



Grape & Barrel Newsletter

Statewide/Capital



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editors

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Viticulture

BUDBREAK – Mark L. Chien

According to my watch, we are a bit behind already this year. I usually anticipate bud break on Chardonnay in SE PA around mid-April and so far I haven't seen much sign of it other than some bleeding of pruning wounds. I have been told that on Long Island they are already about two weeks late. So, here we go again. What does this mean for us? When you translate the dates down the vintage we could be looking at a late harvest and all the problems that may cause (rain, birds, frost, disease, etc.). So growers need to watch the calendar and grapevine phenology and try to figure out how they relate to each other and quality factors, disease and pests and viticultural practices. If vines get a late start, it is good for spring frost avoidance, but may mean that growers need to be extra vigilant about crop regulation this year in order to get fruit fully ripe and allow vines every opportunity to harden its wood properly. There is the possibility, of course, for a perfect growing season (remember 2001?) but given the last two, I do not think I would count on it. However, it is the obligation of every grape grower to be optimistic beyond all reason, especially at the beginning of the season, but not unrealistic and unprepared.

Some of our vineyards and wineries had "issues" last year with fruit quality and quantities. I say this in a very general sense and urge that, as an industry, we take it very seriously. In my experience, communication is often the best remedy to problems at harvest. A basic assumption is that everyone, both in the vineyard and winery, are doing their utmost to produce as good a product as possible. In challenging vintages, like 2004, frequent and detailed conversations between grower and winemaker are critical to a clear understanding of the situation and expectations on both sides of the wine growing equation. Hurricanes and rain made it difficult, if not impossible, to get some varieties ripe last year. How could the winery and vineyard work together to make the best of this situation? Certainly very well managed yields and canopies were the minimum absolute requirements to achieve fruit maturity and quality. This should be discussed at veraison or earlier as the difficult conditions were very evident by then. But the conversation should ideally begin this winter and now. It is important to have a clear understanding of what worked and what didn't last year. 03/04 were the benchmark crummy vintages for our region and the winters just added fuel to the fire. If you are pleased by the performance of your vines and the wine maker is smiling when he tastes the wines, then you deserve major kudos and should record for posterity everything you did in the vineyard because it was a monumental achievement. If the grapes didn't quite get ripe, or you

had disease problems, then figure out why and make corrections in management practices. Do all of this in consultation with the winery. Now is the time to be negotiating grape contracts and securing a home for your grapes. Even though I perceive a slight scarcity of some hybrid and vinifera varieties this year, good growers find the good wineries and make their deals early so there are no late surprises.

With these few extra days we have before bud break, pruning, brush removal and disposal and tying canes should all be done before buds push. I have seen quite a bit of dead wood on late vinifera varieties and some hybrids (Vidal in particular). Again, all the water in the soil and vines, a somewhat late season and some overcropping may have led to more winter injury. Growers who are experiencing these problems should consider how they can break the cycle of decline and get back into a productive mode. Sometimes the culprit is really just the weather, but more likely it is weather intermingled with poor viticulture. Fix the viticulture. Balance pruning and bud/trunk damage assessment is important to making an honest attempt to balance your vine for the coming season. I encourage all growers to weigh prunings in mature vineyards.

Weed control can start now. We are taking a little different view of weeds in contemporary viticulture, realizing that some biodiversity in the grape monoculture is a good thing. But out of control weeds can hamper performance and quality, especially in young vineyards. Tall weeds in the canopy contribute shade and exacerbate disease. Weeds compete with vines, especially young ones, for water and nutrients. Andy Senesac and Alice Wise of Cornell Cooperative Extension on Long Island give excellent information on weed control. It all begins with knowing your enemy. Have a good weed ID book so you know what it is you are trying to control. They recommend *Weeds of the Northeast* (you know you are a real farmer when you own a book about weeds) as the best resource for identifying weeds. There are many ways to control weeds, both chemical and mechanical, and a blended method may be the most effective. The timing of all control methods, but especially mechanical, is critical to success – don't be late or you will pay the price in quality of control and the effectiveness of your herbicide or hoeing application. Grape growers realize that herbicides are not good for the environment and try to limit their use of these chemicals. If they are used in a responsible and minimal way, growers can control weeds with minimal environmental impact. Pre-emergent herbicides prevent weed seeds from germinating and are applied at this time of year. Pre-emergent products such as Prowl, Devrinol and Surflan will control grasses and some broadleaves, are labeled for use in non-bearing vineyards. For bearing vineyard, pre-emergent choices that are effective mainly on grasses include Devrinol, Surflan and Karmex. For broadleaf weeds the choices are Princep, Goal and Karmex. Goal must be applied before budswell. Please check the NY/PA Pest Management Guidelines for details. For more information on post-emergence herbicides, I strongly recommend that you read Alice's grape section in the LI Fruit and Vegetable Update, a weekly growing season newsletter that is full of great information for grape growers, regardless of species/cultivar – a recent two part article covered pre and post emergence herbicides. One way to design an effective weed control program is to try various methods on small parts of the vineyard. Another is to look around and see who is managing their weeds well and ask them what they do.

Climbing cutworm can be an early season problem in vineyards. Larvae live in litter on the vineyard floor and climb up the vine at night to feed on swollen grape buds. You can find them on the ground or under trunk bark during the day or with a flashlight on vines at night. Rake litter away from vine

rows. If the situation gets really bad, a directed application of Sevin may be necessary. If you have had cutworm problems in the past, leave extra canes and spurs to compensate for possible losses. After the threat has passed, prune back to proper bud numbers.

Other things to be thinking about now are labor availability, trellis maintenance and repair, vine replants, equipment preparation and a spray program for the season. Dr. Travis talk about early phomopsis control in this newsletter, but you should be ready for powdery and downy as well since almost everyone had problems with these fungi last year. Start spraying early, get good coverage, use the right materials and rotate. Labor is needed to shoot thin, position and sucker. This comes up fast after bud break because shoots are growing fast. Try to get them before they get longer than 6". Replants are a fact of life, even in warmer SE PA. You should have the vines by now in storage in a cool, moist and dark place to keep the buds tight. Do not replant into the same hole as the vacated vine. Use standard planting techniques and keep the vine well watered and train properly. I would encourage fertilizer on new replants to encourage strong growth and establishment this season. Protect from wabbits, herbicide and deer. Make sure you scout closely for disease and insects, particularly Japanese beetles. Do not let the older, neighbor vines shade the replants during the growing season. Let the vines grow out this season, you can do your permanent structure selection next year. It is a lot easier to any vineyard maintenance and repair before a full canopy appears. Get the fungicide and herbicide sprayers ready by flushing, greasing, calibrating and testing with water. Mowers and other implements should be cleaned, belts checked, greased and tested.

Here we go again. This is a remarkable time of year, when the buds push and life springs forth again in the vineyard. It is an annual miracle and the cause for much optimism. If we do our part right in tending the vines and Mother Nature is kind, we'll end up with some very nice wines in the fall. Good luck and have fun!

To subscribe to the LI Fruit/Veg Update, please contact Linda Holm at 631-727-7850, ext. 341.

Plant Pathology

GRAPE DISEASES: WHAT TO DO WHEN YOU SEE GREEN TISSUE ON YOUR VINES

Dr. Jim Travis

1. **Think Phomopsis.** I know it seems too early to be thinking about leaf and shoot diseases and fruit rot at harvest but it begins at bud break. This disease doesn't get much attention in PA, not compared to powdery mildew, downy mildew or Botrytis, but it is just as important. The reason it doesn't get much attention is that it is often confused for other things. Shoot infection results in lesions at the base of the shoot, often causing shoots to break off during wind storms with the incorrect assumption that it is just high wind damage. Leaf lesions are often very small, almost unnoticed and may be seen as just some more 'spots' on leaves. Fruit rots look just like black rot, don't show up until harvest and can cause considerable crop loss at harvest.
2. **Be Prepared.** The first spray is the most critical to prevent Phomopsis this year and NEXT. Early shoot infection occur on the base of the shoot. These lesions remain 'alive' on the shoot through the summer and will provide the disease inoculum for next years shoot, leaf and fruit infection. Protect your new shoots and leaves through effective fungicide

applications beginning no later than 1 to 3 inch shoot stage of growth. There has been some discussion about the best Phomopsis fungicides. I would recommend using either captan or one of the mancozeb fungicides (Dithane, Manzate, Penncozeb or Manex II) in the early spring. Read the label for any fungicide you plan to spray for recommended rates and timings by the manufacturer. These fungicides are very effective in preventing infection, there is no risk of resistance of the fungus to these materials, they have good residual life on the tissue, and very importantly there will be limited redistribution of the fungicide with rain onto new and unsprayed tissue.

3. Other Early Season Diseases. The fungicides listed above will also do a good job in controlling black rot should it get an early start. If powdery mildew was a serious problem last season, sulfur may be added to the first sprays of the season (1 to 3 inch shoot). However, sulfur can only be applied to varieties that are not sensitive to sulfur. Check the 2005 NY and PA Pest Management Guidelines for Grapes for specific information on variety susceptibility.
4. What About Rain and Wash-Off? Because the fungicides recommended earlier are protectants that do not penetrate into the tissue of the vine, they are subject to wash-off by rain. However, ALWAYS spray before the rain. The fungicide needs to be there BEFORE the fungus spore arrives. Once the fungus infects and enters the tissue, these materials are not effective. The spray interval in the spring should not be extended beyond 10 days. This 'Rule-of-Thumb' can be helpful. If more than an inch of rain occurs since you last sprayed, reduce the remaining spray interval by half (8 days remaining in the spray interval, spray in 4 days) and if there is more than 2 inches of rain since you sprayed, spray again as soon as possible. This all assumes that you have prepared your sprayer, with new nozzles and have calibrated it for the season. The last Grape & Barrel Newsletter discussed calibration.

An effective grape disease management program ALWAYS has a good beginning.

Enology

WINERY GRAPE QUALITY AND BUSINESS QUALITY PLANS DURING THE GROWING SEASON, PART 1

Dr. Stephen Menke, PSU Extension Enology Educator

Hopes for a good 2005 vintage are high, especially given the problematic to miserable winegrape crops of 2003 and 2004. It is time to start performing the steps needed to make 2005 as good a vintage as the weather allows.

It is the time of the year when the practical demands of the vineyard start to dominate the attention of the winegrape industry. Time spent on last minute pruning, readying sprayers and cultivators, planting vines, planning pesticide and fertilizer applications, finding vineyard labor, etc., often means that wineries with their own vineyards may not pay enough attention to getting the most efficient spring and summer winery schedule set up. Even wineries who buy all of their grapes and juice may treat this as a slow time, and thus miss opportunities to schedule winery operations efficiently. There are four areas to look at when setting spring and summer winery schedules: (1) coordinated planning for vineyard operations and harvest grape quality; (2) planning for upcoming crush and winemaking production; (3) finish cellaring and bottling for summer and fall sales; (4) schedule any winery equipment purchases, maintenance, renovations, or expansion.

This month, Part 1 will discuss the first of these areas: coordination of vineyard and winery efforts toward the highest quality (read optimal maturity) parameters for each grape variety, in each location. Next month, Part 2 will cover the other three areas.

Coordinating vineyard production and grape harvest quality is the main goal of the current season. Ideally, the vineyard and winery management personnel formulated a plan in January for the desired quality parameters for grape harvest. The crop load for each variety and vineyard block was decided and the vines have been pruned in dormancy to approximate that goal. As soon as spring frost danger has passed, the desired crop load should be assessed against the weather projections for the season and the winter and spring damage evident to the vines, to decide if further crop load or cluster adjustments are desired, i.e., further reducing fruiting buds, thinning at bloom, or planning to leave further crop load adjustment until cluster thinning at veraison. Timing and labor needed for shoot positioning and pruning should be determined, and weighed against the winery labor needs for bottling and any renovation or new building activities. The vineyard scouting schedule, spray and fertilization program schedule, cultivation schedule, and grape maturity testing schedule should each be finalized, even though adjustments will need to be made as the season progresses. The winemaker should be a part of these vineyard decisions, as they all are quality control assurance points in reaching optimal grape maturity for winemaking.

Especially critical are the chemical and sensory definitions of maturity. Both vineyard and winery personnel should be assessing the sensory characters of the current and past tanked and bottled wine against the chemical composition and sensory evaluation of the grapes that yielded those wines. Further, the sensory record of the blending decisions should be reviewed against the current sensory state of each blended wine. These sensory evaluations should be done several times a year. Meticulous records should be kept of all sensory evaluations. A sufficient supply of each wine should be kept in the library, so that these tastings can occur each year, over the number of years the wine is expected to last. Past wines and their seasons can thus be tracked for patterns that can aid in picking grapes at optimal maturity each year for each wine style.

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