



## Post-harvest Check List: A Dozen (or so) Things to Do

Wouldn't it be nice if after you picked the last grape you could just walk away from the vineyard and forget about it until pruning started in January or February? That shouldn't happen. There is a lot to do in the vineyard before winter arrives and as beat as you are from harvest, these things are important. Here's a laundry list for Eastern growers after the 2008 harvest.

1. Pick up all bins that may be distributed at wineries far and wide. Clean and store them properly; if wood, under cover.
2. Nets off the vines, it's so much easier to get them off when leaves are still on the vines. Collect bird control devices. Everything else that is in the vineyard for the growing season should find a place in the barn.
3. Collect your weight tickets or whatever you use to calculate your charges to your customers. Send itemized invoices out to the wineries with payment terms. Check your contracts and make sure you have all the numbers right. If there are issues related to the contract, you can either take that up with the winery now or wait until the harvest dust settles.
4. You have probably noticed vines with red leaves or white varieties with leaf curl or any other funky symptoms. These are candidates for virus and should be tagged and tested. They should be pulled if they test positive for virus or other chronic vine ailments.
5. If you have new vineyards that are clean tilled, it is very late to be getting in a winter cover, but if we get some decent weather and the soil dries out, get some grass on the soil to prevent erosion. Prep the ground properly with a disc and harrow (no rototillers, please), then rent a seed drill or use an inexpensive seed spreader and roll the seed into the ground. The standard types of grasses used are rye, barley or oats. Growers also use "Zorro" fescue or "Blando" brome. They grow thick and fast. Understand that these are not permanent covers and, when taken down, will enhance the fertility of your soils. You can plant a permanent cover of a durable slow and low growers like creeping red fescue. Use a high rate even though it will be expensive.
6. If you have a cover crop and broadleaf weeds were a problem this year, you might want to try a fall application of 2,4-D after the leaves drop and if we get a dry and not too cold period. We know that broadleaves provide biodiversity in the vineyard but they may act as host plants for tomato ringspot virus. You have to weigh the relative benefit/harm of each. Some growers in SE PA have had very good luck with this late application. The cool, damp weather will help to minimize drift and volatilization but still use all the same precautions that you would take if you were spraying in the spring. Here are some tips from my 2,4-D expert colleague, Alice Wise, viticulturist at the Cornell Cooperative Extension of Suffolk County in Riverhead, NY, from her experience on Long Island:

- Wait until after leaves drop. On L.I., late April until harvest (September to early October).
  - Use low sprayer pressure.
  - Use low pressure nozzle tips (large orifices).
  - A commercial drift retardant may help reduce microscopic spray droplets.
  - Spray under windless conditions or when wind is blowing away from nearby vines.
  - Use amine formulations of phenoxy herbicides to reduce potential for volatilization.
  - Don't use surfactants.
  - Shielded sprayers may help reduce physical spray drift, though they won't affect volatility.
7. Since we are talking about spraying, fall also is a good time to clean up vine row weed problems. More growers in southeastern Pennsylvania are using late season, fall glyphosate applications to control weeds. This appears to be very effective especially if used with a spring application. Again, a lot depends on the weather – which needs to be dry and not too cold. Band or spot spray on weeds under the vines. Be sure to get your calibration exactly right and remember that glyphosate works best at low volumes. Use same drift avoidance as you would for 2,4-D. If you have canes hanging to the ground, you'll have to wait until complete dormancy to spray. I am not a big fan of herbicides but they are a useful tool until weeds are under control and other less intrusive methods of control can be used.
  8. You all know that we need those leaves for every last bit of carbohydrates that can be utilized to insulate the vines. The period between the removal of the last cluster and the first hard frost that drops leaves is critical. This is Part II of the ripening story – getting the wood ripe going into winter. You have probably sprayed about a zillion times this year but losing leaves – especially the productive younger leaves and laterals to downy mildew and powdery mildew now is not recommended for the short and long term health of your vines. It would be wise to continue to scout for disease and assess the level of active fungal growth and spray if needed. Directed sprays at the tops of canopies. Your options now are the phosphorous acid products for DM and sulfur and stilet oil for PM. If copper is used, remember that it may be phytotoxic if applied in cool temperatures and dries slowly on live tissue. If you have lots of infected rachis/cluster mummies on the vine or ground, at some point these need to be removed from the vineyard. Keeping clean now will help you immensely in the spring.
  9. Back to winterizing your vines. If you have grafted plants, either hybrid or vinifera, and especially younger vines (<5 years old), you need to cover the graft unions. Most growers do this in the traditional way by use a grape hoe device to “hill up” over the graft union. You need 5-6” of dirt over the union. Other options include straw and mulch. The lighter the material, the more volume you need to protect the vine. Hilling up is an art and it takes practice. If you don't know how to do it, get the right equipment and find someone who does to show you how. If you don't do it right, you may lose as many vines to tractor blight as you would from a freeze event. Again, the soil conditions need to be just right and you can't have too much of a weed problem in the vine rows. Flat is always easier than slope.
  10. Your equipment is your bread and butter on the farm so take good care of it. Any piece with moving parts needs to be winterized. Clean everything up as much as possible. Run anti-freeze through the hoses and pumps of the sprayer. Take the nozzles off and give them a good cleaning. Items like mowers, hedgers, cultivators, leaf removal machines, etc. should all be cleaned, oiled and greased

- and put up on blocks or hung for the winter. Tractors can be serviced during the winter months. Harvesters need special attention, follow the dealer's specific recommendations. The better you take care of your equipment now, the faster it will get back into service in the spring.
11. The vineyard has gotten pretty beat up over the long growing season, especially trellis, turf and vines. Take a leisurely tour around the rows and perimeter and see what needs attention and repair.
  12. Count missing vines and order replants. If new plantings are planned, order vine materials, own-rooted for next spring and grafted for 2011.
  13. When you have the time, sit down and review the season carefully. This was as challenging a season as we are ever likely to have in the southeast Pennsylvania and around the region. Just about the only thing we didn't get was a hurricane but there was no shortage of offshore lows to dump moisture. Try to figure out the good and bad and why what worked and didn't work. Pay especially close to attention to your disease and pest control program. If you came through clean this year you were definitely doing something right, but you want to make absolutely sure that you are rotating materials to avoid resistance build up. How was your canopy management and overall vine balance? What was the water status of your vines, especially in the latter dry part of the season? Were there any obvious vine nutrition issues? How was your vineyard floor management this season? Also look at the business side of the farm and figure out the economics of growing grapes. Bottom line... did you make any money? If not, why? What needs to be done to improve profitability? Labor issues? The cost of all your inputs are increasing. How are you going to keep up with these expenses? Try to anticipate viticulture and economic issues coming up in 2010.
  14. You'll be pruning soon. Get the equipment ready. Do you know who is going to do the work and their skill level? Pruning sets the tone for quality in 2010.
  15. Finally, when you have the time, get out to the wineries and taste your wines, especially the lots that are not yet blended. Taste with the winemaker and discuss together what was good and bad about the vintage and figure out ways to improve the quality of the grapes and the relationship. What went right or wrong during the season and why. How can quality be improved? It isn't too early to start thinking about the next growing season and the 2010 vintage.
  16. Breathe a sigh of relief, thank everyone who needs to be thanked and enjoy the holidays.

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