

West Side Wine Club

July 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 11, 2013

Joe Dobbs Winery tour

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



Drink Responsibly.
Drive Responsibly.

OK, this one is a little strange and a bit comedic, but lets just file it under "whatever works." And in the spirit of the last meeting's focus on tips and tricks, here is a brief postscript.

I've been struggling with the right environment for barrel storage, I suspect I'm not alone in that. Not quite ready to build out a permanent "cold" room, but I have 120 gallons in barrel this year and am concerned that I need a better plan for temperature management. I've gotten by during the last couple vintages in the garage, but those have been cool summers, and this one is definitely not one of those. I have a portable air conditioner but it struggles to bring the garage temperature down even a few degrees when its really hot outside, since the area it has to cool is about 600 square feet.

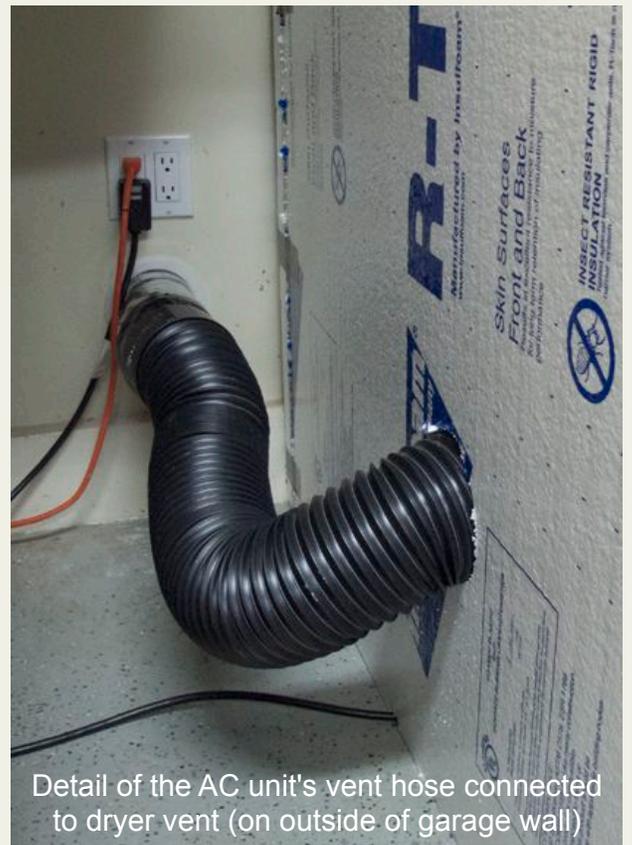
I was in Home Depot recently and while standing in the insulation aisle got what I thought was a pretty whacky idea for at least a temporary solution. The only way to find out if it would work was to buy the materials and build it. So I plunked down \$145 for 6 sheets of 4x8 2" thick Styrofoam, some Gorilla Tape, a couple dryer vents and an indoor/outdoor thermometer and headed home to try. In about 1 1/2 hours, presto, I had built myself a Barrel Igloo ([see photos with captions pg. 2](#)). With the barrels in place, I turned on the AC and in about 30 minutes the temperature inside went from 80 degrees to 62.

Overnight it stayed pretty even, but the real test was the next day while I was at work. I left the AC off to see what would happen, and as the garage warmed up (during one of the super hot days we've been having) the garage went to 84 but the temperature inside rose only a few degrees. When I got home I turned the unit on and back to 62 it went, the lower limit of the AC unit's range.

So time will tell how this works out, how often I'll have to run the unit to maintain the environment, what other problems pop up, etc, but at this point it seems promising. One unexpected benefit is that because of the foil liners on the inside of the foam, the humidity stays high and hopefully this means less topping off. At the end of the summer I can just cut the tape and pull it apart for more efficient storage. I've included some photos, hopefully this will be of help to someone else with similar issues. Or maybe it will just provide you with a big laugh. It certainly did for me...Phil Bard



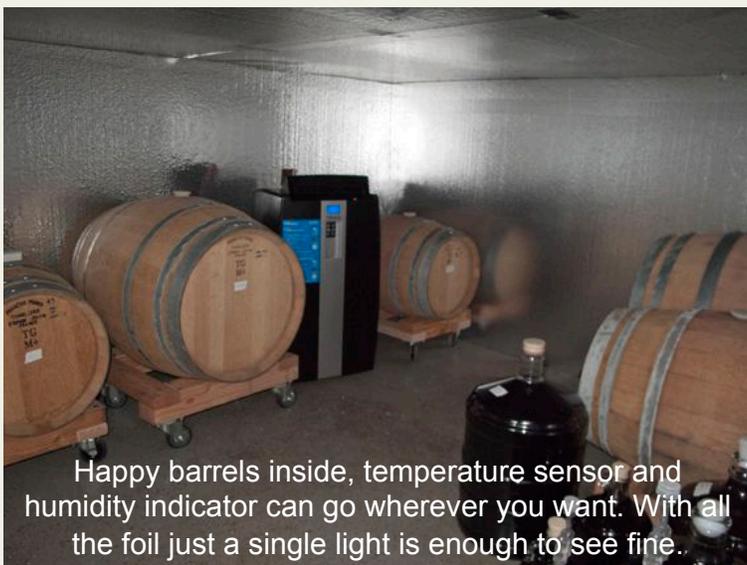
Standing the first panels up and cutting the vent.
The Styrofoam cuts easily with a long knife



Detail of the AC unit's vent hose connected
to dryer vent (on outside of garage wall)



Completed igloo, with simple door and tape hinge.
Hinge may have to be improved on.



Happy barrels inside, temperature sensor and
humidity indicator can go wherever you want. With all
the foil just a single light is enough to see fine.

I also cut another hole in a panel near the floor and put a second dryer vent on the inside to allow air to enter, since the AC unit requires an inflow. Failing to do this would probably break a panel. Temperature display and AC remote store on top, I can turn the unit on and off through the door. The ceiling dips a bit when the unit runs, tape the two panels together on both sides to help resist this.

Information & Trivia



From Bill Spiller –
“Finally got my sink fixed”

STEVEN WRIGHT-ISMS

- A conclusion is the place where you got tired of thinking.
- The problem with the gene pool is that there is no lifeguard.
- The sooner you fall behind, the more time you'll have to catch up.

Life's Unanswered Questions

How come the bullets that work are fired, and the ones that don't work are not?

How come when you are driving through a neighborhood looking for an address, you turn the radio down?

How do 'Do Not Walk On Grass' signs get there?

How do I set my laser printer on stun?

How do you know if honesty is the best policy unless you've tried some of the others?

How do you know when it's time to tune your bagpipes?

It will be a great day when our schools have all the money they need and the Air Force has to hold a bake sale to buy a new bomber.

Artificial intelligence is no match for natural stupidity.

On a posted sign: Bill Stickers will be prosecuted! The graffiti next to it: Bill Stickers is innocent!

I'm very responsible, when ever something goes wrong they always say I'm responsible.

There is no meeting in July. The next meeting is scheduled for Wednesday, August 21 at 7:00 p.m. at Oak Knoll Winery.

• **Agenda all whites blind tasting.** Member wines taste and critique - This will be all white Varietals also including rose, sparkling, fruit wines & mead plus anything remotely resembling a white.

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

- 1.) Please bring a couple 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/>

June Meeting Minutes

Members present = 27

- Phil Bard reminded everyone that there is no regular meeting scheduled for July, just the picnic on July 13 (see reminder below).
- Marlene Grant passed around a main dish sign up for the picnic. Three people volunteered, two more are needed for salmon & vegetarian.
- Don Robinson reminded everyone that WSAWS amateur competition and the Washington State Fair are coming up in July (see more info below). Don said they would try to organize a pick up at the picnic of Fair entries and would deliver them to the Fair on the designated day. More info will follow.
- Grape buys, Jonathan Brown – Sagemore orders for Cabernet Sauvignon have been confirmed. He passed out a new list of grapes available from Eastern Washington vineyards. He also passed out a list of grapes available from Oregon's Momtazi vineyard (part of Maysara east of McMinnville). If interested, Phil Bard is putting together this buy. We need to order one ton collectively.
- Ken Stinger & Jon Kahrs passed around samples of their sparkling wines.
- Mike Smolak & Phil Bard talked briefly about the club purchasing sets of "Govino" wine glasses with imprinted WSWC logo to be given to speakers & tour guides as thank you gifts. More info will be sent to members before the picnic.
- Bill Brown said there is a possibility of a tour of Adelsheim Winery. If he can put it together we will pass along the information.

"Best Practices" member presentations:

- Don Robinson demonstrated pH measurement techniques using the "Vinmetrica" wine analyzer system.
- Jon Gassaway demonstrated SO₂ measurement using the "Ripper" method also on the "Vinmetrica" analyzer system.
- Bill Brown showed the contents of a paper chromatography kit used for determining the progress or completion of malolactic fermentation. He showed 2 completed charts and described how they are read. The kit cost approx. \$70 - \$80.
- Phil Bard demonstrated proper inert gassing techniques using a wand he designed & built. He also demonstrated extinguishing a flame to determine when air has been mostly displaced in a container.
- Dennis Grant gave a PowerPoint presentation on Heating, ventilation & air conditioning including insulation & vapor barrier fundamentals for keeping your winery at correct temperature and humidity.
- Mike Smolak showed us carboy siphoning set up which he prefers over the auto-siphon. Also showed the standard S-shaped air lock and the newer style barrel or carboy stopper having a stiff, flexible cover that serves as a liquid-less airlock.
- Jon Kahrs & Ken Stinger talked about some of the techniques they use for *tirage* & *dosage* when making sparkling wine. A show of hands indicated only 3 out of 27 present had made a sparkling wine.
- Jim Ourada & Paul Rogers demonstrated placing dry ice in a small pressure cooker and using the CO₂ generated to bubble through wine to remove "skunk", SO₂ aromas.



Jon Gassaway & Don Robinson showing pH measurement techniques



Jon Gassaway demonstrated SO₂ measurement, Ripper method



Phil Bard demonstrated proper inert gassing techniques using a sparger he designed & built.

2013 Winemaking Competitions

Here is the latest information on the upcoming regional amateur winemaking competitions. Please contact me with any questions.

Good Luck!

Don Robinson, Chair of Competitions

don.robinson.pdx@gmail.com

971-219-1553

2013 WVAWS National Amateur Wine Competition

The Willamette Valley Amateur Winemaking Society (WVAWS), our sister winemaking club in Salem, sponsors this excellent national competition. 2012 was only their second year for this event, but it has quickly become one of the most respected and best-organized competitions in the state. It's very popular with our members. Their judging notes are usually quite informing.

Entry Deadline: Sunday, July 21, 2013

More Competition Details: See poster below or visit <http://www.wvaws.org>



**2013 AMATEUR
WINE COMPETITION**



- ❖ Deadline to enter is July 21, 2013. Entries accepted at Eola Hills Cellar in Rickreid, OR.
- ❖ Entry fee is \$10 per bottle.
- ❖ All wines must be homemade, produced and bottled by the entrant.
- ❖ Winners announced in September with awards for First, Second and Third Place in each class and Best of Show.
- ❖ Wines will be evaluated by a panel of wine professionals based on the standard American Wine Society (AWS) 20-point scale.
- ❖ Judges' point evaluations will be mailed to entrants who include a SASE.
- ❖ For more information www.wvaws.org or email WVAWS04@gmail.com.

Hosted by
Willamette Valley Amateur Winemakers Society

Portion of proceeds support Chemeketa Community College Viticulture student book scholarship.



2013 Washington County Fair Amateur Wine Competition

Washington County has sponsored for many years their [amateur wine competition](#), and they have cash rewards! This had been a popular competition, particularly for those members living in Washington County, but this is open to all.

Former club member Miriam Schrepf was the primary coordinator for this competition in the recent past. Rick Kipper has been very helpful in gathering the following information for this year's competition—including entry forms.

If there is interest, perhaps Rick and I could coordinate a pick-up of your entries and delivery to the Washington County Fairgrounds in Hillsboro.

Entries Accepted Only on: Saturday, July 20, 2013

Competition Details: see the *2013 Competition Handbook* at <http://www.BigFairFun.com> and look for pages 22 through 25.

Below are some competition details from page 22 of the Handbook.

BEVERAGES – DIVISION BV ENTRY REQUIREMENTS

Superintendent, Julie Kemper

PLEASE NOTE CHANGES TO ENTRY DATES FOR 2013 PLEASE REVIEW CAREFULLY

Please download an Entry Form and have it filled out prior to arriving at the Fair Complex for expedited entry processing. Tip – bring mailing labels for entry tags to make entering easier.

1. **Please read all descriptions carefully so your entry will be correctly prepared.**
2. ENTRY DATES/TIMES - Entries accepted only on Saturday, July 20 from 10 a.m. to 6 p.m. Late entries will not be accepted.
3. Exhibitor's name must be securely fastened to the article exhibited with provided entry tag. Address labels work great on the entry forms and tags.
4. Judging is closed.
5. Empty bottles will not be saved.
6. The Superintendent of the Beverages Department and/or Judges, reserves the right to reclassify items not properly classified.
7. Cash Awards: First \$3.00, Second \$2.00, and Third \$1.00.
8. Rosette Ribbons presented for Best of Show in the following categories: Red Grape Wine, White Grape Wine, Fruit/Berry Wine, Home Brewed Beer and Runner-up Home Brewed Beer.
9. All Open Class Rules and Home Economics Rules Apply.
10. At the option of the Superintendent, classes may be combined if the number of entries so dictates.

The Oregon State Fair has announced their 2013 Amateur Wine Competition

AMATEUR WINE JUDGING WILL BE HELD ON: JULY 17 and 18, 2013

RIBBONS:

Blue, Red and White Ribbons will be awarded within each classification.

Blue Ribbon Award Winners will receive (1) admission ticket to Pairings! A Celebration of Oregon Wine, Cuisine & Music. Blue Ribbon Award winners from each category will be announced and presented as Amateur Best of Show at: Pairings! A Celebration of Oregon Wine, Cuisine & Music - Friday, August 23, 2013, in the "Heart of the Garden" at the Oregon State Fairgrounds.

ENTRY DEADLINE:

To be part of this competition, entry forms and fees must be mailed or brought in person to the Oregon State Fair and received by **4 PM ON JULY 12, 2013**. All credit card information will be destroyed upon payment approval.

2 bottles per entry

ENTRY FEE: \$10.00 per entry

ENTRY FORMS:

<http://oregonstatefair.org/sites/all/osf/files/2013%20Amateur%20Wine%20Competition%20Entry%20Form%20-%20FILLABLE%20-%2006-19-13.pdf>

[2013 Oregon Wine Competition Amateur Wine Entry Categories 6-24-13.pdf](#)

WINE DELIVERY DEADLINES:

Wine may be delivered to the Oregon State Fair Grounds by 4 PM on Friday, July 12, 2013. Wine shipments will be accepted through the end of business day on Friday, July 12, 2013.

DELIVERY / SHIPPING ADDRESS:

Oregon State Fair
2330 17th Street NE
Salem, OR 97301

Please label wine bottles (each entry) with your name, grape varieties, vintage date, residual sugar, time in oak and any other significant information about your entry. Residual sugar and oak information is important because it will directly influence the placement of your entry in the category. Wines submitted to the competition will not be returned. Additional rules are listed on the entry form.

*Included with your entry fee, you will receive tasting notes from our panel of judges after the competition and awards have been announced. **They will be mailed no later than August 16, 2013.***

Contact Kim Grewe-Powell, Event Coordinator, at kim.grewe-powell@state.or.us, or call 503-947-3214

Don't forget to mark your calendar for our annual picnic



WSWC Summer Picnic

Saturday July 13, 2013

1 pm

Dennis and Marlene Grant's
33434 NE Haugen Rd, Newberg
503-538-0382

Bring your own wine glass and favorite wines to share.

If your last name starts with:

A - H please bring Salad

I - P please bring Dessert

Q - Z please bring Side Dish

This will be a potluck with scrumptious food, and a wide variety of our club member wines!

Save the date!

Call for directions or Google map it!
Watch for signs on Haugen and on driveway

Some other picnic reminders:

- There will be a charge of \$5 per adult to cover costs for the main protein dishes.
- Bring another \$22 if you want to purchase a set (4) of the "Govino" wine glasses in support of the speaker / tour guide gift fund ([see below](#)).
- Remember to bring your home grown wines to share, glasses & lawn chairs for comfort. The club will furnish plates, napkins and utensils & water.
- The following have signed up for the main protein dished the cost of which will be reimbursed by the club.
Salmon.....Phil Bard
Vegetarian..... Matt Krill
Pork.....Scott Nelson
Beef.....Bill & Marilyn Brown
Turkey.....Ken & Barb Stinger

"Thank you to the members who signed up to bring protein dishes. Remember to bring your receipts to Scott for reimbursement at the picnic."



Govino Wine Glasses

Govino wine glass specifications: Height: 4.4 inches, Capacity: 16 ounces

Where Wine Meets Design

Necessity is indeed the mother of invention. Govino was originally created as a trade tool to help professional salespeople showcase their wines whenever and wherever proper stemware isn't accessible – which as we learned firsthand, is often! Once we began testing the market, we realized there was an even bigger need for Govino in the consumer sector, particularly at settings where breakable glass is an issue. After all, how many times have we all had to endure drinking good wine from bad glasses?



Why does the Govino wine glass look and perform like crystal?

Govino is made from a food-safe, BPA-free polymer, which reflects a wine's color and aromatics much like crystal. It is recyclable (#1), but better yet it is reusable.

Washing your Govino glasses:

We recommend hand washing all Govino products.

Reuse it, abuse it, but eventually recycle it!

To ensure the optimum wine tasting experience, we recommend replacing your govino products once they lose their luster.

WSWC imprint on each glass:



PLEASE NOTE: THE ACTUAL IMPRINT WILL BE "FROSTED" LIKE ETCHED GLASS, NOT BLACK AS SHOWN

Wine club members may purchase a four-pack of these glasses at the picnic for \$22. Supply is limited, first come, first served.



A Product You Might Be Interested In For Ph Meter Calibration.

Micro Essential Lab Hydrion pH Buffer Powder (box of 5)

Available in 14 pH levels ranging from pH 2 to pH 12.

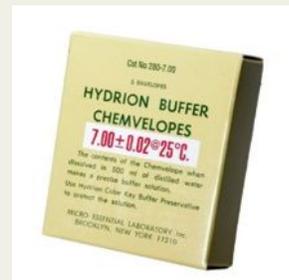
Hydrion pH Chemvelopes are packaged in triple protection foil, polyethylene, and paper. This keeps the enclosed buffer dry and free flowing. The envelope is clearly marked with the correct pH value. The contents of one chemvelope, when dissolved in 500mLs of distilled water, makes a precise buffer solution. Packaged five envelopes to the box, and supplied with one dispenser vial of Hydrion color key buffer.

The cost through Amazon is about \$10 per box of 5 (2.5 liters total).

Make 500 ml at a time or accurately weigh out half of the powder in

An envelope and only make 250 ml at a time.

Ken Stinger



Winemakers' Secrets Revealed!



Ten years ago, when I was a neophyte oenophile, the Benziger family came to do a tasting. They brought fresh pressed, 9-hour old, raw, unfiltered Syrah grape juice.

The flavors in the juice were overwhelming: the free run Syrah juice bore absolutely no resemblance to Syrah wines. I tasted blackberry, green tea, lime, pineapple, cream and bramble. The texture was rich and creamy, coated the mouth and tongue and left a good impression of tannin. Above all, what threw me was that it was sweet - palate shocking sweet.

That libation, however divine, wasn't what struck me the most. How on earth could the winemaker know that the sweet, viscous, complex fluid I had just tasted would end up with a wine so dark, in flavor, color and impression? How could something sweet and lively become so brooding and even a little sweaty? How did winemakers do this?

There was only one answer: they were allied with the black arts.

I had no choice but to devote the next decade of my life to questing for this arcane knowledge. I now know the most clandestine of their ways, dear reader, and will reveal them to you!

Secret one: Winemakers are really just farmers

This is the biggest secret of the winemaker - they're no different than tomato or corn or apple farmers. They get up early and eat massive breakfasts. They work all damn day, from first light to well after dark. They love the fruit of the vine as much as the fruit of their loins. Their days are dedicated to sweat, dirt, vines, sun, fertilizer, tractors and pruning shears. Just simple farmers...who make the best drink known to heaven and earth.

Secret two: Winemakers do a Herculean task

Think your job is complex? Balderdash! In addition to being a farmer, winemakers must be part biochemist, meteorologist, tour guide, PR specialist, gambler, artist, educator, gourmand and pioneer! Bottling line break down? Add mechanic to that list. Iowa legislature make direct sales legal? There's tax attorney, accountant and shipper added to the job description. Too much alcohol in your wine? Reverse osmosis will fix your problem - add physicist to the resumé!

You see the point - winemakers must be experts at becoming experts. This is not a job everyone can do...it's beyond , the actuarial accountant, the Navy Seal and the brain surgeon. I certainly couldn't do it!

Secret three: Winemakers know their job is waaaay better than yours

Winemakers must feel some of the greatest job satisfaction on the planet. The love of wine is everywhere. It's in the eyes of the couple toasting their 50th wedding anniversary with a bottle of Champagne. It's in the boardroom, where a cluster of executives celebrate their IPO with cigars and a glass of Port. It's in the shy girl's million candlewatt smile as she watches her new fiancé pour their first glass of Chardonnay as a betrothed couple.

They must jump out of their beds to start the day.

Secret four: Winemakers love beer

Winemakers *love* beer. I went to an industry event in 2004 called Pinot Camp, a kind of school to promote Oregon wines. Yes, we drank oceans of great Pinot Noir, Chardonnay and Riesling, but I haven't drunk so much beer since college!

And winemakers don't just like beer, they drink beer at every step along the winemaking path - planting, pruning, harvest, crush, aging and bottling. Winemaking is dirty, hot work - beer is an ideal refreshment when the job is done.

One other thing - winemakers don't understand beverage rivalry. It doesn't exist. This isn't politics and it's certainly not dogs vs. cats! There's just no time for this kind of nonsense.

Secret five: Winemakers are a humble lot

This love of beer lead me to discover the winemaker's truest, most shameful secret! With enough beers in them, they will admit their most shameful secret - each time they interfere with Mother Nature, the best they can hope for is NOT to screw up the wine. The old saw about good wine starting in the vineyards really is true - a winemaker can help a wine along at certain phases of its construction, but these actions come at great risk of ruining it. Winemakers know that they are genuinely at the mercy of God, the vagaries of the environment and randomness of luck.

Naturally (pun intended), these aren't the only secrets of the winemaker, but I can't reveal all of them. I will leave you with one thought, however, to put this all in perspective. Winemakers, above all, are agents of the human spirit, no matter how mysterious (and I do mean genuine mystery) they seem. Danish writer Isaak Dinesen gives us perspective here, on wine and the human condition:

"What is man, when you come to think upon him, but a minutely set, ingenious machine for turning, with mindful artfulness, the red wine of Shiraz into urine?"



CHITOSAN: A new tool for the elimination of *Brettanomyces* Plus expanded research into improved fining capabilities.

The spoilage yeast *Brettanomyces bruxellensis* has been, and continues to be, a major threat to wine quality at all stages of the vinification process. At its worst, it creates volatile aromatic compounds (volatile phenols) reminiscent of barnyard, leather and Band-Aid™. At all levels, it can diminish the natural character of the wine and mask its regional and varietal expression.

Research over the last decade has given positive results in the control and elimination of *Brettanomyces* through the use of fungal chitosan, a derivative of chitin. Chitin is the second most common bio-polymer in nature after cellulose. Chitosan is already known as an effective bio-pesticide. It has been shown to be effective against numerous pathogens, from *Salmonella* to *E. coli*. It is non-allergenic, non-GMO and 100% biodegradable. Fungal-origin chitosan has been put on the market by Lallemand under the brand name No Brett Inside.

In the paper "Elimination of Earthy Flavors (Geosmin) and *Brettanomyces* by the Utilization of a Fungal Bio-polymer: Chitosan," A. Bornet et al.¹ showed that at 2 g/hL, chitosan success fully eliminated all of the *Brettanomyces* in the treated wine. This was followed by winery-scale trials in conjunction with the Institut Coopératif du Vin on 40 batches of wine over a three-year period. The chitosan treatment was successful in 91% of the cases. Chitosan seems to be selective for *Brettanomyces*. If further trials show proof of this, treatment will be possible even during fermentation.

A poster from the 8th International Cool Climate Symposium in Hobart, Tasmania in January 2012 by Pic-Blateyron et al.² showed the effectiveness of chitosan at a dosage of 4 g/hL. Laboratory and winery trials were done and followed up with RT-PCR analysis (see Graph 1 and 2). Chitosan eliminated most of the *Brettanomyces* cells and there was no re-growth of the residual population up to 3 months after treatment.

It is recommended to wait 20-30 days after racking off the chitosan to run RT-PCR analysis to avoid false positives.

In 2011, trials done by Dr. Richard DeScenzo of ETS Laboratories in St. Helena, CA, showed that chitosan treatment at 4 g/hL resulted in a 78% decrease in the *Brettanomyces* population after 10 days. Treatment with 8 g/hL showed a 97% decrease compared with a 752% increase in the untreated control. Preliminary data from a second trial showed that residual activity of the chitosan resulted in the short-term inhibition of the *Brettanomyces*. More studies and time will be needed to determine the long-term inhibitory effects. Meanwhile, Dr. Charlie Edwards at Washington State University³ has found "No Brett Inside" to be effective and thinks that it works by both inhibiting metabolism of *Brettanomyces* and by flocculation and sedimentation.

"No Brett Inside" has been approved for use in the EU since 2010 at levels from 4-10 g/hL. The recommended dose is 4 g/hL for 10 days, followed by racking. One should wait an additional 20-30 days before doing a cell count to avoid false positives.

"No Brett Inside" is currently available in the US and should be used in accordance with current regulatory considerations. At this time, Chitosan is listed under 27 CFR 24.250 (Continual use of a wine treating material or processing. Acceptable in good commercial practice). For the most current information please refer to the 2013 Scott Labs Handbook website www.scottlab.com page 64.

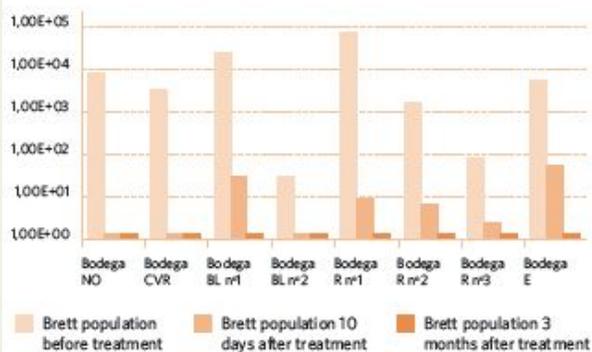
Future Applications

The Institut Oenologique de Champagne (IOC) is developing a blend of chitosan and bentonite (NoOx) as a fungal-based answer to casein for the removal of oxidized phenolic compounds and heavy metals. At wine pH chitosan has a positive charge. With negatively-charged bentonite as the counter-fining agent, flocculation and sedimentation occurs more rapidly and the resulting sediment is more compact. There are no animal products involved and it is non-allergenic and biodegradable.

References

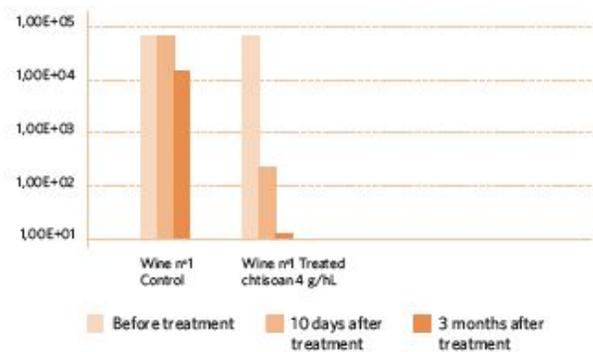
1. Bornet, A., P.L. Teisseidre, "Elimination of Earthy Flavors (Geosmin) and *Brettanomyces* by the Utilization of a Fungal Bio-Polymer: Chitosan" OIV Proceedings, 2008
2. Pic-Blateyron, L., Granes, D., Jentzer, J., Taillandier, P., Heras, J., Malkides, A., Sieczkowski, N., "Chitosan: A New Tool To Control *Brettanomyces* and Preserve Wine Aromatic Quality" Poster from the 8th International Cool Climate Symposium, Hobart, Tasmania January, 2012
3. Dr. Charlie Edwards, Washington State University, personal communication (2012)

GRAPH 1



Lab-scale trial carried out on Spanish wine contaminated with *Brettanomyces*: RT-PCR data shows before, 10 days, and three months after chitosan treatment at a dosage of 4 g/hL.

GRAPH 2



Winery-scale trial carried out on Spanish wine contaminated with *Brettanomyces*: RT-PCR data shows before, 10 days, and three months after chitosan treatment at a dosage of 4 g/hL.

From Wikipedia: Winemaking & fungal source chitosan

Chitosan has a long history for use as a fining agent in winemaking. Fungal source Chitosan has shown an increase in settling activity, reduction of oxidized polyphenolics in juice and wine as well as the chelation and removal of copper (post-racking). Fungal-source Chitosan can also be used in winemaking for the control of the spoilage yeast *Brettanomyces*.

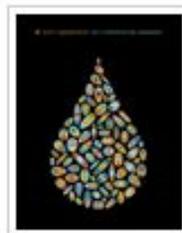
From WebMD: Chitosan is taken from the outer skeleton of shellfish.

There is a concern that people with allergies to shellfish might also be allergic to chitosan. However, people who are allergic to shellfish are allergic to the meat, not the shell. So some experts believe that chitosan may not be a problem for people with shellfish allergy.



For your information: The 2013 Scott Labs Handbook and order form is available in PDF format from their website at: <http://www.scottlab.com>

Fermentation Handbook



2013 Order Form



MEASURING SUGAR CONTENT PROPERLY

Ever wonder why, say, a 13.5 Baume Chardonnay juice finishes with 14% alcohol? Hmm! Baume, Brix and Oechsle are great diagnostic tools but now sweeten the chances of you getting accurate reads with them - and every time!

Robert Paul

Introduction

Winemakers commonly use two scales to measure "sugar" content in grape juices. They are:

1. Degrees Brix, and
2. Degrees Baume. (1.8 Brix = 1 Baume).

Both Baume and Brix scales give us a measure of soluble solids in grape juice. Soluble solids measurements are also used to monitor the progress of fermentation. However, we need to understand just what it is that we are measuring when we drop our hydrometers into juice or ferment.

The Baume scale is convenient because we believe that it gives an estimate of finished alcohol levels, i.e. we say that a 12.0 Baume juice will have a final alcohol level after fermentation of approximately 12.0%.

The conversions mentioned above can be handy rules of thumb, but just how accurate are they? Have you ever wondered why your 13.5 Baume Chardonnay juice can end up with a finished alcohol level of over 14%?

Soluble Solids

Degrees Brix is defined as soluble solids per 100g of juice (not per 100ml of juice!) and is a measure of all soluble solids including pigments, acids, glycerol and sugar. Generally, the fermentable sugar content of grape juice is between 90 and 95% of the total soluble solids. The remainder can be classified as dry extract. Note however that we make our grape sugar measurements as liquid - we do not weigh the juice.

Most winemakers use the Brix measurement (or Baume) to provide an approximate measurement of sugar levels, although other scales such as Oechsle do exist.

How many of us remember that our soluble solids measurements are really only telling us the ratio of sugar to water and do not take into account the specific gravity of the juice? If we really want to know how much sugar is in our juice, we should use the following formula:

$$\text{Weight (in g/L)} = \text{Brix} \times \text{Specific gravity} \times 10$$

This is because soluble solids measurements are not simply related to density or concentration. A simple linear relationship does not exist for sugar concentration in liquids. The specific gravity of a sugar solution increases as the concentration of sugar in the solution increases.

As apparent soluble solids increase, actual sugar concentration is increasing even more *because of the increasing specific gravity* (refer to the above equation). In other words, the specific gravity increase means more sugar per unit volume is in solution.

Table 1 shows a sugar solution of **4 Brix** has **41 g/L** of sugar while one of **24 Brix** has **264 g/l**. Increasing the Brix level 6-fold has increased the sugar level 6.44 - fold! This has significant implications.

Table 1

Brix	Baume	Specific Gravity 20/20	Sugar g/L	Probable Alcohol in finished wine v/v
0	0	1	0	
2	1.1	1.0078	20	
4	2.2	1.0157	41	
10	5.6	1.04	104	4.6
16	8.9	1.0653	170	8.6
18	10	1.074	193	10
20	11.1	1.0829	216	11.4
22	12.2	1.0918	240	12.7
24	13.3	1.1009	264	14.1
26	14.4	1.1101	288	15.2
40	21.9	1.178	470	
60	32.4	1.285	771	
68	36.5	1.336	908	

There are two important issues relating to sugar concentration:

1. The actual amount or percentage of fermentable sugar in juices. This is important for estimating the potential alcohol in finished wine. For a more accurate prediction, refer to the table above. Alternatively, at typical harvest sugar levels use a factor of 0.58 to multiply from Brix readings. You can also use a factor of 1.045 instead of 1.0 when using the Baume scale. In other words, 22.0 Brix x 0.58 = 12.8% alcohol. Remember though that the higher the sugar concentration, the less accurate this will be.

2. The actual amount or percentage of sugar in grape juice concentrate. This is important for calculating the amount of concentrate required to raise ferments to a certain alcohol level or when adding to finished wines as sweetening or as dosage in sparkling wine.

Grape juice concentrate is generally at 65-68 Brix, this being close to the limit of solubility of glucose and fructose in water. There is a misconception amongst some winemakers that 68 Brix concentrate contains 680 g/L sugar. IN FACT, IT CONTAINS 908 g/L!

The specific gravity of this concentrate is 1.336 so according to the formula above,

Weight of sugar (g/L) = 68 x 1.336 x 10 = 908

Again, this has important implications for concentrate additions. If you have a low sugar ferment that you think needs concentrate addition to increase final alcohol content, you should know the actual amount of sugar in your concentrate before you add it.

Assume 10,000 liters of 10 Baume (or 18 Brix) juice that you want to increase to 11 Baume or 19.8 Brix.

1.8 degree Brix increase equals 18 g/l:

10,000 x 18 g/L = 180,000 grams of sugar required.

If the grape concentrate is 68 Brix, it contains, from above, 908 g/L of sugar.

Therefore, volume of concentrate required = 180,000/908 = 198 liters

(Strictly speaking, you need a little more concentrate to make up for the fact that your juice is now 10,198 liters in volume).

Super Yeasts

Also important here is the belief that some yeasts are "super-efficient" and can convert an identical amount of sugar into more alcohol than other yeasts. While there may be some small differences between species, it is unlikely that different strains of the same species will vary greatly in their "efficiency". There are several useful research papers on this topic.

Conclusion

So, the moral is not to be surprised if you pick your Chardonnay at optimum flavor development, with a Baume reading of 13.3, and you end up with over 14.0% alcohol in the finished wine. Note that in red wines some of the alcohol produced is lost to the atmosphere because of warmer ferment temperatures, more open fermenters and so on. Thus, reds generally don't show this apparent "increase" in alcohol.

Of course, you could be getting higher alcohols levels than you expected because your hydrometers are not correctly calibrated! This is surprisingly common and it is worth checking your hydrometers with those of any sympathetic wineries nearby if possible. You may be disturbed at what you find.



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

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