# Portland Winemakers Club

## November 2016

Monthly Rant


Recent photos of Phil & Alice in their Halloween costumes

Harvest has been a very long season this year, beginning in late August and just now wrapping up with some Cabernet Sauvignon coming off the vine in eastern Washington this week. It's looking to be the largest crop ever, owing to heavy yields and some new vines coming on line. Production appears to be running 5-10% higher than pre-harvest estimates, with over a quarter of a million tons of fruit just from Washington alone. One factor may have been the rainiest October on record, with 2.58 inches of rain in the Columbia Valley just in that month alone. Berry counts were high and clusters heavy, which may reflect the rain, but most of the major commercial winemakers are raving about the quality, so it doesn't appear that the extra water was detrimental.

We're moving all of our own lots through ML at the moment, so sampling for taste is only marginally indicative, but everything seems to be well above average in quality so far. That always makes me feel good as not only is it a lot of work up to this point, there is much more to be done down the line through barrel aging and bottling, and knowing there is good stuff coming helps keep our energy going. Hope you are all having the same results!
Phil

Drink Responsibly.
Drive Responsibly.

### Scheduled Meetings

**January 9, 2016**
Annual Gala – Archer Winery; 4-9 PM

**January 20, 2016**
Crush Talk / Planning

**February 17, 2016**
Bordeaux Tasting

**March 16, 2016**
Speaker: Curtis Patience on distilling Brandy & Grappa.

**April 20, 2016**
Barrel / Carboy Sample Tasting

**April 23, 2016**
Tour: Patricia Green Cellars

**May 18, 2016**
Faults & Flaws

**June 15, 2016**
Speaker: Tom Feller, winemaker from Artisanal Wine Cellars.

**June 26, 2016**
Portland Winemakers Club at FH Steinbarts.

**July 16, 2016**
Annual Picnic (no meeting)

**August 17, 2016**
All Whites Tasting

**September 21, 2016**
Other Reds Tasting

**October 19, 2016**
Pinot Noir Tasting

**November 2016**
No Meeting

**December 7, 2016**
Planning, Tours, Speakers, Events, Elections

## Misc. Information

**JFW building Oregon winery**
Jackson Family Wines is constructing a winery near McMinnville Municipal Airport in Oregon that will be ready in time for the 2017 harvest. The winery will be used to produce Pinot Noir, Chardonnay and Pinot Gris wines from the company's vineyards in Oregon.

**Cadus plants trees for barrel sales**
Since launching its "One Barrel, One Tree" campaign to plant a tree for every barrel it sells about a year ago, Tonnellerie Cadus announced it has planted more than 20,000 trees. The cooperage is working with a Burgundy nursery to tend to the young oak trees and a third-party group to confirm the long-term health of the trees planted through the program.

**Here's another reason to love red wine**. A Dutch study, published in the journal *Science* ("Population-level analysis of gut microbiome variation," April 29, 2016), claims that drinking red wine promotes diversified and beneficial intestinal bacteria, and leads thus to better overall health.

**In Burgundy**, 2016 was such a complicated vintage because the different scourges that beset the vineyards did so remarkably unevenly. Only Chablis—almost entirely denuded of grapes by the worst frost since 1981—can be described, unhappily, as consistent.

**The rich just get richer.** To wit, Sotheby's in New York recently auctioned a portion of billionaire William I. Koch III's wine cellar for $21.9 million. Chief among the 2,730 lots sold were 10 bottles of 1945 Chateau Mouton-Rothschild, which went for a cool $343,000.

**Note: There is no meeting in November. The next regular meeting is scheduled for Wednesday, December 7th at 7:00 PM at Oak Knoll Winery.**
**Agenda: Planning for 2017 & election of officers. Come with ideas for 2017. Bring one of your bottles to share. How are your 2016 wines doing so far? Now is a good time to renew your club membership and sign a new waiver.**

**1.) Snacks: This will be a potluck; bring a small snack to share.**
**2.) . Everyone needs to sign a new waiver. If you didn't pay your dues at the Gala or picnic please remember to pay your 2016 dues at this meeting.**
**3.) Bring two wine glasses for the blind tasting of member wines.**
**4.) The regular club meeting will begin at 7 pm and end by 9 pm. If you can, get there a little early to help set up. Please help put away chairs and tables at the end of the meeting.**

**Website: http://portlandwinemakersclub.com/**

## October Meeting Minutes

Members present: 21

- Note the Annual Gala flyer on page 3.
- Note that there will not be a meeting in November.
- The next meeting will be December 7th.
- Bridget passed around a main dish sign up sheet for the Gala to be held January 14th at Archer Winery.
- Barb Thomson said the club bank account has about $2100.
- Everyone in attendance makes Pinot Noir.
- The Pinot Noir spectrum of flavors and style cover a wide range, look for perfume.

**Below is the results of the member produced Pinot Noir blind tasting.**

| Wine # | Name | Varietal | Gold | Silver | Bronze | None | Total Score | Medal Score | Medal |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Brown/Betz | Pinot Noir 2014 | | 8 | 12 | 1 | 28 | 1.33 | Bronze |
| 2 | Hoffard/ Hoosen | Pinot Noir 2014 | | 5 | 10 | 6 | 20 | 0.95 | Bronze |
| 3 | Paul Rogers | Pinot Noir 2014 | | 8 | 12 | 1 | 28 | 1.33 | Bronze |
| 4 | Phil Bard | Pinot Noir 2014 | 2 | 8 | 11 | | 33 | 1.57 | Silver |
| 5 | Paul Boyechko | Pinot Noir 2014 | 1 | 9 | 11 | | 32 | 1.52 | Silver |
| 6 | Bill Brown | Pinot Noir 2014 | | 5 | 14 | 2 | 24 | 1.14 | Bronze |
| 7 | Michael Harvey | Pinot Noir 2014 | 7 | 9 | 5 | | 44 | 2.10 | Silver |
| 8 | Hoffard/ Hoosen | Pinot Noir 2015 | 1 | 12 | 7 | 1 | 34 | 1.62 | Silver |
| 9 | Jon Kahrs | Pinot Noir 2012 | 3 | 6 | 12 | | 33 | 1.57 | Silver |

# THE PORTLAND WINEMAKERS CLUB GALA


## SATURDAY~ JANUARY 14, 2017 4:00PM-9:00PM

## Archer Vineyard
## 32230 NE Old Parrett Mtn Rd
## Newberg, OR 97132

## $15.00 PER PERSON

~ Pay at the door, and remember to renew your membership ~

Call Bridget Lopez for questions, at: 904-254-7592, or Email at: BFOSTERPACIFIC@GMAIL.COM

## Bring your own wine glass, and favorite wines to share.

If your last name starts with:

A-G: Please bring a side dish
H-P: Please bring a dessert

# Subject:  Oak chip addition during fermentation

(extracted from Wines & Vines)

Randall Grahm, winemaker and founder of 20,000-case Bonny Doon Vineyard, Santa Cruz, Calif., places every processing step that his wines go through on the back label, including the occasional use of oak chips. A firm believer in transparency, Grahm had no hesitation in openly discussing his use of barrel alternatives. “My guiding principal is we will use oak chips under certain conditions but always with the maximum discretion, without deforming the true nature of the wine,” he said. Grahm’s primary use of oak chips is rooted in the belief that wine should touch oak during the fermentation process. “It’s very salutary at that juncture,” he said. For color stabilization and structure, Grahm adds one gram per liter of both toasted and untoasted French oak directly to the fermenter. Though academics may disagree, some winemakers take this approach for the benefit of aldeyhyde formation that brings tannin and anthocyanin pigments together. The other benefit Grahm noticed is that oak contact during fermentation seems to inhibit the formation of sulfides.

(Extracted from Winemaker Magazine)

----while I like your approach to adding oak alternatives during the oak aging period, don’t discount the positives that oak in the fermenter can bring, however.  Fermenting on oak chips, dust, or even pure enological tannins can do a great many good things for red wines including improving the polymerization of tannins, helping to fix color, scavenge excess oxygen, and build structure early on.  I personally ferment on 1 - 2 grams per liter of un-toasted oak dust or chips for most all of my red wines.  The fermentation oak does not replace the oak that you need for aging later: it simply helps you build a better red wine foundation for further aging and development.

## Oak Adjuncts in Red Ferments

**How winemakers add oak early to improve aroma and texture**
by Peter Mitham

The glamour shots (such as they are in the wine craft) showing cellars with row upon row of barrels convey to consumers the romantic notion of élevage, a French term that literally means the elevation or upbringing of wine. The role oak plays in the final sensory experience of the drink seems inextricable from the use of barrels. The toast, the tannins from the wood and the dynamic interaction with the environment that oak allows all contribute to the experience of the wine through the eyes, nose and palate of the drinker.

Many winemakers are getting a jump on the barrel, however, by using various oak adjuncts (chips, shavings or powder) during red wine fermentation. One of them, Alison Crowe of Napa’s Plata Wine Partners, describes these as non-coopered oak, a nod to both the quality of the best available adjuncts and their influence on élevage.

While some winemakers use oak adjuncts to stabilize color early on, oak products are more commonly, and often with greater scientific justification, helpful in rectifying flavors prior to aging.

“The most important thing we’re trying to do is stabilize the color. One of the additional benefits is it can help reduce or eliminate any vegetal character if the grapes came with it from the vineyard,” Mike Robustelli, winemaker at McManis Family Vineyards in Ripon, Calif., says of oak used in red wine ferments.

McManis typically adds shavings to the receiving hopper. Red ferments at McManis typically run five to seven days. Shavings have a greater surface area per pound than chips, and while the must doesn’t necessarily exhibit a strong hint of oak when fermentation is through, its character is better defined, Robustelli says.

“What we’re really trying to do is make as homogenous a mixture as possible, because if the juice or the skins aren’t in contact with the chips, then they don’t have a chance to react,” Robustelli explains. “We want to avoid having a big cluster of chips in one area of the tank and no chips in other portions.”

The toast on the shavings reflects the type of grape pressed and the wine McManis aims to achieve. “Typically, the lighter, fruitier wines would see lighter toast levels. So, say our Pinot Noir would use a medium toast, and the heavier wines would use a darker toast,” Robustelli says. “Petite Sirah or Cabernet would see heavy toast or a combination of medium toast plus and heavy toast.”

He’s opted against untoasted oak adjuncts, though some claim a growing following for them. Toasting tames the raw oak flavors that might otherwise be transferred to a wine. Unlike stems and other woody material that most winemakers don’t want crushed with the grapes, toasted oak is primed to release compounds that give definition and complexity to the wine. “My concern would be, using untoasted chips, that you’d get a green, woody, resinous character,” Robustelli says, shying from the prospect.

Dave Nagengast, winemaker at Scheid Vineyards in Greenfield, Calif., shares many of Robustelli’s objectives in using oak adjuncts. While he hasn’t done enough trials to document color stabilization, he believes it happens. But he knows the

overall sensory qualities of Scheid's wines improve.

"Start getting some oak impact early on, and it helps with the mouth feel of the wine down the line. And actually, the overall impression longer term -- if it gets started with the fermentation, it just kind of builds from there," he says.

Nagengast uses shavings at a rate of about 3 to 4 pounds per ton of grapes. The toast is light, with the oak from the U.S., France or Hungary. Nagengast says he has also used dust, but at a lower rate. The control over the process, and the quicker extraction during fermentation, are advantages of using adjuncts.

While oak barrels are making a bit of a comeback as fermenters, winemakers know that the engineering and design of stainless steel tanks often offer better temperature control and management of the cap. Oak adjuncts in steel or plastic tanks introduce an oak element early under circumstances that are more controlled. Nagengast says Scheid complements its use of oak adjuncts during fermentation with adjuncts during élevage, when micro-oxygenation also comes into play to mimic the gentle aeration of wine in barrels.

Prior to working at Scheid, Nagengast went to barrel with every red wine. That approach just isn't possible at Scheid, where the capacity is 6.5 million gallons per year. "When you're looking at a 132,000-gallon tank of wine, to put that into barrels… it's almost ridiculous," he says of the work that would be required to achieve the effect of barrel aging.

Moreover, most of Scheid's wine is sold in bulk, which requires the efficient, economical production of an attractive blending component. "It's a different perspective than when you're just looking for one lot of wine that's going to be a finished wine," he says.

Joshua Maloney, red winemaker at Chateau Ste. Michelle in Washington state, uses oak chips at fermentation to eliminate green characters and soften tannins. The majority of ferments, about 60%, use inch-long chips at a rate of about 3 to 4 pounds per ton, while special lots will see quarter-inch chips. He may add a double portion -- and in extreme cases, a pound of oak dust -- where green characters are a concern.

He's skeptical of the role oak at fermentation plays in stabilizing color. "It's not really doing what we say it's doing," he says. He believes oak is more significant in masking green characters and bringing forward favorable phenolics. Oak doesn't get rid of green characters so much as mask them, he explains.

Some winemakers will add tannins to correct a green wine, but Maloney feels oak does a better job because of its biochemistry. His own experience fermenting fruit from the same block with and without oak chips underscores his argument. "The one that we do the oak fermentation with is always more fruity and less vegetal than the one where we omit the oak chips," he says.

Oak chips also round out the wine, softening tannins and polishing the mouth feel. "The one with the oak is richer, it's sweeter -- not sugar sweeter, just rounder sweeter -- and the tannins seem to be better integrated. The one without, it's missing a little bit of extract, and the tannins are grainy in comparison."

Special cases are when the green character of a wine is pronounced, prompting the addition of oak powder. Red wines typically spend about seven days on skins, but if there's a whiff of vegetal aromas as the cap rises (usually on the second day), Maloney might opt to pare a day off the skin time and toss a pound of oak dust into the fermenter.

He adds that oak during fermentation doesn't necessarily affect barrel treatment afterwards. The barrel's oak imparts a separate character to the wine, partly due to Chateau Ste. Michelle's practice of malolactic fermentation in the barrel.

"I still think the quality of oak that we get out of the barrel is greater than the integration and quality of the oak that we get from the chip itself," Maloney says. "But that's largely a stylistic choice. I don't think you can really say that one is good and one is bad."

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## Winemaker Trial:
## Understanding Natural and Inoculated Fermentation Effects on Aroma, Flavor

Chateau Ste. Michelle tests yeast methods on its Washington state **Chardonnay**
*Michael S. Lasky*

### Trial Name: **Natural vs. Inoculated Fermentation in Washington State Chardonnay**

Winery: Chateau Ste. Michelle
Winemaker: David Rosenthal
Winemaker's Summary: Each year, we ferment certain wines naturally or without adding commercial yeast. For certain wines, we prefer the softer texture and more complex flavor profile of the natural wines. However, we like to compare natural

wines to wines made with commercial yeast. In this trial, we took Chardonnay grapes from two vineyard sites, Cold Creek Vineyard and Canoe Ridge Estate Vineyard in the Columbia River Valley, and we added commercial yeast to some, while leaving the remainder to ferment naturally. We divvied the grapes into four lots:

Lot 1: Canoe Ridge - Natural ferment
Lot 2: Canoe Ridge - Montrachet yeast
Lot 3: Cold Creek - Natural ferment
Lot 4: Cold Creek - CY3079 yeast

**Conclusion:** Overall, fermentation rates between natural and inoculated wines are similar, although there is more of an initial lag phase with the naturally fermented wines. Nutrient requirements are similar. Anecdotally, we find naturally fermented wines tend to go through ML fermentation faster. In sensory tests, we find naturally fermented wines to be softer on the palate with more gun flint and minerality. Inoculated wines tend to be more fruit-forward and have more structure.

**Winemaker's postmortem:**

***Why this trial?***

We ferment about anywhere from 50 to 60 percent of our high-tier Chardonnays naturally, but we also like some of the characteristics that different yeast strains give us as well. We find it gives us a little bit more complexity, a little bit better oak integration and a little bit softer, more complete mouth feel than a yeast inoculation. It's always a little variable, so we're always hedging our bet just a little bit. It depends a bit on the strain, but an inoculated fermentation tends to give us more of that fruit-forward character, and then we use the natural to again give us a complexity in the integration. I would think that we generally have similar feelings toward each yeast strain and the natural versus inoculated, and the results are fairly consistent every year. Yet there are always one or two little surprises, which is why we continue to experiment with fermentations each year.

***How was this trial conducted?***

Some background on each vineyard may be in order. Cold Creek Vineyard is one of Washington's earliest vineyards; the vines are an average of about 40-plus years old, and it's a very warm site. Our little internal joke here is that it's one of the most poorly-named vineyards in the world because there's no creek, and it's one of the warmest sites in Washington. It's a great place for Chardonnay. It's a warmer climate, more tropical-style Chardonnay—probably more akin to somewhere like Napa Valley. Again, it's 40-year-old vines, smaller clusters, smaller berries, big, bold, more powerful, robust-style Chardonnay.

Canoe Ridge is sort of the opposite. Canoe Ridge lies right on the Columbia Valley River, and has very sandy soil. It's a windier site, vines have smaller canopies, and the wine has a much more elegant, refined, sort of feminine style of higher acidity and little bit more of that mineral character.

The grapes from Cold Creek were pressed, and we added yeast nutrients to a standard rate. Then juice was sent to barrel to fill a certain number of barrels, representing the natural portion of the trial. CY3079 yeast was then added at a rate of 1 pound per 1,000 gallons. to the remaining juice and then sent to barrel. The process was identical for the Canoe Ridge lots; however, Montrachet yeast was used for the inoculate portion of the trial. The wines went through primary fermentation and were inoculated for malolactic fermentation. The wines were stirred and topped weekly through ML fermentation, and sulfur dioxide was added when it was complete. The wines were then stirred once a month. Overall, I estimate about 60 to 70 tons of grapes were involved in this trial and were sold in our two single vineyard wines, Cold Creek Chardonnay and Canoe Ridge Chardonnay.

***From the results of this trial, what have you learned, and how will you use this knowledge in future wine blending?***

I think it just reaffirms our thought process. We are slowly increasing the amount of natural or un-inoculated fermentation that we're doing because we do like the complexity that we get out of the wines. I think that the different yeast strains do show variations, and I think they will always have a place in our program because they do give us different blending options, depending on the season.

We want ML to be efficient but not too fast. We don't want malolactic that goes through in two or three weeks, but we don't want malolactic that drags out five months either. What we do find is that natural or un-inoculated fermentations tend to go through malolactic a little bit faster, maybe in the three month range, whereas fermentations that are inoculated with more commercial-grade yeasts tend to be just a little bit slower.

There is some variability in there, but we find that really strong fermenting yeast strains tend to gobble up more micronutrients, and that tends to inhibit malolactic just slightly. The natural yeast, because it's more of a mellow yeast, will actually leave more micronutrients and is therefore more friendly once we start going through malolactic fermentation.

In the future we will just continue to explore different yeasts that come out and are available, because I think they are getting more distinctive, as the suppliers are continuing to work on them. Like I said, it's a little bit like having multiple spices in your

spice cabinet, right? We love the naturals, but we also like the individual characteristics of some of these yeast strains, and we blend them together into the final wines, and you just get more layers of flavor.

***What style of wine gravitates to your winemaking style: Flint and mineral, or the fruit-forward?***

I think it depends a little bit on the program and the wine, but I would say, for me personally, it tends to be more in that flinty/ mineral, sort of complex Burgundian type.

Does it match up with our consumers' preference? I think so. Our high tier wines tend to do very well. Again, at our more entry-level, they tend to be more fruit-forward, and obviously, those are larger production wines. We're always trying to retain the acidity and dose in a little bit more of that complexity even into the more entry-level wines.

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# The Influence of pH

Ben Rotter 2008

The pH of must and wine has a profound influence on winemaking practice and wine quality. High quality winemaking should not be ignorant of this winemaking variable. The following article outlines the ways in which varying pH values influence wine and the issues surrounding winemaking. It also notes the influence of pH on various taste factors, typical pH aims in wine types and expected pH increases/decreases during winemaking.

**Influences of pH on wine**

pH contributes to wine in a number of ways. These are listed below, with a *low* pH affecting wine in the following ways:

• SO2 is more effective as an antimicrobial agent
• Favors the most desirable types of lactic acid bacteria (LAB)
• Increases microbial stability through increased inhibition of bacterial growth
• Enhances production of fruity esters during yeast fermentation
• Generally speaking, yeast ferments less efficiently
• Shifts color equilibrium to more red pigments
• Increases color hue
• Provides a fresher taste
• Increases monoterpene (geraniol, citronellol and neral) concentrations Increases ageing potential

**pH and taste**

• Sourness: Acid sourness is independently influenced by the concentration, pH, and anion species of acid.
• A lower pH at the same titratable acidity (TA) gives more sourness.
• Astringency: This is defined as a persistent sensation, increasing upon repeated ingestion. Astringency is affected by • pH - as pH increases, astringency decreases.
• Bitterness: pH has little or no affect on bitterness.
• Mouth feel: higher pH tends to give a rounder, softer, mouth feel.
• Polymerization: the higher the pH, the slower the polymerization and the more unstable the color.
• Volatile acidity: more volatile acidity is produced by yeast at lower pHs.

**Acid types and pH**

Within the usual pH range of wine, tartaric acid is more highly ionized than malic, which is in turn more so than citric. Tartaric will liberate the most $H^+$ ions yielding a greater shift in pH. Thus, adjusting TA with tartaric causes a larger shift in pH than an equivalent quantity (same TA shift) using malic or citric being added. For maximum pH adjustment with a minimum accompanying TA increase, use tartaric.

**pH aims**

The typical pH aims for given wine styles are as follows:

• Final pH of white wine: 3.0-3.3
• Final pH of red wine: 3.3-3.5
• Optimal pH before a MLF: 3.2-4, >2.9
• It should be noted that these are *typical* values only. Deviations may be expected and should not necessarily be seen as a problem.

pH's higher than 4.0 are generally avoided as spoilage is more likely to occur above this level. (The optimum pH for bacterial multiplication is 4.2-4.5.) Many winemakers keep wine pH below 3.65. Many winemakers tend to ignore TA and acidify / de-acidify based on pH only. This may be a practical approach when working with quality fruit that is typically high in pH and low in acidity, however it can be unwise to follow this approach in other cases. There is a trend, particularly with warmer climate fruit, to acidify musts in order to bring down what are seen as excessively high pHs (generally > 3.65). The corresponding increase in TA should be noted and kept in check (at least by tasting the must/wine). Surely it is preferable to produce a high pH yet drinkable wine to a lower pH wine whose TA is so high it is difficult to drink?

**Typical pH increases/decreases**

Addition of acid: Wine is a highly buffered liquid. This means that the corresponding pH decrease for a given addition in TA (added acidity) is not directly proportional. Further, the change in pH for a given TA increase/decrease is unique to each individual wine, since every wine is buffered slightly differently. However, as a general rule, the addition of 0.5-1 g/l acid as tartaric tends to drop the pH by about 0.1 units.

Maceration/pressing: These operations may result in an expected pH increase of 0.05-0.2 units. This is due to the leaching of potassium in the grape (/fruit) skins.

Fermentation: Following fermentation of tartaric-dominant grape wines, an increase in pH of 0.1 unit may be expected. Note that in the case of non-grape wines in which tartaric is not a dominant acid, a significant increase in TA and a corresponding *decrease* in pH may be expected during fermentation.

MLF: Following MLF an increase in pH of 0.1-0.3 units may be expected.

Tartrate precipitation: The precipitation of tartrate (requiring the presence of both tartaric acid and potassium) can cause pH shifts either up or down. It is important to note that there is a pH point around 3.6, above which tartrate precipitation causes a pH increase and below which tartrate precipitation causes a pH decrease. The point varies from wine to wine but generally occurs between pH 3.5 and 3.7.

**pH and titration**

Titratable acidity is determined analytically by titration. Titratable acidity is not the same as "total acidity", which is defined as the equivalent number of protons that the organic acids would possess if they were not dissociated. Titratable acidity is no more than a measure of the hydrogen ions required to obtain a specific pH end point, and is always lower than total acidity. The standard titration method advocated by the Office International de la Vigne et du Vin (OIV), and used in France, titrates to the endpoints pH 7. Whilst the method advocated by the Association of Official Analytical Chemists (AOAC), used in the United States and elsewhere, titrates to the endpoint pH 8.2. Given that the dissociation of the organic acids present in wine is weak, neutralization with NaOH (the common strong base used for acid titration) is likely to occur above pH 7. For this reason, titration to the pH 8.2 endpoint is considered more reasonable. It should be noted that the calculated TA value of the same wine would be different when using a different pH endpoint. Having titrated to a pH 7 endpoint and calculated the TA, the equivalent TA for a pH 8.2 endpoint may be calculated based on the following equations:

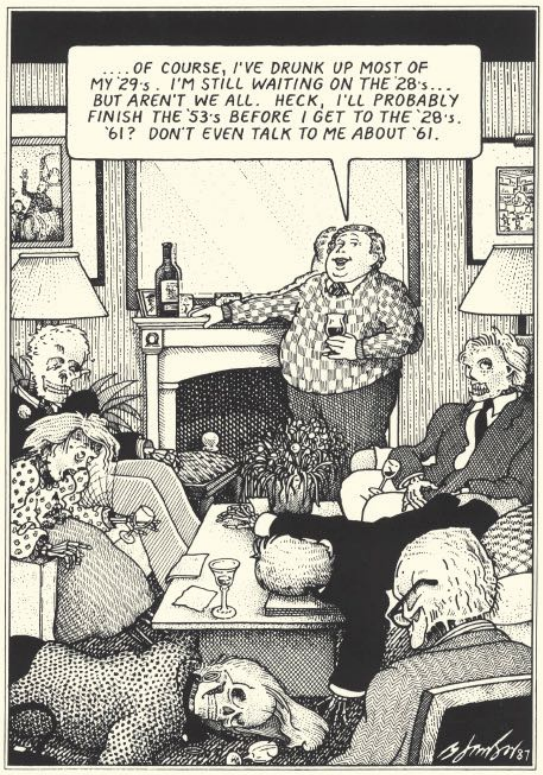
$$TA_{pH7} = 0.975 \times TA_{pH8.2} - 0.436 \quad \text{(red wine)}$$

$$TA_{pH7} = 0.962 \times TA_{pH8.2} - 0.247 \quad \text{(white wine)}$$

To determine the TA, titrate to the respective pH and calculate as follows:
where:

$$TA = \frac{75 \times N \times V}{S}$$

TA is the titratable acidity (g/l as tartaric),
N is the molarity of the NaOH,
V is the volume (ml) of NaOH required to titrate to the endpoint,
S is the volume (ml) of the sample titrated.




# Preserving Wine Diversity: Selection Massale

Date August 3, 2016

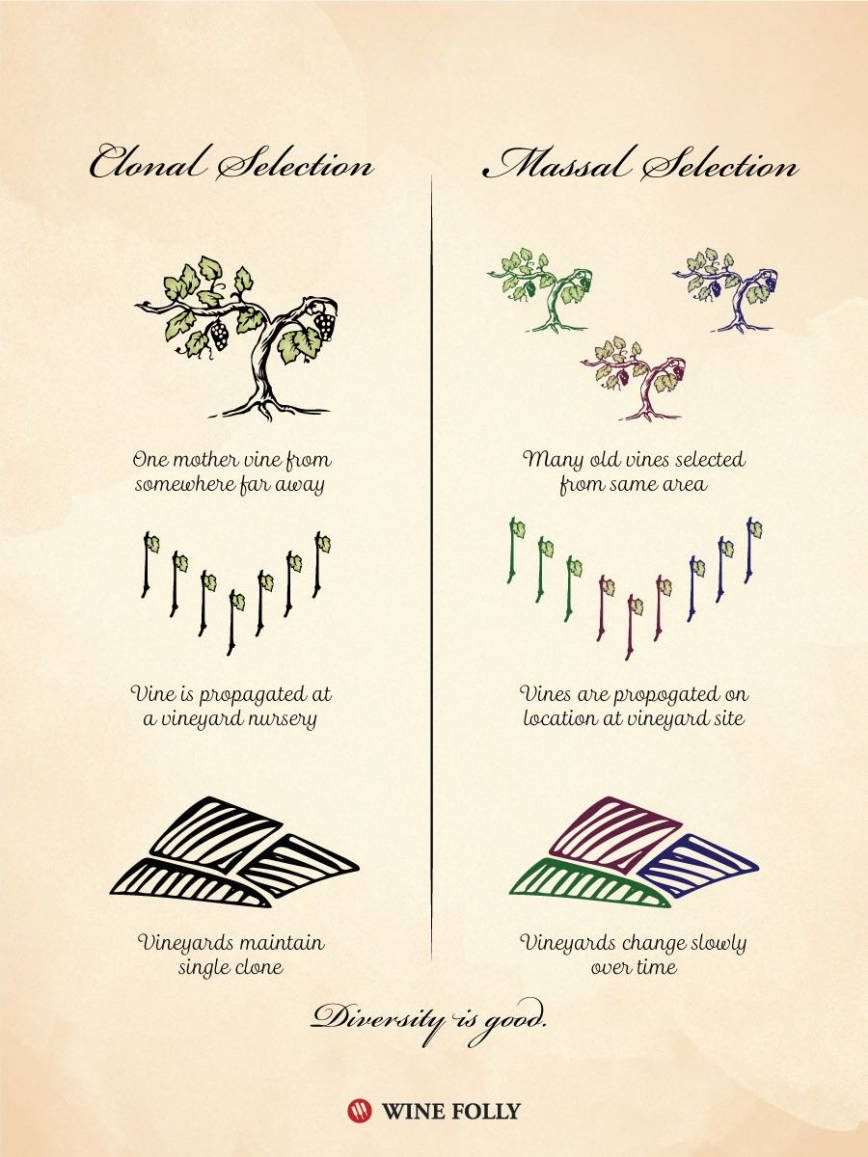
The term *Selection Massale* or Massal Selection refers to the “old way” of propagating vineyards. The technique is being brought back into use because of its potentially profound benefits for high quality wine. This advanced article discusses a possible future in viticulture.

## What is Selection Massale?

Selection Massale (aka Massal Selection) is a French wine growing term for the practice of replanting new vineyards with cuttings from exceptional old vines from the same (or nearby) property. Massal Selection is what they call the “old way” of propagating vineyards that’s been replaced with vine clone nurseries. However, several state-of-the-art vineyards are changing their planting methods back to Massal Selection due to its long-term benefits of increasing individuality and uniqueness in wine.

To understand why Massal Selection is important, first let’s take into account the current popular planting method: Clonal Selection. This method was popularized in the 1960’s and 1970’s when vine diseases were rampant (in fact, they still are). Scientists at UC Davis figured out how to heat treat imported vine cuttings to “clean” them. The vines were then registered as clones and propagated at nurseries and sold all over the US as the wines we know today (Pinot Noir Clone 777, Cabernet Sauvignon Clone 6, etc). UC Davis still runs one of the top clonal selection programs in the world.

You might be thinking: Might this cause too much uniformity? How is it possible to have success growing the same clone in highly different regions? Well, when you dig down to the core of the issue, viticulturists are starting to think you’re onto something. Here’s a delightful example


## Cabernet Sauvignon owes its existence to Massal Selection

Unlike humans who are stuck with a set of DNA for life (actually, this might even be wrong ), plants mutate with great ease. Plant mutations happen as a form of survival and plants will also cross with one another quite naturally and spontaneously. This is what happened sometime during the 1600’s in the greater Bordeaux/Aquitaine area when a natural cross between Cabernet Franc and Sauvignon Blanc created Cabernet Sauvignon. Wine growers must have noticed the exceptional taste of this random vine occurrence and with Massal Selection, it was propagated. Today, Cabernet Sauvignon is the world’s most planted vine.

## How is Massal Selection done?

Massal Selection isn't easy, but the long term benefit is a vineyard unique to its terroir. Here is an example of how vineyards are accomplishing *Selection Massale:*

The owner of Bordeaux's Lynch Bages, Jean-Michel Cazes, describes in an article at The Wine Cellar Insider that he started observing vines in 50+ year-old parcels on his estate (starting in 2005). His team took cuttings of exceptional older vines and created a "bank" of thousands of genetically different Petit Verdot, Cabernet Sauvignon and Merlot vines. New vineyards were replanted with this genetically diverse material. The 2011 vintage marks the major shift from *Clonal Selection* to *Massal Selection* at Château Lynch Bages.

While the vineyards now look less uniform and yields are slightly lower, Cazes believes that these vineyards reflect a more true terroir at Château Lynch Bages. The genetic diversity also has the added benefit of reducing catastrophic diseases.

## Last Word: A little bit of old and new

While our genius science from the past has increased availability and uniformity in our foods, we're starting to see some drawbacks with mono-cropping, genetic modification, and techniques like clonal selection. As we move forward, perhaps our next stage of understanding will be recognizing why some ancient practices work and what we can do to keep them alive.

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## Varietal Focus:
## *Grenache*

Grenache is a very versatile grape. Its ability to grow well in many different climates, especially hot, dry areas, along with its tendency to set huge crops has made Grenache a major workhorse in jug wine production. While more than 6,000 acres are planted to Grenache in California, the bulk of that goes into lower-tier wines. When California winemakers decided to pursue the many charms of Grenache—its bright fruit, clean acidity and affinity for blending with other Rhône varietals—finding quality fruit was difficult.

Over time, sites in the Central Coast, Sonoma, El Dorado and a few other areas started producing good fruit. Still, there is precious little high quality Grenache available to winemakers. To give you an idea, El Dorado County, a top-flight Grenache producer, has only 25 acres of the varietal. It is pretty much the same all over: Amador County 13 acres, Napa County 26 acres, Sonoma County 93 acres, even San Luis Obispo County with 265 acres and Santa Barbara County with 196 acres don't amount to much in the scheme of things.

Winemakers enamored by high-quality Grenache looked to France, and to a lesser extent Spain, for their models. The thin skins of Grenache have to be protected from direct sunlight, so leaves are generally pulled in the fruit zone, creating a tunnel effect that allows air to circulate while fruit remains in the shade. Those thin skins and Grenache's tight bunches are susceptible to rot in wet or damp conditions. Growers tend to drop touching bunches, as well as shoulders, in addition to green drops to help control crop size, which proved to be a key quality issue. Every grower and winemaker who participated in this Varietal Focus agreed that Grenache was one of the most difficult varieties to grow.

In spite of the fact that Grenache can be made in a wide variety of styles, determining when to pick can be tricky. If not ripe enough, Grenache can be tannic, very acidic and overly tart. Winemakers say there is a "sweet spot" where the variety shows off its vibrant berry fruit character and can reveal complex notes of Christmas spice, orange peel, black currants and candied apples. Especially when grown in schist or granite soils, Grenache can offer a pleasing mineral component as well.

In the winery, Grenache requires some special attention. Most winemakers refuse to crush berries, instead relying on at least a percentage of whole cluster fermentation. They prefer fermenting in concrete, neutral oak or stainless steel and aging primarily in neutral oak, although some winemakers going for bigger styles will use a small percentage of new oak barrels. Most participants in this Varietal Focus insist on native yeast and native malolactic. Early bottling seems to be the norm to maintain freshness of fruit. Cross flow filtration is the filtration of choice, but an equal number believe that bottling unfiltered is better.

Based on the wines in this Varietal Focus, Grenache can make delightful wines full of bright, complex fruit flavors carried on a strong acidic backbone that pairs well with many foods. Currently, it is the new "darling variety" for winemakers, wine writers and consumers. Price points are certainly attractive, with most Grenache selling for $20 to $35. A key issue is the scarcity of quality grapes. Participants in this Focus produced as little as 120 cases to a high of just 910 cases of their wines. The small production contributes to these wines being sold out quickly. As production of Grenache-based wines increases, it remains to be seen whether Grenache will maintain its current popularity and sustain continued growth.

# Portland Winemakers Club
# Leadership Team – 2016

• President: **Phil Bard** phil@philbard.com
• Set agenda for the year
• Establish leadership team
• Assure that objectives for the year are met
• Set up agenda and run meetings

Treasurer: **Barb Thomson** bt.grapevine@frontier.com
• Collect dues and fees, update membership list with secretary
• Pay bills

Secretary: **Ken Stinger** kbstinger@frontier.com
• Communicate regularly about club activities and issues
• Monthly newsletter
• Keep updated list of members, name tags and other data

Chair of Education: **Bridget Lopez** Bfosterpacific@gmail.com
• Arrange speakers for our meetings

Chair for Tastings: **Jon Kahrs & Barb Stinger** jekahrs@aol.com kbstinger@frontier.com
• Conduct club tastings
• Review and improve club tasting procedures

Chair of Winery/Vineyard Tours: **Bill Brown** bbgoldieguy@gmail.com
• Select wineries to visit
• Arrange tours
• Cover logistics (food and money)

Chair of Group Purchases: **Bob Hatt** bobhatt2000@yahoo.com
• Makes the arrangements to purchase, collect, and distribute
• Grape purchases
• Supplies – These should be passed to the President for distribution

Chair of Competitions: **Don Robinson** don.robinson.pdx@gmail.com
• Encourage club participation in all amateur competitions available. Make information known through Newsletter, a-mail and Facebook

Chairs for Social Events: **Bridget Lopez** Bfosterpacific@gmail.com
• Awards Gala / Holliday parties

• Web Content Editor: **Alice Bonham** alice@alicedesigns.org Web Host: **Phil Bard**