28	87.1	38.3	85.5	52.1
Highland HVL	2.55	7.31	0.41	87.6	47.2	85.4	55.9

Pest Alerts

Black Rot is still a threat in some vineyards in both the Hudson Valley and the Champlain Valley. There has been a record amount of rain across Eastern NY. With all the wet weather, growers that may have missed or delayed a spray are seeing symptoms develop in their vineyard. Keep in mind though, that these symptoms are from previous infections, up to two weeks prior.
The DMI's (e.g. Rally, Mettle) will offer some reach back, while the strobilurins (e.g. Pristine, Flint), as well as Captan will offer forward protection.

Potato Leafhopper has been found in the vineyard at the Hudson Valley Research Lab, as well as in areas of the Finger Lakes. See the article in this newsletter from the FLGP program about potato leafhopper and control methods.

Japanese beetles have made their way into many vineyards in the Hudson Valley and are starting to make an appearance in the Champlain Valley. Growers should scout their vineyards for damage, and also pay close attention to new vines in grow tubes, as the beetles will congregate in there.

There are a number of products labeled for control, including Sevin, Danitol, and Assail. Rates can be found in the Cornell Grape Guidelines, as well as on the label. For resistance management, it is important to rotate chemistries.

Grape Berry Moth
In the Hudson Valley, second generation larvae are safely protected within the berries and completing their development. Currently, at the Hudson Valley Research Lab, degree day (DD) accumulations have reached 1098. Scouting for damage should start when DD accumulation reaches 1470-1620 DD.

In Willsboro, low and intermediate risk vineyards should be scouted for damage when DD accumulation after wild grape bloom reaches 750-800 DD. Currently, the default model, with wild grape bloom at 6/2/15 degree day accumulation has reached 750 DD.

Daily Degree Days for Highland HVL

Base Temp	Past	Past	Current	5-Day Forecast				Forecast Details
	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18
47.14F - GBM	25	28	28	28	28	NA	NA	NA
Accumulation	1041	1070	1098	1126	1153	NA	NA	NA

Daily Degree Days for WILLSBORO FARM LOGGER

Base Temp	Past	Past	Current	5-Day Forecast				Forecast Details
	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18
47.14F - GBM	25	28	27	26	21	17	21	24
Accumulation	696	723	750	777	798	814	835	859

Potato Leafhopper

By Hans Walter Peterson in Finger Lakes Vineyard Update July 2, 2015

This insect is starting to have a more significant presence in the Finger Lakes than it has in the past several years. We are seeing a number of our vines being affected by them at the Teaching Vineyard, and I have seen finding evidence of them in a number of other vineyards that I have been visiting over the past week or so. The leafhopper does not overwinter here, but arrives from the southeastern U.S. on weather fronts –which we have had a few of this year. Unlike the grape leafhopper that we are a bit more used to, potato leafhoppers have a wide range of host plants that they can live on, but I have been seeing more evidence of potato leafhopper presence in vineyards than I usually do.

Photo 1

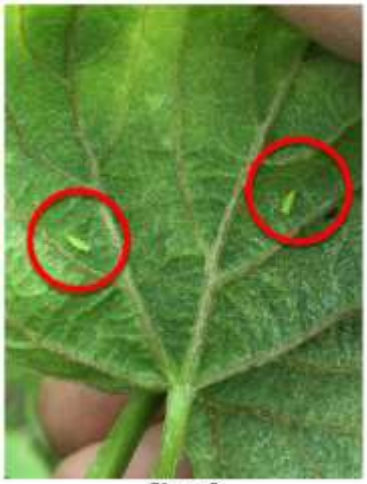

Photo 2

While symptoms can appear on any grape variety, all of our vinifera varieties and some hybrids, like Cayuga White, are particularly susceptible to damage from them. The leafhoppers tap into the phloem vessels of the plant, injecting their saliva in the process which causes the main symptoms of their feeding –yellowing leaves (beginning along the margins) that eventually start to cup downwards (Photo 1). Nymphs and adults are colored bright green, and can usually be found on the underside of the leaf (Photo 2). The nymphs are unable to fly, and move sideways when they are travelling across the leaf surface, which is another helpful ID tool (watch this 10 second video of a PLH nymph moving on a grape leaf on our YouTube page).

At high enough thresholds, PLH feeding can reduce vine growth and impact fruit ripening by reducing the photosynthetic capacity of the leaves. There is no specific economic threshold for potato leafhopper – the decision about whether to spray or not should depend on the age of the vine, the amount of damage being experienced, and the variety's susceptibility to damage. There are several options for control of PLH listed in the IPM Guidelines. Materials like Sevin, Danitol, Brigade and Baythroid are all effective options, but will only be effective on the foliage that they are applied to. New leaves that emerge after the application will need to be protected by subsequent sprays. A couple of neonicotinoid products, Assail and Provado, are labeled for leafhopper control in New York as well. These materials are absorbed into the leaves, providing a longer residual effect and are less susceptible to washing off.

For more information:

R. Isaacs and S. Van Timmeren. "Potato Leafhopper Control in Winegrapes." http://msue.anr.msu.edu/news/potato_leafhopper_control_in_winegrapes. Michigan State University. Posted June 8, 2010. Accessed July 1, 2015.

R. Isaacs, S. Van Timeren, P. Sabbatini and P. Murad. "Managing Potato Leafhopper in Wine Grapes." http://www.isaacslab.ent.msu.edu/Images/talks/Isaacs%20PLH%20GLExpo%20Winegrape%20session%202009%20for%20web.pdf. Accessed July 1, 2015.

Assessing the Nutrient Status of Cold-Hardy Wine Grapes (excerpt)

By: Carl Rosen and James Crants, University of Minnesota
This is an excerpt of the article from the February 2014 issue of NGP News You Can Use. You can access the full article by following this link: http://northerngrapesproject.org/wp-content/uploads/2014/02/2014FebruaryNGPnewsletter.pdf

Correctly assessing grapevine nutrient status is the essential first step in optimizing vine nutrition, which, in turn, is essential for producing a crop with high yield and quality. There are three general approaches to monitoring vine nutrient status: (1) diagnosing visible symptoms in the vines, (2) measuring soil nutrient concentrations, and (3) measuring tissue nutrient concentrations. An ideal nutrient monitoring program involves a combination of these three approaches.

Visual symptoms. The advantage of this approach is its low cost. However, the disadvantages of relying on visible symptoms alone greatly outweigh the advantage. Different deficiencies and toxicities may look alike or like problems unrelated to nutrient concentrations. Also, any visible nutrient stress means that yield and quality have likely already been negatively affected. Detecting problems before they occur will ensure healthier vines and better quality grapes.

Soil analysis. The second approach, soil analysis, is most important before the vineyard is planted. Soil testing several months to a year or more before planting is valuable in site selection. It also gives the grower a chance to amend and fertilize the soil properly before there are vine roots that can be damaged by soil disturbance. Testing well in advance of planting is especially important for amendments such as lime (to reduce soil acidity) that take months to have their full effect or for phosphorus and potassium, which are relatively immobile in the soil.

Tissue analysis. The third approach, tissue nutrient analysis, has been found to be a much better predictor of grape yield and quality and vine survival than soil analysis. Because it can diagnose nutrient problems before they produce symptoms, and because it provides information relevant to vine performance, tissue testing is an essential tool for assessing the nutrient status of established vineyards.

Standard practice is to determine petiole nutrient concentrations annually, but the optimum time of year to sample is debatable. Some authorities prefer veraison because tissue nutrient concentrations are stable then, and tissue concentrations of some nutrients like potassium may be more closely related to fruit characteristics at harvest. Others argue for sampling at bloom, when the leaf is more responsive to external nutrient supply and there is more time to take corrective action.

The use of petioles instead of whole leaves is also not without controversy. Use of petioles may not be the best practice for all growing regions. Researchers in the Pacific Northwest found that relying on petiole analysis led to over-application of nitrogen fertilizer in their region, while whole-leaf analysis did not have similar issues. It is generally agreed that consistency in sampling time and tissue is more important than the specific time or tissue. Regular testing not only helps in diagnosing problems early, it also makes it possible to tell whether any given result is an anomaly or something that should influence your fertilization program.

How to take petiole samples:

- Divide the vineyard area into separate sampling areas based on cropping history and soil type. If there are other major variations in the soil you believe to be important, those should also be used to divide up the vineyard area. No sampling area should be larger than 10 acres. In addition to dividing the vineyard based on soil series and history, the vines in one sampling unit should be of the same age, variety, and rootstock.

Continued on next page

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- For routine testing, collect samples at bloom or veraison – the times for which sufficiency ranges are established. Be consistent about the timing from year to year. If visible symptoms are showing, samples can be collected at any time of the growing season. In this case, send in petiole samples from vines showing symptoms and petioles of the same physiological age from vines not showing symptoms.
- Collect a representative sample of leaves – 1 to 2 per vine (not from the same shoot) for each sampling unit, from at least 25 vines, and collect a total of at least 50 leaves (more for smaller-leafed varieties like Marquette). Choose leaves from both sides of the row, as well as the canopy. Collect from vines in typical health; reserve atypical vines for separate analyses to diagnose problems.
- For sampling at full bloom (when 30 – 60% of the clusters are in flower), take leaves opposite the basal flower cluster of a shoot. For sampling at veraison (40 – 60% of clusters changing color), take the fifth, sixth, or seventh fully expanded (i.e., flat) leaf from the tip of an unpruned shoot.
- Separate the petioles from the blades and discard the blades.
- If the petioles are dusty or dirty, rinse them while fresh in distilled or deionized water. Do not let them soak, or nutrients will leach out. Dried petioles should not be washed.
- Place the petioles in a clean paper bag. Label the bag and note the sample label and a description of the area it represents for your own records.
- Dry the petioles at room temperature or send them to a laboratory immediately. Do not use plastic bags unless the samples have been previously dried.

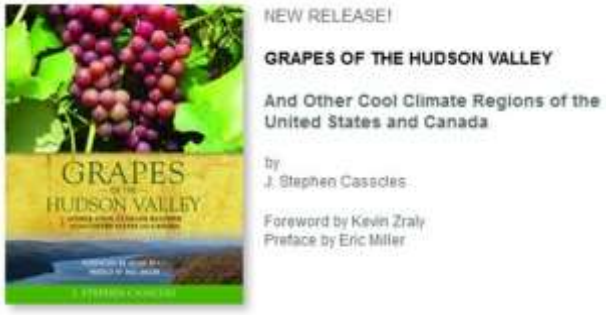
Canopy Management Workshop

Thanks to Hans Walter-Peterson of the Finger Lakes Grape Program for making a visit to the Hudson Valley. On July 7, 2015 Jim O'Connell of the Cornell Cooperative ENYCHP sponsored a workshop at Magnanini Winery in Wallkill, NY.

Hans, the guest speaker, talked about the importance of properly managing vine canopy through shoot thinning, combing, and leaf pulling. We had a good grower turnout. Rick Magnanini, owner of Magnanini Winery, was very hospitable, offering snacks and a place to relax after the workshop. At right, Hans talks about properly managing growth in native grapes such as Niagara.

New Book by Stephen Casscles on Cool Climate Grapes

Stephen Casscles, wine maker at Hudson Chatham Winery in Ghent, NY and grape grower since 1976 recently published a book. Titled, "Grapes of the Hudson Valley and other Cool Climate areas," and is available for $30.00 from Flint Mine Press.



From Stephen Casscles, "It is really a text book that covers 172 grape varieties. It is good for growers who want to know how to grow it, winemakers that want to make wine from it, wine consumers, and grape breeders. It is organized differently than other grape books. It is done by hybridizer and has their bios, and the goal of the hybridizer. So there are chapters on Baco, Seibel, Cornell varieties, Minnesota hybrids, and those developed in the Hudson Valley (a real lot of them). It is a field guide that is 230 pages."

Position Announcement

A viticulture educator position with CCE-Yates County and the FLGP has been posted as of July 9, 2015, and the FLGP program is now accepting applications. Applications must be submitted through the Taleo online system - hard copies mailed to the FLGP offices cannot be accepted. The position does require a bachelor's degree in viticulture, horticulture, plant sciences or a related field. Please feel free to distribute the link for the position to anybody you think might be a good candidate.

The application deadline is Thursday, July 30.

Link: https://cornellu.taleo.net/careersection/10163/jobdetail.ftl?job=28342

Calendar of Events

Tuesday, July 21st – Blueberry Variety Review Field Day, 3-5pm at Winney's Farm, 113 Winney Road, Schuyler-ville, NY 12871. Byron Winney has one of the largest plantings of blueberries in the state. Look at and taste more than a dozen different varieties and learn about winter hardiness, plant form, fruiting characteristics, plant longevity and pest tolerance first hand. There is no charge for this workshop, but please help us plan and register by calling Marcie at 518-272-4210. If you have questions, give Laura a call at 518-791-5038. The workshop is a rain or shine event.

Saturday, July 25th – The First Annual Eastern NY Equipment Demonstration Day: This Year's Focus: New and Innovative Cultivation Tools, 1:00—5:00 pm (rain or shine) at the Hudson Valley Farm Hub, 1875 Hurley Mountain Road, Hurley, NY 12443. Come and see some of the most innovative cultivation tools being produced by the world's leading manufacturers in action on a variety of vegetables and field crops! Find out if these tools are right for your operation before you purchase them. Not only will we be looking at these units for vegetables, but also field corn and soybeans- so there is something for everyone. There is no fee or registration for this meeting. Click here for full program details.

Monday, July 27th – Wash Station and Food Safety Workshop, 10:00am -2:00pm at Free Bird Farm, 497 Mckinley Rd. Palatine Bridge, NY 13428. Join the Eastern New York Commercial Vegetable Program and Robert Hadad from the Cornell Vegetable Program on Monday, July 27th to learn about the process of designing, building, and operating a small-scale, post-harvest handling system. This workshop will focus on proper washing and handling practices, as well as food safety. The wash system we will ex-amine is designed to work best for new and small growers. The workshop will start with a discussion and hands-on demonstration about designing and setting up your wash line, tables, and packing shed and will cover efficient stand-ard operating practices and a range of methods for washing produce. Dunking, spraying, and aerating will all be dis-cussed along with using organic sanitizers. The session will finish with an examination of clean-up procedures and post-harvest handling considerations, including re-cooling, packing, and storage. Cost for this program (includes lunch) is $10.00 for ENYCHP enrolled members and $15.00 for non-enrolled. Click here for full program details

Wednesday, August 19th— Limiting Bird Damage in Fruit: State-of-the-Art Pest Management Tactics (A Verte-brate Damage Management Workshop), 4H Training Center, 556 Middleline Rd, Ballston Spa, NY 12020. This com-prehensive class will feature results and speakers from a multi-year, multi-state project that looked at several different fruit crops. Registration details to follow.

Feel free to contact your local ENYCHP Grapes Specialist if you have any questions on your vineyard. We'd be happy to assist you in any way that we can.

North Country: *Anna Wallis at 443-421-7970 or email aew232@cornell.edu*

Hudson Valley: *Jim O'Connell at 845-691-7117 or email jmo98@cornell.edu.*