

West Side Wine Club

May 2013
Monthly Rant

Scheduled Meetings

January 12, 2013
Annual Gala

January 16, 2013
Crush Talk / planning

February 20, 2013
Bordeaux Tasting

March 20, 2013
Aroma Kit / Faults & Flaws

April 17, 2013
2012 Barrel / carboy
sample tasting

May 15, 2013
Speaker – James
Osborne, OSU Wine
Research Institute

June 19, 2013
"Best Practices of Amateur
Winemakers"

July 13, 2013
Annual Picnic, Home of
Dennis & Marlene Grant

August 21, 2013
Other Whites Tasting

September 18, 2013
Other Reds Tasting

October 16, 2013
Pinot Noir Tasting

November 13, 2013
No Meeting

December 4, 2013
Planning, Tours, Speakers,
Events, Elections.



The club has 2 great learning opportunities coming this month. The first is this Saturday at the Dobbs Family Estate production facility, arranged by our Chair of Tours, Bill Brown. The second is during our upcoming monthly meeting, where we will hear from James Osborne, PhD, Enology Extension Specialist & Associate Professor Oregon Wine Research at Oregon State. He is an expert on wine microbiology, and will be speaking on microbial activity during winemaking, both good and bad. We have Mike Smolak to thank for that, and it should be a very interesting evening. Dr. Osborne will have a PowerPoint presentation to go along with his talk. Bring your questions!

Our weather continues to be spectacular, I know the vineyards are seeing early growth in the vines. Risky as it might be at this point, some owners are predicting that the harvest could come in as soon as the end of September. That should of course mean full ripeness in the fruit again, provided that the vineyards aren't tempted to raise their yields too much on the heels of having dropped quite a bit of crop in the last 2 years. One thing is for sure, we will know in about 4 months.

Finally, while I was recently doing some bottle photography for a client, Alice took the opportunity to include some fashion tips for those of you who want to take it to the next level. And I thought all it needed was a better label...



Information & Trivia

Why are French wines named after the region and not the grape?

Wines in France - really in almost all of Europe - had developed their styles over the centuries; a grape (more often a blend of grapes) was eventually found to suit an area - or even better, express the area. To know where the grapes are grown is to know the style of the wine. To know much about the grapes themselves was wine geekdom, only necessary for professionals. However, in the 50s and 60s California introduced a "what?" approach to contrast with France's "where." Frank Schoonmaker, making wine for Almaden, began putting the grape names on the bottle to help consumers, since we didn't know what Napa, Russian River Valley, or Paso Robles tasted like. The varietal name could stand in and give the wine buyer some idea what the wine would taste like. Grapes are the new thing.

What does *Garagista* mean?

Garagista is a French term used to describe a garage-based winemaking operation. Once seen as a negative, *garagista* wineries gained considerable recognition during the late 1990s, and are now treated with a cult-like status.

What is the winemaking bug?

A well known yet rarely discussed disease among winery owners and winemakers.

The next meeting is scheduled Wednesday, May 15 at 7:00 p.m. at Oak Knoll Winery.

• **Agenda : Speaker – James Osborne, OSU Wine Research Institute**

• **Snacks: This will be another potluck; bring a small snack to share.**

- 1.) Please bring a wine glass for tasting wines.
- 2.) Waivers will be present at the meeting. If you have not previously signed a waiver for, please do so at the meeting. You may also pay your 2013 dues if you have not already done so.
- 3.) The meeting will begin at 7pm and end by 9pm. If you can get there a little early to help set up, please help to put away chairs and tables at the end.

WSWC Website: <http://www.westsidewineclub.com/>

Message Board: <http://groups.yahoo.com/group/Westsidewineclub/>

April Meeting Minutes

Members present = 22

Please welcome 2 new members: Scott Schroeter & Nici Schroeter.

Phil Bard asked for sign ups for the June meeting "Best Practices" show & tell.

Tours: Bill Brown said that the wine maker from Joe Dobbs Winery has agreed to conduct a tour of the Dobbs facility in Dundee on Saturday, May 11. Nici Schroeter said that Colene Clemens winery may be available for a tour. She will check. No return calls from either Pamplin or Roco wineries.

Grape buy: Jonathon Brown has compiled a list of grape sources and will be contacting them soon. Many are vineyards in central and eastern Washington as well as Oregon. Since vineyards usually want commitments early in the year, Jonathon will be E-mailing club members with the range of possibilities requesting your needs and commitments. Jonathan asked for input, good or bad, about the service received from these vineyards.

Speakers: Mike Smolak said the speaker for our May meeting was confirmed.

Fourteen WSWC member carboy & barrel samples were tasted. Each member talked about their wine when tasted explaining the production process. There was considerable discussion about each one with suggestions for the next several months.

In order of tasting:

Paul Boyechco	Pinot Gris	Courting Hill Vineyard, in carboys.
Joe Nadal	Pinot Gris	Shaffer Vineyard, in carboys
Ken Stinger	Gewurztraminer	Cheshire Vineyards
Bill Brown	Pinot Noir	Courting Hill Vineyard
Don Hoffard	Pinot Noir	Stormy Morning Vineyard
Jon Kahrs	Pinot Noir	Terry Swan Vineyard (Pommard)
Ted Johnson	Pinot Noir	Johan Vineyard
Don Robinson	Pinot Noir	Sunnyside & Courting Hill Vineyards
Scott Nelson	Pinot Noir	Dundee Vineyard (Pommard)
Scott Nelson	Malbec Cuvee	Yakima, Horse heaven Hills
Don Robinson	Bordeaux Blend	Zerba Vineyard
Jonathon Brown	Merlot	Sagemore Vineyard
Phil Bard	Cabernet Sauvignon	Zerba Vineyard
Bill Brown	Sangiovese	Sam's Valley Vineyard

Fining With Bentonite

Is protein precipitation leaving you in a haze? Don't fumble through your bench top trials without reading this article first!

By Christian Butzke

Enology Professor

Department of Food Science

Purdue University

Clay is one way to remove proteins that could make wine hazy

The grape berry contains a large variety of nitrogen compounds, mainly amino acids, peptides (short amino acid chains) and proteins (long amino acid chains). They serve various biological functions within the grape such as enzymes, cell wall components, etc. The nitrogen content of grapes varies greatly by variety, rootstock, vintage, climate, pruning and crop levels, fertilization practices, etc.

Amino acids are soluble, and wine yeast can use them to grow and ferment the grape's sugars into alcohol. Amino acids, together with ammonium ions, are referred to as yeast-available nitrogen (YAN). Peptides and proteins are not considered YAN because they cannot be metabolized by yeast.

Their solubility decreases with the wine's alcohol content. This may lead to precipitation of agglomerated proteins in the form of a visible amorphous haze. This effect is accelerated or triggered by exposure to elevated temperatures, e.g., when a customer buys a bottle of wine in the tasting room and leaves it in the car over the weekend. Protein hazes cannot be tasted; they are a purely aesthetic, visual problem in wine.

However, while it is a natural effect, most consumers prefer a wine free from unappetizing-looking protein instabilities.

The winemaker's options to prevent protein instabilities.

- Bentonite clay in different forms can irreversibly adsorb various sizes of proteins and has been the protein fining agent of choice. It takes about six times the quantity of clay to take out the relevant amounts of protein. Since the protein content of wine ranges from around 10 to 300 mg/L, bentonite additions range from 60 to 1,800 mg/L.
- Heat exposure, such as a high temperature-short time (HTST) treatment, can denature proteins in unfermented juices and limit the need for additional fining of the wine. An HTST treatment, similar to milk pasteurization at 80°C (176°F) for 5 seconds, generally does not affect the quality of the fermented wine. Such a treatment is also advisable for juices from grapes with heavy Botrytis infections, because the polyphenol oxidase (PPO) laccase - a browning enzyme - in the fungus does not respond to traditional sulfur dioxide treatments at the crusher the way grape PPOs do.
- Tannins derived from chestnut galls that contribute no color and low astringency have the potential to precipitate grape proteins as well as Botrytis laccase.
- Mannoproteins from yeast cell walls may act as protective colloids, bind to grape protein and prevent their flocculation.
- Regeneratable cation exchange resins that reversibly bind proteins from wine and do not create solid waste have been used only experimentally.

Potential problems with bentonite fining

Excess amounts of bentonite added to wine can bind not only proteins but also desirable aroma compounds or colloidal materials. Proper bench testing to determine the minimal effective amount to add is important, as that will not have a detrimental effect on the wine. Each individual wine has separate dosage requirements. Routine additions of bentonite will certainly lead to over- or under-dosing, as the requirements may vary by more than an order of magnitude (60 to 1,800 mg/L = 0.5 to 15 lb/1,000 gal). In addition, oxidative damage to the wine may occur if the mixing in of the bentonite slurry allows for air exposure during transfer operations, from the tank headspace, or via subsequent filtration steps.

The heat tests

The quickest (and laziest) test for protein stability after fining treatment is a heat test that exposes a treated and filtered wine sample to a high temperature for a short period of time, e.g. 49°C (120°F) for 48 hours or 90°C (194°F) for one hour, followed by a period of cooling. Such tests are trying to simulate the precipitation of proteins at a proper, cool storage temperature over the lifespan of the wine. It is a rather uninformed assumption that these two scenarios are identical in their outcome.

Moreover, the resulting over-stabilization of commercial wines against excessive heat exposure has significant consequences for the sensory quality of the wine. If the wine experiences extreme temperatures during shipping and storage, its aroma will be damaged but there may be no visible indicators that the wine was treated poorly. Temperature data logging and tracking of shipments can help identify sources of heat exposure within the distribution chain.

A more representative way to assess the effect of fining treatments on the stability of a wine under normal storage and aging conditions is the Boulton ethanol assay that measures the stability of all colloidal materials. It can assess the effect of a bentonite fining treatment on a wine through a titration with successive quantities of ethanol while using a nephelometric turbidity meter to quantify the resulting cloudiness. Bentonite fining of juice before fermentation may lead to a sluggish fermentation due to its clarification effect on the treated juice and the possibly stripping of certain growth factors, such as fatty acids, phospholipids, and sterols. An extended fermentation can lead to increased amounts of residual fructose in the wine. Since fructose is twice as sweet as glucose, this may affect the perception of the wine's dryness.

Rosé/blush wines

When treating blush/rosé wines, make sure that the bench trials are also evaluated for any loss or change of color associated with the bentonite treatment.

Storage

Proper storage of bentonite — much like filter pads — is in a clean, dry environment and in a re-sealable container is crucial. Bentonite will absorb odors from the air, e.g. the cork taint component TCA, and release them into the treated wine.

Waste issues

Bentonite creates a solid waste problem if separated with the lees. If flushed out of the tank, it can clog drains and sewer lines. In the winery/irrigation pond, it will settle and enhance the seal of the pond bottom. Over the years, however, sludge will gradually accumulate and make the pond more shallow, thereby enhancing light penetration and algae growth.

Bentonite and barrel leaks

A small amount of bentonite can be directly added to any wine and used to seal small leaks in a barrel that was previously dry-stored or has a more leakage prone, e.g. fortified, wine in it.

Questions about bentonite application

Should I use sodium or calcium bentonite?

It doesn't really matter, as long as the enologist performs an ethanol titration or one of the arbitrary heat stability bench tests on each wine and determines the smallest effective dose to satisfy the test. Bentonite clay is the most widely used fining agent against heat-unstable grape proteins in white wines. In red wines from *Vitis vinifera*, the inherent tannins usually denature these proteins enough to cause precipitation during aging. However, anthocyanin-rich but tannin-deficient red European-American varieties, as well as blush/rosé wines and red *vinifera* from very cool climates, should be tested for protein stability. There are two different forms of bentonite commercially available: sodium-rich ones and calcium-rich ones. Suppliers of sodium bentonite argue that this form has a protein fining capacity twice as high as its calcium cousin. Suppliers of calcium bentonite argue that their form swells less in water, and it creates fewer lees and a smaller loss of wine when racking.

Excess additions of sodium to wine are undesirable, as sodium consumption may contribute to high blood pressure and heart disease. For the same reason, the use of sodium metabisulfite for sulfur dioxide additions or sodium bicarbonate (baking soda) for de-acidification purposes is not permitted by the U.S. Tax and Trade Bureau (CFR Title 27 Part 24 § 24.246 Materials authorized for the treatment of wine and juice). The quantities added to wine by a heavy bentonite treatment can double the amount of sodium naturally present in grape juice (10 to 20 mg/L), but even then wine is still considered a "very low sodium" beverage.

On the other hand, excess release of calcium into a wine from bentonite via exchange with grape proteins may increase the risk of calcium tartrate instability.

For example, an addition of 1,920 mg/L (16 lbs/1,000 gal) calcium bentonite — equivalent to 960 mg/L (8 lbs/1,000 gal) sodium bentonite — to a batch of protein-rich Gewürztraminer would result in an additional potential for 114 mg/L calcium tartrate. Since calcium tartrate does not respond as readily to cold stabilization as potassium bi-tartrate, this may mean the difference between a stable wine and a wine throwing a glass-like precipitate that may worry consumers.

Should I rehydrate my bentonite in water or in wine?

Water. Bentonite, independent of type, should be rehydrated with clean, chlorine-free hot (140°F, 60°C) water. It must be added under immediate, vigorous mixing to the water (not the other way around) and allowed to swell for at least four hours. The lump-free slurry shouldn't sit longer than overnight, as this may encourage microbial growth. A maximum of 16.7 L of water may be used to dissolve each kilogram of bentonite (2 gallons of water per pound). Note that the total amount of water introduced from all processing sources during the winemaking should not exceed 1 percent of the wine. For bench trials in the winery lab, a mixing ratio of water to bentonite of 16 to 1 (60 g per 1 L) results in an easily pipettable 6 percent w/v slurry (Table 1).

g/hL	lbs/1,000 gal	mL per liter wine	mL per 750mL wine	mL per gal wine
12	1	2	1.5	8
24	2	4	3.0	15
36	3	6	4.5	23
48	4	8	6.0	30
60	5	10	7.5	38
72	6	12	9.0	45
84	7	14	10.5	53
96	8	16	12.0	60
108	9	18	13.5	68
120	10	20	15.0	76

Rehydrating with wine doesn't allow the bentonite to fully swell, thereby reducing its fining capacity. In addition, it is a waste of wine that cannot be recovered. However, if one would use 6 percent slurry at additions above 60 g/hl (5 lbs/1,000 gal), the amount of water added to the wine exceeds 1 percent. Thus in practice, bentonite is typically dissolved at ratios of about 8 to 1 (1 kg bentonite per 8 L of water; 1 lb/gal) which allows for bentonite additions of up to 120 g/hl (10 lb/1,000 gal). Above this addition level, a wine/water mix can be used for rehydration to keep the processing water addition below 1 percent of total wine volume. Alternatively, rehydrating with too little water will limit the amount of swelling and makes for a difficult-to-stir, lumpy slurry.

Does a change in pH due to acidification/de-acidification or cold stabilization change the protein stability of my wine?

Yes. Even small changes in pH can significantly alter the protein solubility and thus the wine's bentonite requirements. Protein stability must be reassessed after any treatment that changes the acidity of the wine in question. Especially high pH values likely will lead to increased bentonite demand. Calcium bentonite is not recommended for wines with a pH above 3.4.

Can blending two protein-stable wines compromise the stability of the blend?

Yes. Any shift in alcohol content, pH, protective colloid concentration, etc. can potentially render the entire blend unstable. A new test of the mixture must be conducted, and additional fining might be needed.

Can non-grape proteins from fining agents, enzymes or lysozyme treatments, or sur lie aging influence the protein stability of my wine?

- Gelatin and other proteins that are used as fining agents against over-extracted seed or skin tannins may contribute to protein instabilities and are often used in conjunction with other fining agents - such a silica gel (Kieselso) - that can precipitate any excess fining proteins that didn't bind to the wine's tannins.
- Additions of processing enzymes such as pectinase or glucosidase are usually not relevant sources for protein instabilities. However, they respond well to bentonite fining, which allows the winemaker, e.g., to stop the activity of β -glucosidase. This limits the premature release of sugar-bound varietal aroma precursors such as mono-terpenes and a loss of aging potential for the wine.
- Lysozyme additions to inhibit malolactic fermentation can add substantial amounts of non-grape-derived protein to the wine when added at a recommended 250 to 500 mg/L, which is between 2 and 50 times the average concentration of natural grape protein in wine. Note that lysozyme - while potentially unstable - does not respond well to the heat tests.
- Manno-proteins on the other hand, released from yeast cells during aging on the lees or added as commercially available adjuncts, may act as protective colloids and keep unstable grape protein from precipitating.

How fast/long should I mix?

The reaction between protein and bentonite is quick but not instantaneous. Proper mixing is crucial, and it has been shown that mixing speed, time, and temperature affect the efficacy of the treatment. At least 10 to 15 minutes of vigorous mixing is recommended, and the wine temperature should be above 50°F (10°C). To increase the effectiveness of the bentonite fining, the winemaker may choose to do it at a warmer temperature, and then proceed with a cold stabilization against tartrate precipitation thereafter. In this scenario, the dropout of potassium bitartrate may affect the pH of the wine, and the bench test for protein stability should address this by simulating the chilling beforehand. It is important that any bench trial conditions, especially the mixing speed and the temperature, are representative of the conditions that can be achieved on a large scale in the cellar. Otherwise, an underestimation of the bentonite requirements will result.

Mixing with an inert gas fed in via the racking valve avoids potential oxidative damage due to mechanical mixing if the tank headspace contains traces of air/oxygen.

How long does it take to settle?

Allow one week (depending on tank height) to have all bentonite lees settle to the bottom by gravity alone. Limiting the contact time between wine and bentonite helps to minimize the amount of lead residues that could be extracted into the wine.



Winemakers Discuss the Truth, Fiction and Consequences of Filtration in Winemaking

By Lance Cutler

I've written many times about the winemaker's dilemma: for every gain in winemaking, there is some sacrifice. Let your fruit hang until it has fully matured and you have to deal with higher alcohols. Raise your fermentation temperatures to gain some complexity and you sacrifice some fruitiness. Even the wild pleasure of selling out of your wine means you have to worry about losing wine list positions because you can't supply goods.

When it comes to wine, there are not a lot of absolutes. That's one thing that makes filtration unique. With filtration, you're damned if you do and damned if you don't. Many winemakers are adamant about filtration. They don't like it. We all know **Robert Parker** is not a fan. The argument goes that unfiltered wine is more natural, has richer mouth feel and more complex, subtle flavors.

Then again, most every winemaker has seen his unfiltered wine develop Brettanomyces character a couple of years after bottling. We've seen some residual sugar get gobbled up to give our Pinot Noir an ill-placed spritziness. We've watched sprightly, crisp Sauvignon Blanc get muddled and edgy.

Plenty of things can go wrong during a filtration. Wine can get oxidized or pick up odd flavors. Many winemakers believe that filtering can strip flavor and subtlety from our wines. We know the simple act of filtration reduces the amount of wine we end up with, and horror of horrors, filtration can make clean, sound wines that are uninteresting and have no character.

What's true and what's fiction? When should we filter and when can we confidently go into the bottle unfiltered? We collected a group of experienced winemakers and asked them.

Christopher Howell interned at **Mouton Rothschild** and **Clos du Val**. He worked at several wineries before landing at **Cain Vineyard and Winery** in St. Helena, California, where he has been general manager/winemaker since 1991.

David Noyes started at **Ridge Winery** over 30 years ago. From there he went to **UC Davis** to earn a degree in Enology. He started as the first winemaker for **Kunde Estate Winery** in 1989 and stayed there until 2006 when he decided to focus full time on his **David Noyes Wines**.

Stefano Migotto ran his father's winery in Northern Italy for 12 years. He left with his wife for the United States where he worked at **Franciscan Winery** and then **Gundlach Bundschu** for a two-year stint as assistant winemaker. He started **Winetech**, a company specializing in wine filtration, in 1998.

Do you have a philosophy toward filtration as being good or bad, desirable or undesirable?

David: I think any handling of wine is desirable if needed. If filtration is not needed then it is undesirable. However, if it is needed then it's desirable because you can have better results with filtration than by blindly marching forward. I've certainly had every experience in the book. I've not filtered when I should have. I've over-filtered when I shouldn't have. So my philosophy is to filter as needed.

Chris: Everyone thinking about filtration should remember the phrase, "First, do no harm." I don't think filtration is always bad, but I do think there is no free lunch. I believe there is always something lost for what is gained. We can say we should filter if needed, but what does that mean? Clearly, filtration has some impact on the wine.

David: If you are gearing your winemaking towards no filtration, then you make different decisions, and those decisions may affect the wine as much or more than the filtration. If you are trying to make an unfiltered, sweet white wine, then you need to have nerves of steel. If you are trying to make unfiltered red wine then you have to have stringent sanitary precautions in your winery and do a lot of testing or plan on aging the wine for two and a half years in the barrel so anything will work through.

Chris: All winemaking is a series of complex choices, and any choice along the way impacts the others. If you say arbitrarily that at the end of this I don't want to filter, that really needs to inform every choice. That's a really important point. Filtration can't be taken out of context because context is everything. I've learned that painfully myself.

Stefano: Our philosophy is to do the best that we can to achieve the highest quality. The highest quality is maintained when we use cross flow filtration. We have performed a series of blind tastings using the same wine before and after filtration. The filtered wine comes out the best, all the time. I've never had one tasting where that wasn't the case.

David: You said that in all of your tastings of filtered and unfiltered wines, your customers preferred the filtered wine. Is that a case of microbiological instability?

Stefano: No, no, no. That is just on a quality basis, no microbiological problems. We blind tasted on both white and red wines between one and two years after bottling. The filtered wine had brighter fruit. Some of the filtered wines were cleaner tasting, but the main thing was better fruit.

One of the arguments against filtration is that you get cleaner wines, but you lose character and personality. How do you address that?

Stefano: That doesn't happen in my experience. I can say that bad filtration will definitely destroy the wine. I will give you some examples: oxygen pickup, excessive temperature build up during filtration, wrong amount of DE overdosing the wine. With the new technology, most of these problems are gone.

Chris: We can all agree that a filtration badly done is a negative.

David: Yeah, but in some of the more complex filtration systems, there's more things that can go wrong. I just like to keep it simple.

Stefano: That's why we removed all the automation from our systems. I couldn't trust the accuracy of the computer. Now, if I make a mistake, I make the mistake. I don't want some computer to open or close a valve because some high frequency device is passing by. Now, all of our cross flow filtration machines are operated manually. That gives me better control of the process.

But does filtration sacrifice complexity and personality for cleanliness and crispness?

David: Well, I would say yes, but sometimes the personality needs to go to a therapist. I've tasted wines that tasted better, in the sense that they are more easily accessible, they're less dry and they are more presentable after filtration. There are other wines that have a lot of character to begin with that seem to lose something after a filtration, some little quirk or eccentricity or personality.

Stefano: I was filtering one day and the customer told me, "My wine had a characteristic before and now I don't have it any more." I was filtering with DE at that time. I smelled the wine and he was right. The wine before filtration had a leesy smell, and it was really cloudy. After filtration, it was plain. The problem with the wine was it had no characteristics, and when I cleaned it up, nothing was left. So if you call that *terroir*, or wine quality, then you are better off not filtering.

Chris: The core of what a filtration does by cleaning the wine up, in and of itself, is something that we may not want to do. Even if we can conduct a filtration without excessive oxidation and without brutalizing the wine to get this clean, attractive, fruity wine, we may prefer a wine that is more awkward but potentially more complex with more character. We may prefer to leave this complexity in the wine, even if it makes the wine less fruity.

Stefano: It depends on what the winemaker wants. That's what I am trying to achieve. I have an example that happens a lot with Sauvignon Blanc. You taste it before and the fruit is there, but it's not as bright as it should be. You have particles; you have colloidal suspension that actually covers the character. You can't even say it is complexity because you don't pick it up. After you filter the wine, it tastes complex, especially with Sauvignon Blanc.

David: I have a lot of experience with an ideology of non-filtration. I've also had a fair amount of red wines with Brettanomyces in the bottle. At one point, I felt like I wanted all the complexity to come from the intensity of the grape flavor because really good grapes have layers and layers of flavor. There's enough there that I don't need the added complexity of a tiny amount of Brettanomyces. That said, a little bit of microbial flavor, a little bit of yeast character does add complexity. It adds another dimension. With filtration, some of that character remains in the wine, but it's stable. With unfiltered wines that dimension changes over time in the bottle in less predictable ways. In other words, each bottle of unfiltered wine has its own personality.

Stefano: I think filtration is just a winemaking technique. It's a choice. Wine doesn't need to be filtered every time. It's a tool for the winemaker. Sometimes the tool is exactly what the winemaker needs to achieve the kind of wine he wants for the consumer. Sometimes it's not needed.

Chris: Emile Peynaud completely agrees with Stefano. He says cloudy wine never tastes better than a clear wine, and filtration, properly executed, is always going to produce a better wine than one not filtered. In the United States, I think there is a perception among winemaking effetes that filtration equals technology and is therefore bad. In fact, the experience, as you have stated, is that every time people taste filtered versus unfiltered wines, they prefer the filtered ones. Peynaud, who I think is our most articulate French enologist, really spells it out. He says that same thing. That position has just been out of

fashion. In most cases, though, I think the reason we are talking about filtration is risk management. It's not just about making the wine taste better.

David: Then there's this metaphysical quality. You can say that a wine is non-filtered, and people respond both economically and viscerally to that. That's the counter to that argument. Filtration takes on a meaning beyond the actual, physical process of filtration. It's seen as technological wine versus honest wine. Or from the other perspective, it's seen as professional wine versus amateur wine. Filtration is just one more of the many choices that are made from planting the grapes to drinking the bottle. Wine is made by technology, even if that technology is simply stomping grapes. In that sense filtration is like any other step in the process.

How many winemakers have a clear understanding of how modern filtration systems work and what they can do?

Stefano: A lot more now than a few years ago. If new customers don't know, they ask. They usually want a meeting and a demonstration. They are really well informed. They don't trust what people tell them. Also, all the publicity about cross flow has helped filtration. For a lot of people, cross flow was the magic tool. Put your wine through a cross flow filter and your wine will be perfect as well as stable.

David: That's the danger you run into. People look to technology as the savior of wine instead of using esthetic judgment and observation.

If the longer hang times give us higher pH, and we would prefer not to filter, why don't we add tartaric acid to lower that pH?

Stefano: You have a bigger, richer wine with higher pH, and that's what people like now.

David: Also, with the higher alcohol levels and the tannin extraction levels of these wines, you do have some anti-microbial effect. I'm not arguing for that, but it might explain why more people haven't run into trouble.

Stefano: It took a while for people to start experimenting with their winemaking. High pH was supposed to be bad, but people experimented and said, "Let's see what happens." Then they found they liked the wine with higher pH because the wine tasted richer and fatter.

Chris: So ultimately, we are still responding to our taste.

Stefano: Yes, but that's how it should be. We're drinking it, not taking a bath in it. *What do winemakers have to do if they want to bottle unfiltered wine?*

David: You have to pray. Every step of the process has to be geared to safe bottling. We've all worked with a number of vineyards and we know that a number of those vineyards have a tendency to develop Brettanomyces; other vineyards don't. Sanitation in the cellar is critical. Knowing your cell counts before bottling is important.

Stefano: You need to know how much residual sugar there is. The free sulfur, pH and the alcohol content are other factors. That's going to give you an idea about how to handle the risk. You take all the factors into account, look at what kind of bacteria you have and then you make a choice.

David: It's also important to know the owners of the winery and understand how much risk they are willing to take. In other words, will you get fired if the wine goes off in the bottle?

Chris: I would love it if someone could give me a handle on the risk management side of the equation because I want to know what it takes to bottle my wine without filtration. There's never zero sugar, so it's always a question of how much. We don't have a practical, common sense approach to what standard represents a measurable degree of risk for a wine of this degree of alcohol at this pH with this cell count. Once you get down to professional recommendations, everybody says, "I can't really advise you to do any of these things."

Stefano: Suppose during crush you have a tank that stops fermenting. The next tank has the same grapes from the same vineyard and it goes dry. Why? Everything is the same, but the result is different. It happens a lot. That's why we cannot give winemakers a straight answer.

We keep talking about filtration, but you winemakers both bottle without filtration. Why?

David: I was raised in the no filtration dogma. I just have a visceral feeling that no filtration is better. If I had the wine tested and it showed no Brett and it showed none six months earlier, then based on that I might bottle unfiltered. And filtration is one more thing that can go wrong.

Chris: We don't filter the Cain Five or the Cain Concept. The non-malolactic Musqué is a white wine that's also bottled unfiltered. I went to French enology school where I was taught that filtration was fine. That filtration properly done would never damage the wine. I've been through many tedious triangular tests when either you can't tell the difference or the conclusion is less than clear. But there is a texture and mouth feel in unfiltered wines that I think is slightly fuller. It gives more substance on the palate than the filtered wine. It's almost intangible. It's difficult to state technically. It's almost impossible to

prove in a laboratory-based sensory analysis but, nonetheless, I just think there's that much more there. To me, unfiltered wine just seems to be more complete.

What decisions are you making to enable you to bottle these wines without filtration?

Chris: First of all, we do take risks. Second, we are watching sugars and cell counts. We interpret the results on our own. We ask the opinions of our laboratory, but we don't use the laboratory to tell us what to do. I think every analysis is a question, and every question leads to possible outcomes, so these analytical results are more likely to lead you down a technological path.

We want our sugar below 0.3 grams per liter. We want no history of high cell counts. We do cell counts several times over the life of a wine. Hopefully it's not gone above 100 cells per milliliter in its history. You have to take the time to watch the wine and observe its behavior. One of the things we do at Cain is to blend early so we can watch the wine. If you know the track record of the vineyard and know what it is likely to do next, these things can give you a certain degree of confidence. But it's no certainty of what might happen in the bottle.

David: I've bottled quite a number of Viogniers without malolactic fermentation. It had higher pH, but it also had high alcohol. I used to think you could bottle a red wine that had been through malolactic without filtration, but a non-malolactic white wine had to be filtered. But with Viognier there was this texture thing. It's a big wine, high alcohol, a little bit phenolic. It has the potential for being really awful unless there is a degree of richness to it.

Stefano: This comes back to my point that filtration is a winemaking tool. Right there, for you to filter would not improve the wine.

David: I brought a bottle of white wine that was sterile-filtered, and I felt for a year after bottling that I had hurt this wine. Now after a year in the bottle it is just wonderful. There is a degree of richness there and wonderful aromatics. So these decisions have to be made with some understanding of when the wine is going to be sold, how it's going to be sold. When I go to sell my wine and tell the buyers that it is unfiltered, you see that the buyers mentally put you in a different category.

Maybe it's a matter of personal experience. Winemakers burned by microbial activity after bottling filter too often, while winemakers whose wines suffered from poor filtration techniques filter too little. Could that be the problem?

David: I think our industry is very susceptible to that because it is a very new industry. It all developed after Prohibition. The boom happened in the 1970s and 1980s when most of us winemakers were all the same age, starting from the same perspective. We all made the same mistakes in the same order. So there is a tendency to think that everybody on the block was doing the same thing, so it had to be the right thing. The point I'm making is that a new tool may be overused because we all want to be at the cutting edge of a rapidly advancing industry--remember centrifuges?

Stefano: It's changing. Ten years ago I couldn't talk about filtration because winemakers were completely against it. I mean, filtration was accepted but only to fix problems. Then there was this cross flow filtration boom as a new technology about three or four years ago and everybody started filtering. They thought they could have the safety of filtration as well as perfect wine. Now people have a different approach. They are looking at filtration as a technique to help them make wine. The attitude has changed. Filtration is better, and winemakers can see it for the tool it has become. We want to provide the final consumer with the safest, most natural way to achieve stable wine, and to my knowledge that is to filter the wine.

David: Quality is subjective. You can decide that this one element out of the whole range of taste elements is the key. People decide that if there's no flavor of French oak, it's not the best wine. Or they decide if Cabernet doesn't have eucalyptus notes, it's not the best. It's entirely subjective. If your key element is texture and mouth feel then you will lean towards unfiltered wine.

Stefano: We need to remember that filtration is not the devil. Quality is subjective, and people have to use their own palates to make their decisions. Filtration is just a tool.

David: Filtration may not be the devil, but it's not a panacea either.

Chris: My experience has been to use filtering for stability, not as a tool to make stable wine better. We think unfiltered wine is better, even if it's metaphysical like David says, but in our heart of hearts we're still wondering. As winemakers, we all seem to agree that filtration changes the wine. So the question for us as winemakers boils down to, "What do we want the wine to taste like?"

To Filter or Not To Filter?

One of the things I like best about making wine is that you work with Mother Nature. Climate, the seasons and *terroir* all contribute to wine quality. The problem with Mother Nature is that she is capricious. Faced with sudden, erratic shifts like rain during harvest, stuck fermentations and Brettanomyces infections, I can understand why winemakers would want to

play it safe. Twenty years ago, there was a lot of poor filtration going on. Ineffective pumps, worn seals, heat build up and such often left wines oxidized, cooked or loaded with earthy flavors. The good news is that filtration has gotten immeasurably better. Nowadays, winemakers can be reasonably certain that a trained filter technician won't destroy his wine. It would be wonderful if someone could come up with a series of simple tests that would tell winemakers when to filter and when filtration was unnecessary. Several professional laboratories are offering tests already. Forget it. It's not going to happen. These tests will give you more information, but sooner or later each winemaker has to make the decision for themselves. It's your wine. You've cared for it in the vineyard, babied it through fermentation and cradled it in the cellar. You know it better than anyone else. Personally, I like Mother Nature and mystery. I like the magic in the bottle. I lean toward the natural over technology and I like to take chances, but there are clearly times when a wine should be filtered. Winemakers need to assess whatever information is at hand and then make the hard decisions. That's why they pay us the big bucks.



American Wine Society Honors Jim Bernau as Award of Merit Recipient

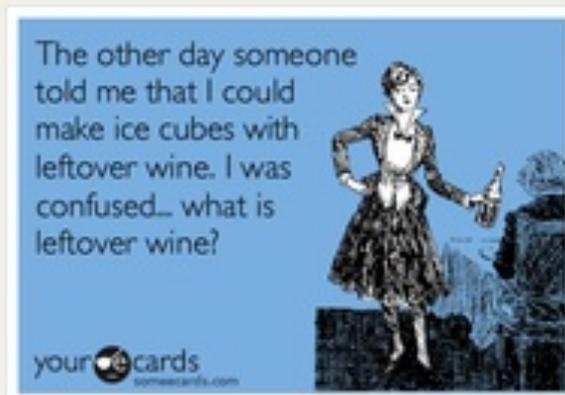
The American Wine Society (AWS) has awarded its 2012 Award of Merit to winery owner and environmentalist Jim Bernau. The Award of Merit, the Society's highest honor, recognizes substantial and meritorious contributions to the wine industry.

The AWS presented the award at its National Conference in Portland, Oregon on November 10 to recognize Bernau, president and founder of Willamette Valley Vineyards, the leading producer of Oregon Certified Sustainable Wine. In addition to his success in establishing the winery, Bernau has a long record of supporting wine research and as an environmentalist and steward of the land. Among his many noteworthy achievements:

- Established first winery in the world to use sustainable cork stoppers certified by the Rain-forest Alliance to Forest Stewardship Council standards.
- Gifted securities to Oregon State University to create the first endowed Professorship in Fermentation Science in the U.S.
- Planted vineyards certified sustainable through LIVE (Low Input Viticulture and Enology) and Salmon Safe.
- Operated first winery to receive the "Hero of Salmon" design award from Salmon Safe.
- Partnered with Amorim Cork America, SOLV and Yemm & Hart to begin nationwide cork recycling campaign.

Willamette Valley Vineyards was recognized by Wine Press Northwest as "Oregon Winery of the Year" and Wine & Spirits magazine as "Win-ery of the Year" in 2011.

"It is such an honor to receive this award from the American Wine Society," Bernau said. "It is a team effort here, where all of us at Willamette Valley Vineyards appreciate the recognition. As Oregonians, we strive to protect the environment and appreciate the AWS recognizing the importance of this work."



West Side Wine Club

Leadership Team - 2013

- 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: **Scott Nelson** nelsonsw@gmail.com

- Collect dues and fees, update membership list with secretary
- Pay bills

Secretary: **Ken and Barb 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: **Mike Smolak** Mike@NWRetire.com

- Arrange speakers for our meetings

Chair for Tastings: **Craig Bush** pnoir1@hotmail.com & Phil Bard phil@philbard.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: **Jonathan Brown** jonabrown@gmail.com & Jim Ourada jim.m.ourada@intel.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@yahoo.com

- Encourage club participation in all amateur competitions available. Make information known through Newsletter, e-mail and Facebook

Chairs for Social Events: Marlene Grant denmargrant@earthlink.net Barbara Stinger & Mindy Bush – Helpers

- Awards Gala / Holliday parties

• Web Content Editor: **Rick Kipper** kips@lycos.com

Webmaster: **David Ladd**