

New England Grape Notes

May 15, 2009, Vol. 4, No. 4



General Info - there are some excellent meetings coming up at the end of May and beginning of June. Check the listing at the end of this newsletter for details. Please plan to attend!!

Grape Phenology:

For reference to bud stages in grapes, consult the following Michigan phenology tables:

Concord- <http://web1.msue.msu.edu/fruit/concrgdw.htm>

Chardonnay- <http://web1.msue.msu.edu/fruit/chargrw.htm>

This will help guide your pest management decisions.

Frost/Freeze Warnings:

Many vineyards are still vulnerable to potential damage from frost or freeze events. For good forecast information for MA, you can go to http://weather.noaa.gov/weather/MA_cc_us.html and select your town to see if there is a frost warning posted. If you live in another state, you can go to that state from the same site and then select your town.

Vermont:

A new web section has been added to the Cold Climate Grape Production website -- the **UVM Vineyard** (<http://pss.uvm.edu/grape/UVMvineyard/UVMvineyardhome.html>) which currently includes vine phenology of the 8 winegrape and 8 table grape varieties in the vineyard and pictures of bud development as of May 13, 2009. In the near future, it will include a 'blog' of observations from the vineyard.

Reports from the Field:

Location	Varieties/Growth Stage	Observations
Winchester, CT	Marquette : about 3-5 inches of growth Cayuga White : full bud swell Cab. Franc : 1 inch growth	No disease or insect pressure. I've done one spray thus far. Some winter damage.
Lisbon, CT	Cayuga White : bud burst Rubiana : bud burst Vignoles : bud burst	Some older mature vines, some 3-yr old and some planted this year. 8 acres total.
Rhode Island	La Crescent : 7 inches St. Croix : 1 inch Cayuga White : less than 1 inch Chardonnay : 2 inches Merlot, Lemberger, Cab Franc : 1 inch	
Warren MA	Frontenac : 6 inches Marquette : 6 inches St. Croix : 1-3 inches	Young vines, suffered some deer browsing and Japanese beetle damage last year, looking good this year.

Disease Management:

Disease model results from CT weather stations can be viewed at

<http://www.ct.gov/caes/cwp/view.asp?a=2831&q=439684>

Reprinted below is an article from 2008 from Maryland; another synopsis of early season disease management. For new growers, having multiple perspectives can be very helpful in designing an effective program in their vineyards. Following is an article from Michigan that reviews some alternatives for commonly used fungicide materials that are less available in the marketplace this year, for a variety of reasons.

Early-Season Disease Management

Anne DeMarsay, Ph.D., University of Maryland Cooperative Extension

Growers should apply a series of protectant fungicide sprays to new shoots to protect them from several diseases, beginning shortly after budbreak. Maryland growers may refer to Extension Fact Sheet 848, Guidelines for Developing an Effective Fungicide Spray Program for Wine Grapes in Maryland, 2008, for specific management recommendations.

1/2- to 1-inch Shoots

- **Phomopsis cane and leaf spot** is usually the earliest disease threat. Spores can germinate as soon as temperatures are above freezing, so include protection in your first shoot spray. Cool, rainy weather favors spore production and shoot and leaf infection.
- **Powdery mildew (PM)**. In Maryland, the ascospores that cause primary infections on shoots and rachises may be present as soon as budbreak, so include a PM fungicide in your first shoot spray. Temperatures above 59° F, high humidity, and overcast skies favor infection. Protecting new growth from primary infections on shoots and rachises is the key to preventing later fruit infections.
- **Black rot (BR)**. You may want to include BR protection in the first spray in warmer parts of the state, particularly in wet weather and in vineyards that had high levels of disease last year. Leaf infections may occur at temperatures as low as 50° F if leaves remain wet for 24 hours or longer. The warmer the temperature, the shorter the leaf wetness period needed for infection.

3- to 5-inch Shoots

- Continue protection for **Phomopsis** and **PM**. Begin protection for **BR** if you didn't do so at the first shoot spray. Preventing leaf lesions reduces BR inoculum for fruit infections.
- Make your second shoot spray 7–10 days after the first spray. Use a 7-day interval if you are applying sulfur for PM, if 2 or more inches of rain have fallen since the first spray, or if shoots are growing rapidly. Fungicides must be re-applied as new growth occurs, as they do not move systemically to protect it.
- If rain is predicted between 7 and 10 days after the first spray, make the second spray before the rain. To be effective, protectant fungicides must be on the shoots and leaves before spores arrive.

6- to 10-inch Shoots

- Continue protection for **Phomopsis**, **PM**, and **BR**. Make your third spray 7–10 days after the second spray. See the note on intervals under the previous spray.
- If you are using a fungicide that is at high or medium risk of resistance development, remember to rotate to a fungicide with a different mode of action after each spray. Limit total applications of these fungicides to no more than 2 per season. See Table 2 of Fact Sheet 848 for more information on fungicide classes and resistance risks.
- Protection against **downy mildew (DM)** may be warranted in warm, wet years once 5 or 6 leaves have emerged on the shoot, though generally no earlier than mid-May. If you are using mancozeb or captan for **Phomopsis** and **BR**, they will protect shoots against **DM** as well.

12- to 17-inch Shoots

- **If you have been spraying at 10-day intervals** and your vines are approaching bloom, make sure you include DM protection in this spray. Add a fungicide for Botrytis blight for Botrytis-prone varieties or if the weather is consistently wet.
- **If you have been spraying at 7-day intervals**, make one more shoot spray for Phomopsis, PM, and BR. Make sure to include DM protection in this spray. If you have been using paraffinic oil (JMS Stylet-Oil or Pure-Spray) for PM, switch to another fungicide after the last shoot spray. Later in the season, oil can slow growth and retard fruit ripening.
- Remember to increase spray volume as the canopy fills out to ensure thorough coverage.

(Source: Maryland Timely Viticulture, May 2008)

Alternatives to EBDC Fungicides in Grapes

Annemiek Schilder, Michigan State Univ.

Fungicide supplies are tightening due to increased demand for fungicides in the United States and other countries. In addition, a plant that produced Dithane was shut down by Dow AgroSciences and the supply of the fungicide Pristine has also been reduced by BASF. In addition, rising fossil fuel costs have increased the cost of producing fungicides. The shortage may already be noticeable as fungicides are harder to obtain and also more expensive. Unfortunately, these developments will definitely affect fungicide choices for grape growers. Alternatives to Dithane are Penncozeb, Manzate, Ziram, and Captan. All of these are broad spectrum fungicides that have more or less the same spectrum of activity against grape diseases, including Phomopsis cane and leaf spot, black rot, and downy mildew. I would expect Penncozeb and Manzate to be similar to Dithane. Ziram is rated as moderately good against Phomopsis, black rot, and downy mildew. Captan is rated as very good against downy mildew, moderately good against Phomopsis cane and leaf spot and moderate against black rot.

Whereas Captan was not allowed to be used on juice grapes grown for Welch's previously, the National Grape Cooperative has now approved use of Captan before bloom on juice grapes to ease any fungicide shortage that growers may be experiencing. Wine grape growers do not have any restrictions on Captan other than what the label indicates. Growers will

have to decide what the most cost-effective fungicide options are this growing season. As far as Captan is concerned, there are several formulations available, including Captan 50 WP and Captan 80 WDG. Our experience in blueberries is that the 80WDG formulation is easier to work with and works as well as or better than the 50 WP formulation. The label for Captan 80WDG for instance, suggests a use rate of 1.25-2.5 lb in 20-200 gallons of water per acre. Captan may be applied up to the day of harvest. However, the REI is 72 hours.

Another good option for early-season disease control is phosphorous acids, such as ProPhyt and Phostrol. These fungicides have good to excellent activity against Phomopsis and downy mildew and are moderately good against black rot: three pt per acre is a good rate for effective disease control. Advantages of phosphorous acids are that they are systemic and therefore rainfast once dry, and they are relatively inexpensive. For the past five years, phosphorous acids have shown good efficacy against Phomopsis and downy mildew in small plot field trials in vineyards in Michigan. Phosphorous acids can also be used to tankmix with a half rate of Dithane or Ziram. This way, the amount and cost of these products can be reduced.

(Source: Michigan State Univ. Crop Advisory Team Alert, Vol. 24, No. 5, May 12, 2009)

Insect Management: Below is another reprinted article from last season. The information is still timely and relevant although specific insecticide recommendations should be checked for current registrations and formulations. If you're not sure, refer to the New England Small Fruit Pest Management Guide or NY/PA Pest Management Guidelines for Grapes, or send me an email and I'll look into it for you. If you don't have grape berry moth traps out yet, order them and put them out as soon as possible. One source for traps is [Great Lakes IPM](#).

Early-season grape berry moth management

Rufus Isaacs, Michigan State University

In recent years, some vineyards across southwest Michigan have experienced significant pressure from grape berry moth (GBM), a pest with multiple generations through the season. This year as growers aim to trim costs, it will be important to focus insecticides where they are needed most. Pheromone monitoring traps have shown that the first generation of berry moths started flying in early May, but weekly scouting has detected no egg laying or larvae yet. Moths caught in the traps are males, but the female moths lay eggs and egg laying doesn't start until around the time of bloom. This point is backed up by the research data presented below.

Over the past three years, our research has tracked the dates of important development stages in the first generation of GBM in a number of commercial vineyards. As shown in the accompanying figure, there is a long time between the first moth and the first eggs laid or the peak eggs laid. The graph also shows the average date of bloom in these vineyards. Looking across the graph, it is clear that egg laying in this pest typically coincides with bloom, and peak egg laying coincides with the 10-day post bloom timing of many pesticide applications.

Treatments applied earlier than the post-bloom timing can be washed off or degrade before most of the egg laying and are unlikely to protect the clusters from feeding by berry moth larvae. Because of this, insecticides to control the first generation of berry moth are typically timed for the 10-day post-bloom timing, and the accompanying figure shows why this timing is effective. If growers are aiming to reduce costs, scouting clusters just after bloom can be used to determine the level of infestation by this pest and whether an insecticide is warranted at the post-bloom timing (see photo). Although there is no formal threshold developed for first generation berry moth, if only a small proportion of clusters have larvae or if the level of feeding is low, there will be minimal effect on yield. Since clusters set only about a third of the potential berries produced, clusters can withstand some feeding and this is worth considering when weighing up the cost of a spray.

If a spray is required, an insecticide targeting the first generation can help reduce pest pressure later in the year. When selecting an insecticide, there are many options for control. Some of these are selective for this pest, while others will also provide control of leafhoppers, rose chafer and other insects that can occur at bloom. The organophosphate Imidan, carbamates Sevin and Lannate, and pyrethroids Danitol and Capture are all highly effective against GBM. Some regions of southwest Michigan have leafhopper populations with resistance to carbamates, so Sevin and Lannate should be avoided in those regions if leafhopper control is needed. Capture is a relatively new insecticide with an annual limit of 6.4 oz/acre. MSU research trials have found excellent activity of this product at 3.2 oz, leaving the option of a later-season use of this product if a 3.2 oz rate is used after bloom.

In the selective insecticide group, Intrepid 2F is an effective insecticide for control of GBM. This works on

the molting system of the larvae, disrupting normal development, and trials at 8 and 12 oz/acre have provided control of first generation berry moth. Another selective insecticide to consider is B.t. (Dipel, Javelin, Deliver etc.), which only targets the larvae of berry moth. Both of these selective insecticides need to be eaten to be effective, so their activity is greatest when temperatures are above 70°F. Intrepid is highly water-resistant providing 10-14 days of activity, whereas B.t. formulations degrade under ultraviolet light, providing three to five days of activity. When applying any insecticides to control grape berry moth, target sprays at the clusters to maximum control. The take-home message for berry moth management is to scout clusters regularly from just before bloom onwards to understand where the pest pressure is greatest. This will also provide information on when the pest is developing and will allow management costs to be focused at times when it makes economic sense. (*Source: MSU Fruit Crop Advisory Team Alert, Vol. 20, No. 7, May 24, 2005*)

Other Issues:

Weather data: compiled from various sources up to 5/8/09

Region/Location	2009 Growing Degree Days		Precipitation 1-week gain
	1-week gain	total accumulation for 2009	
Cape Cod, MA	46	178	2.25
Southeast MA	43	200	2.20
East MA	49	205	1.42
Metro West (Waltham) MA	--	--	--
Metro West (Hopkinton) MA	71	243	1.92
Central MA	57	191	2.16
Pioneer Valley MA	56	244	1.84
Belchertown MA		214	1.08
Deerfield, MA			0.50
Berkshires MA	54	239	1.78
South Hampton, NH (as of 4/30)			
Riverhead, NY			
Lockwood CT			0.40
Windsor CT			0.29
Griswold CT			0.44
Newport CT			0.32
Colchester CT			0.54

Meetings:

The Vermont Grape and Wine Council is Sponsoring a Conference on May 20 - The Vermont Grape and Wine Council has posted the Agenda and the Registration Form for their First Annual Conference on their website at: <http://www.vermontgrapeandwinecouncil.com/>. The Conference will be held at The Three Stallion Inn in Randolph, VT, on May 20. Directions to the Inn can be found at: <http://www.3stallioninn.com/directions.htm>. It should be a very interesting and informative conference ! Dr. Anna Katharine Mansfield of Cornell University is a featured speaker. There will also be a grower/winemaker panel and a wine tasting. Seating at the Inn is limited and registrations will be accepted on a "first-received" basis. Deadline for discounted registration is May 6. Please see registration form for details.

Massachusetts Farm Winery and Growers Association Summer Marketing Conference on June 2 - Reserve the date and plan to attend our first mid-year marketing conference. We've got another great opportunity to network with your colleagues, listen to some great speakers, help plan and improve Massachusetts wine trails, and gain some new marketing insights. Tuesday, June 2, 2009 9 am – 2 pm Hopkinton Country Club 204 Saddle Hill Rd. Hopkinton, MA. Please Contact John Commando to register at johnc@needhamgroup.com

Coastal Wine Trail Kick-off - June 7, 2009, 1pm-3pm, The second annual Coastal Wine Trail Kick-off will take place at Sakonnet Vineyards, Little Compton, RI. All members of the Coastal Wine Trail will be represented offering tastings of their locally grown and produced wines. Local farmers, cheese makers and more will hand out delicious samples for guests to taste. This walk around sampling will take place under a tent, rain or shine. Enjoy the pristine grounds while experiencing the best of what Southern New England has to offer.

Advance registration is required. Tickets will be available through our online store at sakonnetwine.com. For more information please call 800-998-8486 ext. 116 or email sakonnetri@aol.com

FYI - check out the newly formed [Massachusetts Farm Winery and Growers Association](#) and [New Hampshire Winery Association](#) and the [Vermont Grape and Wine Council](#). These associations are of, by and for you! Join today!!

For Massachusetts residents, check out the new [Massachusetts "Aq Tag" license](#) plate. Each purchase can yield \$15 for the Massachusetts Farm Winery and Grower's Association through a check-off plus pooled funds available for various programs or competitive grants. Get yours today!

*This message is compiled by Sonia Schloemann from information collected by:
Arthur Tuttle, Dan Cooley, Hilary Sandler, Bill Coli and students from the University of Massachusetts
and Richard Kiyomoto from the University of Connecticut. We are very grateful for the collaboration with UConn.*

We also acknowledge the excellent resources of [Michigan State University](#), Cornell Cooperative Extension of Suffolk County, and the [University of Vermont Cold Climate Viticulture Program](#). See the links below for additional seasonal reports:

[University of Vermont's Cold Climate Grape Growers' Newsletter](#)
[UConn Grape IPM Scouting Report](#)

Support for this work comes from [UMass Extension](#), the [UMass Agricultural Experiment Station](#), [University of Connecticut Cooperative Extension](#), [USDA-CSREES](#).