

Grapes

Week of Aug.15-18: As of Aug 15, the whites were through veraison. Pinot Noir is 90% through, Merlot ranged from 25-50% though we are seeing a lot of variation. Syrah seems to be progressing rapidly this season, it is ahead of Merlot. We will soon be checking our hybrid Marquette to gauge harvest. Downy mildew persists in the vulnerable top of the canopy in many blocks. Thank goodness for hedgers. Fruit is no longer susceptible to new infections of the mildews. The focus is now keeping cluster rot organisms to a minimum.

Late Season Pest Management And Fermentation: All pesticides have a days to harvest restriction, also called a preharvest interval (PHI). If a product is labeled 14 days PHI, this means it cannot be used within 14 days of harvest. From a winemaking standpoint, one of the primary concerns about late season sprays is that potential residues may inhibit fermentation. Some winemakers consider this an issue, especially with sulfur, others discount it. Some enologists demand a particular interval (ranging from weeks to months) between the last sulfur spray and harvest. However, most vineyards on LI have reached the point in the season where fruit is no longer susceptible to new PM infections. Consequently, regardless of materials being used, most growers have turned off the nozzles in the cluster zone and are focusing on keeping the canopy clean. Nevertheless, sulfur is often demonized by winemakers as the reason for stuck fermentations. A late application of sulfur, particularly if no rain occurs between the spray and harvest, may lead to H₂S and/or slow fermentations. Because of industry concerns, this is an area of research being addressed by Cornell. In early August, Cornell enologist Dr. Gavin Sacks distributed a sulfur testing kit to attendees of the enology strategic planning meeting. Test results should shed some light on this issue. While sulfur use in the vineyard must be evaluated, other potential must problems such as must nutrition and winemaking strategies should not be overlooked. (Growers who would like a sulfur test kit can contact Dr. Sacks at <gls9@cornell.edu>.) Other potential end of season powdery mildew sprays include potassium bicarbonate (Kaligreen, Armicarb, Milstop), monopotassium phosphate (Nutrol), hydrogen peroxide (Oxidate), the biological products Serenade and Sonata and JMS Stylet Oil. The first two groups contain potassium, though there is no evidence that they raise must pH. It would be prudent, however, to avoid a heavy application shortly before harvest. No issues come to mind with hydrogen peroxide, it breaks down rapidly after application (thus no forward protection).

JMS Stylet Oil, 0 days PHI, is actually a very good late season PM spray. It will knock back European red mite as well. Several researchers have found that oil can depress Brix (sugar) accumulation. In a trial at LIHREC several years ago, two end of season app's did depress Brix slightly. While we did not evaluate single app's, a single end of season application will likely not have a profound impact. As for fermentation, research conducted in California a few years ago indicated that Stylet Oil had no effect on fermentation. Read and understand the label thoroughly concerning compatibility of oil with other materials. Primary choices for downy mildew control are copper, phosphorous acid products, Revus, Presidio and Tanos. Copper can also be inhibitory to yeast and bacteria (i.e. ML) though only with very high residual copper concentrations, not likely if used prudently in the vineyard. Phosphorous acid products (0 days PHI) will keep infections in check but coverage must be excellent. PA products will not control a well established DM infection. For the last three products, be sure to check preharvest intervals and avoid use on raging infections due to resistance concerns.

Finally, for DM and PM, there's the synthetic materials such as the strobilurins and sterol inhibitors. Again, resistance is a major issue if these products are used on existing infections. To minimize this possibility, either avoid use or rotate with other materials that are not prone to resistance. From a fermentation standpoint, there appear to be no issues with either group of materials.

There are no known issues with botrycides such as Elevate, Vanguard and Scala and fermentation. In general botrycides are inactive against most fungi that are not closely related to Botrytis (yeasts are not closely related). If near harvest and time/labor is available, snip out the worst of the infections at the minimum. Another option would be one or more sprays of Oxidate, which leaves no residue as it dissipates soon after application. In a 2006 trial in the research vineyard Chardonnay clone 4 (big clustered), repeated applications of Oxidate burned out Botrytis sporulation; however, since the infection penetrated the flesh, sporulation reappeared within a week. Though this is pure speculation, perhaps knocking back sporulation would hinder spread.

Bottom line – make pest management choices carefully at this time of year. It is complicated if disease exists or a major rain looms or if trying to maintain a canopy into November. (*AW and WFW*)