

# **WINE GRAPE INFORMATION FOR PENNSYLVANIA AND THE REGION**

From Penn State Cooperative Extension

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## **Spots, Rots and Mildew - Dr. Jim Travis, Dept of Plant Pathology, FREC, Penn State University**

Dry weather in early May has reduced the risk for early season buildup of Phomopsis, black rot and downy mildew. However, the potential for infection and crop limiting epidemics continues during the second half of the month. Continue to maintain protective fungicide applications to protect emerging shoots and clusters. Do not be tempted to extend fungicide spray intervals beyond 10 days during periods of rapid shoot growth. Weather forecasts are often less than 100 percent accurate and even marginal conditions can initiate disease outbreaks that are difficult to stop since most fungicides are protectants, not eradicants. Where you can save is in the choice of fungicides. Mancozeb fungicides will control Phomopsis, black rot and downy mildew very well under lower risk conditions. There is little need to apply higher cost and higher risk of resistance fungicides included in the sterol inhibitor and strobilurin fungicide groups before the immediate pre-bloom period. Captan will control black rot and Phomopsis but not downy mildew. However, one of phosphorus acid materials would be very effective in controlling downy mildew at this time.

Disease risk for powdery mildew has been extremely high since bud break. It is still too early to see powdery mildew on shoots or clusters but infections may be in the incubation stage to show up after bloom. Maintain no more than 7 to 10 spray intervals with effective fungicides to protect new tissue. If the grape cultivar is not sensitive to sulfur, it is an excellent choice at this time of year. Sulfur's biggest weakness is its property of washing off with rain events. But with little rain, its period of effectiveness remains. Use sulfur on no more than a 7 day interval and more frequently when rain events occur. Switch to the newer effective powdery mildew materials at pre-bloom, maintaining a 10 day interval through pea-size fruit. Use as many different modes of action, mixing and alternating materials as much as possible to prevent fungicide resistance in your vineyard. Do not use any of these fungicides in more than 2 back to back applications. Follow label instructions carefully. Cluster culling at harvest due to powdery mildew is prevented over the next 4 to 6 weeks.

The recent rain event which occurred over May 16 through 17 increases the risk of Phomopsis, black rot and downy mildew and maintains the high risk for powdery mildew. Additionally, during wet conditions, Botrytis may increase on alternate plant

tissues in the vineyard for spread to the flowers during bloom. This rain event WILL have a significant negative impact on your ability to control diseases if appropriate disease prevention practices are not followed. Begin spraying every row if you have been spraying alternate rows and increase water volume to at least 50 gallons of water per acre. Thorough coverage is needed for any fungicide to be effective. Slower travel speed will also improve coverage during periods of high disease risk. Timing, rate and coverage is nearly always more important to disease control over the price of the material applied.

This quality of the 2007 crop is on the line right now, don't take risks!

### **Chardonnay Focus Meeting**

We had a great discussion about how to grow and make fine Chardonnay wines in Pennsylvania at Old Stone Farm in Landenburg. Mary and Mark Gruber grow three acres of very high quality Chard on VSP and SH. They have a variety of clones including Dijon clones on different rootstocks. They also grow Christmas trees which, in my own experience, is a very nice complimentary crop to wine grapes and sometimes even more profitable! They noted that the trees and grapes are putting two kids through college (UVA and U Del, not cheap!). Mary does much of the hand farming and Mark does the spraying, a good division of labor. They have local Amish girls helping to do the hand work and are very pleased by the quality and reliability of these girls. They have worked hard to cultivate a good relationship with the Amish community. There is a lot of attention to detail in this vineyard and it shows in the wines. There were problems with powdery mildew and some botrytis last year and that is why we gathered to talk about how to make sure it doesn't happen again.

Jim gave an excellent presentation on PM control. We got a little bit tangled up in our conversation about how to merge the best chemicals for PM control with good European Red Mite control since Mancozeb and sulfur can both exacerbate mite problems. It is clear that giving up sulfur as a companion to sterol inhibitor and strobilurin fungicides is not an acceptable solution so an alternative mite control strategy is needed and it may well include spraying horticultural oil like Stylet oil early in the season to suppress mites. Read Dr. Greg English-Loeb's comments about mite control in the last e-newsletter for more information and recommendations. Up until recently it has been dry so we can expect ERM to be a problem this summer.

As for PM control it is absolutely critical to be on top of your game NOW! As we talked about late season rot complexes there could be a connection to low levels of PM infection on berries that allow opportunistic rots to get ahead. The choice of materials is so important now and to know how, why and when to use them. For example, we talked a lot about the use of contact fungicides like Oxidate, Armicarb and Kaligreen and the utility they have if you have visible PM infections but these materials have very specific We also talked about the need to start control early, especially if you had problems last year and that stronger materials like Nova might be a good early choice. It is amazing

how the strategies vary from one vineyard to the next. Experience counts a lot in this part of vineyard management but so does playing by the rules which means reading the NY-PA pest guide and heeding the advice of our regional grape pathologists. If you have questions or doubts, ask someone who has experience controlling disease. Jim has an excellent handout on controlling powdery mildew. If you would like a copy of it please contact me.

We also talked about different styles of Chardonnay and how to achieve them in the vineyard and cellar. This is a complicated topic but one that can only be achieved in the vineyard with complimentary effort in the winery. It takes great devotion and cooperation between grower and wine maker. We discussed yields for Chardonnay and the effects of hang time on fruit quality. We have so many limiting factors in our region like frost, late rains, disease, deer, birds, etc., those variables that drive the picking decision other than fruit maturity so it makes it difficult to achieve fully ripe grapes. The grapes must be free of fault. This is the baseline. From there, growers can adjust yields from bloom to veraison for good effect with strong consideration towards maintaining a balanced vine using accurate crop estimates and good thinning practices if needed. Having tried to grow UCD 4 in Oregon which was almost hopeless I believe that Chardonnay benefits from a warm season in a cooler area with long hang time and moderate exposure to the sun. It is all about getting to the point when green apple transitions to tropical flavors. It usually happens well after 20 brix so that mean hanging the fruit and hoping for some cooperation from the weather. If there is too big a crop load you can wait until Christmas and it won't ever show up. It probably boils to, like almost everything related to fruit quality, to the particular nature of the site, but strong efforts in viticulture will certainly benefit the grapes you harvest. How can you find out what to do? Taste Chardonnays from Ontario to North Carolina and find one you like then go visit the vineyard and learn what is being grown and how then talk to the wine maker about how they do it.

*I would like to thank the Grubers for their terrific hospitality and cooperation in hosting this meeting at their farm.*

### **Northwest Grape Calculator**

I am always reminding growers that they are a farming business. Perhaps gentleman farmers but nonetheless profitability should be an important objective. This separates a business from a hobby and adds incentive to achieve quality and production. All growers should understand what is needed in costs, materials and labor to establish an acre of vines. Cost of development is a basic number in any vineyard and it can vary dramatically. But as we get more expensive "Napa-like" vineyards being installed in our region, understanding and anticipating these costs are more important than every. My colleagues at Washington State University are masters of the risk management grant process and continue to develop great resources for their industry and the Pacific Northwest and, it can even be useful for us. This latest web tool, a vineyard development calculator, can help to give a person a rough estimate of what it will cost to put in an acre

of grapes. I hope you will find it useful. If you do, call Vicky Scharlau, the executive director of the Washington Association of Grape Growers and Mercy Olmstead, the viticulture extension educator at WSU and let them know how it helped you.

<http://www.nwgrapecalculators.org/index.php>

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