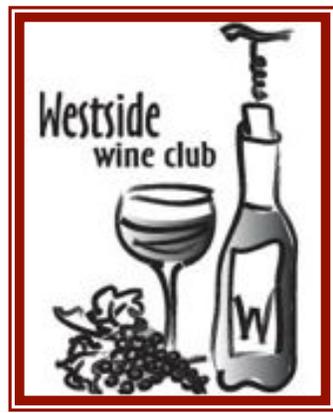


West Side Wine Club

March 2012

President's Musings



Scheduled Meetings

January 18, 2012

Crush Talk / 2012 Plans

January 21, 2012

Holiday Party Gala

February 15, 2012

Bordeaux Tasting

March 21, 2012

Aroma Kit / Faults & Flaws

April 18, 2012

Speaker: ?

May 7, 2012

Tour, Johan Vineyards & Winery

May 16, 2012

Speaker, Nicholas Keeler,
American Sales Manager
Tonnellerie Allary barrels

June 20, 2012

Speaker, Mike Hallock
from Carabella Winery

July 3, 2012

Annual Picnic, Oak Knoll

August 15, 2012

Other Whites Tasting

September 19, 2012

Other Reds Tasting

October 17, 2012

Pinot Noir Tasting

November 21, 2012

Pinot Gris/Viognier Tasting

December 5, 2012

Planning, Tours,
Speakers, Events,
Elections

March Muse: Spring is here...

The jump in temperatures we typically see in March has occurred. Frost is rapidly becoming an illusion of the past. The grapevines are all tended and waiting for bud break in a month or more. Meanwhile we work hard to make sure that our 2010 and 2011 wines are maturing with no flaws. SO₂ management is the name of the game.

One interesting diversion for me was finally buying a tank of gas. I finally decided on nitrogen, as it is significantly cheaper. After seeing discussions in Winepress and talking to my genius friend with a PhD from Standard in material science, I concluded there is no significant different between nitrogen and argon. Moreover, nitrogen is less "toxic" since most of our air is nitrogen. Per Winepress, gases follow the gas laws and will disperse evenly throughout a container. The idea that argon will form a layer over you wine is, in most of their opinions, false. The only way to have a layer would be to have a constant laminar flow. This would be expensive and difficult. Per their comments the best way to fill a container with any gas is to sparge it using some 3-5 times the containers volume. That way the 10% oxygen becomes something more on the order of 1-2% oxygen greatly reducing its negative effects. Moreover, the more you open a carboy or barrel the worse it is because you have introduced new oxygen. The old 1% of oxygen is probably already consumed so you're just making it worse. If you think this is all wrong, I encourage you to go on Winepress and check out the threads. The people I have come to respect basically say that argon and nitrogen for all intents and purposes are the same. I plan to drop a note to a winemaker or two to ask them their opinion.

Jon Kahrs
President
WSWC

Drink Responsibly.
Drive Responsibly.

Information & Trivia



Last reminder if you intend to enter this competition. Entry Deadline for Wines to Arrive in Vermont: March 16, 2012
Get more information at <http://winemakermag.com/competition>

"A typical wine writer was once described as someone with a typewriter who was looking for his name in print, a free lunch and a way to write off his wine cellar. It's a dated view. Wine writers now use computers." ~ Frank Prial, NYTimes

You Know You're a Wine Geek When ...

... Someone asks "How'd you guys met?" and you say, "At a wine store."
... You curse the Founding Fathers for not including "direct shipping" in the Bill of Rights.
... You swirl your water glass and sniff a plastic cork.
... You name your pets after wine grapes or winemakers.
... You believe a wine's first duty is to be red.
... You put your recycling out late at night so the neighbors won't see how many bottles you have, then snoop in their bins to see what they've been drinking.
... You put your recycling out a day early so all the neighbors can see what expensive wines you opened last weekend.
... You have 200 or more bottles in your cellar, but keep complaining "There's nothing to drink!"

"If all the vine rows in Australia were laid end to end, they would reach nearly to the moon ... but how would we pick the grapes?" ~ John Wilson

Next Meeting: Wednesday, March 21 at 7:00 p.m.

Agenda: Aroma kit / Faults and flaws. Which aroma(s) have you experienced in your own wines? What is the cause and how do you avoid off aromas. An aroma kit will be set up at stations around the room.

Snacks: At this meeting there we will have a potluck style snack table. Everyone should bring a small plate of your favorite snack to share.

Place: At Oak Knoll Winery

- 1.) Please bring a 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.
- 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/>

February Meeting Minutes

Members present = 23

Thanks to Phil Bard & Alice Bonham for not only hosting the meeting at Phil's home but also for providing the snacks.

Jon recommended that we have another potluck snack table at the March meeting.

Our meeting on June 20 will feature speaker Mike Hallock from Carabella Winery.

Phil Bard informed us that Miriam Schnepf suffered a bad fall off of a climbing wall and is in serious condition at OHSU in the trauma unit. Barb Stinger will have a card for all to sign at our next meeting.

Barb Stinger reported that the summer picnic will be held on Sunday, July 3 at Oak Knoll Winery.

More info to follow.

A tour of Johan Vineyards & winery has been set up for May 7. More information to follow.

Daniel Larson has volunteered to intern/assist Sammy Nachimuthu for group purchases.

Mike Smolak is working on getting Nicholas Keeler, American sales manager, Tonnellerie Allary barrels, as a speaker for the May meeting.

Prior to our Bordeaux tasting, Jon described the Bordeaux region of France, the region's grapes & blends as well as old world vs. new world differences.

Phil Bard with Alice Bonham assisting conducted the tasting.

Results are in the order tasted:

| | | |
|-----------------------------------------------------------------------------------|--------------------------------|--------------------------------------|
| 1 - 2010 Merlot (Sam's Valley Vineyard) | Bill Brown | 2 bronze; <u>15 silver</u> ; 6 gold |
| 2 - 2010 Merlot (Sagemore Vineyard) | Dana Blizzard Kathleen High | <u>18 bronze</u> ; 5 silver |
| 3 - 2010 Merlot | Paul Boyechko | <u>12 bronze</u> ; 10 silver; 1 gold |
| 4 - 2007/2008 Cab. Sauvignon/Merlot blend (Del Rio Vineyard) | Barb Thomson | <u>17 bronze</u> ; 5 silver; 1 gold |
| 5 - 2010 Cab. Franc (Portteus Vineyard) | Ken & Barb Stinger | 1 bronze; 5 silver; <u>17 gold</u> |
| 6 - 2010 Cab. Sauvignon (CRV) | Phil Bard | 8 bronze; <u>13 silver</u> ; 2 gold |
| 7 - 2009 Malbec (Kiona Vineyard) | Mike Franks/Daniel Larson | 4 bronze; <u>15 silver</u> ; 4 gold |
| 8 - 2010 80% Cab Sauvignon 5% Merlot 4% petit Verdot (Sagemore Vineyard) | Terry Swan | 3 bronze; <u>12 silver</u> ; 8 gold |
| 9 - 2007 50% Cab. Sauvignon 33% Merlot 17% Cab. Franc (Columbia Valley) | Robert Lunifeld | <u>8 bronze</u> ; 2 silver |

Reminder: Dues and Waiver for 2012

It's time for club paperwork for 2012. Please submit your dues and waiver at a meeting or mail them directly to our Treasurer, Scott Nelson at the address below. The waiver can be obtained from our web site at <http://www.westsidewineclub.com/> under "current news".

The great continuing low price of:

\$15.00 Single

\$30.00 Couples

Please remit to:

Westside Wine Club c/o Scott Nelson

PO Box 0219, Beaverton, OR 97075-0219

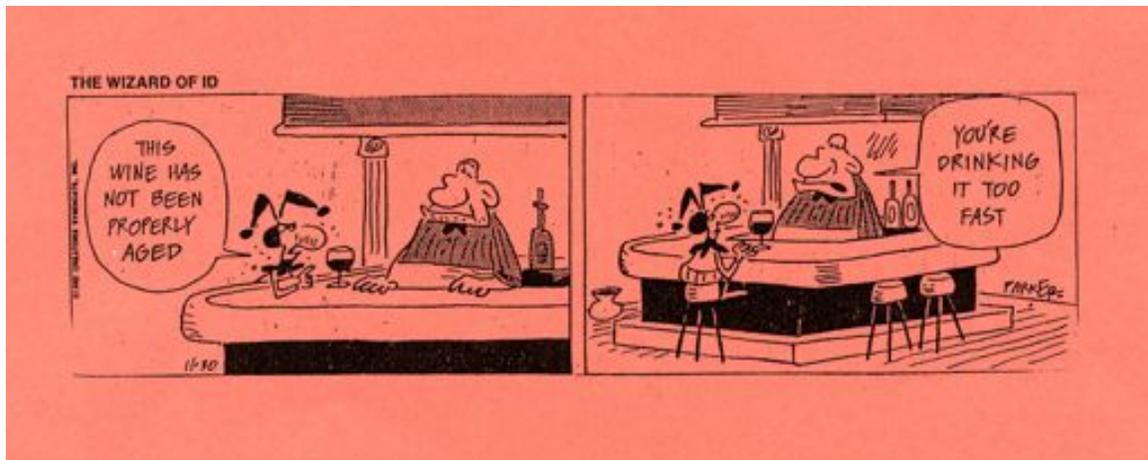
Pareprosdokians of the month (look it up).....

Knowledge is knowing a tomato is a fruit. Wisdom is not putting it in a fruit salad.

Do not argue with an idiot. He will drag you down to his level and beat you with experience.

A blast from the past - WSWC history.....

Vintage cartoons taken from a 1994 WSWC Newsletter



Editor: In our next meeting will be using an Aroma kit to sample various odors that may be considered a flaw or a fault & also aromas that may be considered to benefit a wine. The following article is intended for judges but is helpful to winemakers as well. The second article is specific to H₂S odors and the use of copper sulfate.

Flaws & Faults

An article for competition wine judges and of interest to winemakers

A significant percentage of amateur wines in competitions exhibit "off-characters". Those "off-characters" tend to be due to lack of experience in winemaking, carelessness, taking shortcuts, and also to factors beyond the winemaker's control. The presence of such wines in competitions reflects either the winemaker's inability to recognize problems in his/her wines or failure to sample each bottle submitted.

One of the greatest challenges for a wine judge is to identify the problems encountered in those wines so that constructive comments may be directed to the winemaker. It is irresponsible for a judge to write "Faulty - not marked" or "Spoiled wine - not tasted" and let it go at that. Such an approach is of no use to the winemaker. Unless a wine threatens to be so disgusting that you fear it may destroy your palate for rest of the day's judging, some attempt should be made to assess it.

You will always encounter some wines with problems you cannot identify. But if you've applied a process of elimination and still come up with an unknown, the winemaker will find it useful to know what you've ruled out. Until you become confident that you can identify a broad range of problems you may want to suggest several possible explanations. When you comment on flaws or faults, be as specific and precise as you can. Don't say "spoiled" if you know the wine has ethyl acetate, say "ethyl acetate". Don't say "off-character" if you detect acetaldehyde - be specific. Make sure the winemaker knows whether you are certain of your diagnosis or are guessing. Try to take time to include comments that can improve the competitor's winemaking. That's your job!

Terminology of Wine Problems

First we have to establish what we mean by flaws and what we mean by faults in wine. Many wine judges use these terms interchangeably but this practice is confusing and we need to apply the terms "flaws and faults" consistently to describe the intensity and impact of problem characters as outlined below.

Almost all the off-characters we will encounter in wine can be classified as flaws when they appear in low concentrations. When they are present in even lower concentrations (usually not much higher than their threshold) some of them even add complexity to a wine, and may be considered positive attributes.

By definition, then, a flaw is character experienced as a minor departure from an acceptable norm and one that causes the wine to be atypical and less than normally enjoyable.

Judging Note: A wine with a flaw should not be scored as undrinkable on the basis of that character alone.

In comparison, a fault is a character experienced as a major departure from an acceptable norm and one that spoils the wine and causes it to be significantly atypical, usually unpleasant, and often undrinkable.

Flaws and faults fall roughly into two groups, those attributable to errors in winemaking technique or cellar management and those attributable to other factors. In the first group are errors such as incorrect sulphite additions, failure to top up or check fermentation locks, failure to add nutrients, failure to rack promptly, failing to test for completion of MLF, and many more. In the second are problems over which the winemaker has less or no control such as cork quality, acetified grapes, or brett contamination.

Judging Note: It is important for judges to suggest how the winemaker can prevent or correct the detected problem in future. Faulty wines that we assess as undrinkable must be scored below 10 points. If we have had the courage to judge it despite its fault, and there's nothing wrong with its appearance (1), acid (2), sugar (1), body (1), or astringency (1), we can't give it less than 6 points. Judges who give a wine zero are reacting subjectively and perhaps trying to punish the winemaker for inflicting that entry on them. We all feel like that sometimes but we must resist that temptation.

We recommend the following approach to flawed or faulty wines. Leave unpleasant entries till after you've judged the more sound wines. If you can put the affected wine in your mouth, decide whether it is drinkable or undrinkable and judge it normally. Try to identify the flaw or fault without using copper. If drinkable it must be scored 10 points or higher. It is generally accepted that a wine with a flaw should not receive a medal. Then confirm or disprove the presence of reduced sulfur compounds by swirling with copper. That test should produce major improvement in nose and flavor. If there is little or no improvement consider other faults, particularly disulphide.

Clearly, a wine with very high or very low acid, inappropriate sweetness, or a wine that's currently undrinkable due to overpowering tannin, etc. is exhibiting a flaw. Judging convention assesses those characters under "Balance" and for the benefit of the winemaker their origins (usually winemaking errors) should be noted.

Table of Flaws and Faults

Common flaws or faults are listed by approximate frequency of their occurrence in flights of BCAWA wines. (Based on our experience only, subject to revision.) Percentages indicate relative frequency of flaws and faults and how much is attributable to poor winemaking practices (PW).

| Name of Problem | Flaw | Fault | PW |
|-----------------------------------------------------------|------|-------|------|
| Reduced Sulfur Compounds | 20% | 80% | 20% |
| Acetaldehyde | 5% | 95% | 100% |
| MLF in Bottled Wine | 40% | 60% | 80% |
| Yeast Fermentation in Bottled Wine | 50% | 50% | 100% |
| Ethyl Acetate | 5% | 95% | 10% |
| Inadequate Settling of White Juice | 80% | 20% | 100% |
| Tyrene (T.C.A.= corkiness) | 20% | 80% | 0 |
| 2,3 ethoxy, 3,4 hexadiene (geranium) | 5% | 95% | 90% |
| Candida-Acetaldehyde | 0 | 100% | 100% |
| Volatile Acidity – acetic acid | 80% | 20% | 80% |
| Volatile Acidity – ethyl acetate | 5% | 95% | 80% |
| Diacetyl | 90% | 10% | 50% |
| Brettanomyces Contamination | 80% | 20% | 0 |
| Chemical Contaminants | 0 | 100% | 100% |
| Additive Overuse (SO ₂ , <u>Sorbate</u> , etc) | 90% | 10% | 100% |

Other diagnosable problems may be encountered such as oxidative browning of pigments, laccase, Zygosaccharomyces deposits, ropiness, etc., but wines so-affected are very seldom entered in competitions.

Description, Cause, Prevention, Treatment, and Judging of Flaws and Faults

1. Reduced Sulfur Compounds.

a) Hydrogen Sulfide.

Description. Volatile and very potent gas (threshold is 5 parts per billion!), the gas of hot springs, redolent of rotten eggs.

Cause. Usually produced by yeast in musts that are low in nitrogen. May be related to grape variety (particularly common in Riesling, Chardonnay, and Syrah), low soil nutrients, or over-ripeness. Strongly correlated with yeast strains (e.g., D47, CY3079) that have high nutrient requirements.

Prevention. Yeasts should be rehydrated with Go-Ferm. Possibly, musts should receive an addition of diammonium phosphate within 24 hours of the start of fermentation and several more additions including Fermaid or equivalent at about 50% sugar (late in fermentation it will have little effect). Yeast strain should be selected for low H₂S production. Red musts should be racked within 24 hours of pressing (even if pressed before dryness) to reduce the suspended organic material that tends to contribute to H₂S formation.

Treatment. Early in fermentation add DAP if not done already. Aerate, e.g., by racking, or bubble CO₂ or add Böcksin. Persistent cases may be treated with copper sulfate solution and filtration after biological activity is complete.

Judging. Easily confirmed by dropping a copper one-cent piece into the glass (see Mercaptans) and swirling it for a few seconds before sniffing the greatly improved aroma. May be dissipated by covering glass with hand and shaking or may dissipate spontaneously during course of judging; in those cases it is a flaw.

b) Ethyl Mercaptan.

Description. Chemically similar to hydrogen sulfide but with one hydrogen atom replaced by an alkyl group (a carbon-hydrogen chain). Less volatile than H₂S. Odor very skunk-like, garlic-like, cabbage-like, sometimes fresh ground coffee, natural gas additive. Threshold about 1 part per million.

Cause. Formed after alcoholic fermentation by yeast acting on sulfur in the lees or from hydrogen sulfide.

Prevention and Treatment. See hydrogen sulfide.

Judging. Shaking may reduce its intensity but it usually persists. Confirmed with penny test it is a fault.

c) Thiols and Disulfide.

Description. Oxidation of ethyl mercaptan can produce diethyl disulfide with a threshold 4 ppm. Other sulfur compounds are dimethyl sulfide (25 ppm), dimethyl disulfide (29 ppm), diethyl sulfide (0.92 ppm), and ethyl sulfide (1 ppm). They have rubbery or burnt rubber odors and rubbery, soapy taste.

Cause. Usually, conversion from ethyl mercaptan.

Treatment. Cannot be removed by aeration or copper sulfate treatment.

Judging. A sulfury, rubbery character unaffected by the penny test is probably a disulfide. Such a wine has a permanent fault.

Note: When H₂S, mercaptan or disulfide are present near or perhaps slightly below their threshold of detection, no characteristic sulfury odor is present. Instead, they tend to suppress aromas that should be typical of the wine. When a wine is strangely lacking in aroma, low-level sulfur compounds should be suspected. The penny test will confirm that suspicion for H₂S or mercaptan. Such wines should be considered flawed.

2. Acetaldehyde

Description. Distinctive, straw-like, somewhat acrid character, sherry-like.

Cause. Since acetaldehyde becomes reduced (by alcohol dehydrogenase) to ethanol in the last step of fermentation it is not surprising to find that in the presence of excess oxygen, ethanol becomes oxidized back to acetaldehyde. Ullage in storage containers, empty fermentation locks, brutal racking, etc. can cause some ethanol to be oxidized to acetaldehyde.

Prevention. Minimize exposure of finished wines to air. Because of their higher phenolic content reds are less susceptible to acetaldehyde production than are whites. Maintain 25 ppm free SO₂. Keep fermentation locks topped up and level of wine in storage containers topped up.

Treatment. Add 50 to 100 ppm SO₂ if acetaldehyde detected. If oxidation has proceeded too far for that to be effective, treat with potassium caseinate (skim milk powder) or re-ferment.

Judging. At barely detectable levels acetaldehyde may increase complexity but does not make a wine more enjoyable and should be considered a flaw. When readily detectable it is a fault and for most people such a wine is undrinkable. Use of the term 'oxidation' to denote the presence of acetaldehyde should be avoided because other wine components may also be come oxidized (e.g., phenolic browning by polyphenoloxidase).

3. Malolactic Fermentation in Bottled Wines

Description. Musty, stale dishcloth, swampy characters that may or may not be accompanied by slight spritz. Not responsive to copper. Less objectionable in wines that have undergone MLF than in aromatic white table wines or white social wines where no MLF character might be expected.

Cause. Malolactic bacteria acting on malic acid in bottled wine. The wine was bottled with comparatively low levels and no lysozyme. Usually, the assumption has been made that MLF was completed or that since it was not deliberately added it would not occur.

Prevention. Malolactic conversion should be allowed to run its course and then be tested chromatographically to ensure no malic acid remains, or should be arrested with SO₂ and then lysozyme to prevent ML bacteria starting up again in bottle. Wines that have not undergone MLF should not be blended with those that have unless lysozyme protection is used.

Treatment. No practical solution.

Judging. Depending on intensity such characters are flaws or faults and you should score the wine accordingly. There is no diagnostic test for this problem.

Note: bacterial contamination of lees can produce putrid odors and tastes reminiscent of decomposition. Prevention involves vigilant monitoring and stirring of wines "sur lie". There is no excuse for entering seriously contaminated wines in competition but if entered they are undrinkable and too unpleasant to taste.

4. Yeast Fermentation in Bottled Wine

Description. Yeasty, effervescent wine that may have stale, dirty characters. Not responsive to copper.

Cause. Wine bottled with residual sugar, viable yeast cells and inadequate SO₂ or sorbate. Sugar level was assumed to be too low to ferment further or was not detected.

Treatment. Disgorge and re-ferment entire bottling.

Judging. Wines that are clearly "working" should be scored below 10 points. Slight spritz in the absence of off-characters is acceptable in a dry white table wine or social wine.

5. Ethyl acetate.

Description. The commonest ester in wines, ethyl acetate forms from the reaction of ethanol and acetic acid. It imparts the unmistakable and usually objectionable aroma of nail-polish remover (acetone).

Cause. Ethyl acetate frequently develops in grapes on the vine from contamination with *Acetobacter* spp. and other aerobic bacteria converting alcohol produced by yeasts in wounds to acetic acid. It is a frequent contaminant of thin-skinned varieties of shipping grapes and of skins of grapes pressed for juice and allowed exposure to air before being used for second runs. Acetic bacteria are ubiquitous but their activity is greatly reduced by low pH, low temperature and anaerobic conditions. Sulfite is lethal to them.

Prevention. Grapes - particularly thin-skinned varieties - should be processed as soon as possible after harvest, and for second runs, crushed skins should be sprayed with sulfite solution if they can't be submerged quickly.

Treatment. Sometimes ethyl acetate will revert to the much less evident acetic acid but usually, once detected, it is very difficult to correct. Re-fermentation in another must will reduce it to some extent and bubbling CO₂ through a sintered air-stone, then heavy PVPP fining can be effective as a last ditch measure.

Judging. A noticeable acetone character should be considered a serious fault and the wine judged as undrinkable. At almost imperceptible levels ethyl acetate may be considered a contributor to complexity, particularly in reds. Some judges are very sensitive to it and feel justified in rejecting any wine in which the slightest traces occur.

6. Inadequate Settling of White Juices.

Description. A common problem in white wines is a leafy, vegetal character reminiscent of cigar butts.

Cause. Attributable to the winemaker's failure to let the juice settle adequately before fermenting. Microorganisms including wild yeasts attack suspended organic material.

Prevention. Involves light (15-25 ppm) sulfiting of juice immediately after pressing; settling cold and racking settled juice off sediment before fermentation starts.

Treatment. No practical solution.

Judging. Such characters are usually considered flaws rather than faults and the wine is scored accordingly - usually not above 12 points.

7. Tyrene

Definition. Tyrene or 2,4,6 trichloroanisole (T.C.A.) is evident in both odor and flavor. It evokes the image of musty barrels, musty, dank, moldy wood, or moldy newspaper. Its threshold is very low - about 1.5-4 parts per billion.

Cause. Once immersed in wine, fungal spores in the lenticels of natural wine corks attack chlorine compounds that were used to bleach the cork tree bark for cosmetic purposes. T.C.A. can noticeably contaminate up to about 5% of all wines bottled under cork and produce subtle unpleasant characters in many more. T.C.A. arises infrequently in the absence of cork, sometimes from chips or barrels or winery wood treated with pentachlorophenols.

Prevention. The only reasonably certain prevention is to use artificial stoppers or aggregate corks (even these may produce minor problems).

Treatment. None.

Judging. If detected, TCA should be labeled a fault. The wine is universally considered undrinkable so is scored below 10 points. Affected wines can usually be judged and since the problem is one that is difficult for the winemaker to avoid, an attempt should be made to assess the status of the wine itself.

8. Geranium character.

Description. A strong resemblance to geranium leaves in aroma and flavor.

Cause. Malolactic bacteria acting on potassium sorbate can produce 2,3 ethoxy, 3,4 hexadiene.

Prevention. Adequate levels of sulfite when sorbate is added to prevent yeast activity in an off-dry/sweet wine act synergistically to suppress both yeast and ML activity. Winemakers should not attempt MLF in kits that may contain sorbate.

Treatment. None known.

Judging. Even very low levels of ethoxy hexadiene are inappropriate and should be assessed as a fault and the wine considered undrinkable and scored below 10 points.

9. Candida-Acetaldehyde

Description. Wine has a distinctive, straw-like sherry-like, "dirty", acrid character.

Cause. Surface yeast, *Candida vini*, an obligate aerobe, may grow on the surface of wines in storage containers - particularly when ullage is too great. At the wine's surface, the combination of available oxygen, low sulfite levels and depleted alcohol provide suitable conditions. Several genera of film-forming yeasts may be involved (*Pichia*, *Hansenula*, *Dekkera*) and the production of acetaldehyde and other off-characters is slow and the bulk of the wine is often not affected (particularly in large containers). Films are fragile and will disintegrate easily.

Prevention. Minimize exposure of stored wines to air. Red wines are significantly more susceptible to *Candida* infection than are whites, perhaps simply because they tend to be handled more often and (partly as a result) may have lower levels of sulfite. Be particularly vigilant after removing samples. Monitor wines in 4-litre dark glass jugs frequently; they tend to be most vulnerable; avoid using jugs if possible. Maintain 25 ppm free SO₂. Keep fermentation locks topped up and level of wine in storage containers topped up.

Treatment. Try to remove film. Add 25 to 50 ppm SO₂ to render the wine less hospitable, 50 to 100 ppm if acetaldehyde detected. Spray surface with 10% sulfite solution or float pellets of metabisulfite/paraffin. If oxidation has proceeded too far, treat with potassium caseinate (skim milk powder) or re-ferment.

Judging. At any level Candida-acetaldehyde is a fault and for most people such a wine is undrinkable and is scored below 10 points.

10. Volatile Acidity

Description. While several other volatile acids (those organic acids separable by distillation) - lactic, succinic, and propionic - occur in wine, Volatile Acidity commonly (but inaccurately) is used to refer to both acetic acid and ethyl acetate. Table vinegar is 5% (50 g/L) acetic acid whereas the threshold in wine is about 0.2 g/L. Legal limits are about 1.2 to 1.5 g/L and levels above 1.5 g/L are usually frankly vinegary. Acetic acid alone has only slight impact on aroma and bouquet but ethyl acetate is often present. The nose and particularly the flavor of acetic acid is a slightly sweet, acidic, (vinegary) character and is particularly noticeable in the aftertaste where it tends to linger.

Cause. Acetic acid bacteria (*Acetobacter* spp.) as contaminants of slightly fermenting damaged grapes will provide a large inoculum that can quickly produce a lot of vinegar especially in an unattended red wine cap.

Prevention. See ethyl acetate.

Treatment. Wine with frank acetic acid should be sulfited as soon as possible to kill the bacteria. Then it can be blended with another wine and the acetic acid diluted to a level where it is not noticeable.

Judging. When ethyl acetate is present, acetic acid is difficult to detect because it is overwhelmed by the aggressiveness of the acetate ester and because few judges will actually taste such wine. When ethyl acetate is not evident, acetic acid V.A. at levels high enough to be identified is rather rare.

11. Diacetyl (2,3 butane dione)

Description. A buttery, rancid butter or butterscotch note in aroma and flavor.

Cause. A product of malolactic bacterial metabolism particularly in the absence of yeast lees that tend to neutralize the diacetyl produced. Frequently diacetyl results from the breakdown of citric acid after the malic has been consumed.

Prevention. Citric acid should not be added to wines with ML bacteria. Wines should remain 'sur lie' until MLF is completed.

Treatment. Diacetyl may be encouraged for greater butteriness. If an objectionable excess of diacetyl has formed in a wine, it may be worthwhile to store it well sulfited on another batch of clean lees.

Judging. Often an attribute, diacetyl is seldom present at levels high enough to warrant being considered more than a flaw. In reds it can be somewhat unpleasant but the wine is almost always drinkable.

If detected at levels that seem appropriate to the wine it may be considered a positive feature.

12. Brettanomyces Contamination

Description. A mousy, horsey, sweaty, wet dog, leathery, stale hamburger, barnyard character. Similar character to Belgian Lambic beer. Adds complexity at low levels.

Cause. Contamination of grapes, wines and equipment by the surface yeast, *Brettanomyces* spp. and its production of tetrahydropyridines.

Prevention. Regular rinsing of equipment and attention to sulfite levels.

Treatment. Unknown

Judging. American wine purists consider 'Brett' a fault. At low levels it not only adds complexity but also may be responsible for traditional regional characters (Rhône, Burgundy). When it occurs at levels that overwhelm fruit or varietal attributes, it should be considered a flaw. 'Brett' is often associated with high pH reds because it is only volatile at neutral or high pH. Rubbing some wine between clean hands and sniffing the palms for the characteristic meaty note can confirm its presence. In the mouth it is most easily detected after swallowing or spitting the wine as the oral pH returns to neutral after the more acid wine disappears.

13. Chemical Contaminants

Description. Usually unpleasant, sometimes aromatic chemical character; very uninviting.

Cause. Plastics [e.g., a green garbage bag that was used to cover a fermenter; non-food grade containers]; cellar mustiness; chlorine; detergents (more likely a contaminant of the wine glass), volatile hydrocarbons (varsol, gasoline, kerosene, etc.) stored nearby.

Prevention is obvious.

Treatment. No practical solution.

Judging. Their presence is a fault and renders a wine undrinkable. They fully justify not tasting the wine. Recommend winemaker discard any wine that may have been contaminated with volatiles.

14. Additive Overuse

a) High Sulfur Dioxide

Description. An acrid, tingling to burning sensation accompanied by the smell of burnt match heads or wet wool. A soapy character in the mouth.

Cause. Prevention, Treatment. Although small amounts of SO₂ are produced during fermentation, high levels are always the result of inappropriate additions by the winemaker. Intense, fresh, pungent SO₂ has been recently added in excess; soapy, wet wool character indicates over application of sulphite earlier.

Judging. If SO₂ is noticeably pungent it should be considered a flaw and the wine marked down for its presence. Similarly, a wet wool character is a flaw, though it seems appropriate to assess it as less offensive. Recently added SO₂ can be made more evident by capping glass with hand and agitating wine before sniffing it.

b). High Sorbate (2,3 hexadienoic acid)

Description. A chemical, bubblegum character to which many people are oblivious, others highly sensitive.

Cause. Use of excess potassium sorbate to prevent renewed yeast fermentation. Accepted effective dosage of sorbate is 200 mg/L (300 mg/L is BATF maximum allowed).

Prevention. Careful calculation and weighing of sorbate used.

Treatment. None known.

Judging. (Judges should be aware of their personal threshold and if they are sensitive much below the effective dosage that fact should be communicated to their judging partner when sorbate is suspected.) Wine with excess sorbate indicates poor management and it should be considered a flaw if its impact is insignificant or a fault if it overpowers the natural character of the wine. Excess sorbate is very unlikely to render a wine undrinkable.

Summary of Important Points

Flaw: minor departure from acceptable norm. Wine usually drinkable.

Usually flaws - SO₂, VA, Brett, Diacetyl, Sorbate and sub-threshold levels of reduced sulfur compounds.

Fault: major departure from acceptable norm. Wines usually undrinkable.

Usually faults - acetaldehyde, ethyl acetate, TCA, geranium, organoleptically obvious levels of reduced sulfur compounds.

Most difficult to diagnose correctly without testing: reduced sulfur compounds and Brett.

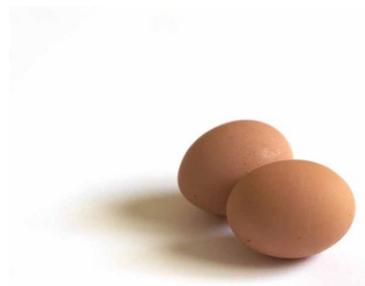
Essential tests: improvement with penny (H₂S, mercaptans); rubbing sample between hands and sniffing (Brett).

Uh-oh, My Wine Smells Like Rotten Eggs

WAYNE STITZER - WINE JOURNAL : SPRING 2012, AMERICAN WINE SOCIETY

It's every winemaker's nightmare: You've detected the distinct aroma of hydrogen sulfide, the smell of "rotten eggs" in your wine. Okay, don't reach for the copper sulfate just yet. Let's take a practical look at a common problem to get a better understanding of what you may have and why you may have it.

The fermentation of grapes has many desirable effects, the most positive being the formation of alcohol, flavors and aromas that make it wine. The alcohol is, of course, why we do it, the flavors vary with the grape variety and the aromas lay the groundwork for what we will eventually taste. The aroma can also be an alarm of sorts, telling us when something is going wrong with the wine. This it is why it's a good habit to periodically smell and taste your wines at various stages of the process, the most important being fermentation. And, to be more precise, those last few Brix of the fermentation.



From my earliest training, I was taught the best way to deal with a problem in wine is not to get it in the first place. By approaching the start of fermentation with the proper preparation, you can avoid some of the common pitfalls that cause many problems, including hydrogen sulfide.

During a normal fermentation, the rhythmic conversion of sugars to alcohol should happen in a continuous motion, on a slight curve from beginning to end. The result being just what we expect. Like the different parts of a fine watch, the parts of the fermenting must or juice have to be finely tuned to hit mark minute by minute, hour by hour, day by day until the final hour is reached. To get to the end you must first know what you are starting with. So start by smelling the juice or must for off aromas before doing any additions or adjustment to know that you do not already have a sulfur problem brought in from the vineyard. Sulfur, being a common application used in sprays to fend off fungus, mold and mildew, can sometimes be over abundant on the grapes before you even pick them. This can later cause compounds that could lead to off aromas and flavors. Be sure of the fruit you are working with and how it was processed.

Another thing to be aware of is adding sulfites to your juice or must before fermentation. Each fermentation is different and may require more or less of an addition. Don't just pick a number like 20 parts per million and use that across-the board. Some musts or juices that are clean will need less than those that have some complication like mold or rot. Learn to assess the need before committing to an addition. Most importantly, once you have decided on an amount, be sure the weight of potassium metabisulfite is correct for the number of gallons being treated. If not, you can end up with too much or too little sulfite in the must or juice.

Understand that any sulfur compound added to your juice or must before fermentation could lead to complications later. So less is more. Choose yeast that is compatible to your fermentation; some yeasts are more prone to hydrogen sulfide than others and some are cultured to help prevent it.

Next make sure you have a healthy yeast population. Follow yeast manufacturers' recommendations on hydration procedures and acclimation, and if you use a hydration aid note that it is not a replacement for proper hydration procedure, only an extra boost to the yeast.

Even a good inoculation will need nutrients to keep it moving without producing unwanted byproducts, so be sure you have chosen and added a proper yeast nutrient in amount and increments recommended by the manufacturer. Note again that not everyone uses the same yeast and nutrient combination and volume. These calculations must be your own, specific to your wine. A good start increases the odds of a good finish. Watch fermentation temperatures and keep them low when you can.

Also be aware that high pH wines are more prone to fermentation byproducts, especially hydrogen sulfide. Do yourself a big favor and rack off gross lees as soon as possible. They are called "gross" for a reason and many by-products can form while the wine is in contact with them.

Looking back at wines found to have hydrogen sulfide, it is usually traced back to one or more of the above. Even with the best-laid plans, winemaking, being the veritable gamble that it is, can sometimes result in a smelly problem that has to be identified and dealt with.

The earlier you discover a problem, the better for dealing with it. Before attempting to treat a problem be sure you know what it is. Don't use the "go-to" remedy of adding some copper; resist the temptation to add anything until necessary.

Start simply by placing a small amount of the affected wine in a big glass and aerating it a bit and let it set in the glass uncovered over night. If it smells better in the morning then rack the wine using a little air on the return, wait a day or two and smell and taste again. Sometimes a second racking with air will help; most times this is all that may be needed to relieve the problem. Some winemakers keep carbon dioxide or nitrogen around for sparging; inert gas can be also used to bubble through the wine. If the problem is a little stubborn then maybe exposing it to some "passive" copper while racking is what it needs.

In the "old days" we would put a penny in the glass of smelly wine to see if it went away. You may need more than a penny but not much more. Putting a small piece of clean copper tubing in the output side of the hose while racking could be enough exchange to reduce the aroma. Don't expect immediate results; it may take a day or two to show. This procedure can be repeated if necessary as its results are difficult to predict. If the easy stuff doesn't do the trick, then it may be time to bring it to the next level.

When you have tried all the above without success the addition of some copper may be necessary and the most common product is copper sulfate in a 1-percent solution. CAUTION is the word from here on, as the use of this product can cause a danger to both you and your wine. The use of trials before making additions to batches in this case has to be an absolute. Coaxing people to conduct trials is in itself a trial for me, but this isn't a place to compromise. To make things less stressful, our good friends at Presque Isle Wine Cellars have easy-to-use trial directions that they provide when you order copper sulfate; these are simple to apply without technical complications. After the addition of copper in any amount it is necessary to fine with bentonite to help remove excess copper, another added step of caution.

Although this information is widely available from many sources, it is best to always use a source you can trust. I can't stress enough that trials are important here as the "cure" can be worse than the problem. There are other products on the market that can be used; some do not contain copper, others are in the form of fining agents and still others in filter pads. None of these products are magic solutions to smelly problems; they all will require experimentation before use and are not to be thought of as shortcuts. What worked for a friend may not work for you. Be sure of the procedure you choose to use. Patience is the best approach to any wine problem, especially this one. Be vigilant, act with caution, and soon the only aromas you will have will be heavenly.

The Mystery of Terrior The Relationship of Geology, Soils and Climate to Wine

Did you know that 12 of the 16 essential elements for wine grapes come from soil? Learn how local winemaking is strongly influenced by our geology.

The program is presented by Dr. Scott Burns, a geology professor at Portland State University and the 2011-2012 Richard H. Jahns Distinguished Lecturer.

Burns specializes in environmental and engineering geology, soils, geomorphology, Quaternary Geology and terrior (French for "the taste of the place"). He has taught for 41 years at the university level, holding positions in Switzerland, New Zealand, Washington, Colorado, Louisiana and Oregon. Burns is author or co-author of two books, more than 80 articles and over 200 published abstracts.

Location: Washington County Museum
17677 NW Springville Road, Portland, OR 97229
Admission: Museum members free; \$3 nonmembers

When: Wednesday, March 21 **Time:** 2 to 3 p.m.
www.WashingtonCountyMuseum.org
For more information, call 503-645-5353, ext. 133

WSWC Editors note: I have heard several lectures by Dr. Burns and, I can tell you, he is an excellent speaker and can speak with authority about Oregon grape growing soils (terrior). (Ken Stinger)

Some happenings around the area:

- Wine Seminar; Oregon vs. Burgundy - March 16, Noon to 5:00 PM., 2537 NW Upshure St., Portland. Fee: \$50 Scott Paul will discuss what makes Oregon, "Oregon" and Burgundy, "Burgundy", the geological, climatic, meteorological, viticultural, enological and historic factors. Taste samples from both regions along with food. Reservation through kellykarr@scottpaul.com
- Gorge Grand Tasting - April 9, 4:00 PM until 7:00 PM, 615 Alder St., Portland (Melody Ball Room). Twenty-eight wineries from the Columbia Gorge and Columbia Valley AVA's will pour their wines. Fee: \$50 includes logo glass, all tastes, hors de oeuvres and ticket to the Columbia Gorge passport weekend, April 13 - 15. Purchase tickets through: https://www.localwineevents.com/tickets/i_want/404353

West Side Wine Club Leadership Team – 2012

President: **Jon Kahrs** jekahrs@aol.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: **Jack Seigendall** jseigend@comcast.net

- Select wineries to visit
- Arrange tours
- Cover logistics (food and money)

Chair of Group Purchases: **Sammy Nachimuthu** murugasamy_nachimuthu@yahoo.com & Daniel Larson daniel@genesislabs.com

Makes the arrangements to purchase, collect, and distribute.

- Grape purchases
- Supplies – These should be passed to the President for distribution

Chair of Competitions: **Miriam Schnepf** mowtnwmn@gmail.com with Washington County Fair staff

- Encourage club participation in County Fair
- President will be the contact for the Oregon State Fair

Chairs for Social Events: Barbara Stinger and Sammy Nachimuthu kbstinger@frontier.com
murugasamy_nachimuthu@yahoo.com

- Awards Gala / Holliday parties

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

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