

GRAPE PRESS

Winter 2015

The Quarterly Newsletter of the VIRGINIA VINEYARDS ASSOCIATION

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Don't Miss Out!

Register for the VVA's 2016 Winter Technical Meeting before it's too late. Registration information and the program agenda are available on the VVA web site and inside this issue.

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Northern Virginia Regional Report

While sugars in some varieties were high, others plateaued "and just kind of sat there."

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Stop Adding Potassium!

A new report on potassium uptake in grapevines shows that it is rarely, if ever, necessary to add potassium (K) to vineyard soils. Two of the report's authors, Lucie Morton and Bubba Beasley, summarize the findings.

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Vineyard Leasing

Third in a series: If you don't own the land that's most amenable to grape growing, it will probably be cheaper over the course of the vineyard's expected life to lease what you need rather than buy it.

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Courtesy of Jim Law

The 2015 harvest came early at Linden Vineyards as a result of the rains of late September and early October. Above, workers picking in the rain.

Why Brix Is a Four-Letter Word

Focusing on skin integrity for reds

By Jim Law
Linden Vineyards

At Linden Vineyards the sugar content (brix) of ripening grapes plays a minor role in picking decisions.

During vintage 2015, just after the rains of late September/early October, I was surprised to hear growers talk of waiting to pick so that the brix would increase. This is counter to many progressive winemakers whose past emphasis on high brix equating to high quality has waned.

In Virginia one would believe that the higher the alcohol content, the better quality the wine. Growers wring their hands with

anxiety hoping for some sugar movement late in the season. Winter conference bragging rights revolve around whose brix was highest.

When I get asked about brix levels I cringe. The French don't talk about grape or must sugar content. They refer to the measurement as potential alcohol. This is an accurate, succinct expression.

The alcohol content is an important component in a finished wine. It influences balance, mouth feel and harmony of any wine.

Low alcohols can make a wine feel skinny and thin. High alcohols can throw the balance, making a

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President's Corner

Easing The Grape Shortage

By Tom Kelly
Kelly Vineyard Services

Greetings from the Northern Piedmont! The weather here has been quite hospitable for keeping the work in the vineyard going and getting ahead of the curve on installing trellis posts for new plantings or for pruning existing vines.

The former is an ideal way for those (most of us) who hand-plant their vineyards to establish straight lines and even spacing early on. Having line posts set prior to planting vines can make the planting operation more efficient and accurate and removes the burden of post-planting trellis installation so that the grower can focus on the important aspects of vineyard establishment such as watering, weeding and training during the early summer months.

I've done it both ways, and I can tell you that rushing to install a trellis before the plant gets too tall or adding vine stakes while trying to execute the work of the rest of an established vineyard during a time that is arguably the busiest of the growing season is no fun at all.

One note, though: I generally recommend to clients that they wait to install trellis wire until after the planting is complete. Working around trellis wire to dig holes and plant vines can

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PRESIDENT'S CORNER (cont.)

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be cumbersome and time consuming at best. And it can sometimes be dangerous, especially if one wants to auger the planting hole. If irrigation is a concern, tubing can be laid on the ground at first and hung from a wire at a later time.

As for the latter mentioned work of pruning, the warm weather can be a mixed blessing. A **recent blog post** from VCE Grape Pathologist Dr. Mizuho Nita references comments from Dr. Sara Spayd, Extension Viticulture Specialist at North Carolina State University, that highlight the risks of early pruning.

For some with large vineyards or no access to pruning crews, there is little choice but to start early. It simply takes all winter to get through the vineyard. That said, however, it is my general recommendation to clients that they wait as long as possible to begin pruning, primarily for the purpose of reducing the potential for fungal infection of the pruning wound.

My logic here is fairly rudimentary: less time for a wound to sit exposed equals less opportunity for infection. During my time at Rappahannock Cellars, I would often wait until mid-February to begin cordon and trunk replacement. Rough pruning would commence in March, and I would often wait until just after bud break to do final pruning.

Waiting so late for final pruning not only helps to reduce the potential for fungal infection, but more importantly helps delay bud break in the "count buds."

That said, I did have the "luxury" of having a large, experienced crew at the ready as well as a mechanical pre- (rough) pruner. Add delayed pruning to the list of advantages to mechanizing your vineyard.

Winter Technical

Meanwhile, back at VVA headquarters, the board has been busy putting the final touches on the program for the upcoming 2016 Winter Technical Meeting. This year's program features an exciting and eclectic mix of topics.

Subject matter for this year's meeting will range from managing and avoiding crown gall to vineyard nutrition. Also, this is an "on year" for pesticide recertification credit, so we will have sessions covering pesticide safety and Worker Protection Standard (WPS). There are apparently some important changes to WPS regulations coming soon, so this is an opportunity you won't want to

miss.

Another event you won't want to miss will be the wine tasting portion of the event on Saturday afternoon. This will be an interesting and exciting presentation entitled "Adapting Varieties to a Challenging Climate" and will span such topics as picking decisions and fruit parameters for sparkling wine production, fruit drying and dehydration and Petite Manseng.

As always the conference will also feature the Thursday half-day tracks where you can choose between the New Grower Workshop, the Governors Case Wine Tasting or an IPM workshop presented by Dr. Nita. Friday will feature the 2016 Grower of the Year presentation and

the Annual Wine Social and don't forget the trade show!

As you can see, it will be another fun- and fact-filled event this year, but seating is limited and there will be no walk-in registration this year, so please register early to secure your seats.

[Click here to register.](#)

A Shortage of Grapes

This year's growing season was a remarkable one, featuring both high yields and very good quality.

Many growers experienced yields well beyond their projections and historical averages. This may have caused problems for some in the form of un-sold crop at the end of the season and left those in this unfortunate position speculating about whether a grape shortage truly exists in the Commonwealth.

In 2012, the Virginia Wine Board Wine Marketing Office held an industry-wide strategic planning session to revise its Vision 2015 Strategic Plan. Over 100 industry representatives were in attendance, including winery owners, vineyard owners, the Virginia Wine Council, the Virginia Wineries Association, the VVA, and Virginia Secretary of Agriculture and Forestry Todd Haymore.

The overwhelming consensus of the group, after reviewing past, current and projected wine sales and production metrics, was that the number-one risk facing our industry today is a shortage in the Virginia-grown grape supply.

And while there may be disagreement about how many acres of vines are needed to correct the shortage, certainly all these great minds could not be wrong. A grape deficit

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TOM KELLY

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does exist.

Conversely, care must be taken not to plant ourselves into a surplus. Understanding how many acres of grapes are needed and accurately tracking our progress in supporting this need is an issue of great importance to the VVA and one we continue to work on.

Care must also be taken not to use a single vintage as a benchmark for the overall state of our industry. With respect to yields, good or even great vintages will come and go in the fickle climate of the Mid-Atlantic. For evidence of this, one need only look a few years back to the unprecedented wildlife damage that occurred in 2013. By some estimates, hundreds of tons of fruit were destroyed that year.

The wildlife damage came on the heels of a statewide freeze event in early spring and was rounded out by the coldest temperatures recorded in over a decade the following

winter. That latter event, in February 2015, damaged or killed hundreds of acres of the tender Vinifera grape varieties we prefer to grow in Virginia.

A Challenging Climate

Clearly, the ever-changing environmental factors that influence yield potential for vineyards in the Eastern U.S. and particularly the Mid-Atlantic are here to stay.

This is a challenge that some New World growing regions don't have to contend with. In many of these regions, yields and quality are quite consistent — consistent enough that they have become major exporters of fruit to the more viticulturally challenged areas of the world, including Virginia.

This is evidenced in a post earlier this year from one of Virginia's more prominent wine writers that included statements from the owner of a large grape brokerage firm in the western United States. This individual stated quite confidently that Virginia is one of that firm's biggest customers, accounting

for shipments of 500 tons of fruit and bulk juice in 2014.

Recognizing Virginia as a burgeoning wine region with a challenging climate, this broker saw no end in sight to the export potentials here. And that firm is certainly not the only one sending fruit to Virginia.

My opinions regarding out-of-state fruit are not a secret. However, I temper my opinion with an understanding that wineries need to fulfill their production needs in support of the sales they need to stay in operation.

Additionally, there is a need for a reliable supply of grapes of consistent quality in order to make wines of consistent quality. State and federal laws provide thresholds of the amount of out-of-state fruit wineries can incorporate into their wine programs.

One could argue on both sides as to whether the current thresholds are appropriate, but certainly there is a legitimate need for a

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mechanism to allow wineries to fill holes in their grape supply by importing fruit. The danger is that if we, as an industry, become dependent on out-of-state fruit, we risk compromising the regional character of our wines.

Additionally, we run the risk that questions will be raised, by the larger global industry and wine consumers, about the legitimacy of our claim as a quality wine growing region. This is already a real perception among some wine consumers and critics.

At the local level, we also run the risk that wine consumers will question our legitimacy as a true agriculturally-based industry. The bottom line is that we need to ensure a consistent supply of high-quality grapes within our own borders.

Will there be years that we get caught with yields that are either above or below market demand? Almost certainly. However, if the prudent grower has done the proper planning and put in place certain safeguards, such as long-term contracts, improved pricing models and sustainable best management practices, those years can also almost certainly be weathered.

VVA Officers Needed

As a final note; I'd like to take a moment to beat the recruitment drum again. As you may know, 2016 will be the final term for most of the current officers on the VVA Board of Directors.

I will have reached my two-term limit as President but will be staying on in the Past President seat. However, every other seat on the board will be coming up for re-election in 2016. Our Treasurer and Vice President have reached the two-term limit and will not be eligible for re-election.

And sadly, our beloved Kay Thompson, who might otherwise take a new seat on the Board, will be retiring this year. What will we ever do without her!

This raises an important issue regarding the future of our Association. With so much of the legacy leadership stepping down, we run the risk of a knowledge vacuum amongst those in charge of guiding the Association's activities.

In addition to the twice-a-year technical meetings the VVA hosts in conjunction with Virginia Cooperative Extension and the publishing of our quarterly newsletter, the VVA has taken on important work that will benefit the entire Virginia wine industry.

Execution of our ambitious strategic plan is ongoing and while the current board has checked off a great many of the goals and objectives of the plan, there is still much to

be done. Additionally, if this Association is to survive in the ever-changing climate of a growing industry, it not only needs strong, fresh leadership, but a way to protect and pass on the knowledge and culture that has been developed by the many leaders that came before us.

Currently, the Board is considering several ways to counter this issue of losing a majority of its legacy leaders while at the same time bringing fresh new talent into the fold as the new leaders of our industry. Many of these ideas would require a change to the Association By-Laws which in turn requires a positive vote from the majority of the membership at-large.

You will be hearing more from me in the coming weeks about these ideas which will be presented as Motions for Consideration by the membership.

Proxy ballots will accompany the aforementioned motions and a vote on

the motions will be taken during the 2016 Annual Business Meeting on Jan. 29 during our Winter Technical Meeting at the Omni Hotel in Charlottesville, Va.

There is an exciting future for Virginia wine and serving on the VVA Board of Directors is an opportunity not only to be part of that future but to help shape it. I urge you to consider serving your industry by serving your Association.

There are always seats available on our many Standing Committees, as well as regular opportunities to become part of the leadership team that guides the Association. If you think you or someone you know has what it takes to be an industry leader, I hope you will throw your hat (or theirs) in the ring for nomination.

Thanks and I look forward to seeing you all at the Winter Meeting!

Tom Kelly

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When Quality Counts

▶ NO. VIRGINIA: “A strange balance of sugars, acids and pH in some whites.”

By Dean Triplett
Greenstone Vineyards

Vintage 2015 was over by the second week of October. Except for a one-week period of showers, most of the harvest was pleasant as far as the weather went.

Early season whites were, for the most part, fairly large, quantity wise, and quality was good. Disease pressure was low and fruit came in pretty clean.

A Strange Balance

One thing that was kind of different from what we're used to seeing was a strange balance of sugars, acids and pH in some whites.

While sugars in some varieties were high, others reached a plateau and just kind of sat there.

One suggestion by Tony Wolf was that while temperatures and sunlight were fairly abundant at the beginning of harvest, rain was lacking early on, and the vines just shut down. This caused the vines to slow down or stop their sugar production. All the while acids were dropping and pH's rising.

We don't normally see a problem in our vineyards with high pH's and low acids, (depending on the variety), but we did this year. Some of the numbers by variety that we saw were Muscat Ottonel, 18.8 degrees

brix, 3.64 pH and .52 TA. Chardonnay, 22.5 degrees brix, 3.55 pH and .61 TA.

On the high sugar side was Albarino at 25 degrees brix, 3.69 pH and .675 TA. Our Vidal came in at 25.3 degrees brix, 3.26 pH and .84 TA.

Normally we'll have blending opportunities amongst the whites to balance out our final wines. This year we'll still have options but it may be a bit more challenging when it comes to blending.

Lower-Yielding Reds

The yields on our reds were lower than what we had predicted. Quality however was very nice with good flavors and better balance between brix, pH and TA's.

Some numbers in our reds were: Cab Franc, at 23.9 degrees brix, 3.38 pH and .87 TA. Petit Verdot, which we harvested right after the week of rain, came in at 22.6 degrees brix, 3.34 pH and .89 TA.

I'm not completely sure what caused our lower yields in the reds. Animal damage, while present, was not nearly as bad in most of our vineyards as in years past.

In my vineyard, the yields on the Merlot and Cab Sauv were just slightly lower than average, while the Petit Verdot was significantly lower. The Petit Verdot had the most animal damage, but even if there hadn't been any damage, the yield still would have been below average.

Bora Baki of Hillsborough Vineyards

reported that they harvested 26 tons of fruit which was a 30% reduction from their expectation of 36 tons.

Mitch and Betsy Russ of Russ Mountain Vineyards on the other hand had a bumper crop of Merlot. They harvested 4 tons per acre, an increase from their normal yield of 3.5 TPA. This was after dropping fruit twice! Harvest was early with good quality fruit, with harvest pushed up due to the anticipated arrival of Hurricane Joaquin. Brix was 22.5 degrees, while their normal target is 24-25.

They also reported losing about 2-3% of their vines this year due to winter kill or crown gall.

Nate Walsh of Sunset Hills Vineyards said they were very pleased with the 2015 vintage. Again, ripening and harvest were earlier than standard, but fruit was clean with good quality.

And again the early October rains forced some picking decisions, but all in all they made out well.

Trellis Conversions

I was happy with the conversion of my Muscat Ottonel from GDC to VSP. It still looks a little crazy but the results, especially the ease of netting, were good enough that I will finish the conversion in the rest of my MO.

The switch from VSP to Chris Hill's/Jeanette Smith's Suncatcher, (one-legged ballerina), in my Albarino was also successful and I will probably try to convert at least a couple more rows over this year.

I'm also planning on converting my one row of Valvin Muscat from GDC to a quadrilateral cordon system due to the tremendous vigor that this variety has on my site. This row is going into its 19th leaf with no signs of slowing down.

This has been a warmer than normal fall so far with only about a dozen below freezing nights as of mid-December. Many vineyards in our region got frosted out with a cold snap on October 18-19.

We only got down to 34 degrees on that event and kept our leaves here at my site until another cold event on the 14-15th of November.

El Nino is playing with us again and, as always, there's not much we can really do about it.

But as always we'll roll with the punches and deal with whatever comes our way. The joys of grape growing in the Mid Atlantic!

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wine clumsy and tiring.

Potential alcohol (brix) is not a good indicator of ripeness or quality. Those who still delay in picking waiting to hit a certain number are more likely to harvest compromised grapes and rely on additions to fix the resulting wine. Reliance on a single numerical indicator can lead to different problems.

White Wines

It is often said that a white wine's first job is to refresh the palate during a meal. Relatively low alcohol and high acidity do this job.

Virginia is climatically well placed to fill the "refresh" void that California can't do. But I've tasted too many clumsy, blowsy Virginia white wines that don't wear their high alcohols and low (or added) acids well.

Our warm, cloudy climate usually allows us to get white grapes physiologically ripe at a well-balanced potential alcohol. But I often observe attempts to push the grapes to higher brix with the goal of producing a full-blown, flabby, ersatz California-styled wine.

If winemakers are regularly adding acid, then the grapes are being picked too late or the wrong variety is planted on the site.

Red Wines

The late rains of vintage 2015 inspired this article. Ten years ago I would have also let our Cabernet Sauvignon and Petit Verdot attempt to recover from the late September deluge.

I recently tasted Linden's red wines from 1999, 2000, and 2002. In these vintages I hung the grapes well after significant harvest rains. The brix eventually increased (probably through dehydration), but rot had compromised cluster integrity and skins had lost most of their tannins. These wines no longer have any structure and have a certain sweet/sour profile that can be common in Virginia reds.

I now focus on skin integrity for reds. If the skins start to slough off or degradate we pick regardless of brix, TA or pH. I have to admit that when I started doing this, the young wines seemed green and tart, but time in the cellar and the bottle transformed them to fresh, vibrant and structured.

Lower-Alcohol Wines

There is a trend now in California towards lower alcohol wines. An organization of winegrowers in California, called "In Pursuit of Balance," conducts tastings and seminars on lower alcohol, higher acid wines.

My impression of the wines is very favorable, but I wonder if they are disrespecting their terroir.



It seems that in sunny California, very high brix (potential alcohol) is hard to avoid. What wine balance they achieve by picking

Courtesy of Jim Law

The Botrytis fuse was lit as late fall rain began to soak grapes that were still hanging.

early can often make a meager wine without a core or ripeness of flavor or density.

I feel that Virginia can do better than California in achieving this style. We have clouds and haze, which reduce sun intensity, and we have rain that can stall brix accumulation.

Perhaps this is a good thing. For decades these climatic features were considered wine quality disadvantages. A "post-modern" paradigm shift of evolving wine style preference is changing how we define ripeness and approach picking decisions.

Virginia is in a good position to produce a wine style that is distinct and what wine consumers want. Let's not let brix get in the way.

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Soil Doesn't Need Added Potassium

By Lucie Morton
and Ernest "Bubba" Beasley

Editor's Note: Potassium (K) in fruit plays a critical role in the pH of must and wine, and pH is known to be a major influence on a number of wine quality factors, including color, acid balance and microbiological stability. In Virginia, however, excess K absorption by wine grapes is much more common than deficiencies. In fact, Lucie Morton, in her many decades of working in Virginia vineyards, says she has almost never seen K deficiency in mature vineyards.

In March 2014, Lucie and geologist Ernest "Bubba" Beasley asked the Virginia Wine Board to fund a study of K-uptake in grapevines. (Lucie's oral presentation was published in the Summer 2014 issue of Grape Press.) The study, which was funded by the Wine Board, was conducted by Lucie, Bubba and clay mineralogist Clifford Ambers with lab analyses by Dr. Lance Kearns of the JMU Geology Department.

The report on the study is well worth a read, and it can be found on the Virginia Wine Council's website or by [clicking here](#).

Lucie and Bubba summarized some of the study's key findings below.





1 The most important finding of our work is that even at sites with the lowest soil K levels (15ppm!), the vines showed sufficient K levels in the petioles. (See note below on petiole analysis.) Our major conclusion is that the addition of potassium fertilizers to our vineyard soils is not necessary.

2 Our data suggest that no universal relationship between soil K and petiole K exists across our region because different rootstocks, scions, soil types, etc. are known to have different nutrient uptake dynamics.

3 We have seen significant correlations between soil K and petiole K (and petiole K/Mg ratio) on individual sites where many of these environmental and viticultural variables are controlled.

4 We have seen correlations between bedrock mineralogy and soil chemistries.

5 Too much K can be detrimental to wine quality, and the scary thing is that in most cases K added to our soils as fertilizers remains in the root zone indefinitely (because of the clay mineralogy). Although much of the K in our vineyards may not show up on soil tests, it is actually there (locked up in the feldspars, clays and micas) and is slowly made available to vines over time.

Clay	Gravelly Sandy Clay Loam
	
	
Color Intensity: 4.8 420, 520, 620 nm	Color Intensity: 5.9 420, 520, 620 nm
<ul style="list-style-type: none"> • Topsoil K: 160ppm • Subsoil K: 75ppm • Petiole K: 4% • Wine pH: 3.95 • Wine K: 2250 mg/L 	<ul style="list-style-type: none"> • Topsoil K: 151ppm • Subsoil K: 33ppm • Petiole K: 3% • Wine pH: 3.79 • Wine K: 1505 mg/L



Courtesy of Lucie Morton

Above, two different soils within the same Cabernet Franc block produce two different wines. Lower K in the sample on the right resulted in wine with higher color intensity and lower pH. Left, "Bubba" Beasley studies a soil sample.

6 Adding excess K to our soils is not only unnecessary and detrimental to wine quality, but because of the complex cation-exchange dynamic of some very common clay minerals, the damage is extremely difficult to "undo."

7 Although our study did not focus on Magnesium (or Mg, a much more commonly seen deficiency), we note here that in the acidic soils of our region, K has a competitive advantage over Mg for uptake by the vines.

(Note on tissue (petiole) analysis: international standards call for 1.0 to 1.5% of dry matter, while in VA for some reason the standard is 1.5% to 2.5% or more!)

Soil analyses were developed for row crops, not vineyards

1 They are based on 6-inch rooting depth. This does not apply to grapes.

2 You cannot ignore the presence of K in subsoils and must take into account the actual rooting depth of vines.

3 Results of K content (expressed in PPM) are based on one of two tests: 5-minute Mehlich 1 (Va Tech) or Mehlich 3 (A&L/Waypoint Analytical) extraction. These tests do not accurately reflect the actual extractable amount of K over longer periods of time by vines.

4 Constantly fertilizing the top soils to excessive levels in the 100 to 200 ppm range will assure a lifetime of excess K in our vineyard soils that did not need it in the first place.

Long-Term Leasing for Planting

By **Jim Benefiel**
Benevino Vineyards
Vice President, VVA

This is the third of three articles on vineyard leasing and grape supply contracting that arose from last year's winter technical meeting of the VVA. The prior two articles on vineyard leasing are available via online Grape Press issues, and covered:

- Short-term leases that comply with the Farm Winery Act;
- Medium-term leases in which the lessor takes over full responsibility for a planted vineyard.

Reasons to Lease

If you are a current grower, you probably have learned that growing quality wine grapes is a difficult proposition in Virginia, with our humid summers that bring disease and our cold winters (relatively to *vitis vinifera's* historical growing regions) that bring cordon, trunk, and vine death. You probably have also learned that quality grapes require special soil conditions, else you are starting from a disadvantaged position.

As I consult around the State, I advise prospective growers to "maximize their scores" on the Virginia Tech vineyard evaluator website, rather than maximize their acreage. If you don't own the plots or blocks that are most amenable to grape growing, you will probably find it cheaper, over the course of the vineyard's expected life, to rent (lease) the land, rather than purchase it.

Of course, there are non-financial reasons to purchase and own land outright, but this article will outline typical specifications you will want in your lease and grape supply documents, from the point of view of the grower (the "lessee"). Reasons that your winery clients may want (sub)leases were given in the first article of this series. Some potential concerns of landowners leasing their land (the "lessors") will be highlighted, but the grower's concerns are the subject here.

Definition of a Lease

Recall that a lease is a legal agreement that conveys the right of a party (the lessee) to use the property of another (the lessor). For growers who identify premium properties, and for their landowner neighbors owning and occupying such property, leasing often makes sense, especially if the landowner isn't interested in undertaking the effort,

capital expenditure, and risk associated with vineyard development and operation, but wants to "keep the land in the family."

Leasing land for a vineyard will usually increase the landowner's income relative to current use (else why would he or she agree to lease?) because grapes are among the highest-value agricultural crops in Virginia. The lease will lay out the responsibilities of each party during the term of the agreement, and provide for continuity during the lifetime of the vineyard, even if that duration exceeds the lifetime of the principals.

There are "triple net leases" in commerce that require the lessee to pay all taxes and maintenance expenses. Additionally, there are also retail leases in which the lessee pays the lessor a percentage of revenue derived from the sale of goods from the leased facility. So these could be in your lease terms.

What is to be leased? For these long-term leases of raw land, this is usually a block of land, often drawn up from a map of the legal description of the underlying property.

Because of the special requirements of wine grapevines, it is highly unlikely that you will be able to plant vines "from fenceline to fenceline." In fact, it's my experience that, even in grape growing regions of Virginia, any given piece of property will not support grapevines on more than one-third of the property acreage.

If you're not going to add value to the entire property, then lease only that portion on which you intend to plant, and save the rest for the landowner. Your map of the lease land should be clear about the block boundaries — use landmarks or survey marks to base your description.

Rights and Obligations Of the Lessee

The lease document will typically:

- Allow the lessee the exclusive right to plant and maintain a commercial vineyard on the leased premises. Make sure that anything else you want to do with the property is spelled out in the lease. What about other/tangential agricultural crops? Will any non-agricultural activities, such as hunting be permitted?
- Require the lessee to obtain any required permits, pursue good agricultural practices, and use honest efforts to keep the vineyard in good condition, thereby maintaining the residual value of the land for the landowner. Enforcement of this provision may be difficult, so consider benchmarks by which you will/could be measured.
- Allow the lessor to enter the leased premises on a not-to-interfere basis for inspection and maintenance, and give the lessor the right to terminate the agreement if the lessee fails to live up to his obligations. In conjunction with the bullet directly above, you can see that you need to think through such contingencies to ensure you are adequately protected.
- Require the lessor to provide egress for the lessee, and perhaps use of well water or an existing storage facility, and to refrain from leasing the premises for other activities (e.g., mining) that would interfere with this lease. The landowner is likely to make no representation as to the suitability of the land for the intended purpose, and to require that Lessee acknowledge having evaluated the premises independently. Each party is likely to want assurances that minimum

See *LEASING* on page 9

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interference occurs with its ability to maximize the commercial yields of its property rights from actions conducted by the other party on either the leased premises or adjacent land.

Lease Duration

The duration is up to the parties, but in today's market typically requires at least 20 years for the grower to recover his capital expenditures. How long the lease extends after that, and whether it's done in the base, or with optional extensions is up to the parties.

Because of this typically long period, the lessee will often be well served by contracting as a corporate entity, providing for continuity in case of disability or death of the principal. The lessee will want the lease to survive the landowner's disposition of the underlying real property, and may also want a right of first refusal should the land go up for sale.

Renovation and Improvement

Is the lessee expected to fund the cost of any improvements? For example, what if the lessee wants irrigation brought into the vineyard, or an exclusion fence erected to minimize animal predation? What about adequate access and egress (e.g., a gravel road) for the anticipated equipment?

Who pays for that is a subject of negotiation and the relative standing of the parties, although if the lessor has no need for these improvements, it is unlikely that he will agree to fund them. If there is joint benefit to the parties, then some sort of apportioning appears warranted.

Assignment

Each party will probably want the right to assign its interest—for example, what if the assignor retains an interest? What happens if one party becomes disabled or incapacitated? Except for these two cases, a typical assignment provision requires the permission of the other party, and often states that such permission cannot be unreasonably withheld. Some leases specify the criteria for denying an assignment.

Note, however, that the Virginia Farm Winery Act incentivizes most wineries to document their contractual rights to—and obligations for—the crop to be produced from the leased premises in the form of a (sub)lease.

To meet the spirit as well as the letter of the Virginia law, a handshake agreement is probably not satisfactory. The grower will retain the obligation to maintain the

property, even if production of the grapes is set to the winery's specifications. These subleases must be allowed in the master lease agreement.

Price

The base rate for a lease should be consistent with the property's current use. Whether that use is hay, row crops, or cattle, your county extension agent may provide you with a reasonable rental rate, and this amount is usually considered to include any taxes and assessments on the underlying land.

Let's say the alternate value is \$50 per acre year. You, the grower, will probably need to provide an additional financial incentive to encourage the landowner to take it out of his own production for the duration of the vineyard. Whether that's a 10 percent, 50 percent or 100 percent premium is based on the perception of the parties.

As an aside, the annual lease rate does not necessarily vary with the remaining life of the vineyard as it ages. It will vary as alternative uses for the property arise. The value of the lease to you, the grower, is a function of the efficiency and productivity of your investment. If you have a superior site (for yields or quality) or are producing varieties in high demand (as evidenced, perhaps, by high prices), then your investment is worth more to you than another property producing lower yields or lower-valued varieties.

Because you are asking the landowner to set aside this property for a lengthy period, you need to provide him some financial incentive that allows him to benefit in your success. I recommend that the price include a performance provision, separate from the base rate, that is tied to your success with the property. For example, an override payment at season's end, stated as a percentage of the crop revenue is a possibility.

Payments

The landowner may be thinking of charging the lessee an up-front fee at the start of the lease, to ensure that the lessee is serious (often described as a "good faith" payment).

However, if the lessee shares with the landowner the general range of capital expenditures and operating expenses involved in vineyard operation, the landowner will quickly see that the financial commitment the lessee is undertaking is many times any "good faith" payment the landowner may require.

Since the lease is a right to use the property, base rate payments should be made annually at the beginning of the growing season or spread out over the length of the growing season — unlike a grape supply

contract when payment is usually made at delivery.

The lessor may want to spread payments over the season to ensure you are tending the grapes to their specifications (covered in a separate vineyard management/grape supply contract). As noted above, a performance payment may be made after the crop is harvested each year.

Termination

What actions or events will cause an early termination of this agreement? Will the lessee have the option to terminate early? If the lessee does not have a right of early termination, will he be considered abandoning the property if certain measures are not achieved? At normal (and early) termination, will the tenant vacate the premises "as is" or return it to its pre-planted state?

Penalties and Remedies

Lay out the process for resolving disputes, including notifying the breaching party and allowing a reasonable "cure" period to correct the problem.

What should be the penalty for a lessee's failure to make timely payments? A grower certainly won't want to give the landowner any right to block access to or management of the vineyard, as this may prevent the lessee from producing a sellable crop.

A landowner will certainly want assurances that payments will be made on time, or portions of product set aside to cover financial obligations. After that, most leases look to arbitration, rather than an expensive and time-consuming court fight. I have seen leases that designate the Director of the District Office of Virginia Cooperative Extension as the arbitrator.

Summary

This article focused on the particulars of long-term leases of raw land on which to plant and operate vineyards, in compliance with the Virginia Farm Winery Act.

As noted, leasing works well because wine grapevines require special growing conditions, and don't perform well on all soils and sites. Since they require significant capital investment and incur major financial risk, current landowners may be unwilling to pursue commercial vineyards, even if they have exceptional sites.

For these reasons, existing grape growers and landowners may prefer to lease land for vineyard development.

The long duration of the lease, and the activities and equipment involved argue for detailed documents that clearly lay out responsibilities and remedies.

Virginia Vineyards Association 2016 WINTER TECHNICAL AGENDA

Jan. 28-30, 2016
Omni Hotel, Charlottesville, Va.

Thursday, Jan. 28

- 12 p.m. – 1 p.m. Registration Opens
- 1 p.m. – 4 p.m. Governor’s Case Presentation, Track A (Youmans)
- 1 p.m. – 4 p.m. Interactive Grape Disease Management, Track C (Nita)
- 1 p.m. – 5 p.m. New Grower Workshop and Social (5 – 7 p.m.), Track B (Wolf)

Friday, Jan. 29

- 7:30 a.m. Registration Opens, Breakfast
- 8:15 a.m. Opening Comments (Kelly)
- 8:30 a.m. Crown Gall Research Update (Nita, Kawaguchi)
- 9:15 a.m. Insect Management Update (Pfeiffer)
- 10:15 a.m. Break, Visit Exhibitors
- 10:30 a.m. Pesticide Management & Safety Re-certification (LaChance)
- 11 a.m. Panel Discussion: Solutions, Successes & Failures - Innovations with Labor/Power (Tonkins, Everson, Wright, Ramsey)
- 12 p.m. Lunch, on your own
- 1:15 p.m. Assessing Vineyard Nutritional Status (Westover)
- 1:45 p.m. Research Update: Nitrogen from Vineyard to Winery (Moss)
- 2:15 p.m. Is it Time to Reconsider Potassium Recommendations? (Wolf, Morton, Beasley)
- 3:15 p.m. Break, Visit Exhibitors
- 3:30 p.m. Compost as a Nutrient Supplement

- (Westover)
- 4 p.m. TBD
- 4:30 p.m. Presentation: Grower of the Year Award
- 5 p.m. Break, Visit Exhibitors
- 6:30 p.m. – 8:30 p.m. Annual Wine Reception

Saturday, Jan. 30

- 7:45 a.m. Breakfast
- 8:30 a.m. Worker Protection Standards, Legal & Safety (Telemon)
- 9:15 a.m. Timing & Severity of Leaf Removal Impacts on Cabernet Franc & Petit Verdot (Hickey)
- 9:45 a.m. Break, Visit Exhibitors
- 10:15 a.m. Monticello Wine Trail Winemakers Research Showcase
- 10:45 a.m. VVA Annual Business Meeting
- 12 p.m. Lunch, Atrium
- 1:30 p.m. Adaptive Wine-growing in Virginia’s Challenging Climate
- 1:40 p.m. Sparkling Review and Tasting (Wheeler, Pelton)
- 2:20 p.m. Break (volunteers pour wine)
- 2:40 p.m. Fruit Drying On and Off the Vine with Tasting (Kelly)
- 3:30 p.m. Dessert Wine: Focus on Petit Manseng and Tasting (White, Pelton)
- 4:30 p.m. Meeting Adjourns

**Schedule subject to change.*

For more details and to register, please visit the VVA website:
VirginiaVineyardsAssociation.com