West Side Wine Club

October 2015

Monthly Rant

In China its the year of the goat. But don't tell that to the female members of the West Side Wine Club. 2015 is the year of the WOMAN. Raargh! Yes, boys, its time to get out of the way, cuz hip chicks are doin' wine this time around. After years of putting up with us strutting around the cellar, blithely tossing about terms such as "yeast assimilable nitrogen" and "batonnage" (mostly to reinforce our roles as the men in control of the winemaking), the girls are moving into the drivers' seats and taking over the lingo. At 7 AM while I'm still in the bedroom trying to decide which pair of shoes will complement my ensemble for the day, Alice is out in the kitchen swinging the punchdown tool and hydrometer, singing to the yeast and sniffing aromas coming off the fermenters. She's plotting her own brix curves and making plans for which barrels to use for aging. Maybe she will let me help a little with press, gosh I hope so or I just won't know what to do. It's all a bit confusing, perhaps grabbing a coffee with the bro's will help me sort it out. But don't get me wrong, I think its a good thing, even if it is different and somewhat unsettling. I suspect there is still one turf I can still claim as my own and hopefully restore my flagging male ego. Those 6 gallon carboys ARE pretty heavy.

Excuse me, where did you want it, dear?

Scheduled Meetings

January 10, 2015
Annual Gala – Archer Winery

January 21, 2015
Crush Talk / Planning

February 18, 2015
Bordeaux Tasting

March 18, 2015
Speaker: Michael Blackard of "Portocork"

April 11, 2015
Tour, Ferraro Cellars

April 22, 2015
Barrel / Carboy Sample Tasting

May 20, 2015
Speaker - Patrick McElligott, Sineann Winery, Chemeketa instructor & wine judge

June 17, 2015
"Open discussion of winemaking issues"

June 27, 2015
Tour, Utopia Vineyards

July 11, 2015
Annual Picnic

August 19, 2015
All Whites Tasting

September 16, 2015
Other Reds Tasting

October 21, 2015
Pinot Noir Tasting

November
No Meeting

December 2, 2015
Planning, Tours, Speakers, Events, Elections

Information & Trivia

• A typical wine contains 86% water, 11.2% alcohol, 2.8% other. Over 250 compounds have been identified in "other". That is why wine making is an art and not a science.
• While European oak is split, American oak is sawn. Sawing the oak breaks open the wood cells, and releases aromatic substances such as vanillin.
• Plato argued that the minimum drinking age should be 18, and then wine in moderation may be tasted until 31. When a man reaches 40, he may drink as much as he wants to cure the "crabbedness of old age."
• Once the barrels are filled up they don't stay that way. The wine is constantly evaporating, ever so slowly. Depending upon the humidity in the cellar the loss can be anywhere from 2- 5% or up to *15 bottles annually! And that accounts for all the angels hovering there in the cellar. The Angel's Share is the tariff they impose to allow the wine to age.*
• During the French Revolution, merchants could be executed for selling sour wine.
• **Walla Walla home to 2,836 vineyard acres**
An assessment of the Walla Walla Valley AVA in Washington and Oregon found the appellation is home to 2,836 acres of planted vineyards, of which 36.6% is Cabernet Sauvignon. The report, organized by the Walla Walla Valley Wine Alliance and the website everyvine.com, also found 57% of all planted acreage is on the Oregon side of the appellation. After Cabernet Sauvignon, the other top varieties and percentage of total vineyard acreage were: Syrah, 17.3%; Merlot, 17.1%; Cabernet Franc, 5.7%, and Malbec 4.4%.

The next regular meeting is scheduled for Wednesday, October 21 at 7:00 PM at Oak Knoll Winery.
Agenda: WSWC members bring out your best effort Pinot Noirs for a blind, member critiqued tasting. They say Pinot Noir is a difficult wine to make, lets find out who has the best.

1.) Snacks: This will be a potluck; bring a small snack to share.
2.) If you have not paid your dues or signed a waiver, please do so at this meeting.
3.) Bring a wine glass for tasting 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.

WSWC Website: http://www.westsidewineclub.com/
Message Board: http://groups.yahoo.com/group/Westsidewineclub/

September Meeting Minutes

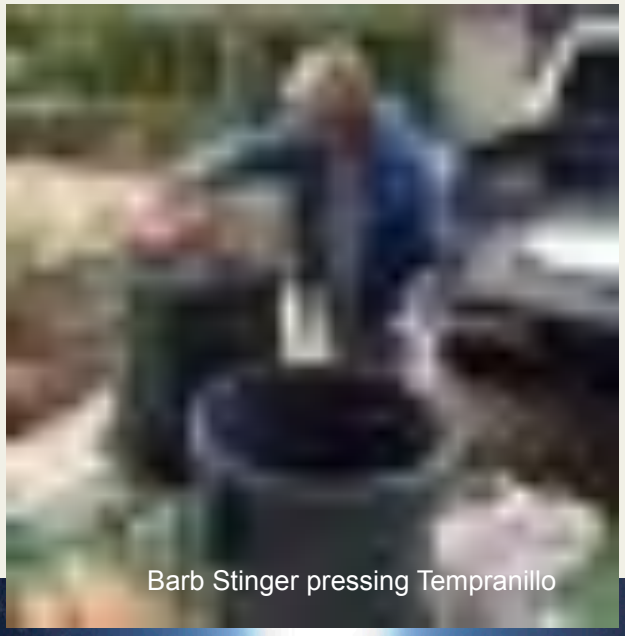
23 members present

• Members discussed ripeness of grapes received so far this Fall. There seems to be a large variability depending on the source location.
• Phil introduced several new guests present at the meeting tonight.
• Ken Stinger over bought Lalvin VP41 malolactic culture and offered to sell some at $4 per gram.
• We continued a discussion of the new winery supply store in Newburg, Crush2Cellar.
• A poll was taken as to how many members used glass &/or PET fabricated carboys. Most every one used a mixture of both presently but are slowly switching to PET for safety reasons.

Ted Johnson & Barb Thomson conducted the all red blind tasting.

Results are shown in the table below in the order tasted:

Wine #	Name	Varietal	Gold	Silver	Bronze	None	Total Score	Medal Score	Medal	Rank
1	Guild (SE Wine Coll)	Red Blend '10	5	16	2		49	2.13	Silver	3
2	Jon Kahrs/T. Swan	Red Blend '10	14	9			60	2.61	Gold	1
3	Kahrs/ Robinson	Pinot Noir/ Syrah Blend '08/'09	3	9	10	1	37	1.61	Silver	5
4	Ted Brunner	Grenache '13		1	10	12	12	0.52	Bronze	8
5	Stinger/ Bard	Red Blend '13	13	10			59	2.57	Gold	2
6	Ourada/ Rogers	Temperanillo '12		1	12	10	14	0.61	Bronze	7
7	Stinger/ Bard	Syrah '11	1	13	9		38	1.65	Silver	4
8	Lopez	Syrah '11 San Diego grapes		6	17		29	1.26	Bronze	6



Barb Stinger pressing Tempranillo

Barb Thomson enjoying the fruits of her labor

Alice midnight crush with chocolate

Marilyn pressing with help from Bill & Curtis.

Jan punching down Cabernet Franc

Marlene & Susan Jonson pressing Cabernet Franc

SHOULD I FINE MY WINE BEFORE COLD STABILIZATION?

Lum Eisenman

Sometimes a new wine will have several defects, and it will be obvious to the winemaker that multiple fining treatments will be needed. In general, fining operations are done in the following sequence.

1 - Treat any hydrogen sulfide problems with copper sulfate as soon as fermentation is done.
2 - Cold stabilize the wine to remove potassium bitartrate. Chilling also helps clean up the wine, and it reduces the microbe population.
3 - Use protein materials (gelatin, casein, Isinglass, egg whites, etc.) to fine the wine for astringency, clarity or color problems.
4 - Fine with bentonite to remove excess protein and make white and blush wines hot stable. The bentonite fining will help remove any left over protein material, and it may also improve wine clarity.

But small wineries often depart from the sequence given above to reduce handling. They fine their white and blush wines with bentonite and then immediately cold stabilize the wine. During cold stabilization, the soft bentonite lees are compacted by the tartrate crystals, and the compacted lees make racking much easier.

Genetically modified yeasts: the next battleground

I'm going to make a prediction. I reckon the next battleground in the wine world will be the controversial use of genetically modified (GM) yeasts in winemaking. Plenty of these genetically modified strains already exist in laboratories around the globe, but they haven't previously been commercialized because of the negative reactions of consumers to GM food products. The scientists are busy engineering beneficial traits into wine yeasts even though they know they won't be useful for commercial winemaking for the foreseeable future, for two reasons. First, they reckon the public opposition to GM technology will one day recede, at which point they'll be in a good position to move. Second, they can learn a lot of useful information from using these introduced genes, which will then inform conventional breeding and selection programs.

Now, however, a GM yeast strain, called ML01, has been commercialized and is authorized for use in the USA. This yeast, made by Springer Oenologie, has been the recipient of two extra genes (known as transgenes). The first is a malate transporter gene from another yeast, *Schizosaccharomyces pombe*, and the second is the malolactic enzyme gene from *Oenococcus oeni*, the main bacteria responsible for the natural malolactic fermentation that occurs in many wines after alcoholic fermentation. This yeast is therefore able to carry out malolactic fermentation (normally done by bacteria) at the same time as alcoholic fermentation.

There are several advantages to this. The first is that processing wine becomes much faster. The second is that there is less risk of wine spoilage because there is no delay between alcoholic fermentation and the onset of malolactic fermentation, a stage at which wine can be at risk. Also, the resulting wine is less likely to contain biogenic amines which are produced by the bacterial malolactic fermentation and which can have negative health effects.

In the USA yeasts are classified as processing agents, and thus wines made with this yeast would need no declaration that they contained GM ingredients. This allows GM yeast to enter winemaking 'under the radar', with consumers or advocacy groups none the wiser. In many other countries, such as New Zealand and Australia, the regulations are more stringent, and yeast is considered as part of the ingredients of wine.

So is anyone making wine using this GM yeast? If they are, they aren't telling anyone, for understandable reasons. In response to the commercial approval of ML01 in the USA, the Australian Wine Research Institute has issued a statement declaring that no GM yeasts will be used in Australian wine for the foreseeable future. But because it is so much easier to produce yeasts with desirable properties by GM technology (and there are some traits that are impossible to select for by conventional breeding), research continues apace globally on GM yeast technology.

So what's the big deal? Aren't GM microbes used all the time? The insulin diabetics inject is produced by GM bacteria, for example, and given proper testing, there's no reason to worry about safety issues. Supporters of the technology argue that what they are doing by developing GM yeast strains is not with the intention of creating fake wines, but with a view to unlocking the latent flavor and aroma potential of grape must by using yeasts with special properties. One yeast researcher has even gone on record as stating that the best wines are still to be made, and that this technology is one way forward.

What do I think? As a scientist who cares a great deal about the future of wine, I favor a cautious approach: if GM yeasts become widespread, the danger is that wine will be seen as just another manufactured beverage. If we kill the 'naturalness' of wine, we run the risk of destroying the whole venture….. So, what do you think?

Always Use Airlocks On Carboys

It's a fairly common mistake to use airlocks only during fermentation and switch to a solid plug or bung for bulk aging in a carboy. Why wouldn't you? After all fermentation is over so there really shouldn't be anything going on in there.

The truth is that there are other forces at work that can cause problems when using a solid plug on a carboy.

The Trouble With Solid Plugs on Carboys

Typically we like to leave a bit of headspace in our carboys when we rack our wines. While it's best to minimize this headspace we often do still have some space (i.e. trapped air) in there.

As you can imagine a glass or plastic carboy does not "breath" and it's certainly not flexible. Solid plugs or bungs also do not breath, nor can they accommodate any changes in pressure within that headspace.

You put the two together and there's no room for pressure changes or for suspended carbon dioxide to come out of suspension. So what happens when a carboy warms up a few degrees? Or when a bit of carbon dioxide finds its way out of suspension?

The plug pops out leaving your wine unprotected.

Let's say the opposite happens and the temperature drops. This creates a vacuum in the headspace causing the plug to get sucked down tightly into the neck of the carboy and can be quite difficult to remove.

This happened to me once while making a one gallon batch of mead. The plug was so far down into the neck of the carboy that there was nothing left to grab hold of to pull it out. I decided to go after it with a screw driver and try to pry it out. This resulted in a lot of chipped glass and a decent size hole in my hand.

I also tried drilling a screw into the plug and pulling on the screw. This valiant effort merely put a hole in my plug. It didn't move at all.

After wrestling it for an hour, and eventually got it out. At that point I vowed never to use a solid plug again.

It's actually a pretty common occurrence for winemakers to have trouble with solid plugs in carboys. On average I get two to three emails per month from winemakers who are trying to figure out if their wine has gone bad or not because they came home to find that the plug has popped out of the carboy left their wine exposed for three days or more. It happens all the time.

Always Use An Airlock With Carboys

It doesn't matter how long fermentation has been over, always use an airlock. Yes, you do have to check the water level from time to time as evaporation, however, this is a small price to pay. The alternative is coming home from a week long vacation to find that your plug is on the floor and your wine has been sitting there for who knows how many days open and unprotected.

Airlocks provide a flexible barrier that can give with pressure changes. They can also tip you off if spoilage micro-organisms have taken hold as the airlock will start to bubble again after being inactive.

That being said airlocks certainly aren't perfect. They do need some maintenance and your attention from time to time. Evaporation is your biggest concern. If the water level gets too low the airlock will no longer protect your wine.

It's also possible that the water could be come contaminated and cause problems if it comes into contact with your wine. During temperature drops it's even possible for the water to get sucked down into your wine. These are rare occurrences though.

In my opinion keeping tabs on an airlock is a small price to pay for the protection they offer. Solid plugs just aren't reliable enough when used on glass or plastic carboys.

3 Ways to Fool Proof Your Airlock

Here are some ways you can make your airlock safer for your wine and more resistant to the issues mentioned above.

Add a splash of vodka to the water. This will protect the water against spoilage micro-organisms and even if it does get into your wine it won't be noticeable. Keep an eye on it though as alcohol evaporates fairly quickly.

Fill your airlock with mineral oil instead of water. Mineral oil is food grade, doesn't evaporate, doesn't spoil, and if it falls into the carboy it floats and can be separated through racking.

Fill your airlock most of the way with water and top it off with mineral oil. This reduces the amount of oil you need and prevents the water from evaporating or harboring spoilage micro-organisms.

So skip the solid plugs and bungs if you age your wine in carboys. Always use an airlock.

How to handle high-sugar musts

by Karien O'Kennedy
Tips for winemakers

Q: What classifies as high-sugar musts?
A: Any grapes arriving at the cellar at 24°Brix or higher.

Q: Why is this a potential problem for yeasts?
A: Yeasts are living organisms and therefore have specific genetic capabilities and limitations. Very few yeasts can ferment to dryness at 26°Brix – no matter how good the conditions.

Q: What are the most important factors to bear in mind when fermenting high-sugar musts?
A: Initial grape sugar concentration, juice YAN, fermentation temperature, oxygen availability and potential alcohol. Botrytis infection is an additional factor that can make fermentation challenging.

Practical guidelines for dealing with high-sugar musts:
It is only a minority of yeasts that can deal with high sugar levels. Select a yeast with a high alcohol tolerance, a low nutritional need and good fructose utilization.

Depending on how high the sugar is, increase the yeast dosage to as high as 45 g/hL. This will compensate for the yeasts that will die as a result of the preservative effect of high sugar concentrations.

Use rehydration nutrition at the recommended dosage – usually about 30 g/hL. Rehydration nutrients provide the fermenting yeast with additional sterols and long chain fatty acids, which strengthen the yeast cell membrane, thereby enhancing viability and vitality.

Do not perform cold maceration and do not allow extended skin contact. The risk for microbial spoilage is too big. Use enzymes for flavor, color and tannin extraction.

High sugars are often associated with high pH. Undertake the necessary pH/acid adjustments before fermentation.
Make sure the SO2 addition is sufficient (at last 50 ppm). If co-inoculation with bacteria is being considered (which is highly recommended), use a lower dose of SO2.

Avoid yeasts that form SO2 together with malolactic fermentation (MLF) co-inoculation.

Inoculate at 68°F and keep the fermentation temperature below 77°F. The closest to 68°F, the better. At these temperatures the alcohol is less toxic to the yeast cell membrane and the yeast therefore is able to function effectively for a much longer time, i.e. to take up sugar and nitrogen and to secrete hydrogen ions and alcohol into the medium. If the cell membrane starts struggling as a result of alcohol toxicity, these processes can no longer take place efficiently and the internal pH of the medium falls to that of the surrounding medium. Most yeast enzymes do not function at wine pH and the fermentation therefore will stop, with associated cell death and a semi sweet wine.

MLF bacteria are even more sensitive to alcohol toxicity, and co-inoculation will be affected negatively if the fermentation temperature is higher than 77°F.

Make sure that the temperature of the cap does not become too high by regularly punching down or pumping over. It must preferably not exceed 86°F.

Always use complex yeast nutrition for high-sugar grapes. It can be combined with DAP.

Ensure that the maximum admissible dosage (60 mg/L) of thiamine (a vitamin) is added.

If fermentation slows down towards the end, add pure yeast cell walls. These will bind to the medium chain fatty acids that are formed by the stressed yeast in a desperate attempt to regenerate its cells membrane that was damaged. Long-chain fatty acid synthesis only takes place in the presence of sufficient oxygen and therefore is interrupted in an anaerobic fermentation. Medium-chain fatty acids in high concentrations are toxic to yeast and lactic acid bacteria.

Alternatively macro-oxygenation with molecular oxygen during fermentation can stimulate the production of sterols and long chain fatty acids and thus the regeneration of the cell membrane resulting in improved alcohol tolerance.

Remove the wine from the skins as soon as possible. In sluggish fermentations the skins can be a source of spoilage organisms.

Also remove the dry wine from the yeast lees as soon as possible after fermentation and add sufficient amounts of SO2. The percentage of dead cells will be very high in the lees, which could potentially absorb color. The lees can also become a source of sulfer-like off flavors. There are commercial products that rather could be considered to help with improving the mouth feel and finish of the wine before bottling or bulk shipping.

Microbial Monitoring and Winery Sanitation Practices for Quality Control

Ted Rieger

MANAGING MICROBES AND EMPLOYING good winery sanitation practices to prevent wine spoilage are critical in wine quality control. The good news is that compared with many food and beverage industries, wineries generally have a smaller range of microorganisms of concern that can cause spoilage. However, microorganisms are everywhere in the winery environment. In addition, wineries face the challenge of balancing the need to promote the growth of desired microbes at the right time (such as *Saccharomyces* yeasts for fermentation) with the need to prevent and reduce undesired spoilage yeasts, bacteria and molds.

Types of Wine Microbes and Wine Defects

The three main groups of spoilage microbes are molds, bacteria and yeasts. All can be present at harvest and crush. Mold, most notably *Botrytis cinerea*, is a potential problem at harvest and crush because it can lead to premature oxidation, and it makes grapes more susceptible to contamination by other microorganisms.

Bacteria include acetic acid bacteria (such as Acetobacter) that lead to vinegar and high volatile acidity (VA). Lactic acid bacteria (LAB) include *Oenococcus*, *Pediococcus* and *Lactobacillus* that convert malic acid to lactic acid through malolactic fermentation (MLF). *Lactobacillus* can cause "mousiness," an off-character that is hard to remove. *Pediococcus* can cause "ropiness," an unwanted wine texture. LAB produce diacetyl during MLF, a "buttery" flavor that can sometimes be desirable but in excess can be like rancid butter. LAB can also produce biogenic amines that are unhealthy and have off-odors.

Wild yeasts, in addition to *Saccharomyces*, are sometimes encouraged by winemakers to add positive characteristics to wine; but if they are not properly managed, they can act as nutrient scavengers and inhibit primary fermentation by *Saccharomyces*. Wild yeasts can also contribute to unwanted VA, aldehydes and ethyl acetate production. Some yeasts —*Zygosaccharomyces*, *Picchia* and *Candida*—are resistant to sulfur dioxide (SO2).

Brettanomyces bruxellensis is the primary spoilage yeast, producing volatile phenols with off-odors sometimes described as "barnyard," "wet dog" or "band-aid." Chauffour said, "It grows on substrates left behind and does not need a lot of food to grow. It can feed on barrel wood—the sugars from oak wood released from toasting." She also noted, "Brett can be difficult to prevent and manage, and it can be resistant to low pH, high alcohol and SO2." Sources of microorganisms include: grape berries, harvesting equipment, winery equipment and tools (destemmer/crusher, press, transfer hoses, pumps, valves), barrels, bungs, wine thieves, corks and bottling lines. Some of the hot spots for contamination in wineries are: presses, tank bottom valves, ball valves (hard to clean and sanitize), oak barrels and cooperage (especially around the bung hole), small fittings, transfer hoses, filters, floors and floor drains.

Factors that promote microbial growth include: sugar, malic acid, nutrients (nitrogen), high pH (>3.6), high temperature and oxygen. Growth inhibitors are sulfur dioxide (SO2), ethanol, low pH (<3.6), low temperature and competition. Chauffour recommends managing the cellar environment with good hygiene, keeping cellar temperature at 59° F or less, and managing for pH levels less than 3.6.

Chauffour suggests all wineries focus on good sanitation practices at a minimum of three critical control points during wine production: Between alcoholic fermentation and malolactic fermentation (MLF), during aging and before blending, and before bottling. Testing should also be done when obvious problems arise, such as a stuck or sluggish fermentation or when an off-odor is detected.

Sanitation Includes Preventing Spread of Microbes

Microorganisms are everywhere, and they have no practical means of locomotion, but they can be transferred easily by living and non-living things.

They can be transferred by workers through direct contact or contact with contaminated equipment or tools. They are transferred by fruit flies that are common in wineries during crush. Fruit flies (drosophila) are attracted to sugar. Keep surfaces clean of their food source to prevent fruit fly populations. Fruit flies are often attracted to drains and lay eggs that hatch in three days. Worobo recommends cleaning and sanitizing grape product contact surfaces and drains a minimum of every three days during crush. Dumpsters outside the winery attract flies and insects and should be emptied more frequently during crush and rinsed out after emptying.

Worobo recommends a regular replacement schedule for items, such as barrel bungs and transfer hoses that can develop cracks over time that harbor microorganisms, and for rubber gaskets in bottling line filler equipment. He also suggests regular replacement of cleaning tools, such as brushes, which can wear out to be less effective and develop microbial contamination.

Cleaning vs. Sanitizing

Worobo distinguishes between cleaning (removal of soil and debris) and sanitizing (reduction in microorganisms). He

suggests: “At least 80 percent of your time should be spent on ‘cleaning,’ getting rid of the dirt and substrate that can harbor microorganisms. If you don’t do a good job getting rid of the dirt, the sanitizer will preferentially bond to the dirt first, and you won’t get the benefits of sanitizing.” He recommends a five-step cleaning and sanitizing regime:

1. Pre-rinse to loosen dirt with water
2. Apply detergent and perform manual scrubbing or agitation
3. Rinse off the detergent
4. Apply sanitizer
5. Rinse off sanitizer (in some cases, rinsing may not be needed).

By following a proper regime, it prevents the build-up of biofilms. “You never want biofilms; they can be a regular source of contamination,” Worobo said.

Biofilms are layers of organic matter (slime or mold) on winery or equipment surfaces or can be mineral or tartrate deposits on tanks and barrels.

Cleaning organic build-up and soil from equipment and product contact surfaces is commonly done with a combination of manual scrubbing and detergents. Cleaning products include surfactants, acid cleaning (good for mineral deposits) and alkali cleaning (good for tartrates). Other cleaning methods and products include: soaking, spray methods, cleaning in place (CIP), cleaning out of place, foaming, jelling and high-pressure cleaning. The main types of sanitizers are heat—commonly steam, or heated water ranging from 170° F to 185° F based on the surface to be sanitized and the targeted microbes—and chemical sanitizers. Worobo noted that chemical sanitizers used in wineries have changed over the last 10 to 15 years.

Previously, products with chlorine were commonly used because they were cheap, broad spectrum and effective, but they are generally no longer used due to issues with trichloroanisole (TCA).

Common types of chemical sanitizers now used include: Iodine compounds, quaternary ammonium compounds, acid-ionic combinations (peracetic acid), hydrogen peroxide, ozone and ultraviolet (UV) light. Worobo said, “Each type of sanitizer has faults.” Issues to consider include the sanitizer’s range of microbial activity and effectiveness, longevity and residual effectiveness, specialized equipment needed, related energy costs, worker safety and possible reactions with other chemicals or wine product.

Worobo listed several common sanitation faults: Inadequate cleaning of all organic material, poor choice of sanitizer, inadequate amount of sanitizer and poor solution preparation, inadequate contact time (sanitizers need time to sanitize), recontamination of equipment by improper handling (placing cleaned tools/hoses on unclean floors), and incomplete cleaning and sanitizing of all equipment. “Don’t use high-pressure hoses on floors after cleaning tanks and equipment, it can aerosolize contaminants and spray them back onto equipment and walls,” Worobo cautioned. He also suggested, “Rotate use of detergents and sanitizer products on a regular basis (at least once a week) to prevent development of microbial resistance to one product type.”

Cleaning and sanitizing chemicals should be used at the proper concentrations and measured out in proper amounts based on product recommendations. Excess amounts and concentrations waste product and money, and may exceed safety and regulatory limits.

Worobo said some sanitation issues specific to wineries are the long residence time of wine product in cooperage and barrels, the fact that cleaning and sanitizing have not always been priorities at wineries, and that sanitation products are more commonly geared toward other food and beverage industries. He advised, “If a supply salesperson tries to sell you a new product, ask for written trial data, preferably with use on containers or surfaces on which it will be used in your winery.”

Barrel and Bottling Line Concerns

Barrels and bottling line equipment present particular sanitation challenges, and they are critical points for preventing contamination and wine loss at the later stages of wine production.

Studies indicate that Brett can penetrate into barrel wood as deep as 8 mm. “The higher the barrel toast, the more prone the barrel is to Brett,” Worobo said. He advised, “Don’t assume new barrels are Brett-free. Treat new barrels before you fill them with wine.” Based on studies comparing different barrel sanitizing treatments, Worobo advised:

- Barrels must be cleaned well before sanitation treatments.
- Sulfur wicks (5 g discs) are effective for sanitizing barrels and have prolonged protection. Make sure the wick burns completely and there is a good seal at the bung for protection during storage.
- Ten minute steaming or 180° F water in barrels is effective to an 8 mm depth.
- 1ppm of continual ozonated water for 10 minutes reduces contamination in barrels, with up to 99 percent reduction in Brett.
- Peracetic acid, also called peroxyacetic acid (PAA), at 120 ppm can provide a 90 perception reduction in Brett after 1 week. PAA needs prolonged exposure times (weeks) and is not as effective as sulfur wicks.

• Chlorine dioxide is ineffective with wood barrels, but it can be effective with stainless steel.

Cleaning and sanitizing wine thieves is also important to prevent the spread of contamination from barrel to barrel. Sanitizing agents used by wineries include PAA, citric acid and vodka.

Critical bottling line points to monitor and sanitize are the filler bowl and the filling heads.

Water Conservation

Water conservation is an increasing concern in winery cleaning operations. Clean-in-Place systems for equipment can efficiently use water. Worobo also advised that rinse water can be reused for some cleaning steps but should be treated with sanitizer before use. Steam cleaning will use less water, but it requires more energy to generate. Water for barrel decontamination can be reused if it is reheated to above 165° F. Biodegradable sanitizers and cleaners are recommended for reclaimed water that is reused in vineyards.

Antimicrobial Products

Antimicrobial products and processes are available for use at different stages in winemaking to prevent microbe development or to eliminate/reduce microbes present. Common antimicrobial products and processes include:
Molecular SO2—Having proper levels of molecular SO2 at crush, during MLF, during barrel aging and before bottling can reduce oxygen exposure and prevent unwanted microbial growth. The desired level is usually 0.8 ppm, but achieving and maintaining this level for effectiveness can be a challenge and is dependent on the number of viable cells, pH, temperature, ethanol content and other factors. Enartis Vinquiry provides a chart that show the percent of molecular SO2 present across the pH range from 3.0 to 4.0 and the amount of free SO2 needed to obtain the desired level of molecular SO2. Chauffour cautioned, “Most of the time, if pH is high, it is impossible to be in the desired range of molecular SO2.”

Chitosan: A newer product for wine production derived from the de-acetylation of Chitin, a polysaccharide extracted from *Aspergillis niger*. It removes spoilage organisms by causing cell death of the microorganism. Its efficiency depends on the charge, type of microorganisms present and wine characteristics. It is used for Brett and can be used for LAB, at the end of fermentation, during MLF, during barrel aging and before bottling. The legal dosage limit is 10g/hl.

Lysozyme: An enzyme extracted from egg white used against unwanted LAB. It is used to discourage LAB growth at the juice stage, to delay MLF in red wines, to block MLF in white wines and to stabilize wines after MLF.

Filtration: Most important is sterile filtration at bottling with a less than 0.45 micron filter to prevent microbial growth after bottling.

Winery chemical supply companies can be sources of antimicrobial products, and sometimes cleaning and sanitizing chemicals.

COMPETITION –

The 2015 American Wine Society Amateur Winemakers Competition Is inviting submission of your amateur wines.

The Annual Amateur and Commercial Wine Competitions for 2015 will be held on November 3-5, just prior to the 2015 AWS Conference at the Sheraton in Tysons Corner, Virginia.
Deadlines:
Paperwork can be submitted now. Deadline is October 23, 2015.
Delivery of wine is accepted between September 8 and October 23, 2015.
There is no limit to the number of wines that a person or team may enter.
Two 750 ml bottles (or three 375 ml bottles) will be required for every wine being entered.
www.americanwinesociety.org or **http://americanwinesociety.site-ym.com/?page=B3**
the fee is $25.00 per entry.

Yeast designed for late-harvest wines

Enartis Vinquiry developed its new AMR-1 yeast from dried grapes used for the production of Amarone-style wine. The company reports the yeast produces “elegant, clean wines” despite challenging conditions such as high sugar and alcohol, low pH and low temperature. The yeast is a quick fermenter that also can liberate large amounts of mannoproteins and polysaccharides during *sur lie aging, according to* the supplier.

West Side Wine Club
Leadership Team – 2015

• 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 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: **Ted Johnson**, tedj52@msn.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 Bob Hatt & Jim Ourada helpers.
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, e-mail and Facebook

Chairs for Social Events: **Marlene Grant** denmargrant@gmail.net Barbara Stinger & Mindy Bush – Helpers
• Awards Gala / Holliday parties

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