

Grape chores. Most of the below generally applies to both muscadines and bunch grapes. Exceptions are that in muscadines: (1) the only canopy management practice is hedging; (2) crop load is typically not managed after pruning; (3) maturity is generally monitored by primary chemistry while considering fruit firmness and integrity (especially for fresh market); (4) disease management is typically terminated around mid-August; (5) wildlife deterrence is not employed.

1. **Canopy management** is mostly left to remedial fruit-zone leaf removal and hedging at this point. It is never too late to do some selective leaf removal around the clusters to aid in drying and improve pesticide coverage on the fruit. However, leaf removal does little if the canopy is shading out the canopy and fruit-zone. Thus, hedging should continue in the vineyard until strong vegetative growth and canopy self-shading subsides, which is often not until several weeks after ripening has started.
2. **Crop load management** is commonly practiced before veraison. If you are going to thin your crop, focus your efforts on regions of the fruit-zone that are densely packed with clusters; touching clusters will often develop bunch rots due to the lack of pesticide coverage as well as reduced air movement between them. A past blog post on the UGA Extension Viticulture Blog went in to a bit more depth on when and why one might thin crop in their vineyard (<http://blog.extension.uga.edu/viticulture/2017/07/considerations-for-crop-thinning/>).
3. **Veraison** is the transitional period of grape development when grapes begin to soften, and sugars and secondary flavor, color, and aroma compounds begin to accumulate. Grapes are said to be “ripening” starting at veraison. Knowing veraison can help you predict harvest date – especially if you have records. This year has been somewhat late. Reds are roughly 20-30% at 1500-1600 ft. elevations and we are seeing roughly 16-17 Brix in Chardonnay at those elevations. Since post-veraison weather patterns can drastically change ripening rate, we must monitor maturity and not strictly rely on records (see chore 5.).
4. Petioles and leaves are often sampled at bloom, but **vine tissue sampling** can be conducted again at veraison. While petioles and leaf blades are sampled from opposite the clusters at bloom, these tissues are sampled from the youngest fully expanded primary shoot leaves – often near the end of the now-hedged shoot. Sampling tissues at veraison allows one to target “nutritional problem areas” of the vineyard that were otherwise not evident at bloom, when the soils were at field capacity and nutritional symptoms were not evident in unstressed vines. Newly-planted vineyards will often show nutrient deficiency symptoms at this time of year; this is typically due to their shallow root systems having limited access to soil mineral nutrient resources.
5. **Monitoring grape maturity** is important to determine harvest date. I would encourage that a combination of chemical and sensory evaluations be used to help determine when to pick. *The chemical and sensory benchmarks that define maturity will vary based on variety and winemaking goals.* For example, if I wanted to make a sparkling rosé out of my Merlot, I would aim for lower sugars and higher acids; the opposite would be true if I wanted to make a full bodied red wine. Soluble solids (Brix) is a ubiquitously used maturity benchmark, likely due to

its relative low cost/ease of measurement. Barring special winemaking goals of sparkling wines rosés, and late harvest/dessert-style wines, most will look to harvest somewhere between 20-25 °Brix, and the accompanying acidity and pH will greatly vary by variety. Bear in mind that high pHs (i.e. > 3.8) can put the wine at higher microbial spoilage risk unless post-harvest amendments are made in the winery. As far as sensory evaluation of maturity goes, many will use the color of the seed, the flavor/aroma of white grapes, or the taste and “mouthfeel” of red grapes to aid in maturity evaluation. Please consider the integrity/sanity of the crop as you monitor the quality. Keep in mind that rot tends to increase in severity as fruit maturity advances. Make educated decisions and balance the risk/reward of hanging your crop for extended periods.

It is important to monitor maturity separately for each variety. It is also important to sample grapes in an unbiased fashion by sampling from all parts of the cluster, and across a section of vineyard that represents a separate vinification. For example, samples from blocks A and B should be kept separate if they will be harvested and vinified separately – even if they are the same variety. However, care should be taken to sample across each block to best characterize the average maturity. This may best be done by creating a randomized sampling scheme for each block.

6. **Scouting for fungal diseases and insects.** Downy mildew, botrytis, and late-season rots often make unwelcomed appearance from now until harvest. It is important to protect your vines from downy mildew, powdery mildew, botrytis, and ripe, sour and bitter rot by using appropriate pesticides – especially when weather patterns are conducive to disease development. Japanese beetles and spotted wing drosophila are of primary concern in the post-veraison period. I would encourage everyone to scout for and manage these insects accordingly. Read labels and take head of long pre-harvest intervals (*especially products containing mancozeb*).
7. **Take inventory of, and deploy, wildlife deterrence equipment.** You know your vineyard and are thus the best judge of historical wildlife pressures. I have personally seen both birds and raccoons take more than their share of crop from vineyards – please do not underestimate the amount of crop that be lost to wildlife. Bird netting and other scare devices should be going up in vineyards all over the southeastern US over the next month or so. Netting is the best strategy to manage bird pressure. Traps and other vertebrate control measures should be deployed if necessary.
8. **Take inventory of harvest shears, lugs / bins, and other harvest supplies.** Harvest will be here before we know it. Please be prepared to pick your *entire* crop when you or your customer wants. Don't be caught short handed with supplies when you need them most. Make sure tank space is ample to accommodate the amount of crop that will be vinified.
9. For updated and timely information about vineyard management, and information on workshops and conferences, please subscribe to the UGA Extension Viticulture Blog (<http://blog.extension.uga.edu/viticulture/>).