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# Brettanomyces in the Vineyard

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Joachim Hollerith, above, is considered one of the pioneers of the Virginia wine industry. With his son Jonathan, far right, they've made substantial contributions to viticulture here.

# From Germany to Va., a pioneer in the industry

By Lucie Morton

Joachim Hollerith was one of the great pioneers of the Virginia wine industry. A graduate of Germany's Geisenheim University, which has an extensive viticulture and enology program, Joachim was responsible for establishing Rapidan River Vineyards, which later became part of Prince Michel Vineyards.

His son, Jonathan, followed in the family tradition, studying viticulture and enology at UC Davis. After graduating, he worked at different California wineries before moving to Germany to start his own winery with his father.

Six years later, the promise of making high-quality wine brought him to Early Mountain Vineyards where he is thrilled to work with a group that shares his vision for true quality in Virginia. Meanwhile, Joachim has retired his time and energy to a small winery in Germany, where he enjoys the opportunity to hear about the VA wine industry through his son, who often returns to help with the winemaking.

Lucie Morton posed questions to both members of the Hollerith family for Grape Press:

Lucie: Jonathan, I have known Joachim Hollerith for 35 years or so. How would you condense his career for VVA members who may never have met him?

Jonathan: In 1978, the year after Gabriele Rausse began planting Vinifera wine grapes at Barboursville, Joachim planted White Riesling and Chardonnay at Rapidan River Vineyards

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President's Corner

# Season yields fantastic crops

By Tom Kelly Rappahannock Cellars

he weather is turning cold and we now have a chance to sit back and reflect on the 2013 growing season.

Despite the challenges faced through most of the summer months, I'd say that this years' vintage is showing great promise. Those growers who were able to fight off the wildlife harvested some fantastic white and early red varieties due to the stretch of warm, dry weather experienced in September. This was truly just what we needed, just when we needed it.

Late red varieties like Cabernet Sauvignon and Petite Verdot were troubled a bit by the heavy rains that moved in early in October, but diligent growers were able to see their fruit through the storms and harvest mature fruit with reasonable brix levels.

With most red wines now finished with fermentation and racked to barrel, and early whites being readied for bottling, the wines I've tried are showing extremely well. I, for one, am quite excited to see how the vintage develops from here.

#### Pressure from wildlife

It will come as no surprise to any reader that the biggest

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Zoecklein



#### PRESIDENT'S CORNER (cont.)

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challenge growers faced this year was from wildlife. A poor forage year meant that critters of all types were looking to our side of the fence for their winter stores.

As the VVA works to encourage the development of new vineyard acreage, the increased vertebrate pressure experienced in 2013 made it painfully obvious that issues involving vineyard profitability need to be addressed.

To that end, the VVA held two meetings in November (one in Charlottesville and one in Winchester) to solicit grower feedback on wildlife damage. Each meeting was led by Jim Parkhurst, Associate Professor at the Department of Fish and Wildlife Conservation at Virginia Tech.

The purpose of the meetings was to gain insight into the wildlife problem we're all experiencing in an effort to assemble a study investigating the true economic impact of vertebrate pests in vineyards.

This study will hopefully give grape farmers some much needed ammunition in the form of hard evidence when petitioning state officials for expanded control of the various game species that breach our fences looking for food.

Jim heard direct accounts of bird, raccoon, bear, deer, turkey and other animal

damage from grape growers, and he will use that feedback to design a study that we hope will be launched during the 2014 growing season.

We are also working with Jim on how best to conduct a follow up study addressing management strategies for vertebrate pests which will likely include the effectiveness of various fence designs, netting and scare products available to farmers

Finally, Jim has agreed to moderate a wildlife management panel discussion at the 2014 VVA Winter Technical Meeting in Charlottesville, VA. Look for more details about that as we finalize the new schedule in the coming weeks.

#### **Technical meeting lineup**

Speaking of the Winter Technical meeting, I believe we have a great line up for this year's sessions.

- ■On Thursday, you will have a choice to make as we will have concurrent sessions running, both back by popular demand.
- ■We will again be hosting the VWA tasting of the Governor's Cup Case led by Jay

#### **Happy Holidays!**

I'd like to extend warm holiday wishes to all our members and their loved ones for the Christmas season.

I hope you'll enjoy a glass of fine Virginia Red wine by the fire on Christmas Eve or ring in the New Year with a glass of Virginia Sparkling Wine before oiling up the Felcos for another pruning season!

- Tom Kelly

Youmans.

We will be

adding a new

discussion

board page

to the site

that will allow

members

to start

discussion

threads about

all sorts of

grape-growing-

related topics.

- ■In addition, we look forward to the return of the New Grower Workshop led by Tony Wolf and his team at the AREC.
- ■After the workshop, there will be a new grower meet and greet social sponsored by the VVA Education Committee.
- ■Friday sessions will bring a host of interesting topics covering many aspects of pest management including the previously mentioned wildlife management panel as well as a presentation on a 'ground breaking' site assessment tool.

■And don't forget; this is an "on year"

for those needing pesticide recertification credits. I am particularly excited about Saturday's presentation of research updates from the USDA/NIFA Specialty Crops Research Initiative (SCRI) titled," Improved Grape and Wine Quality in a Challenging Environment.

#### **VVA** website upgrades

Also on the horizon are some upgrades to the VVA website. We will be adding a new discussion board page to the site that will allow members to start discussion threads about all sorts of grape-growing-related topics. This will be an area where a free exchange of information

and ideas will be available to assist new and veteran growers alike.

Discussion boards will only be open to VVA members and a login account will be required to read and contribute to the discussion.

Not seeing what you're looking for? You'll be able to begin and moderate your own thread on any grape growing topic you like! Of course, fruit wine and cider growers are welcome to join in as well.

#### **REGIONAL REPORTS**

# ► CENTRAL: "September and October were glorious for ripening the reds." — Bill Tonkins

By Bob Garsson

s Veritas Vineyard and Winery's Emily Pelton put it, this was the vintage that felt it was never going to arrive, with the cellar team waiting for what she said seemed like months for the whites to ripen.

The large amount of rain and pest damage meant she could not be as particular about when to pick as she might have liked, and in some cases she had to make do with fruit that was not evenly ripe.

"This however did not dampen our spirits," she said. "I feel the wines we have made this year have great potential, especially the Chardonnay, which is showing a great balance of acid and palette-fulfilling characteristics."

"Fruit quality was good this year, maybe 'B' level overall," added Jeff Sanders of Glass House Winery. That surprised Jeff, given how the amount of rain and cloud cover through mid July.

However, he said, "acids are unusually good (not a surprise really), seed colors all got very dark, and flavors range from good to excellent." Sugars came in at the low end, though.

"Right now, we are still waiting for some of the high pH reds to finish malolactic to take a full assessment of what we can expect in the bottle."

Emily said she was pleasantly surprised by how well the reds ripened as the sun began to shine once again last in the season.

"The cool, rainy spring and summer meant the red varieties had lovely acid which allowed us to hang them for longer than ever before," she said, adding that she was especially pleased with the Cab Franc and Merlot this year, and was harboring high hopes for the Petit Verdot.

Although the PV had some uneven ripeness when harvested, is is still up to the high standard of years past.

"I am in love with the 2013 reds and can't

wait to see how they mature," she added.

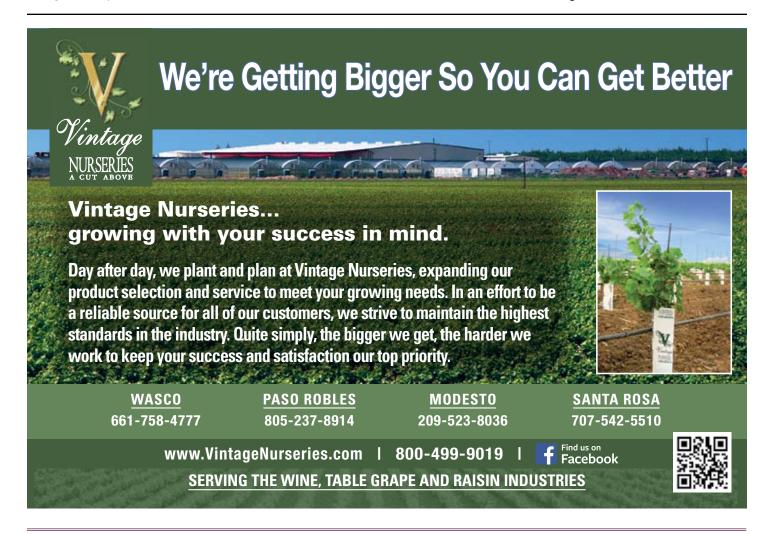
Bill Tonkins of Veritas recalled the difficulties of working the vineyard this year. The season began with poor fruit set in the whites and four to five times the usual amount of rain in August.

Canopy management and spraying costs shot up, and predators abounded.

"Things looked pretty grim at the end of August," he said, "but as it happened, September and October were glorious for ripening the reds and 'Hurricanes hardly ever happened!' We were able to hang our fruit longer than ever, even to the point of the Tannat shriveling like raisins before they lost their acid."

Looking ahead, Bill said, there will be much discussion on why the "furry pest situation" persisted right through the last berry being harvested.

However, he said, "the answer to pest problems is simply to plant more grapes. We need enough for all."



## **SOUTHERN:**

"Many of the area's red grapes were slow getting to veraison and ultimate ripeness."

**By Paul Anctil** Sans Soucy Vineyards

his was a season for the record books.

The quantity and quality of the harvest was all over the place. Some regional vineyards had normal harvest metrics, but others bordered on disaster. As one grower stated, this will be a year to see who the real winemakers are.

The early spring rains were relentless. At my vineyard, we received 14.57 inches of rain from April 1 to June 30, and the temperatures remained persistently cool. Not only did this affect bloom and fruit set, but it hampered our access to the vineyard for spraying protocols.

Many of the area's red grapes were slow getting to veraison and ultimate ripeness.

Varietals requiring longer growing time fared better as growing conditions in the last few weeks before harvest improved dramatically. The canopy on the other hand wouldn't stop growing and required more labor to keep things under control.

In short, everything was more expensive: more labor, extra spray rotations to deal with excessive rain, and dramatic increases in chemical and fuel costs.

My Cab Franc was some of the lightest colored fruit I have ever had. Leaving the grapes on the vine hoping for more ripeness was risky because of the spotted wing drosophila and other pests. In general, most of the area vineyards had significant shortfalls in overall tonnage.

As a quick aside, I participate in a national rain monitoring program managed and monitored by University of Colorado.

I find it very useful and some of you may want to look up: www.cocorahs. org. The data you will have access to can be very useful.

### NORTHERN VIRGINIA:

"Animal predation was persistent until the end of harvest."

By Tremain Hatch

Research Associate Alson H. Smith Jr. AREC

lear, cool weather through September allowed for calm harvest decisions for early and mid-season varieties. A hurricane was forecast with confidence by meteorologists for the 7th and 8th of October which allowed some growers to harvest before the rain. The hurricane did not amount to much rain.

However, a prolonged coastal storm made for three to four days of continuous rain that dropped between 3 and 8 inches in northern Virginia between October 10th and 13th. Most fruit was clean going into the rain, but the storm caused more than 108 hours of leaf wetness (read: super botrytis infection period) at the Virginia Tech Agricultural Research and Extension Center (AREC) in Winchester, VA.

Fruit that was just about ripe going into the

rain did not fare well through the prolonged rain; following the rain some fruit exhibited botrytis and somewhat lower brix than before the rain. Late hanging varieties like Petit Verdot and Petit Manseng tended to tolerate the rain quite well. In total, most fruit came in with moderate brix and slightly elevated titratable acidity.

Animal predation was persistent until the end of harvest. In some cases, damage increased as harvest progressed: fewer grapes left in the field and therefore predation concentrated with intensity on remaining blocks. Raccoons, groundhogs and in some cases bears, were implicated as the culprits.

Demand for fruit was very high this season. The addition of a large-scale spring frost and harmful animal predation caused the fruit supply to became more limited at the end of the season.

Many vineyards experienced a frost the last week of October.



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# **Brettanomyces and the Vineyard**

By Bruce Zoecklein

Bruce Zoecklein is the former head of the Enology-Grape Chemistry Group, Professor Emeritus, Virginia Tech.

authorities (defined as anyone who has guessed correctly more than once), we may be in the midst of a shift in attitudes towards Brettanomyces bruxellensis – one of the most controversial topics in the wine industry.

Brett has played the role of the "spoilage yeast." Its earthy, animal-associated aromas are often considered negatives, but opinions vary widely, due, in part, to the varying mix of wine aromas and flavors, the subjectivity of sensory and hedonic perception, ethnic origin, and significant differences among strains.

Some winemakers, wine critics, and consumers believe that it can add a positive note of complexity. Traditionally, the concern for Brettanomyces was the exclusive providence and concern of the winery, but that may no longer be the case.

#### The interlude

One day in August 1992, I found myself on a USAID mission traveling on one of Romania's state-of-theart medieval roads to visit one of the country's most respected vineyard managers. Unfortunately, his lack of competency with English was matched only by my poor understanding of Romanian.

Through an interpreter, I attempted to strike-up a conversation by asking the pedestrian question: what are your major viticultural issues? I am not sure what was communicated, but he answered, "My favorite time of year is midway between the flood and the drought." Remarkably, this, too,



BRUCE ZOECKLEIN

Chateau Palmer in Margaux believes biodynamic practices in the vineyard helps control Brettanomyces in the cellar.

was my favorite time of year, so we had a lot in common.

He had a lot to say, including that all of his vinevards were administered based on lunar phases (biodynamic farming, although that term was not used). The high-calcareous soils provided the highest quality, while the clay soils of some of his plots produced astringent, sometimes coarse, wines. In addition, he said something that that I did not fully appreciate at the time, that over the last two seasons he needed to segregate several blocks of Merlot because they regularly developed Brettanomyces in the wine. The fruit was not compromised: no rot, very "clean."

The link between the vineyard and Brett was also highlighted during the 2012 Technical Study Tour that I led to Bordeaux. At Chateaux Luekey Halde, our host, Jean Philippe Roby, informed me that his new cellar building, with all-new everything, had several vineyard blocks that produced Brettimpacted wine during the first vintage. As another example, I am working with a vineyard

in California that sold all of its fruit last season to three different wineries, each of which reported having Brettanomyces in its wine for the first time ever!

#### **Our Brett history**

In the late 1990s, my lab team was intrigued by the wide and varied reaction winemakers around the world had toward Brett. Some seemed to follow the mantra of the eighteenth century Irish philosopher George Barkeley, "Esse est percipi" (To be is to be perceived). They could not perceive a Brett character, so it was not there. Other winemakers seemed much more sensitive to any sensory characteristics they associated with Brett, good or bad.

We conducted a number of studies evaluating 24 genetically-characterized Brett stains obtained from around the world (McMahon et al. 1999, Mansfield et al. 2002, Fugelsang and Zoecklein 2003). We evaluated differences in the ability of Brett strains to grow, produce various metabolites and to produce hydrolytic enzymes to support their growth. In one of those efforts, replicated

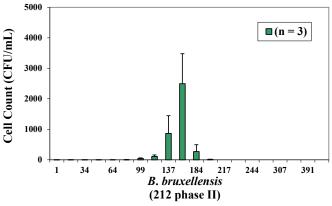
sterile wines were individually inoculated with one of eight strains of Brettanomyces bruxellensis. Population changes were monitored for 23 months, or until cell densities declined to very low levels. The variations among strains, including growth rates, population densities, and metabolite production, were dramatic.

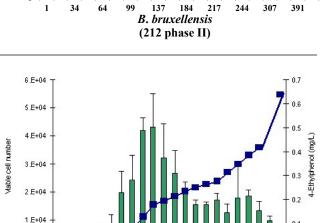
These examinations demonstrated several important Brettanomyces features:

- Different strains have very different growth patterns (see the graphs on page 6).
- Strains can decline in cell population, and then bloom again, a phenomenon we now call viable but not culturable (VNC). This called into question the validity of the traditional plate culture method used to determine the concentration of viable Brettanomyces.
- The correlation between primary metabolites and viable cell density was not nearly as strong as that between total cell populations (living plus dead cells).

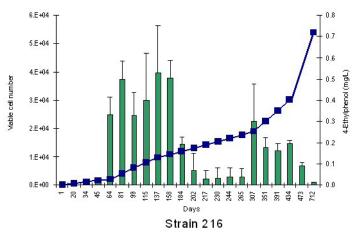
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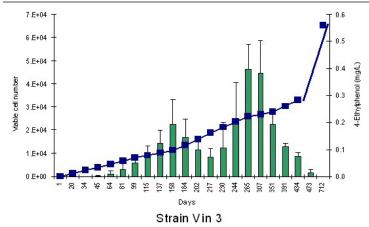
#### Growth (green bars) and production of No. 4-Ethylphenol (blue boxes) over time by three strains of Brettanomyces bruxellensis





Strain 213





#### Continued from page 5

- There are very large differences among strains with regard to metabolites such as 4-Ethylphenol (shown in the graphic above) and others produced.
- Various strains have the ability to produce enzymes that can hydrolyze or break down complex molecules to provide the carbon source to support growth.

These findings have been supported by other researchers, including Curtin et al (2005) and sport the concept of regionality. Stains from various parts of the world react differently! These studies illustrate the huge variation among strains which may help to explain the wide range of experiences reported by winemakers.

#### **Management in the winery**

244 265 307 351 391 484 473

Brett management strategies in the winery have at times involved protocols that are somewhat draconian and perhaps inconsistent with fine wine-crafting. Excessive use of sulfur dioxide is frequently the immediate choice of action. Not only does too much sulfur dioxide "harden" a red wine's mouthfeel, but at least one study showed that a fairly high percentage of the Brett strains isolated from around the world are tolerant of 30 mg/L SO2 at pH 3.4 (a level previously thought to assure death) (Froudiere and Larye, 1988).

Excessive use of sulfur dioxide to resolve a Brettanomyces problem is a bit like the story of the housewife and the vacuum salesman: "Ma'am, this unit will cut your workload in half." "Great," she says, "I'll take

two." On the other hand, if sulfur dioxide is added in multiple doses that are too small, winemakers might unintentionally be selecting for SO2-resistant strains. The Brett yeast is opportunistic. Like a hospital-type disease organism, its dominance may actually be promoted by some of our sanitation attempts (Smith 2013). Timing and magnitude of SO2 additions, therefore, may be important.

The traditional methods of control at the winery have involved a host of procedures:

- co-fermentation with malolactic bacteria (to be able to add sulfur sooner, rather than later)
  - · sulfur dioxide
  - · dropping the pH
  - sterile filtration
- chitosan-based commercial addition products
  - dimethydicarbonate (DMDC)

known commercially as Velcorin

- sorbic acid, potassium sorbate
- fining to lower yeast populations
  - thermal processing (40o C)
- avoiding oxygen exposure by limiting splash racking, etc.
  - · lees-free storage
- keeping the cellar as cold as possible
- keeping pomace away from fermenters
- various sanitation methods, including ozone, hot water, ultra sound, etc.

Overall, our winery management at times is a bit reminiscent of the Monte Carlo fallacy. Although some think of this fallacy as a strategy, it is simply uniformed guesses. As an example, a roulette wheel with

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half-red and half-black positions has a 50% chance of landing on red. So, if we turn the wheel six times and it lands on red, we may be tempted to place the next bet on black; after all, back is due, correct?

#### More Brett now?

With improving winemaking standards, why has Brett remained a problem? Indeed, some believe Brett incidences are on the rise. How could that be? There may be several possible reasons, including the following:

• Climate change – Rising temperatures may increase ripeness, resulting in higher pHs and phenolic content in the fruit. With increased alcohol, there may be a tendency for a greater concentration of residual sugar remaining post-alcoholic

fermentation. Are rampant Brett infections in the winery a function of large inoculums on the fruit?

- Minimalistic winemaking

   Limited use of sulfur dioxide
  at crush and during aging may
  increase Brett growth.
- Phenolic management The trend towards relatively-highly extracted wines may increase the concentration of certain grape phenols which are precursors to volatile phenols produced by Brett.
- Storage *sur lie* Such storage may increase the total nitrogen content, helping to support growth.
- Excessive nitrogen in the fermentor The tendency to use supplemental addition products, even when unnecessary, may result in excessive residual nitrogen which can support growth.
- Adaptability of Brett strains – Brettanomyces is

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much more tolerant to changes in temperature and pH than Saccharomyces and has a more energy-efficient metabolism (Bisson 2013).

- Very large regional differences among Brett strains.
- Or perhaps we are simply more aware of Brett than in the past?

#### Microbial ecology

Like a hospital-type disease organism, Brettanomyces dominance may actually be promoted by some sanitation practices (Smith 2013). French research suggests that one of our greatest allies against Brett may be native organisms. In wines where the natural microbial balance was eliminated by pasteurization, Brett growth was much more rapid and developed significantly greater population densities (Smith 2013).

The concept of microbial balance is gaining attention as we realize that despite the addition of cultured yeasts to a red must, a substantial portion of a fermentation can actually be conducted by other, native organisms (Bokulich et al. 2012). There is a substantial difference in microbial populations among different wines produced at the same facility. It may well be that microbial ecology impacts Brett growth.

After alcoholic fermentation finishes, the S. cerevisiae population decreases. If, by this stage, there is no carbon source and nutrient supplies are exhausted, the wine will likely be stable with regard to Brett growth. If these conditions are not met, an opportunity for Brett growth remains (Van de Water, L. 2010).

Brett lacks the genetic capacity to synthesize many of the micronutrients required for growth, which is a reason that blooms or excessive growth generally follow, rather than proceed, alcoholic fermentation. If there is an excess of YAN (yeast assimilable nitrogen) in the fruit or must, there will be an excess remaining in the wine,

Continued on page 8

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— Bruce Zoecklein

Continued from page 7

post-alcoholic fermentation. This can help Brett, if present, to flourish. This is one reason why I have encouraged our winemakers to have the Virginia Tech Enology Service Lab measure YAN at or just before harvest.

# What about the vineyard?

The problem of combining suitable plant nitrogen nutrition for vine balance with optimum concentrations of natural berry nitrogen remains largely unsolved. Last season in Virginia, we generally experienced fairly high YAN levels around the state, due in part to the higher than usual spring rains. Adding nitrogen was, by and large, unnecessary and, indeed, not undesirable. Winemakers universally appear

to take the approach that if a little is good, more is better, and add exogenous nitrogen to the fermentor. This may be an important factor aiding the growth and development of Brett in wines.

Whether or not Brettanomyces is commonly present in the vineyard and present in a concentration that would be a problem remains controversial (Van de Water 2010). Thanks to recent advances in media and methods of detection, Brett has been detected in vineyards and on grapes. Several have suggested that fruit does represent a source of potential winery contamination (Agnolucci et al 2007, Renouf et al 2007).

Brettanomyces is known to be on plant material and transferred easily by insects. A grape berry naturally caries between 104 and 106 microbial cells and the mix of organisms can vary depending on stage of maturity, variety, region, season, and condition of the fruit (Guerra 2010). The majority of these organisms are from a few major species. Brettanomyces is usually limited in numbers, a reason why it has not been associated strongly with the vineyard (Guerra 2010). With compromised fruit there is a possibility for this yeast to come into the winery with the broad-spectrum of other saprophytes on the fruit.

Brettanomyces has been associated with Botrytis and sour rot. It seems logical yhat any fruit breakdown, including from Spotted Wing Drosophila, can release both sugar and nutrients to aid growth. Guerra (2010) noted that both the physical state of the fruit as well as whether any anti-Botrytis spays have been applied could impact the

Brettanomyces populations. Vineyard sanitation also has a role to play, including simple things such as the use of clean lugs. Certainly, activities such as moving wet pomace to the vineyard could increase the inoculums levels.

The argument that Brett cannot come from the vineyard in high enough concentration is a standard, traditional mantra. We have examples suggesting this is not true. The one truism that should always be kept in mind – it is what you learn after you know it all that really counts! Regardless, an understanding of the diversity of this yeast and methods of control will remain essential for consistent fine-wine crafting.

Live life as if you were going to die tomorrow, learn as if you were going to live forever. -Gandhi







From left to right:
Doug Flemer,
unidentified
individual,
Joachim Hollerith,
Jonathan Hollerith
(#12), Joshua
Hollerith, Wines
of America author
Leon D. Adams in
1982 at Rapidan
River Vineyards.
Jonathan, below,
in the cellar.

PHOTO, LEFT, BY LUCIE MORTON; BELOW, COURTESY OF THE HOLLERITH FAMILY

# Virginia viticulture pioneer

Continued from page 1

which later became part of Prince Michel Vineyard & Winery. By 1981 he had also added plantings of Pinot Noir and Merlot in a vineyard that grew to 45 acres.

The challenges of creating a higher density European style vineyard back then were great, especially in obtaining tractors and viticultural equipment. Joachim bought the smallest tractor he could find, allowing him to plant 7.5 feet between rows.

Over the years, he brought over European equipment, both for the vineyard and the cellar, that set examples for what was possible here. Obtaining the right combinations of clones and rootstocks suitable for the East was so difficult that Joachim became a nurseryman.

After a long career in many facets of the industry in Virginia (mostly), California, and even a small bit in China, Joachim has settled in the Palatinate (a region in southwestern Germany) where he owns and runs Weingut Joachim Hollerith.

Here he produces Pinot Noir, a Syrah/ Merlot Blend, a Pinot Blanc, and a Sauvignon Blanc.

# How would you compare the climates of Germany and Virginia?

The two have many similarities, with the main differences coming in temperature and humidity. However, there is much variation

among Virginia vineyards and among German ones as well. This is why we love the word terroir. It refers to the uniqueness of a special plot in its own little microcosm of the universe.

In both places, we find:

- wet growing and ripening conditions
- Strong storms with high winds, hail, and torrential rains
- Drought conditions in some vintages
- Variability in weather patterns is a shared condition

Some key differences include:

- Lower humidity in Germany, which is an advantage in disease control
- And fewer Growing Degree Days in Germany, which naturally influences varietal decisions, viticultural practices, picking strategies, and winemaking decisions.

With the proper viticultural practices in Germany, you can achieve sugar levels similar to those for some Virginia grapes – in Merlot for example – but generally with greater acidity. This influences how you will approach the grapes from crush pad operations and extraction techniques to aging and finishing the wine.

# What can we learn from the evolution of German practices in recent decades?

We want to be clear that when we say these influences are German, we truly mean



to say European. The French are also leaders in cover cropping, vine density, and soil management, organic and biodynamic viticulture.

German practices that can inform Virginia growers include:

- practices that help reduce vigor or combat disease
  - rootstock and clone selection
  - timing of pruning
  - vine planting methods
  - vine spacing or density
  - cover cropping
  - soil management
- cluster thinning techniques (for example cluster halving to fight rot and reduced crop loads for greater quality).

Vine densities found in Germany are

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# Virginia viticulture pioneer

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much higher than in Virginia. We plant roughly 2,900 vines per acre on our vineyards in the Palatinate.

Close spacing increases competition from vine to vine with a larger root network. Competition slows down individual vine vigor. Germany has a great selection of narrow vineyard tractors and attachments critical to proper vineyard management.

## What about sustainability and integrated pest management?

Our vineyard is farmed organically. Biodynamic viticulture in Germany is producing excellent wines. They are producing smaller berries, fewer laterals, all the while showing good vine health--even in often highly wet and humid conditions. Virginia should look at what they are doing here with increased interest.

This does not mean we could directly transfer the practices and have instant success, but it could point the way to slowly developing more environmentally thoughtful viticulture. We need to remember that Virginia is unique in many aspects. The vineyards are often much more remote and surrounded by woods than the vineyards found in Europe.

As high as the disease pressure can be in Germany, it is even greater in Virginia. Germany does not have issues with black rot, which can be a huge problem here in Virginia, especially for organic programs.

Jonathan, having worked with your Dad in the past and now with you, it feels like

## back to the future! What has your path been?

I grew up watching my father make wine in Virginia under the guidance of renowned consultant Jacques Boissinot. After working for a year as an apprentice at Domaine de Chevalier and later at Chateau Lagrange, I decided to make wine my career.

I worked my way into the Viticulture and Enology program of the University of California Davis. Upon graduation, I came to work with my father to open the small boutique/garage winery "Weingut Joachim Hollerith."

We planted vineyards and are now producing red wines that have placed highly in prestigious German wine competitions.

Today I also consult for Matthias Stachel from Weingut Stachel to help improve his vineyard and cellar practices. We have had good success.

In 2012 my path came full circle when I started working as vineyard manager and part of the winemaking team at Early Mountain Vineyards. For now, the transatlantic juxtaposition is very real.

# Joachim, what do you think of the future for Virginia wine?

"It just needs to be unlocked and respected for what it is. There is perhaps no other place that can throw as many variables your way as Virginia, but if you can find a way to tame those variables and bring them together you can make something truly amazing. There are hidden gems out there; some of them are still waiting to be made."

Says, Jonathan of his father: "He looked at me pretty sternly when he said that last sentence!"

# Sustainability: 2013 Roundup

**By Bill Freitag** *Toll Gate Farm* 

elome to December and a chance to take a breather after a challenging harvest. I hope you'll use this time to start or complete your assessment in the Virginia Sustainable Winegrowers self-Assessment Guide (VSWAG). Do it now before your memory begins to fade and facts get lost in the coming holiday rush, or the start of pruning.

In this installment, I want to update you on our progress, offer some suggestions to help you with the assessment tool, and ask for your help so that we can continue to improve the guide's usability and functionality.

#### **Progress report**

We officially launched the VSWAG in May 2013, and we have gone from zero to 62 registrants in the ensuing half year.

- We have 10 registrants who do not have vineyards per se but are part of our supporting structure and include consultants, extension agents, and others.
- We have 52 contributing users from Virginia. Of these, 39 have created one or more blocks, as is shown in Table 1 below.
- In other words, 13 contributing users have not created any block description yet. Some of these users are new and do not yet have vineyards planted.
- We had a surge of new sign-ups in October and early November to the tune of 17 new registrants.
- Eleven were Virginians; six were outof-state users from Michigan, New York, Missouri, Maryland and one unidentified state. The out-of-staters are mostly government officials/extension agents. These users do not enter into our statistics.
- We can take pride in already having achieved some level of national interest.

REGION	USERS
Central Virginia	9
Chesapeake Bay	2
Eastern Virginia	1
Hampton Roads	1
Heart of Appalachia	1
Northern Virginia	17
Shenandoah Valley	7
Southern Virginia	1
All Regions	39
Out of State	6

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#### More assessments completed

Aside from vineyard blocks being registered, another important metric is how many of our members have actually completed the self-assessment: This is, after all, the purpose of the project. See Table 2 at right for overall completion rates.

We have 52 contributing users; 41 have completed all or some portion of the guide.

- 11 of those users have completed the entire guide with its 13 major topics consisting of 109 Viticultural Best Practices.
- 22 other users have completed at least some portion of the guide.
- 8 users have not completed any of the self-assessment.

A number of users have created multiple blocks, each showing a different variety of vinifera, which leads me to ask if each of these blocks are truly being farmed differently from each other, or if they actually are in different locations. If not, then you are creating extra work in trying to fill out assessments for multiple blocks when one block would do the trick of describing your operation. There is no problem with creating additional blocks: I just want to remind you that you may be making unnecessary work for yourself. This may also deter a user from ever completing the self-assessment.

#### Help us help you

We're dedicated to continuously improving the guide to make it easier for you to complete and update and more useful for all of us in gauging Virginia's wine industry sustainability. As you begin to fill out your guide, I'd like to ask you to make notes as you work to determine any technical problems with the tool's functioning. Please note potential software problems—such as an incorrect calculation or the tool failing to save an entry—and report these problems using the Contact Form in the tool. It is easily accessible on each page. One caution: You will not see any scoring for topics that are incomplete. This is by design.

Likewise report any suggested enhancements that you believe would make life easier for you as a user. This second category is important because any major changes may require an add-on to our current contract with AGSquared. Again, please send your suggestions via the Contact Form.

#### An introduction for newcomers

For newcomers to the VVA who may be unfamiliar with the tool, the sustainability guide resides online under a tab on the VVA website with the name "Sustainability." The tool is user-friendly and intuitive to

#### **Completed Self-assessments**

	Name	Number Complete	Max Score Possible	Average Score	High Score
1	Pre-plant considerations	19	188	145	181
2	Soil Management, Fertilization, and Irrigation	15	52	44	52
3	Vine training and crop/canopy management	14	48	41	48
4	Groundcover and weed manag't in established vineyards	13	36	29	36
5	Pest management	14	52	48	52
6	Disease management	12	152	132	151
7	Arthropod management	11	88	71	88
8	Vertebrate management	11	36	33	36
9	Pesticide safety and managment (This topic has no practices)	-	-	-	-
10	Pesticide storage	12	36	26	34
11	Pesticide mixing and handling	12	84	68	79
12	Pesticide application	12	68	53	68
13	Grower/employee education	11	56	47	56

use, requiring little if any formal training. However, training is available and includes: a help site covering an array of well written topics, short online videos, and a comprehensive webinar video.

To sign on and begin using the guide, go to http://vswag.virginiavineyardsassociation.com/login. The tool will let you start filling out the guide, save your answers if you need to stop, and pick up later where you left off. Make sure you log off after each session.

We've had several inquiries from new users about getting access to the Dashboard on the site if they do not yet have a vineyard to describe in the Blocks section. The simplest solution is to create a dummy block. The key is to not leave any blanks. Use your place of residence as the county. This will give you full use of the tool as a learning aid, but will not distort our statistics.

I want to thank all of you for your continued support in helping our industry's sustainability efforts. I hope and expect that by the next issue of Grape Press, I'll have more good news to share. But between now and then, please start or complete your assessment, share any helpful tips for other users, and let us know about technical problems you're experiencing.

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# Why social media matters: Part II

#### By Frank Morgan

(Frank's well-read blog, Drink What You Like, focuses on Virginia wine. This article is the second in a series. You'll find his blog at: DrinkWhatYouLike.wordpress.com.

y last visit to the Napa, Calif. area was in early summer — a quick, one-day visit tacked on to the end of a trip to San Jose with my wife for a conference.

In the morning before leaving my hotel in San Jose bound for Napa, I tweeted something like; "Up and at it early, looking forward to a day of catching up and tasting in #Napa."

Within 30 minutes of sending that tweet, four Napa wineries replied with invites to stop by for a tasting, one sommelier suggested that I come to her restaurant for lunch while nearby, and one hotel contacted me to suggest that I consider extending my trip and stay at their hotel. By the end of the day, a number of other local winery folks had reached out with invites and suggestions.

Since one of those wineries was located near a small market where I planned to meet a friend, I accepted the invite. I had

A common mistake newcomers to Facebook and Twitter make is to use these platforms for one-way dialogue, such as promoting — and overpromoting events. a great visit and tasting with the winemaker and purchased wine to bring home. I'm now an evangelist for this particular winery and regularly suggest it to friends who ask for recommendations when visiting the Napa area.

A small example, I concede, but proof that online engagement via Twitter and other social media

platforms enables wineries to engage with new customers and move wine.

In the first article in this series, which appeared in the last issue of Grape Press, I concluded by noting that while social media is not a panacea, it will play an important role in the next chapter of Virginia's wine history and it can help Virginia wineries build brand awareness and forge new

Twitter is an online social networking service that enables registered users to send, receive and read short messages (called "tweets") of up to 140 characters. Tweets can include links to websites, photos or plain text. Also called a microblogging service, Twitter had over 500 million registered users worldwide in 2012.

According to company statistics, there are roughly 340 million tweets per day and 1.6 billion Twitter search queries per day. Some of these searches included information for Virginia wineries.

Facebook. To learn more about setting up a business Facebook page, see Social Media Examiner's step-by-step guide: http://www.socialmediaexaminer.com/how-to-set-up-a-facebook-page-for-business/

Social Connect. To setup a free Social Connect account visit: http:// www.vintank.com/social-connect/

- Frank Morgan

relationships with potential customers.

In this second installment of the series, we'll introduce three social media tools that wineries should be using to engage with current and new consumers.

If you don't already have a Facebook page specifically for your winery, this is one of the simplest social media platforms to use. Visit Facebook.com to create a free page.

Once the page is set up, invite tasting room visitors, current club members and customers to "Like" your winery Facebook page.

After that, use your page often and be prepared to engage with consumers when they post comments or questions to your page. Find creative ways to reward loyal customers and educate potential customers about your winery.

Perhaps start with a free (or 2-for-1) tasting offer or other specials for customers who "Like" your winery page. Or, maybe have a "Social Media Day" at your winery.

Second, establish a Twitter account for the winery and use it often. Wineries can visit Twitter.com to establish a free account. Once your winery's account is setup, follow industry peers, online wine influencers and, of course, your customers.

The easiest way to follow and connect with online wine influencers is to search or follow hashtags (the '#' symbol, which is used to denote keywords or topics in a tweet). Some common examples include #wine, #DrinkLocal, and #VAwine.

Many wineries and winemakers — like Randall Grahm — have leveraged Twitter to reach hundreds of thousands of wine enthusiasts. Grahm, the founder and winemaker at Bonny Doon Vineyards, Santa Cruz, Calif., has over 325,000 followers on Twitter, more followers than many cities have residents.

Again, these are the very basic steps. Getting started is the key. After that, you can experiment to find out what works best for your winery.

A common mistake newcomers to Facebook and Twitter make is to use these platforms for one-way dialogue, such as promoting — and over-promoting — events at the winery or seasonal specials.

The real power of social media is in two-way dialogue. Engage your customers in conversation over Twitter, and reach out to Twitter users who display an interest in wine or who are visiting your area. Recall the wineries, restaurants and hotels that reached out to me while I was visiting Napa.

And go a step farther by registering for a free VinTank Social Connect account, which provides wineries the ability to listen, monitor and engage with current and potential consumers. Social Connect monitors over 1 million wine conversations everyday across social sites like Twitter and Facebook, blogs, wine forums, FourSquare, and reviews on Yelp and CellarTracker.

This is an important tool to keep up with what consumers are saying about your winery brand online. Consumers are already talking about your wine online — be part of the conversation.

Remember, there is not one absolute best social media platform or one perfect, cookie-cutter approach. Each winery will need to test and determine which platforms work best for them.

And let me add that this information is not intended to be an advanced training in social media, but instead a basic primer on the tools available for Virginia wineries to leverage for increased engagement with current and potential customers.

As this series continues, we'll explore more advanced topics.