

GRAPE PRESS

Spring 2021

The Quarterly Newsletter of the VIRGINIA VINEYARDS ASSOCIATION

Vol. 37 No. 1

GROWER OF THE YEAR



Jack Looney

Carrington King, vineyard manager and co-owner of King Family Vineyards in Crozet, has been named Grower of the Year by the VVA. For more on Carrington and the award, see Page 12.

President's Corner

VVA Looks Ahead to Serving Growers

Editor's Note: The following is the first column for Grape Press by Skip Causey, the new president of the VVA.

By Skip Causey
Potomac Point Vineyard & Winery

During our preparation for the 2021 Winter Technical Meeting, the VVA Board discussed a number of current issues and concerns for Virginia vineyards. Many of the items brought up related to the theme of soil health. I think soil health will be an important issue in the years to come, so we will continue to keep it front and center.

At our winter meeting, soil scientist Laura Lengnick helped set the tone for the soil health theme, and our afternoon speakers brought some real-world ideas into focus.

One of the concerns involved the increase in the quarantined area for the spotted lanternfly,

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Lessons Learned in the Field

Pursuit of Finer Wine Leads Back to the Terroir

By Jim Law
Linden Vineyards

Hardscrabble Vineyard has been a continuous evolution. The first vines were planted in 1985. By the early 2000s it became evident that many uninformed decisions had proven detrimental to wine quality: Mismatches of soils and variety, a failure to respect landscape form (planting in swales, dips, and low areas), inefficient row direction (E/W), excessive spacing, and overly ambitious training systems (Lyre and GDC). To

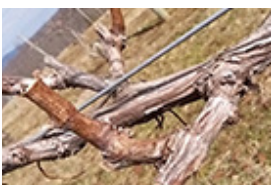
name just a few.

It became abundantly clear that in order to achieve the next level of wine quality the majority of the vineyard had to be pulled up and replanted. This process had to be gradual and systematic, as Linden did need grapes to make enough wine to keep the business going.

We are now enjoying the fruits of our efforts, but for this article I would like to share some of the setbacks and lessons experienced along the way.

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PRESIDENT'S CORNER (cont.)

PRESIDENT, from page 1

and we heard excellent updates from Heather Leach, an Extension Associate with Penn State, and Doug Pfeiffer, Fruit Entomologist at Virginia Tech.

But when I noted that the spotted lanternfly's expansion in Virginia and other states would be an important topic, Tony Wolf's response stopped me short. He said that while the spotted lanternfly would be a continuing concern, for most folks this year, the 17-year cicada will likely be more traumatic. Okay, time to do some research!

The first article that I read about the 17-year cicada referred to them as Brood X. Why does the letter "X" always carry such ominous connotations? Brood X, also known as the Great Eastern Brood, will come out of its 17-year hibernation this year as soon as the ground hits 64 degrees.

In the 15 states where Brood X resides there will not be millions, but rather, billions of cicadas emerging with one goal: to breed.

I still remember as a kid growing up in Woodbridge, Virginia, when the cicada Brood X came out. My brother and I would pick the shells off the trees and collect them in shopping bags. Of course, we used them to scare the heck out of my sister and her friends.

What I also remember was the super loud noise. The eerie buzz was so loud that my brother and I were convinced that a flying saucer straight from "Buck Rodgers" or "Lost in Space" was just over the next hill. We looked for days but never found it. This 2021 Brood X invasion will be another dramatic event in a strange Covid-19 year, one more suited to a "Twilight Zone" episode.

In closing, I hope you enjoyed the virtual Winter Technical meeting this year. The panelists did a great job and there were several great questions and followup emails going back and forth.

A special thanks to Nate Walsh, Tracy Kirkman, Tremain Hatch, Mizuho Nita, and, of course, Tony Wolf. Every year, the VVA Board comes up with several ideas, and these folks work hard all year to bring those

ideas to life and make this event happen.

We do look forward to having next year's winter meeting hosted as an in-person event. We are already in discussion with the Omni in Charlottesville VA about dates. We understand that one vital part of these sessions is networking with like-minded folks who can share advice and struggles.

And, of course, taste some wine!

Also, keep an eye out for information on this year's Summer Technical meeting. We are not yet sure how, where, or when this will be so please stay tuned. Tracy will be sending out a poll to all our members asking about topics or themes for both upcoming sessions.

I look forward to working with the current VVA Board as we move beyond this trying year. I especially want to thank Nate Walsh and Tom Kelly for their leadership and for all they

have done to promote the Virginia Vineyards Association.

And congratulations to Nate and his wife, Sarah, on the birth of their new son, who arrived, appropriately enough, in the middle of our Winter Technical Meeting.



VVA President Skip Causey

"My goal is to ... continue making [the VVA] self-sustaining and focused on what you all need most."

My goal is to continue running this association as a small business and to continue making it self-sustaining and focused on what you all need most. We will continue to work with the Virginia Wineries Association, the Wine Board, and the Winemakers Research Exchange to keep the whole vineyard and wine industry strong and growing.

If there are any topics that you think warrant discussion or any questions you need answered, please contact me or anyone else on the VVA Board so we can help (*see contact info in Board box at left*).

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► **NORTHERN VA.** “I’m preparing for the arrival of new Albariño vines this April ...”

By Dean Triplett
Greenstone Vineyard

The winter of 2020-21 started out quietly. But by January, snow and ice made their first appearance, continuing into February. As I write this report on Feb. 18, we’re in the midst of an ice/snow/sleet storm. This storm is the third of the season so far. Fortunately, none of the events have been much of a problem with only about six inches of the white stuff at any one time.

We haven’t done any pruning yet but should be starting in about a week or two. February so far has been colder than normal, according to the meteorologists. But this has not equated to very low overnight temperatures. The coldest that I’ve seen this winter is 21 degrees F.

While that’s good for winter survivability

of the vines, it’s also good for insect survivability.

We always have to be concerned about Japanese beetles, grape berry moths, and the like. But with the lack of really cold temps the concern will be greater as the season progresses.

So far, I haven’t had any occurrence of Pierce’s Disease, at least not that I’m aware of, but warmer overnight temps don’t help with suppressing the vector which causes the disease.

Adding to this year’s list of critters to worry about, I believe we will see the emergence of cicada Brood X. The last time this insect cycled through I didn’t think too much of it. However, it wound up being an issue the following year when it came to pruning.

It’s important to pay close attention to where the females are depositing their eggs as they can weaken the cane where they do.

The vine can be damaged enough that the cane will possibly die back to that point or be weak enough to be an issue in future years.

Bill Hatch at Zephaniah Vineyards told me that he noticed that first-leaf vines are the perfect size wood for egg deposition. The last time the brood emerged, he had to make sure he pruned all the new vines to below the damaged area. This is especially important when establishing the young vines’ initial structure.

As with most winters, life in the vineyard is pretty slow. I’m preparing for the arrival of new Albariño vines this April which will fill out my vineyard. It’s only an additional quarter acre, but with the three quarters of an acre that I planted last year it will make Albariño my biggest variety by area. The demand for the fruit has been strong and the

See NORTHERN on page 4

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► NORTHERN VA. (cont.)

NORTHERN, from page 3

fruit quality has been very good. And I'm finding the quantity produced by the vines has been better than I originally thought likely.

One experiment that I'm planning on conducting with my Cabernet Sauvignon this season is the application of biochar as a soil amendment. Biochar has aroused quite an interest in Europe, especially Italy, and also in California, especially in dry farmed vineyards.

Biochar is in essence charcoal, finely ground in most agricultural applications. It is not a fertilizer, but rather a carbon amendment that encourages biotic life and better utilization of the water and nutrients already present in the soil.

It's a fascinating subject and much too complex to go into in detail here. But in a nutshell, biochar in its raw, uncharged, form competes with the plant life it's in contact with for nutrient and water uptake and has a suppressive effect on those plants.

I intend to apply raw, uncharged biochar at various rates over multiple panels of my Cab in hopes of seeing a decrease in the vine vigor. Biochar has, as I've said, a fascinating history, especially in pre-Columbian Amazonia. I highly recommend Googling biochar (and biochar in pre-Columbian Amazonia) and checking it out.

Most of the wineries around me have been busy with the late winter bottling of their white wines and rosés. Some of the smaller wineries that bottle outside without shelter have had to really hustle.

The abundance of ice this winter has been a major concern. Mobile bottling lines have had real problems this year getting to wineries because of the weather. These lines are in such high demand here that if you lose your date to bottle due to weather or other issues, it can be months before you can be rescheduled.

Some growers that I've communicated with had such a rough time in 2020, what with the reduced yields from spring frosts, the usual issues at harvest, and the ongoing Covid-19 concerns, that I can detect a real negativity toward the upcoming year.

I've felt this kind of pessimism before in growers and winemakers after a particularly hard vintage. And, of course, getting the normal wintertime funk is something that plagues many of us mid-Atlantic residents. Cold grey skies can really play with our moods.

Somehow, this year seems different. I'm hopeful that the upcoming spring will not be a repeat of last year, and that the return of nice

"The abundance of ice this winter has been a major concern. Mobile bottling lines have had real problems this year getting to wineries because of the weather."

weather will help lift all of our spirits.

And I'm particularly happy to see that vaccines are getting into the arms of so many of my friends and neighbors. I'll have my second dose this month. It will be especially nice to actually talk, face to face, with so many friends, family members and fellow growers who we've been forced to isolate ourselves from for so long.

And hopefully I'll be able to give you some actual news of what other growers are up to around here.

Don't Worry, and Stay Calm!

Editor's Note: Dean Triplett is a regional reporter for Grape Press, covering Northern Virginia. We hope to feature more news about Northern Virginia's vineyards and wineries in future columns. Please contact Dean at gsvineyard13@gmail.com if you'd like to provide information for upcoming columns about growing conditions, new plantings or anything else you think would be of interest to other growers.

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► CENTRAL VA: “After some consideration we decided that we would plant Albariño ...”

By Grayson Poats
Valley Road Vineyards

Up to this point we are having a normal winter in Central Virginia. This leaves me hopeful that 2021 will be a normal year for us. You may have noticed that I have used the word normal in each of my first two sentences. What do I mean by that?

A normal winter is one where the vines are not pushing water, as they did last year, during dormant pruning in January and February. A normal winter is one where we have enough ice, snow, and mud to make us curse February and remind us why we hate it so much. A normal winter is not basking in 60-plus degree days as we did last year.

A normal year is one where we have a light frost post bud break that may do some damage to the most vulnerable area of our vineyard, not a monster freeze that wipes out all of our primary shoots. We all want normal, we all deserve normal.

With average temperatures for the period of December through February being around 37 degrees, it has been cool enough to keep the vines fully dormant. And while I wish that we had seen more very cold nights to keep Pierce's Disease at bay, the weather has been for the most part very conducive to taking care of all the wintertime tasks that need doing, whether it be pruning, repairs and maintenance in the equipment shed, or fixing posts, etc., etc.

Or, as is the case here at Valley Road Vineyards, you are planting a new vineyard in 2021 and are busy laying out the grid and putting posts in the ground. But before we put that first post into the ground, we first needed to decide what varieties to plant.

At Valley Road, we knew we needed Cab Franc and Merlot. Based on past experience at our current site, which is adjacent to the new vineyard, we knew both varieties perform well here. But we also wanted to plant a white variety. The question was, which one?

We currently have plantings of Chardonnay, Sauvignon Blanc, and Petit Manseng in Afton, and a small planting of Viognier at our Lovington vineyard. This block of Viognier is too small to supply our needs for the single varietal we make, let alone for the very popular blend that it goes into, so we have always supplemented this with fruit purchases from other growers.

So, our first thought was to plant more Viognier. But Vio comes with some baggage as many of you know all too well. I do love the wine it makes here in Virginia, and I have

always rated it equal or superior to those made in California or France in the blind tastings I've participated in. However, there is that issue of inconsistent yields and high pH numbers that make it less than ideal from the perspective of both the vineyard and the cellar.

After some consideration we decided that we would plant Albariño, a grape from northwest Spain and Portugal that is starting to gain in popularity in Virginia. Why? We had several things in mind when looking for a white variety to grow; could it handle the often wet and humid climate? How would it fare in the clay soils so common in the area? Would it be a consistent performer in terms of yield and quality? And last, but not least, would it appeal to our customers?

I spoke with both winemakers and growers

“A normal year is one where we have a light frost post bud break that may do some damage to the most vulnerable area of our vineyard, not a monster freeze that wipes out all of our primary shoots. We all want normal, we all deserve normal.”

on these points (as well as doing the all-important field research with some friends at area tasting rooms!) and found the answer to all these questions was a strong “Yes.”

Damien Blanchon handles both the winemaking and vineyards at Afton Mountain Vineyards and can, therefore, speak to the traits of Albariño, both in the vineyard and in the cellar. Afton Mountain has about three and a half acres of Albariño that were planted in 2010, 2014 and 2020. This, in itself, told me a great deal; why plant a variety again and again if it doesn't perform well? Answer: You don't.

What does he like about it? Well, like us, he was looking for something a bit different that would hang onto its acidity and was better adapted to high heat than, say, Sauvignon Blanc. He generally picks it at a pH of around 3.2-3.3, at which point the Brix is in the range of 21.

He likes the fact that it requires little or no acidification in the cellar and that it has a different aromatic profile than Chardonnay. It is consistent in its yields, coming in at three-and-a-half to four-and-a-half tons per acre on a VSP trellis.

He did point out that it is susceptible to Downy Mildew, so maintaining an open canopy to promote air flow is important.

Kirsty Harmon, general manager and winemaker at Blenheim Vineyards, is another big fan of Albariño. She calls it an “awesome” grape to grow. She was attracted to it, in part, because it is native to a region that has similar humidity and rainfall patterns to those in Virginia.

She also liked the fact that it holds its acidity and that its looser cluster and thicker skins make it less susceptible to sour rot than other white varieties. For these reasons it can hang on the vine until she's ready to pick it without much fear of rising pH numbers or late season rots.

She generally harvests at 3.3-3.4 pH with brix levels of 20-22 and a yield of around three tons to the acre. Another positive attribute she mentioned is that it has a vertical growth habit and is less vigorous than many other varieties. The one downside she mentioned is its susceptibility to Downy Mildew. Like Damien, she said care should be taken to keep the canopy clean.

The last prerequisite for the variety I chose is would it appeal to our customers? That was settled in my mind when a small group of friends with diverse wine preferences met me at a local winery for some tasting and snacking.

The Albariño was the favorite of the group. Clean, fresh, crisp, were the words I heard most often. This is a very food friendly wine that was perfect for the variety of cheeses we had that day, but I was thinking about how good it would be with seafood.

I look forward to having friends over for a fresh seafood dinner served with some local Albariño once we've all had our vaccines and things get back to that “normal” we've been dreaming of.

Editor's Note: Grayson Poats is a regional reporter for Grape Press, covering Central Virginia. We hope to feature more news about Central Virginia's vineyards and wineries in future columns. Please contact Grayson at grayson@valleyroadwines.com if you'd like to provide information for upcoming columns about growing conditions, new plantings or anything else you think would be of interest to other growers.

► **SOUTHERN VA.:** “Being very flexible is how we are approaching the start of ... 2021.”



Photos courtesy of Rachel Lagergren

At Stanburn Winery, Chambourcin (left) has been spur pruned, and Petit Verdot in third leaf is ready to be tied down.

By Rachel Lagergren
Stanburn Winery

Like much of Virginia, winter in the Southern Virginia AVA has been wet and cold. I reached out to Virginia Hamlet of Hamlet Vineyards in Bassett, who told me she had finished rough pruning and was waiting a few more weeks to start final pruning.

“We are often the first vineyard in the state to harvest grapes, starting with Pinot Gris in August or early September, followed quickly by Merlot. Our biggest concern every year is bird pressure after veraison, and we net every vine with full drape netting,” Virginia said.

“The 2019 vintage was a record year in terms of production and the quality was superb,” she added. “The 2020 vintage did not fare so well. Bud break occurred between March 31 and April 6,

followed by freezes on April 11, 15, and 18. Crop loss was 100 percent for the first time in Hamlet Vineyards history. We look forward to a cold spring and late bud break in 2021!”

Hamlet Vineyards is one of the southernmost vineyards in Virginia. The vineyard sits on gently sloping land only a handful of miles away from the North Carolina line. With red clay soil and an elevation of 830 feet, the owners, Virginia and Butch Hamlet, had initially wondered if the site would be suitable for a vineyard. After 11 growing seasons, it is clear that the combination works well for the six vinifera grapes that they grow.

In 2010, the Hamlets planted about 2.5 acres of grapes including Merlot, Pinot Gris, Petit Verdot, and Viognier. The following year, they added another 2.5 acres of Viognier and Cabernet Sauvignon. In 2017, they removed a portion of the Viognier to make way for Cabernet

“... This year the days and days of snow, sleet and rain have compressed the time we have to finish all our projects.”

Franc. With those six grapes, they currently make nine wines including varietals, blends, rosé, and a sparkling Viognier.

I also caught up with Kevin Sutherland for an update on happenings at Nicewonder Farm & Vineyards, Bristol. He told me that pruning was under way, and they were adding soil amendments, as necessary.

“Temperatures have been at or a little below normal,” he said, adding, who knows what is normal anymore?

“Post installation for our expansion is starting, and the plants for the expansion and replacement will be here before we know it,” he said. “A nice slow warm-up to April will be welcome.”

At Stanburn Winery, being very flexible is how we are approaching the start of the 2021 growing season. We had a plan, but our plan is ever changing.

Last year, the warm winter rushed us to finish and this year the days and days of snow, sleet and rain have compressed the time we have to finish all our projects. After suffering a 75 percent reduction in crop last year because of the numerous late frosts and,

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► SOUTHERN VA. (cont.)

SOUTHERN, from page 6

especially, the Mother’s Day freeze, we decided to push final pruning out as close to bud break as possible. In the past, we have not always had time or the people to run through the vineyard with a hedger to rough prune the vines. This year, we made that task a priority.

At our main vineyard, work began with the Chambourcin and Traminette. I cane pruned or extended cordons where needed before the rough prune. Then came more of the wet stuff so with the help of a crew, the final spur pruning was moved forward for all hybrids and completed by the middle of February.

In the Cabernet Franc and Chardonnay, we continued replacing old and diseased parts of vines with renewal canes. Some of these 20-plus year-old vines have grown tightly around the cordon wire, so we have gotten particularly good with loppers, saws and lots of cursing.

As of the end of February, all mature vines in the vinifera have been rough pruned and canes have been selected and laid down as cordons for the Petit Verdot and Barbera in third leaf. Our “sore shoulders” project (pulling trellis wire) has been started, but we’ve run into a number of delays due to wet conditions.

So far, all end posts to be replaced have been tagged and catch wires have been moved to make room to insert the new set of catch wires in the blocks of Cabernet Franc,

Traminette and Chardonnay. We wait for dry fields to move in equipment to start pulling wire.

Because of the higher elevation of the Vidal Blanc vineyard in Dry Pond, Va., work just began on Feb 21. I finished laying down cordons for replacement vines in third leaf and then begun cane pruning any vines in need.

Final pruning in this vineyard will wait until last, and should be finished by the end of March.

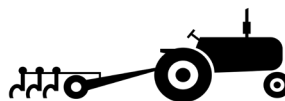
Now we hope for some drier days to finish

up. It’s looking like those rare sunny days will be long working days.

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Story Ideas and Writers Wanted for Grape Press

The VVA’s Communications Committee is always looking for wine grape growers, educators and industry experts who can contribute to our newsletter, Grape Press, which is published quarterly for the benefit of our members. We need two things: story ideas and volunteers who can help us turn those ideas into articles.

If you have an idea for an article or a viticulture topic you’d like to see us cover, please contact Chris Garsson (cgarsson@gmail.com) or Bob Garsson (rgarsson@gmail.com). We’re especially interested in finding a VVA member who can write a regional report on events, conditions, and other observations of interest to growers in the eastern part of Virginia. We’ll offer plenty of guidance and advice to get you started.

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Terroir Update: Lessons Learned

TERROIR, from page 1

SETBACKS

Time Is Relevant

The initial ten-year vineyard reorganization plan took just shy of twenty years to achieve. There were two significant setbacks: The first was based on naïveté. I recall winegrowers in France telling me to wait five years or more before replanting.

How absurd, I thought. We could turn around a block in a year: Pull out vines and trellising in the fall after harvest; add manure and lime; rip and sow cover crops the next year, then plant the next spring.

Eventually, experience showed that the Europeans were right. That ground needed to rest more than a year or two. Shortcuts resulted in weak vines and a much longer timeline to get to full production. Fallow time needed lengthening.

March 2014

Ouch. In late February, the sap had started to flow in young vines. One early March morning the temperature fell to around 0°F. Subsequent bud break and shoot development was uneven, and vines eventually started to collapse. It took several years for individual vines to succumb to the conductive tissue damage, but eventually over 50 percent of vines four years or younger died from trunk or graft union issues.

This was the new climate change reality. We used to worry about bud mortality from mid-winter temperatures in the negatives. Now the worry is temperature fluctuation. The good news is that once vines age a bit (6 to 8 years?) they seem resilient.

Two observations: First, south-facing

“Convex is good, concave is bad. It’s that simple. If I tried to squeeze in just one more row or run the rows a bit longer than the convexity of the slope dictated, I came to regret the decision.”



Don Bradner

Jim Law, owner of Linden Vineyards in Linden, says he's learned many lessons from working Hardscrabble Vineyard and has gone on to make more informed viticultural choices in order to continually improve upon wine quality.

slopes were the hardest hit. This makes sense as springtime vine activity is stimulated by an earlier warming. Then they may experience greater day-to-night temperature fluctuations.

And second: smaller vines had greater mortality than larger vines. It seemed that trunk girth at the graft union may have played a role, perhaps correlating to the observation that older vines did better than younger vines.

LESSONS

1. Respect landscape form.

Hardscrabble has many slopes, ridges, knolls, dips, and swales. Convex is good, concave is bad. It's that simple. If I tried to squeeze in just one more row or run the rows a bit longer than the convexity of the slope dictated, I came to regret the decision.

In red grape blocks, those overextensions became what we now call the Rosé corners. Big, vigorous vines do not ripen their fruit

well. It's best not to even try to make red wine from them. But the Rosé can actually be quite nice.

2. Some varieties are extremely soil sensitive.

In a humid, high precipitation climate, understanding the relationship of vine to soil available water is critical to the long-term success of a premier terroir-driven winegrower. If nothing else, that is the most important lesson I have learned from decades of visits to another rainy winegrowing climate: Europe.

Soil, slope, and aspect all play a role in pairing the right variety to the right place. Soil is the most important.

High-capacity soils (water retentive and lots of nutrients) are unforgiving to most red wine grapes (with the possible exception of Merlot). Chardonnay and most whites do need more nitrogen and water, but there are

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Terroir Update: Lessons Learned

TERROIR, from page 8

limits.

Matching soil characteristics to variety requirements was the impetus for starting this terroir project. Soil mapping helped, but observation of previous plantings on the same site was critical.

The steeper the slope, the less water the soil can absorb and retain. In our climate, the steeper the better. Until you roll a tractor.

Slope aspect matters. South absorbs more sun, is hotter, and dries out the soil faster. This is advantageous to late ripening reds such as Cabernet Sauvignon and Petit Verdot, but a disadvantage to whites where acid retention is important.

3. Vine age matters.

Vine age at Hardscrabble now ranges from 2 to 37 years. Young vines are more sensitive to fluctuations in rainfall. Their

root system is more superficial and is more dependent on soil surface moisture or lack thereof. (Hardscrabble is not irrigated.) This can be problematic in some vintages, as recent observations demonstrate:

2017: An exceptional vintage with just the right amount of rainfall at the right time. Even young vines produced great wine.

2018: A consistently wet vintage where basically no vines of any age experienced the hydric stress needed to produce great wine.

2019: An extremely hot, dry end to the growing season stressed out young vines to the point of berry shriveling and shutdown. Old vines produced very good wine, but young vines did not.

2020: Great fluctuations in soil moisture in August and September resulted in berry swelling and bunch rot in young vines, but old vines fared much better.

TERROIR WINEMAKING

Hardscrabble Vineyard is now “reorganized.” Fifteen of our 20 acres have been replanted, and the wine results are very encouraging. As we continue to learn our blocks and the vines age, I can see only advancement in quality.

The purpose for this journey was to better understand our terroir and maximize its best characteristics. This can be done only through what I call “Terroir Winemaking,” which is traditional, conservative, and boring. The only ingredients are grapes and sulfur (although in full disclosure, we did do some chaptalization in 2018). Grapes arriving at the crush pad must be balanced to avoid any manipulations, additives, or clever winemaking.

The vineyard must speak, not the winemaker. How else can we learn our terroir?



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It's difficult to eradicate Phomopsis once it's become established, says Mizuho Nita.

Mizuho Nita

Protect New Growth from Phomopsis

By Mizuho Nita
Grape Pathologist, Virginia Tech

One of the diseases you need to consider soon after bud break is Phomopsis cane and leaf spot. It causes minor leaf spots, which are more evident to our eyes, but necrotic lesions cause more critical damage on shoots and rachis. It also causes berry rot; however, it is not common with wine grapes because of our spray programs.

Phomopsis spores require water to cause infection, and they can germinate in a relatively cooler environment (the upper 40s). This pathogen tends to produce spores in spring from previously infected canes and cordons. Thus, springtime rain events are ideal for the development of Phomopsis.

It is vital to protect young tissues when

they come out from the older canes and trunks because we do not have any curative fungicides against Phomopsis. This disease typically takes a while to establish in the vineyard. It may take four to five years for Phomopsis to become noticeable after you start a new vineyard.

However, once established in a vineyard, it is difficult to get rid of this disease. The fungus survives in canes and trunks that were infected in previous years, and it can cause damage to cordons and trunks. In other words, this disease can cause long-term damage to cordons and trunks.

If rain events are coming into the picture after bud break, mancozeb (FRAC = M3, Penncozeb, Dithane, Manzate, etc.), Ziram (FRAC = M3), and captan (FRAC = M4) are useful protective materials against Phomopsis. Since shoots will proliferate

quickly, you may need to spray several times, depending on how much rain we receive. One or two applications, starting from 1 to 2 inches shoot length and repeated seven to ten days apart, are sufficient in a typical year. After that period, your downy mildew or black rot sprays, which will be applied in the late spring, will cover Phomopsis.

QoI (FRAC = 11), such as Abound and Pristine, as well as SDHI (FRAC = 7), such as Luna Experience, Miravis, and Aprovia, are effective, too. However, you probably don't want to use them this early in the season because you will need these materials for the latter part of the season to control other diseases (e.g., ripe rot and bitter rot).

Materials for black rot and downy mildew are often effective against Phomopsis. Thus,

See PHOMOPSIS on page 11

Protect New Growth from Phomopsis

PHOMOPSIS, from page 10

the fungicide coverage for these diseases also helps in the management of Phomopsis, especially later in the spring and early summer.

Some cultivars, such as Viognier, Cabernet Sauvignon, and Seyval Blanc, are more susceptible to Phomopsis than others.

The other disease that you may need to consider around this time of the year is anthracnose, which is more common with a certain hybrid species. Typical symptoms are black necrotic lesions on leaves, shoots, and fruits, and often, the black lesion has an ash-colored center, as if you burnt the leaf or shoot tissue with a cigarette.

The management strategies will be similar to that of Phomopsis, and in addition to the list above, Topsin-M (FRAC = 1) is also known to be effective.

A dormant application of lime sulfur (10% in our study, or 1% with Sulfurix) is effective against both Phomopsis and anthracnose.

With the corrosiveness of lime sulfur, it is hard to justify the money and time. Thus, the low rate of Sulfurix is appealing to me. We found fixed copper to be ineffective.

The dormant fungicide application can reduce Phomopsis to some extent; however, the application's efficacy is not strong enough to allow you to skip any preventative fungicide applications to be sprayed soon after bud break. The dormant application knocks down spores produced on the infected canes, but it won't protect new shoots. Therefore, you still need to protect your shoots when they emerge.

Although I see the benefit of the dormant application, it is generally more effective to spray mancozeb or captan soon after bud break.

Thus, I typically recommend a dormant application of lime sulfur only if you have a severe Phomopsis and/or anthracnose issue, and you need an extra kick to your regular preventative application after bud break.

The dormant application is less likely to be effective against downy or powdery because both are polycyclic diseases with a rapid secondary cycle. Even if you can knock down the initial inoculum, they can rapidly produce the next round of spores, especially under favorable conditions. These pathogens' winter survival structures are very tough, so I don't think the dormant lime sulphur application is the best approach. The dormant application of lime sulfur is used for ripe rot prevention in Japan. However, there is not much data to confirm whether the efficacy is valid or not.

If you are interested, please let me know so that we can set up a trial.

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GROWER OF THE YEAR

Enjoying the Challenges

By **Bob Garsson**
Virginia Vineyards Association

Carrington King, vineyard manager and co-owner of King Family Vineyards, Crozet, Va., was honored last month as the Virginia Vineyards Association's Grower of the Year.

The award was presented to Carrington by Virginia Secretary of Agriculture and Forestry Bettina Ring during the association's annual Winter Technical Meeting, which was held online Feb. 25-26.

"Virginia is one of the most dynamic wine-producing states in the U.S., with more than 28 varieties of grapes planted on more than 4,000 acres in the Commonwealth. Carrington King exemplifies the spirit that is bringing Virginia to the forefront of the American wine industry," Secretary Ring said in presenting the award. "Over the course of more than two decades, he has overseen the growth of King Family into one of the Commonwealth's largest vineyard operations."

Under Carrington's management, King Family has expanded to 50 acres, including 20 acres on an adjacent property that he also manages full-time. A producer of award-winning wines, King Family has been included in the Virginia Governor's Cup Case, which showcases outstanding wines in the state, in eight of the past ten years, including the 2021 case announced March 9.

"That's a huge accomplishment," Secretary Ring said of King Family's performance at last month's presentation.

"Carrington is one of the most experienced and professional vineyard managers in Virginia," said Skip Causey, who assumed office as the VVA's new president during the same meeting. "He's been a leader in handling the challenges of weather, employing helicopters and wind machines, for example, to protect his vines from late spring frosts."

Carrington has worked at King Family Vineyards since its founding in 1998, helping to plant eight acres of Merlot and Viognier vines while he was still in high school.

"We ordered the vines when I was 18 years old, and I was 19 by the time we



Corie King

Carrington King receives the VVA Grower of the Year award during the virtual Winter Technical meeting in February.

started planting," Carrington recalled. "During the fall, I would come home from college on the weekends to work in the vineyard. And back then, we did everything by hand — all the leaf pulling, all the hedging, and all the canopy management. We didn't use grow tubes. We trained every vine by hand."

Carrington said he learned valuable lessons about managing a vineyard from his father, the late David L. King, who was a prominent force in the Virginia wine industry. "He was always about doing the work and getting out there and being a leader," Carrington recalled. "Don't go sitting in the house and direct people from there. Get out there, and do the work with them, and they'll be inspired to treat the ground and the vineyard like it's their own."

Carrington said the vineyard and winery are truly a family operation, noting, "This is a team effort every single day. My brothers, James and Stuart, have been with me every step of the way, so this is very much a shared honor."

In accepting the award, Carrington also took special note of the support he received from his mother, Ellen King; his

wife, Corie, and his three daughters: Lellie, Stuart, and Gincy.

He also thanked his "vineyard mentor," consultant and Virginia wine pioneer Chris Hill, for teaching him "to question everything."

Chris, in return, had high praise for Carrington. "His vineyards are innovatively and intensely managed to produce the highest quality wine grapes possible in Virginia," Chris said.

"The critical success of King Family wines are a testament to the quality of the grapes, year in and year out," he added. "Carrington generously shares his time and viticultural thinking with all interested growers, as well as organizations such as the Virginia Vineyards Association."

In remarks after receiving the award, Carrington said "the last 21 growing seasons in Virginia have truly been an adventure, filled with highs and lows. It has been jarring at times but reminds us to appreciate what this seasonal life gives to each of us."

Carrington said he has enjoyed all of the challenges of Virginia viticulture: "Spring all-nighters under helicopters. Picking before and sometimes in the rain. Checking buds in the ice and mud. Pounding posts through the snow. Harvest lunches shared in the shade of a tractor tire. Vertigo when the sorting table stops. Sharing a glass with friends. We are all lucky people," he said.

In addition to the Merlot and Viognier that made up the initial planting, King Family now grows Chardonnay, Cabernet Franc, Petit Verdot, Petit Manseng, and Malbec.

Carrington, a former member of the VVA Board, continues to serve Virginia growers by participating in the Legislative Collective, which represents the interests of the Commonwealth's vineyards and wineries.

Carrington graduated from the University of Maryland in 2002 with a degree in horticulture. He played lacrosse in high school and college, and today he coaches youth lacrosse teams in Charlottesville.

Since 2005, the VVA has honored one of its members each year with the Grower of the Year Award. Recipients are active participants in the Virginia viticulture community with a track record of commitment and service to the industry.

VVA Elects New Board Officers

By Bob Garsson

Virginia Vineyards Association

Skip Causey, owner of Potomac Point Vineyard and Winery, Stafford, Va., has been elected to a two-year term as president of the Virginia Vineyards Association (VVA), which represents the Commonwealth's wine grape growers. Mr. Causey has served as a member of the VVA Board for the past four years, most recently as the organization's treasurer. He succeeds Nate Walsh, owner of Walsh Family Wine, Purcellville, who will remain on the board as past president.

The VVA also announced that members elected AJ Greeley, cellar master at Hark Vineyards, Earlysville, Va., to succeed Skip as treasurer, and reelected Maya Hood White, associate winemaker and viticulturist at Early Mountain Vineyards, Madison, as an at-large board member.

The results of the winter balloting were announced at the VVA's Winter Technical Meeting, which was held online Feb. 25-26.

"This is an exciting time for the Virginia wine business, and I'm looking forward to doing everything I can as VVA president to help new and existing vineyards be the best they can be," Skip said. "Growing wine grapes in Virginia can be challenging, but year after year, we are producing top-quality wines that stand up against those from anywhere in the world."

Skip said he and his wife began researching vineyards and wineries over 20 years ago before purchasing property in Stafford in 2005. They planted their vineyard in 2006 and 2007 and opened for business in 2007. They now produce 7,000 cases a year with grapes from their 23-acre property plus fruit from other vineyards in Virginia, including Silver Creek Orchards, Nelson County; Kalero Vineyard, Purcellville; and Brown Bear Vineyards, Woodstock.

"While these vineyards are in very different parts of the state, one common thread they share is the passion and care that the owners and managers bring to their business," he said. "Working with them has given me a

deeper understanding of Virginia viticulture, and that experience will help me represent the interests of all vineyard managers and owners in Virginia."

AJ, a former bookkeeper, has been involved in the Virginia wine industry for the past decade and has worked at a number of vineyards, including, most recently, Michael Shaps Wineworks and Blenheim Vineyards, both in Charlottesville. Starting in the vineyard, she also worked in administrative capacities and in the tasting room before finding her way into the cellar and winemaking. She continues to spend part of her time in the vineyard at Hark.

Maya has a keen interest in environmentally low-impact viticulture, wine chemistry and sensory science. She earned an M.S. in Viticulture and Enology from U.C. Davis, with research focusing on time-dependent sensory profiles and bubble nucleation of sparkling wine, and studies of Viognier wines from France, California, and Virginia. Prior to joining Early Mountain, she gained experience in viticulture and winemaking at several boutique wineries around the state.

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Governor's Cup Honors Outstanding Va. Wines

Gov. Ralph Northam awarded the Virginia Wineries Association's 2021 Governor's Cup to Barboursville Vineyards for its 2015 Paxxito. The winning wine was revealed during the annual Governor's Cup Celebration on March 9, which was held virtually this year. Also announced were the 11 other wines that will make up the 2021 Governor's Cup Case.

The Virginia Governor's Cup is hosted by the Virginia Wineries Association in partnership with the Virginia Wine Board and the Virginia Vineyards Association. A panel of 22 judges reviewed a record-setting 544 wines this year, conducting a blind sampling and scoring the wines in multiple rounds, according to a prepared statement from the governor's office. Gold medals were awarded to the 96 wines that scored 90 points or higher. All wines in the competition must be made from 100 percent Virginia fruit.

"Virginia's history as a wine region has close ties with Barboursville Vineyards, and I am pleased to recognize Luca Paschina and his team with the Governor's Cup for their continued innovation in winemaking," said Gov. Northam. "The wines in this year's Governor's Cup Case are a testament to the passion and pioneering spirit from which Virginia's wine industry thrives. As we celebrate these high-quality and distinctive Virginia wines, we also honor the resilience of the farmers and winemakers who grow and craft them across our Commonwealth."

The 11 wines also in the Governor's Case are: Barboursville Vineyards Octagon (2016) Barboursville Vineyards Vermentino Reserve (2019)

Bluestone Vineyard Petit Manseng (2019) Breaux Vineyards Meritage (2016) Breaux Vineyards Nebbiolo (2016) Carriage House Wineworks Petit Verdot (2019) R.A.H. Wine Company Series 1 (2017) King Family Vineyards Mountain Plains (2017)

Michael Shaps Wineworks Meritage (2015) Trump Winery Brut Reserve (2014) Veritas Winery Petit Verdot (2017)

Click for more info and a list of Governor's Cup gold, silver and bronze winners.

VINEYARD TASK	LABOR			EQUIPMENT							
	AVERAGE labor hrs / acre (F rows, VSP)	YOUR labor hrs / acre	TOTAL \$ / acre labor at \$18 / hr	AVERAGE equip up hrs / acre (F rows, VSP)	YOUR equip up hrs / acre	TOTAL \$ / acre equip up at \$25 / hr	list price new machine	life expectancy of machine (years)	straight line depreciation per year	maint. \$ / hour	TOTAL \$ / acre equip for 100 acres
remove clips	1.8		\$27								
rough prune, pull brush	10.1		\$182	1.0		\$21	\$10,500	10	\$1,050	\$7	\$167
selective prune to 4 canes per cane	18.7		\$336								
final prune canes, renewal spurs	11.7		\$211								
TOTAL hours / acre CANE prune	38.3		\$687								
per cane for gaps, extensions	13.8		\$248								
selective prune to thin canes	17.0		\$306								
final prune spurs	17.3		\$311								
TOTAL hours / acre SPUR prune	34.4		\$619								
dispose of prunage	3.1		\$56	0.5		\$11	\$6,500	10	\$650	\$3	\$94
desucker	8.4		\$151	1.0		\$20	\$5,500	10	\$550	\$2	\$110
head train	6.7		\$121								
cordon train	14.2		\$256								
shoot-thin	21.9		\$394								
shoot position (2 passes per season)	21.5		\$387	2.0		\$40	\$15,500	10	\$1,550	\$6	\$273
hedge (single sided hedger, 2 passes / year)	21.7		\$391	1.5		\$30	\$40,000	15	\$2,667	\$18	\$370
shoot (one side)	9.6		\$173								
install or fix bird net	11.4		\$205								
drop bird net	2.4		\$43								
uninstall or store netting	7.4		\$133								
TOTAL BIRD NET HANDLING	21.2		\$381								
harvest: set out lugs/bins, pick, haul from vtd	27.3		\$491								
TOTAL head train	188.5		\$3,393	6.1		\$121	\$78,000	10	\$6,467		\$1,94
TOTAL cordon train	197.1		\$3,544								
TRACTOR:				AVERAGE annual tractor hrs / A / yr	YOUR annual tractor hrs / A / yr	tractor purchase price	tractor life expectancy (years)	straight line depreciation per year	fuel & maint. \$ / hour	total \$ / hr tractor	

Track and Compare Labor Costs

Are your vineyard labor costs getting out of hand? The VVA's Labor Tracking Worksheet is a tool that you can use to determine the economic feasibility of owning and operating a specialized vineyard implement in your vineyard.

Just plug in your acreage and average time per acre you spend doing a task manually, and the worksheet will calculate and compare your cost of doing the task manually vs. mechanically. For detailed instructions, check out this video: <https://youtu.be/iG9RbUa6GRo>. Then, download the Worksheet here.

— Jeanette Smith, VVA Board member

Free Pest Management Workshops

Virginia Cooperative Extension is sponsoring free vineyard pest management workshops, including one with Spanish translation. Registration is required.

March 31, 12 to 1:30 pm: Grape disease management workshop (in English) to help you develop your disease management plan.

April 1, 12 to 1:30 pm: Grape disease management workshop (with Spanish translation). El Taller de Manejo de Enfermedades de Uva de Vino 2021, será presentado en forma virtual el 1ro de Marzo del 2021. Este taller se presentara de una forma diferente. El Dr. Mizuho Nita ha preparado una serie de videos los cuales han sido traducidos al Español por Beth Sastre. Le recomendamos que usted vea los videos que le son de su interés en preparación para la presentación virtual. Los videos son de aproximadamente 20 min y abarcan conceptos de patología de plantas, agentes biológicos y otros métodos alternativos de control de enfermedades, manejo para evitar la resistencia a los

fungicidas y la presentación de la nueva herramienta en línea llamada grapeIPM.org. Si usted no tiene tiempo de revisar todo este material antes del taller, por favor revise el módulo principal. En el taller virtual nos enfocaremos principalmente en preguntas y respuestas. Si está interesado/a por favor mande un correo a Beth Sastre a flores69@vt.edu, para que le envíe la invitación al curso y los videos y materiales necesarios. This workshop is to help you develop your disease management plan.

April 9, 12 to 1:30 pm: GrapeIPM.org (online pesticide management tool) workshop is a training session for a new online pesticide management and decision support system for grape growers.

Once you register, grape pathologist Mizuho Nita will provide a series of online lectures that you can watch before the workshops.

During each meeting, Mizuho will go over key items, and most of the time will be spent on Q&A and discussions.

Click here for more info and a registration link.