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Grapes News

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Phenology Updates

Hudson Valley: Bunch Closure to Veraison
North Country: Bunch Closure to Veraison

Before long, it will be time to harvest the grapes. I have visited some of your farms, but haven't had a chance yet to visit everyone. If I have missed you, please send me an email or give me a call. I want to get to meet you, see your operation, and discuss grapes. - *JMO*

Pest Updates

This time of year one of the most frequent questions I am asked by grape growers is how to manage birds. There are many factors that affect bird control (bird species, vineyard size, location, grape cultivars, etc.) and so it's not any easy question to answer. There are many products available; among them the most common are scare devices and netting. Ongoing research at Cornell continues to explore new approaches to managing birds (see article on the top of page 2). In the meantime, if you decide to go the "tried and true" route of netting, but loath the labor intensive process, read the article on the bottom of page 2 by Anna Wallis about a new tool for installing netting.

The other questions are usually about diseases. Downy mildew can still be a threat and growers should continue to treat as needed for this disease (see the previous newsletter for management options). However, at this time of the year much of the concern has shifted to fruit infections (e.g. botrytis). See page 5 for an article on Botrytis control . -*JMO*

Bunch closure

Veraison

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

Hudson Valley Grapes Program Blog

For important updates, and access to more grape information (fruit school talks, fact sheet links, etc.), check out Jim's blog: http://blogs.cornell.edu/hudsonvalleygrapes/

Inflatable Dancers Scare off Birds

By Keith Loria, posted Friday, Feb. 28, 2014 in Fruit Growers News, http://fruitgrowersnews.com

If there's one thing that can get under the skin of any farmer, it's a flock of birds swooping down to damage crops. According to the latest statistics, bird damage is responsible for hundreds of millions of dollars in lost income to orchards and vineyards.

Catherine Lindell, associate professor of zoology at Michigan State University, has been working on a USDA-funded study examining how birds damage fruit crops and strategies for discouraging them.

One test she is administering, with the help of farmers in Michigan, involves installing the gigantic, inflatable plastic characters often seen looming over automobile dealerships in farm fields to scare off birds.

These inflatables are called everything from "air rangers" to "scary dancers" to "tube men," but for the purpose of the study Lindell is calling them "inflatable dancers."

"These are upward of 15 feet tall, move randomly with arms flailing, come in multiple colors and have noisy fans – all attributes that scare birds away," Lindell said. "Our partners in the Pacific Northwest were finding success with this, so it looked like something worth looking into."

Pilot studies were done in Michigan and New York state, as Lindell reached out to Cornell University for help.

Heidi Henrichs, a graduate research assistant at Cornell University in the Department of Natural Resources, has been working on assessing bird damage to orchards across the country.

"Not only are we exploring things that are in use, but possibilities for the future," she said. "I was approached by Catherine and my background is in bird behavior, so I

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Bird Netting for Top Wire Cordon

Grapes in the North Country have started veraison. As the berries change color, we are not the only ones attracted to them—our avian friends are also quick to swoop in and damage the fruit. An effective control measure is covering vines with bird netting.

Bird netting was installed at the Willsboro Research Farm on August 2, 2014. With 8 people and an inexpensive homemade applicator, the 10 rows (250' each) were covered in just over 2 hours. The job could easily have been done with 3 or 4 people in 3 hours.

The applicator shown to the right was used to install netting. Designed by Richard Lamoy of Hid-In-Pines Vineyards, variations of this tool are used in many vineyards. The netting is fed through the top piece of plastic tubing and the longer piece is held at the far end and used to lift the bird netting over the trellis.

continued on next page

Homemade applicator, constructed from two pieces of plastic pipe. Netting is fed through the top end. The bottom of the longer pipe is held to lift the netting over the row.

Photo by Lindsey Pashow

Bird Netting for Top Wire Cordon, continued from previous page

Vines at Willsboro are trained to Top Wire Cordon. While other training systems may have a more suitable bird netting option (VSP in particular), this method of installing bird netting can be used in most vineyards:

- Lay the netting out between the rows. Either cut it the length of a row or snake it back and forth for each row. If you do decide to cut it, make sure not to stretch it out. Lie the netting gently on the ground and cut, maintaining enough length to wrap around the end posts.
- Starting at one end of a row, feed the netting through the applicator (shown below) and lift it above the top wire and vines.
- As the person holding up the bird netting walks down the row, two people should follow on each side pulling the netting down over the vines. It helps to have a fourth person who can feed the netting into the applicator.
- Secure the ends by twisting and then wrapping around the end post, close to ground level.
- Clip the netting together underneath the vines to prevent birds from entering from below.

Bird netting installed over vines trained to Top Wire Cordon at Willsboro planting.

Bird netting will be one of a number of topics covered at a workshop being held by Richard Lamoy at Hid-In-Pines Vineyard on Sunday, August 24 at 2:00PM. See page 11 for details.

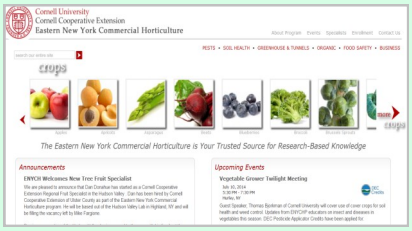
More information on materials available, associated costs, and bird netting for VSP is available in a presentation created by Alice Wise and Libby Tarleton of Suffolk County available online at http://www.pawinegrape.com/uploads/PDF%20files/Meeting%20Presentations/2013%20ipm/Tarleton_Bird%20Control%20In%20Vineyards%20PA%20IPM%20Mtg%202013.pdf *-AW*

Variation of applicator (left) used at Hid-In-Pines Vineyard and illustration of its use (above). *Photos by Richard Lamoy*

Eastern NY Commercial Horticulture Website

For on-line class registrations, announcements, older issues of our newsletters, and more, please visit the ENYCHP's website at http://enych.cce.cornell.edu/. We hope you bookmark it on your computer and begin using it as your 'go to' website for production and marketing information.

Email or call any of the educators with questions or comments on the website – we want to make it work for YOU!



Inflatable Dancers Scare off Birds, continued from page 2

thought this would be interesting because it's something that birds aren't used to and could work well."

When the study started in the summer of 2012, damage assessments were done on 24 vineyards in New York, and last year Henrichs chose four vineyards to be part of the inflatable dancer experiment.

"We wanted to find ones that weren't close to each other so the environments would be different, and also a factor that was important was to test a couple that were netted and a couple that were un-netted," she said. "We are still working on the statistical analysis from this past summer, and the only thing I can say is that I had some observations while in the field and I didn't see as many birds comparably as in other sights."

Based on preliminary findings, the Cornell study has decided to go forward with the experiment in 2014 and will add inflatable dancers to more vineyards.

"The reason they will be effective is that they are a novel object. It's not that they look anything like things threatening to birds, and there's no physical harm that's threatening, but the fact that they are randomly moving and they have these shiny colors seems to work," Henrichs said. "We also paired this with a study that moved the air dancers around the plot, to see if the birds would get used to them. We are still looking at those results."

Tom Macinski, owner of Standing Stone Vineyards in New York's Finger Lakes region, was one of the guinea pigs for the test, putting a large inflatable up near his Pinot Noir grapes.

"I have participated in the Cornell program in studying bird damage for the past few years, and this year they approached us about these inflatable 'scary dancers,' the same things you see in the car lots," he said. "From what I understand, they made some slight modifications to them, like making them shine more, and set it up for a month or so in my fields."

Macinski said that bird damage can be devastating to his land. Once, a group of starlings knocked out 6 to 8 tons of his Gewürztraminer grapes, causing nearly $88,000 in lost potential wine sales. He put up bird netting and tried other things, but found the inflatable dancers work better.

"My impression is that they worked very nicely," he said. "I thought it was surprisingly effective. We have a lot of bird pressure at this location and it's not limited to, but it's mostly, starlings. They flock up on the telephone wires and pick out what grapes they want to eat and just nail them. This seemed to limit that, and I am excited to try this again."

Steve Otto, owner of Valley View Farms in Bangor, Mich., which grows 70 acres of blueberries, calls the unusual scarecrows "air dancers." The inflatables were installed in three of his fields that have power, and in a few without power with the help of generators.

"I have to tell you, they worked really well with keeping the birds away," he said. "It moves are so erratic and are so unpredictable – especially on a medium fan – that the birds just don't like it. We'd turn these things on and the birds just went away."

The study lasted just one growing season, but Otto was so impressed with how they worked that he purchased four of his own and currently has them up and running.

"I don't know what effect they would have in the middle of a 15-acre field, but they are extremely effective on small fields," he said. "The birds just stay away from that dancing guy. They want nothing to do with him."

The cost of putting up an inflatable dancer is around $500 – not bad when you consider the money in lost crops you can save. So why isn't every farmer jumping on this craze? According to Henrichs, there are some challenges, the biggest of which is accessibility and the fact that they need to be operated using 120 volts.

"We were lucky because we found places with outlets and we could use extension cords, but we also needed to purchase small generators that could run in the field on gasoline," she said. "The best thing is you can use digital timers so the grower doesn't have to worry about turning them on and off."

The studies will continue this year, and Lindell thinks there is some definite promise to utilizing them.

"Some growers really think they are very effective, but that's true with a lot of different techniques," she said. "We did some comparisons of four blocks with and without dancers, and three of the four showed lower damage in the blocks with dancers. We think it's worth looking at in a larger manner next year."

For more information about Cornell's research on bird damage to fruit crops, check out a recent NY Berry News article available online at http://www.fruit.cornell.edu/nybn/newslettpdfs/2014/nybn1301.pdf.

Botrytis Control

By Wayne Wilcox & Alice Wise, in L.I. Fruit and Vegetable Update Issue No. 18, July 31, 2014

For a more complete discussion of Botrytis, see Wayne Wilcox's 2013 grape disease overview, posted at http://ccesuffolk.org/viticulture in the current events section. A botrycide at veraison is the single most effective timing in humid climates such as eastern North America. Serious losses in quality and quantity are the result of rapid spread as the berries become highly susceptible after veraison. A quick review of the options from Wilcox's write up:

1) Switch. Most of the international viticultural world has been using Switch, a mixture of cyprodinil (=Vangard) + a second active ingredient called fludioxonil, which has a wide spectrum of activity that includes Botrytis and a number of other fungi. This helps to limit the risk of resistance development and gives Switch some ability to reduce miscellaneous fungal infections that are sometimes associated with sour rot, although it will not affect what appear to be the primary causes of this disease. Unfortunately, use of Switch on Long Island is limited to onions and strawberries. This information is buried in the label, not even noted in the grape section. When in doubt, the NYSDEC list of registered pesticides can be checked to make sure products are labeled for grapes on LI.

2) Rovral. We all remember the resistance issues in years past. Bottom line is that Rovral should not be the workhorse of your program. However, if you've been giving it a rest, it may be a useful tool in a rotational program when used on a limited basis. Rovral is one material where the use of an adjuvant improves control. Stylet Oil (assuming proximity to sulfur sprays is not an issue) is a good choice. Standard nonionic or organosilicate surfactants are also beneficial.

3) Vangard. A consistent performer in Wilcox's trials, Vangard is absorbed into the berries, so it's largely rainfast and also has limited postinfection activity. There doesn't seem to be any data showing improved performance by adding an adjuvant. Vangard is highly prone to resistance development, so its use should be strictly minimized. The label allows a maximum of two applications per season, but keep it to a single spray each year unless you really get into a bind.

4) Scala. Same chemistry and mode of action as Vangard, the two have performed similarly in a limited number of head-to-head tests. Same resistance concerns, consequently, there is no benefit in "rotating" between the two in terms of resistance management. Thus, the seasonal limitation on the number of Vangard sprays noted above should be applied to the number of Vangard and/or Scala sprays (combined).

5) Elevate. Unrelated to any other on the market. Wilcox's results with it have been good to very good. Elevate is retained within the waxy cuticle of the berries, so it is rainfast within a few hours after its application (lab studies show 50% retention within 3 hr and 75% retention within 24 hr). Long sold as strictly a protectant fungicide, it does appear to reduce symptomless infections within the berries (post-infection activity) – see Wilcox's write up for details. There is a resistance risk, not as significant as that for Vangard, but real. The label allows a maximum of three applications per season, but European guidelines recommend just one, in rotation with unrelated materials.

6) Flint. Has provided very good to excellent control at 3 oz/A, versus 1.5 to 2 oz for PM. Limit strobie (which includes Pristine) use to a maximum of two applications per season, so if you're already there, this is not an option.

7) Pristine. Has provided good control at a rate of 12.5 oz/A in limited testing, and excellent control at 19 oz/A. Both the strobie and non-strobie component of this "combination product" have activity against Botrytis, so there is some resistance-management benefit to using it. Still not a preferred option if you've already used it or another strobie product twice earlier in the season.

8) Oxidate. Oxidate is formulated to stay on the outside of the waxy cuticle covering leaves and berries rather than enter them. In '06 trials on Chardonnay at LIHREC, it did indeed burn out Botrytis sporulation. However, since the fungus extends into the flesh of the berry, new sporulation reappeared within a week or so and infections progressed (this was in the absence of botrycides). The temporary reduction in sporulation may inhibit the spread of spores, particularly if repeat applications are used. This is purely a guess; however, if faced with difficult-to-control cluster rot, it may be worth a shot. Use of Oxidate in combination with or in addition to botrycides may be a better strategy but it is still unclear if the addition of Oxidate will enhance control. If possible, leave treated and untreated to gauge efficacy.

Final word: Cultural practices (canopy management, leaf pulling, thinning out clumps of clusters, moderate use of nitrogen) are critical components of Botrytis control programs. Botrycides will be minimally effective if cultural practices are not timely and well executed.

Managing Grape Berry Moth: From Calendar-based Sprays to Degree Day Models

By Tim Weigle, NYSIPM, LERGP Team Leader, from July 2014 issue of Finger Lakes Vineyard Notes, revised by Jim O'Connell, CCE ENYCHP, for ENY region

Grape berry moth (GBM) has long been the focus of research projects and extension programs. I have been working with grape berry moth since 1989, when I started in my current position. A written overview of grape berry moth can be found in Grapes 101 Grape Berry Moth Management in the April 2011 issue of Appellation Cornell at http://grapesandwine.cals.cornell.edu/appellation-cornell/issue-6/grapes-101-gbm.cfm.

With the introduction of the new GBM phenology-based DD model on NEWA it struck me that we have come a long way since 1989 where 2 to 3 insecticide applications were routinely made in Lake Erie vineyards each year. For those new to grape growing in the region or for those who like history, a bit of background in our battle against grape berry moth is in order. In the late 1980's, then grad student Chris Hoffmann and his advisor Dr. Tim Dennehy, Department of Entomology, NYSAES, Geneva developed the Grape Berry Moth Risk Assessment (GBM RA) protocol - http://ecommons.cornell.edu/bitstream/1813/5202/1/FLS-138.pdf. The protocol used the history of GBM damage, amount of snow cover and surrounding topography (wooded edges in particular) as a way to assign a risk category for the potential of economic damage from grape berry moth to each specific vineyard block.

The first GBM RA protocol implementation project started in 1990 with growers in the Lake Erie and Finger Lakes regions. After three years, this project helped to identify over 50% of the vineyards in the Lake Erie region that fell into the low risk category. These vineyards were able to reduce insecticide use over multiple years. This was down from a typical three insecticide program based on both phenology and calendar with sprays being applied at immediate prebloom, immediate postbloom and the last applied in the first week of August. Up to 1989, the timing of insecticides and fungicides were married to each other. This resulted in the timing not being perfect for the management of either disease or insect. The GBM risk assessment protocol was instrumental in assisting growers in determining the need to spray, as well as, the timing. Simultaneous research and implementation projects on disease management of powdery mildew, black rot, Phomopsis and downy mildew by Dr. Roger Pearson and others in the Department of Plant Pathology, NYSAES, Geneva and members of regional grape extension programs helped growers to understand the need to more accurately time their pesticide applications. Not only was there an overall reduction in insecticide use but some of those applications were made as spot treatments to only the edges of vineyards, equating to further reductions in insecticide use.

The GBM RA protocol worked well until the late 90's and early 2000's when there was a number of warmer than usual growing seasons combined with warmer than usual dormant seasons. This combination provided conditions that aided overwintering survivability (more GBM to start the season) as well as more heat units during the growing season to create more generations of GBM (the more heat units, the faster an insect moves through its development). In 1989, 2 - 3 generations per year was typical depending on how warm the growing season was. Three generations per year is now common and even a partial or full 4th generations on a more regular basis. Needless to say, the spray timings that were developed for 2 - 3 generations did not function well when a 4th generation occurred. This has led to more late season damage such as direct feeding on the berries, often leading to rejection at the processor in juice grapes. For winegrapes, GBM feeding by the larvae provides an entry wound, increasing susceptibility to botrytis and sour rot. This results in grapes being lost in the field or rejected by the winemaker.

In response to these problems, work done by a host of people – Saunders, Timer, Tobin and Muza from Penn State; Loeb, Hesler and Weigle from Cornell and Rufus Isaacs from Michigan State has resulted in a new Phenology-based, degree day model for predicting GBM development. The model uses wild grape bloom as the biofix to start accumulating Growing Degree Days to more accurately time insecticide applications against GBM. Saunders et.al. found that it takes 810 degree days (base temp 47.14 F) for GBM to go through a complete generation from egg to egg-laying. This information has been combined with the risk assessment and scouting protocols of the GBM risk assessment protocol. Research and extension staff have worked with the Network for Environment and Weather Applications (NEWA) to place this model on their website http://newa.cornell.edu/ to assist growers in accessing the best information to use in timing of scouting, and insecticide applications, for GBM. The research portion of developing this model has just been finished and the implementation phase is just starting with the release of the model for growers to use on a large scale in their vineyard operations. While the model worked well in small block research trials it still needs to be tested on a large scale as part of grower's vineyard IPM strategy. As more growers use the model and provide feedback on what works, and what doesn't, the model will be revised and improved in the years to come.

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Managing Grape Berry Moth, continued from previous page

Since we are still in the infancy of using the new GBM DD model there have been questions and concerns raised over how best to use the model. The Network for Environment and Weather Applications (NEWA) http://newa.cornell.edu/ has made accessing the model information very easy though their web pages.

Accessing the GBM DD model on NEWA

There are two simple ways of getting to the new grape berry moth model after getting to the web site. Follow the steps below.

Access the NEWA Home Page at: http://newa.cornell.edu/

On the NEWA Home page do one of the following:

1. Using the pull down menu under Pest Forecasts in the blue ribbon bar at the top of the page, choose grape forecast models OR
2. Click Station Pages in the blue bar at the top of the page OR
3. Using the map on the home page click on the station location you want weather info from.

Using option 1. Pest Forecast models, will bring you to the following page (Figure 1).

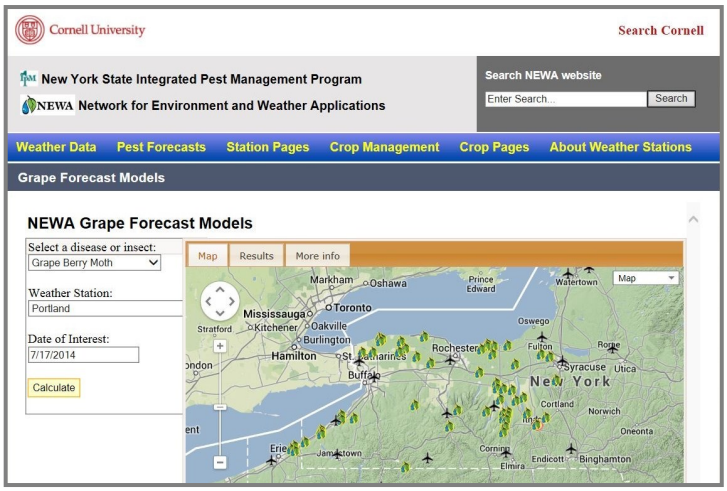

Figure 1

On the left hand side of the page there is a pull down menu to use in selecting a disease or insect. Click on the pull down menu and select **grape berry moth.**

Using the weather station pull down menu select the station you would like model information from.

Finally, select the date you are interested in. Typically you would type in the current date.

Hit calculate. A new screen will appear (Figure 2) which provides Degree Day accumulation calculated using the model at a base temperature of 47.14 F.

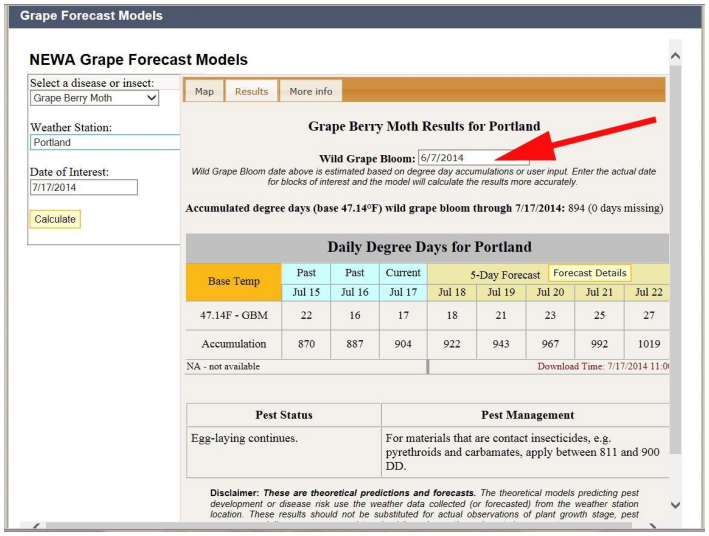

Figure 2

IMPORTANT: Wild grape bloom is used as the biofix (start date) for accumulation of degree days using this model. It is very important that you check your various vineyard blocks and note when wild grape bloom occurred AND put in the correct date using the box on the results page (Figure 2).

Clicking on the date will bring up a calendar that can be used to change the date or you can make changes directly to the date using your keyboard.

The other two options will get you to the same place, same results, just using different paths.

Option 2: Click Station Page in Blue Ribbon at Top of home page. This will take you to a page with a listing of stations on the left side of the page and a map of station locations on the right (Figure 3).

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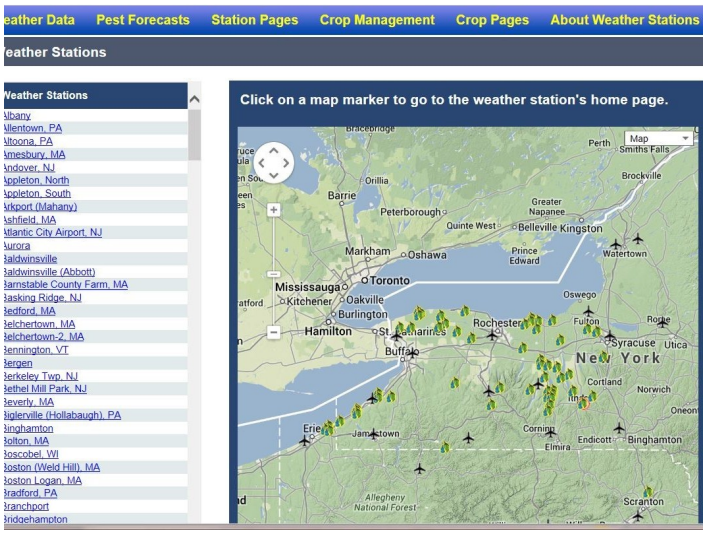

Figure 3

Managing Grape Berry Moth, continued from previous page

This is pretty straightforward. By clicking on a station listed on the left you will go to that stations page (Figure 4). Or you can get to the station page by clicking on the station location on the map.

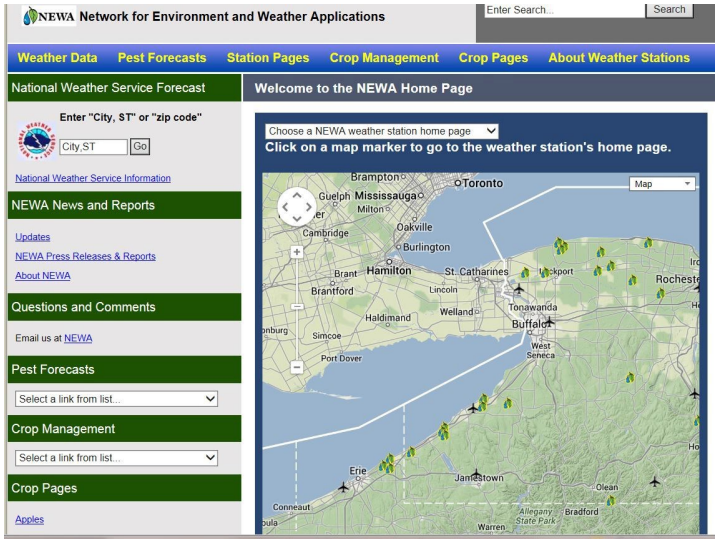

Figure 4

On the Stations page, choose the Grape Berry Moth link in the box titled Portland Pest Forecasts and you will be back at the results page (Figure 2).

Option 3: If you know where the station is located, you can use the map on the home page to quickly access the stations page. Click on the station location on the home page map – this is just another way to get to the stations page (Figure 4). Follow the directions above to get to the results page.

Once you are at the results page (Figure 2) you will notice that degree day accumulation is forecasted out for a period of 5 days using National Weather Service Forecasts. This should be a very helpful tool in planning any necessary GBM applications. At the bottom of the page there is a description of the Pest Status, as well as, guidelines on the need for any Pest Management practices for GBM.

Implementing the model

First and foremost, make a commitment to look at the model on a regular basis, determine when wild grape bloom occurs near your vineyard blocks, and follow through with the scouting and insecticide applications called for by the model. Keep in mind that the GBM model is designed to give you the ability to make a more informed decision with your GBM management practices. Your experience with your vineyard blocks will still play a key role in the successful implementation of model results.

Before accessing the model on NEWA, use the Grape Berry Moth Risk Assessment protocol, http://nysipm.cornell.edu/publications/grapeman/files/risk.pdf to develop a risk category for each of your vineyards. While the protocol timings for scouting and insecticide applications have been replaced by the new GBM model, the basic research and background in determining a vineyard's risk to grape berry moth damage is still sound. Use this risk classification to determine when scouting or insecticide applications would be called for. Using the GBM RA protocol, vineyards can be placed into three risk categories; high, low or intermediate.

The GBM RA protocol called for an automatic insecticide application (no scouting) for high and intermediate risk vineyards at 10-days post bloom. Research has shown that this timing did not significantly reduce GBM damage from later generations and is no longer being recommended *except* in severe risk vineyards experiencing significant crop loss on a yearly basis, or in high value vinifera blocks.

The model will help to time scouting and insecticide applications for the various risk categories as follows:

Severe Risk and High Value Vinifera
(Comparable to High risk using GBM RA Protocol)

- Immediate post bloom insecticide application.
- Second insecticide application timed at 810 – 910 DD, depending on insecticide used.
- Third insecticide application based on 15% damaged cluster threshold during scouting at 1470 – 1620 DD.
- Third insecticide application, if needed, timed at 1620 – 1720 depending on insecticide used.

High risk vineyards
(Comparable to Intermediate risk using GBM RA Protocol)

No immediate post bloom application.

- First insecticide application timed for the second generation at 810 – 910 DD depending on insecticide used.
- Second insecticide application based on 15% damaged cluster threshold during scouting at 1470 – 1620 DD.
- Second insecticide application, if needed, timed at 1620 – 1720 depending on insecticide used.

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Managing Grape Berry Moth, continued from previous page

Low risk vineyards

(Comparable to Low risk using GBM RA Protocol)

No automatic insecticide applications.

- First insecticide application based on 6% damaged cluster threshold during scouting at 750 - 800 DD.
- First insecticide application timed for the second generation at 810 – 910 DD depending on insecticide used.
- Second insecticide application based on 15% damaged cluster threshold during scouting at 1470 – 1620 DD.
- Second insecticide application, if needed, timed at 1620 – 1720 depending on insecticide used.

Intermediate risk vineyards

There are no longer intermediate risk vineyards with the new GBM DD model.

The team of researchers and extension staff are working on how to use the model for additional sprays later in the season. We continue to see late season damage coming in when the model, and research, calls for most pupae entering diapause (the overwintering stage) at 1700 DD.

The GBM DD model on NEWA should be routinely used to time scouting and spray applications for all vineyard blocks in your operation. Do not skip blocks because you have not had a problem in the past. This can result in feeling that grape berry moth came out of nowhere to become a problem across an entire vineyard block when in reality it has been building up over a number of years.

Because this model is still relatively new, I would suggest collecting as much information as possible through scouting during the suggested time frame. For example, at the Willsboro Experiment Station for August 18, 2014, the time for applying an insecticide for the second generation of grape berry moth is over. The Pest Management text on the model suggests that you now prepare to scout all vineyard blocks when DD accumulation reaches 1470 to 1620 DD, a range of 150 DD or a span of approximately 6 days if the highs are in the lower 80's and the lows in the mid 60's. Try scouting near 1470, as well as, 1620 to see what differences you find. This could be very beneficial in fine tuning how you use the model. Again, the model is only as good as the information you have when you are trying to use it, from when wild grape bloom occurred to whether a block reaches, or exceeds, the threshold for treatment using the model.

According to the data from the grape berry moth model on NEWA for August 18, 2014 at the Hudson Valley Lab, with the exception of extremely warm years, no further action is required for GBM management. Growing degree days have exceeded 1700 resulting in reduced egg laying and pupae entering diapause (overwintering stage).

The type of insecticide that is applied will determine when the application should take place. Materials that need to be ingested, i.e. Altacor, Belt and Intrepid (PA only), should be applied at 810 DD or 1620 DD to ensure the material is on prior to the peak of the flight. Insecticides which work by contact, i.e. Baythroid, Capture, and Mustang Max should be applied 7-14 days after the first application (depending on first material used and its longevity). This is to allow more of the population to be present, and exposed to the application, when it is applied. There are a number of materials that work by both ingestion and contact. Keep in mind that in order to maximize the effectiveness of the ingestion mode of action the material needs to be on prior to the larvae feeding and entering the berry.

If you have had trouble with grape berry moth in the past you can trouble shoot your management strategy by answering the following questions.

1. Am I using the GBM model on NEWA to time my applications? While this model is still relatively new and will continue to be updated, it will give you a better estimate of the proper timing than the old calendar based method. Use the model and change the date of wild grape bloom (the biofix date to start collecting DD for the model) to see how it affects the model results. Identifying a wild grape in your area and using it each year to determine the biofix will allow you to fine tune the model for your operation.

2. Am I scouting on a regular basis? Since the model is new, additional scouting may be required to determine if your spray timing was accurate. Bad surprises at harvest are often caused by making an insecticide application in July and not following it up with scouting and further treatment if necessary.

3. Are you using the correct materials? If you continue to have a problem with grape berry moth it may be that the insecticides you are using are not doing the job you want them to. Try a new insecticide. While it may be more expensive, if it works, it will pay for itself in cleaner fruit that stays on the vine to be harvested.

If you have tried all of these you might have what is considered to be a severe high risk vineyard. In these cases it might be helpful to apply a different approach of

continued on next page

Managing Grape Berry Moth, continued from previous page

bracketing sprays around each generation. Apply a material that needs to ingested at the beginning of the generation (810 DD or 1620 DD) followed by a contact insecticide 7 – 14 days later (spray interval will depend on the first insecticide). This strategy will not be necessary in the majority of vineyard blocks.

Feel free to contact your local ENYCHP Grapes Specialist to discuss the pros and cons of this strategy before implementing it, or to discuss where your program might be weak, or if you have any questions on your vineyard IPM practices. We would be happy to assist you in developing a program to address any pest problem.

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.

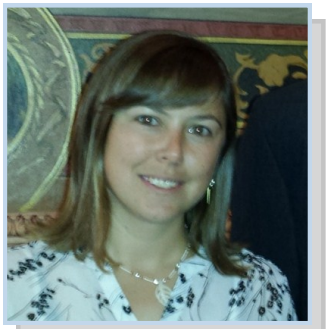
Eastern NY Educator Wins National Extension Award

Crystal Stewart, Cornell Cooperative Extension Regional Agriculture Specialist with the Eastern NY Commercial Horticulture Program, was awarded an Achievement Award at the Annual Meeting of the National Association of County Agricultural Agents (NACAA) held in Mobile, Alabama on July 22nd, 2014.

The Achievement Award is presented to those agricultural agents that have been working in their field for less than 10 years but in that short time have made significant contributions to their profession.

Crystal was supported in her nomination by the Garlic Seed Foundation for her work on behalf of garlic growers in this state and nationwide. She played a key role in the recent work on garlic bloat nematode and has initiated additional garlic research studying weed control, post-harvest handling and plant fertility. Crystal is including the results of this work into a new garlic chapter that will be incorporated in the 2015 Cornell Guidelines for Vegetable Crops.

Crystal was also supported by the Cornell Small Farms Program, specifically for her efforts on the Beginning Farmer Online Course leadership team. She has been instrumental in leading that effort and has taught and/or assisted on 4 different courses. Crystal continues to be the point person for beginning farmers in the eastern region.



Crystal has not confined her extension program delivery to just technology driven methods. One of her finest achievements lies in the success she has had with the Amish and Mennonite communities in the Mohawk Valley. These growers have come to rely on Crystal's expertise and energy as they improve their skills producing high value crops.

Crystal was recognized by co-workers and farmers alike as having 'the rare combination of content knowledge, teaching skills, passion, wit, and humility' that make her such a valuable resource to Eastern NY farmers. Please congratulate Crystal when you see her!

Enology Planning Session

September 5, 2014 at 1:30 pm

Hudson Valley Lab, 3357 Route 9W Highland, NY 12528

If you are a wine maker or if you grow grapes to make wine, Anna Katharine Mansfield and Chris Gerling would like to hear from you. Come to the Hudson Valley Lab on September 5 2014 at 1:30 pm for a planning session, where you can discuss Hudson Valley industry needs and priorities with Anna Katharine and Chris. Anna Katharine Mansfield is an assistant professor of enology and Chris Gerling is an extension associate for enology at Cornell's New York State Agricultural Experiment Station (NYSAES) in Geneva, NY. The Cornell Enology Extension Lab is focused on providing educational offerings and applied research that enable New York wineries to optimize wine quality and production efficiency.

This event is free, but we ask that you pre-register by August 29 so we know how many people to expect. For more information and to pre-register please contact Jim O'Connell via email at jmo98@cornell.edu or phone at 845-943-9814.

Champlain Summer Vineyard Workshop

Sunday, August 24, 2014 at 2:00 pm

Hid-In-Pines Vineyard, 456 Soper Street, Morrisonville, NY 12962 (click here for map)

Richard Lamoy along with the Lake Champlain Grape Growers Association is pleased to announce a summer workshop which will cover late summer pruning, leaf pulling, training and tying of grape vines along with netting and bird protection. This session will also cover Richard's NE SARE Grant FNE14-806 - ***Cold climate grapes: Determining an appropriate training system for improved yield.*** All those interested in any of these subjects are welcome to attend.

"Richard Lamoy managed the Willsboro grape variety trial for several years, and has received funding from the Northeastern Sustainable Agriculture Research and Extension Program's Producer grant program to investigate training systems at his farm. Should be well worth your while." *–Tim Martinson, Northern NY Grape Management Update*

No pre-registration is required but please RSVP so we can get a head count. For more information or to RSVP contact Richard Lamoy at 518-643-0006 or cell 518-570-6925, or via email at richl@hipvineyard.com.

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.

2014 Weekly and Seasonal Weather Information

	Growing Degree Information Base 50^{O} F			Rainfall Accumulations		
Site	**2014 Weekly Total** 8/11– 8/17	**2014 Season Total** 3/1 - 8/17	**2013 Season Total** 3/1 - 8/17	**2014 Weekly Rainfall** 8/11– 8/17 (inches)	**2014 Season Rainfall** 3/1 - 8/17 (inches)	**2013 Total Rainfall** 3/1 - 8/17 (inches)
Albany	**118.3**	**1984.1**	**1981.0**	**0.22**	**7.39**	**26.00**
Castleton	**110.7**	**1870.7**	**1979.0**	**0.15**	**8.61**	**23.41**
Clifton Park	**102.9**	**1798.9**	**1871.4**	**0.73**	**9.26**	**26.88**
Glens Falls	**106.0**	**1779.3**	**1714.0**	**0.59**	**10.94**	**21.63**
Guilderland	**101.5**	**1811.5**	**1889.5**	**N/A**	**N/A**	**N/A**
Highland	**125.8**	**1994.8**	**2111.8**	**0.19**	**11.61**	**23.89**
Hudson	**116.5**	**2000.1**	**2080.5**	**0.29**	**9.83**	**20.64**
Marlboro	**116.9**	**1915.8**	**2039.9**	**0.68**	**12.78**	**26.93**
Montgomery	**117.5**	**1948.3**	**2001.5**	**0.83**	**14.46**	**25.72**
Monticello	**84.6**	**1531.2**	**1597.5**	**N/A**	**N/A**	**N/A**
Peru	**104.1**	**1698.8**	**1741.8**	**2.02**	**10.13**	**18.68**
Shoreham, VT	**107.1**	**1778.6**	**1860.8**	**1.18**	**9.22**	**20.24**
Wilsboro	**104.2**	**1637.3**	**1710.9**	**N/A**	**N/A**	**22.00**