



## VITICULTURE NOTES .....Supplement... (May 2013)

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<http://www.arec.vaes.vt.edu/olson-h-smith/grapes/viticulture/index.html>

### I. Current situation

Guess we're not quite out of the woods with regards to potential for spring frost. The following, (edited) message was issued by Dave Tolleris ([www.WxRisk.com](http://www.WxRisk.com)) at his Facebook website (WxRisk). I've watched Dave's forecasts over the past couple of years and his advisories for frost and other significant weather events have often been pretty close to the mark for us here at Winchester. Weather Channel is predicting low of 36F for Winchester on morning of 14 May, while Weather Underground is showing 32F, and the National Weather Service is forecasting 39F for same time; however, those forecast lows for Tuesday morning have been moving up and down a few degrees even within the past 12 hours. Dave's advisory is similar to Wunderground's on this event and does suggest the potential for frost damage, particularly for low-lying areas in the northern Shenandoah Valley. If you are located in the western portions of the state or in the northern Shenandoah Valley, you may want to carefully watch updated weather forecasts for early Tuesday morning and, if available, consider active frost protective measures. Unfortunately, even our late-budding varieties such as Cabernet Sauvignon are out an inch or so here in Frederick County.

Tolleris's full message reads:

VA and MD VINEYARDS ... POTENTIAL for FROST/ FREEZE CONDITIONS MORNING OF MAY 14.... FOR the ENTIRE SHENANDOAH VALLEY, ALL OF SW VA EAST OF I-81....ALL OF CENTRAL and EASTERN WVA, ALL OF MD WEST OF HAGERSTOWN....

As you may know a strong cold front is going to sweep through the East Coast on Saturday afternoon evening. Behind the front a late season cold air mass will be moving through the Midwest over the weekend and settle over the East Coast next Monday and Tuesday May 13 and May 14. The high resolution European (forecast) model is forecasting temperatures over these areas on Tuesday morning to drop below 32° for several hours. (the following website are the low temps forecast for the morning of 14 May):

<http://mysite.verizon.net/vze1aqbof/sitebuildercontent/sitebuilderpictures/may14min.jpg>

IF ...IF... the winds drop off and the European model is correct... and IF the cold air mass is as impressive as it is currently being depicted... some of these areas will experience HARD FROST or even a FREEZE. AT THIS TIME I am NOT.... NOT... categorically forecasting a HARD FROST or FREEZE for the morning of MAY 14. It is possible the winds may stay up just enough to prevent a FREEZE or that the cold air mass may NOT come through with the same depth as the weather models are currently depicting. But the potential is clearly there... and if you are running an agricultural concern and especially a vineyard... you need to be aware this.

## II. Periodical cicadas:

Major emergences of periodical or 17-year cicadas (Figure 2) will occur in Virginia's Piedmont in 2013. The following factsheet provides an overview of the insect's biology and provides a map of brood emergence:

<http://pubs.ext.vt.edu/444/444-276/444-276.html>

**Biology** (previously contributed by Doug Pfeiffer): Periodical cicada spends most of its life as a nymph, feeding on xylem sap from tree roots. In the final year of development, nymphs crawl from the soil, climbing tree trunks or any other structure. During the night, the nymphal skin splits along the midline, and the adult emerges. Adults appear in mid- to late-May (a few individuals may be heard as early as late-April). They appear around sunset, males slightly preceding females. Males congregate *en masse* in "chorusing centers". Singing peaks around 10:00 AM. Adults feed on a wide range of woody plants during the day; such feeding is apparently restricted to the females because the male digestive tract is rudimentary. Egg-laying begins about 2 weeks after emergence. Eggs are inserted into twigs in groups of 10-25; the slit into which the eggs are inserted is 1-4 inches (2.5-10 cm) long. Females may lay over 500 eggs. Oviposition peaks in the early afternoon. Adults are active for about 6 weeks. Eggs hatch 6-10 weeks after oviposition, whereupon nymphs leave the twigs and drop to the soil. Nymphs tunnel to the roots where they establish themselves for feeding.

What threat do cicadas pose to grapevines? If you're new to grape growing since the last emergence of periodical cicada's you may think that the insects are causing significant damage, and your immediate reaction will be to ask what insecticide might be sprayed to keep the insects off your grapevines. While that's an understandable reaction, my advice (TKW) would be to find something else to do and not worry too much about what the insects are doing. You are going to see shoot breakage and you may want to defer trunk and cordon establishment on young vines until next year, but grapevines are pretty resilient. Injury by egg-laying is a much greater problem than feeding is, but it's helpful to realize that the egg-laying (ovipositioning) on mature grapevines is not as detrimental as it can be for young fruit trees or woody landscape materials, which you may wish to protect. The cicadas will deposit eggs in grape shoots and smaller cordons of the vine. Unsupported shoots often break beyond the point of egg-laying, but because this occurs relatively early in the growing season (June), lateral re-growth will normally compensate for the loss of a primary shoot tip. In older wood, the oviposition site typically heals.

Insecticidal control of cicadas is not very practical because of the extended period of emergence and activity (up to 6 weeks) and because insecticides would have to be applied very frequently to come in contact with newly emerging insects. Fine netting is an option mentioned in the above-cited Factsheet, but the economics of this approach with grapevines is questionable. Young (first-year) vines are a special consideration in that one is attempting to produce shoots to serve as trunks in the following year. One potential means of protecting the shoots would be the use of grow tubes, which would discourage cicadas from at least the first 24 to 36 inches of the shoot. Alternatively one might simply retain several shoots in the first year in the event that one or more shoots break during development.

## III. VVA Summer Technical: Steep Terrain Grape Growing | Tuesday, June 11, 2013

As previously advertised, the Virginia Vineyards Association and Virginia Cooperative Extension are again teaming up to present the 2013 Summer Technical meeting. This year's meeting is on "Steep Terrain Grape Growing". The focus will be on the design, installation and management of vineyard sites with slopes that exceed 15%. Why "Steep Terrain"? We are seeing an increased interest in steeper sloped vineyards to realize some of the benefits of higher relative elevation

and often thinner soils with reduced water retentive characteristics. In some cases these more “marginal” sites (from a typical agricultural standpoint) are often less expensive to purchase.

This movement, however, introduces its own set of complications including potentially hazardous operation of machinery, greater potential for soil erosion, and more difficulty with foot traffic and hand-labor. The single-day program on 11 June will be hosted by two premier vineyards: Glen Manor Vineyards (<http://glenmanorvineyards.com/>), and RdV (<http://www.rdvvineyards.com/>), both of which feature steep slopes, and both of which produce very high quality wines. The program will include presentations by the host vineyard owners, equipment vendors (e.g., tracked vineyard equipment), and site engineers who will discuss water and soil management on steep slopes.

The program is as follows; please note the need to car-pool from Rappahannock Cellars due to limited parking at RdV Vineyards.

- 7:30 am** Registration at Rappahannock Cellars (<http://www.rappahannockcellars.com/visit>)  
*Please note: Parking at RdV is extremely limited. We are therefore registering attendees at Rappahannock Cellars and car-pooling to RdV, then Glen Manor, and back to Rappahannock Cellars for the evening social. Cars will depart for RdV at 8:30 am.*
- 9:00 am** RdV Vineyards ([www.rdvvineyards.com/](http://www.rdvvineyards.com/))  
Design considerations for RdV Vineyards, Andrew Camp and Joshua Grainer
- 11:00 am** Depart RdV Vineyards, travel to Glen Manor Vineyards  
(<http://glenmanorvineyards.com/>)
- 12:00 pm** Lunch (included with registration)  
Sustainable Vineyard Practices Workbook comments, Bill Freitag, VA Vineyards Association
- 12:30 pm** Detailed soils mapping in heterogeneous soils, Alex Blackburn, BCS, LLC
- 1:00 pm** Design considerations for Glen Manor Vineyards, *Jeff White*, Glen Manor Vineyards
- 1:30 pm** Considerations and resources for design of erosion control measures on steep terrain, *Mike Liskey*, District Conservationist, Natural Resources Conservation Service
- 2:30 pm** Vineyard floor management considerations on erodible sites, *Tony Wolf*, Virginia Tech
- 3:30 pm** Machinery safety and steep terrain, *Jimmy Maass*, Virginia Farm Bureau
- 4:30 pm** Meeting recap and audience feedback on meeting, return to Rappahannock Cellars.
- 5:30 pm** Social at Rappahannock Cellars until 8:00 pm

**Registration**, and additional program information is available on-line at the Virginia Vineyards

Association's website (<http://www.virginiavineyardsassociation.com/2013-summer-technical-meeting-social/>), or by using the attached, mail-in registration form.

#### **IV. Odds and ends.....**

##### **a. Loudoun County vineyard meeting**

**19 June 2013**

Virginia Tech grape specialists will be presenting updates at the 19 June meeting of the Loudoun County Grape Growers Association. For information on location and time, please check with Mitch and Betsy Russ ([mbruss@rstarmail.com](mailto:mbruss@rstarmail.com)).

**b. Disease Updates:** For updates on disease conditions and structuring a disease management program, please be sure to follow Dr. Mizuho Nita's "**Virginia Grape Disease Updates**" at <http://grapepathology.blogspot.com/>

Dr. Nita's website has a wealth of information including links to the current Grape Pest Management Guide, timely information on disease conditions, a comprehensive "Fungicide Spray Workbook" and much more. Scroll to the bottom of his website to subscribe (RSS feed) to his blog posts.

##### **c. One other reminder:**

If you have not used it, or if you need a reminder about the 2013 update, take a look at Jeanette Smith's Vineyard Pest Management Tool Kit. This is a great one-stop reference kit for factual information (including relative costs) on grape pest management material. The tool kit is available through Jeanette's website at: <http://www.vinesmith.com/tool-kit/>