

# Baker Wine & Grape Analysis

TTB Certified  
COOC Lab

## Newsletter

Winter 2013

In this Issue:

- PRWCA project
- The WIVI Connection
- TTB Certification
- Ask Brenda
- Mystery Photo

### HOURS:

Monday – Friday 8am – 6pm

### NEW SATURDAY HOURS:

December – July: By Appointment  
August – November: 10am – 4pm

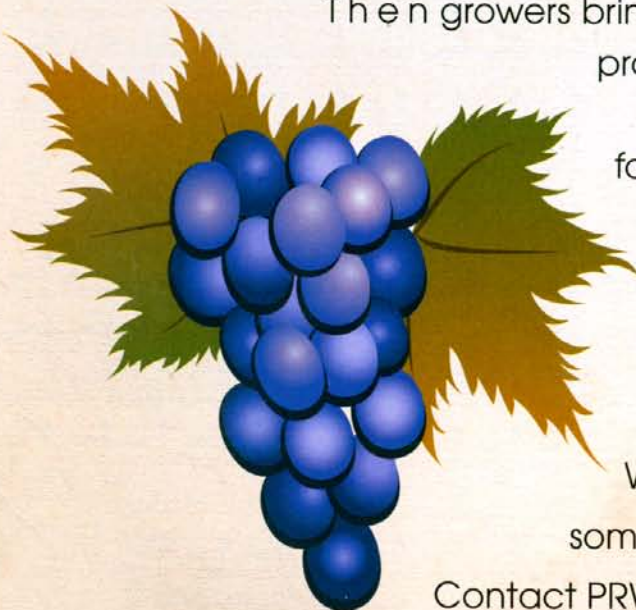
## PRWCA, BWGA and ETS Project

Harvest 2012 completed year 2 of the Grower Quality Improvement Project, spearheaded by Paso Robles Wine Country Alliance (PRWCA). The program includes chemical analysis of grapes for growers to benchmark their quality. Each participating grower designs an experiment regarding viticulture that they may be curious about.

Then growers bring their grapes to BWGA where they are sorted for processing. Some grapes are sent to ETS Labs for a full phenolic testing panel, while others stay at BWGA for some basic Brix, pH and TA tests. Results are reported quickly to individuals and all data collected will, over time, provide an educational tool to help growers make informed viticulture decisions ultimately increasing grape quality and marketability. That's money!

We had over 100 grape samples for 2012 and had some rather fascinating results. Curious?

Contact PRWCA to find out more: [www.pasowine.com](http://www.pasowine.com)







### Mystery Photo

Harvest brings exciting mysterious projects to the lab. Can you guess what happened here? Answer on p 3



### TTB Certified Wine Chemists

Kathy Johnson and I are excited to announce that we both (once again) passed the wine certification process for TTB, allowing both of us to analyze wine for export outside the United States.

The test is practical - TTB sends us two bottles of wine, we analyze those wines for a prescribed series of tests and the TTB grades our results.

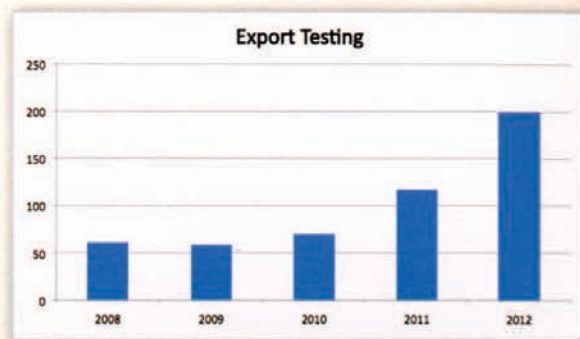
Brenda has been TTB certified since 2002 and Kathy has been TTB certified since 2010.

California is currently enjoying a boom in wine exports.



Check out the growth just here at BWGA.

Since different countries have different chemistry requirements for their wine imports, the BWGA export analysis(\$150) includes 11 different tests, which can be customized for each import. The analysis includes five hard copies with original signatures and stamps.



### The WIVI Connection

This year BWGA will have a booth at the WiVi – 2013 Central Coast Wine and Viticulture symposium and Tradeshow on March 19-20 at the Paso Robles Events Center. This event in our backyard is presented by Wine Business Monthly and Precision Ag Consulting. Viticulture and enology issues will

be discussed by some of our industry's top leaders and there will be comparative wine tasting. The tradeshow portion takes up **both** commercial buildings. We are really excited about participating so make sure you stop by our booth (A #31) to get a surprise. For more information visit: [www.WIVICentralcoast.com](http://www.WIVICentralcoast.com)



**BWGA partners with must! charities** – We are excited to begin a partnership with must! charities. This

organization was founded by a group of our local winemakers who wanted to have a focused, long-term impact on poverty in our community. Their mission statement sums it up: "must! charities is dedicated to improving quality of life in San Luis Obispo's North County by offering hope, compassion and resources to those in need." Two things sold me on must!—focusing on root problems (not just putting band aids on the symptoms) and pooling financial resources to make sustainable change. Our partnership will help must! charities complete their first project of many: collaborating with the Boys & Girls Club in Paso Robles so that they can impact the quality of life and future of more children for years to come. Find out how you can join the cause too at [mustcharities.org](http://mustcharities.org).



# Ask Brenda -

## Legal Requirements for wine -

Dear Brenda,

I would like to start a new career as a winemaker. What are the legal chemistry requirements for wine? Signed, Ex Con

Dear Ex Con, Here's a chart showing the relevant chemistry requirements.

Good luck with your new endeavor.

## Let's Talk SO<sub>2</sub> . . .

Dear Brenda: I just added 50 grams of metabisulfite to my wine and the Free SO<sub>2</sub> is 0 ppm. Where did it all go? Signed - No Protection

Dear No Protection -

Well, to be honest the first thing I suspect is that the metabisulfite is not mixed completely into the wine. Happens all the time, even with liquid or effervescent additions. If it isn't convenient to go back and remix, one way to check this is to take a bottom sample and a top sample to see if they are the same.

It takes some time for the SO<sub>2</sub> to reach an equilibrium (up to 5 days).

However most of the binding and reacting takes place in 24 hours.

Gaseous molecular SO<sub>2</sub> is the key wine protector. It gets used up either by evaporation, by oxidation reactions, or by binding with other compounds. These compounds may include:

**Acetaldehyde** (the aroma of sherry) - 2 acetaldehyde molecules bind about 3 molecules of SO<sub>2</sub>. The amount of acetaldehyde varies from wine to wine (20- 400 ppm), so you can see that you might soak up a lot of SO<sub>2</sub> that way alone, especially during initial additions.

**Glucose** - in sweet wines, about 50% of added SO<sub>2</sub> binds to glucose molecules. The higher the glucose concentration, the more % of SO<sub>2</sub> is bound.

**Protein and cellular debris** - all bind up SO<sub>2</sub> and pull it out of circulation. "Clean" wines soak up less SO<sub>2</sub> than "dirty" wines.

**Phenolics** (including anthocyanins) - bind SO<sub>2</sub>. At high amounts of SO<sub>2</sub>, this results in "bleaching" the wine.

**Dissolved oxygen** - reacts with SO<sub>2</sub> (one molecule of oxygen reacts with 2 molecules of SO<sub>2</sub>).

**Yeast, bacteria** - binds to SO<sub>2</sub>. SO<sub>2</sub> doesn't necessarily kill them, but certainly inhibits their activities.



| TTB regulations <sup>11</sup>     |                                |
|-----------------------------------|--------------------------------|
|                                   | VA (g acetic/100 mL)           |
| red wine                          | 0.14                           |
| white wine                        | 0.12                           |
| Red wine (grapes > 28 Brix)       | 0.17                           |
| White wine (grapes > 28 Brix)     | 0.15                           |
| Wine Type                         |                                |
| Ethanol < 14%                     | Table                          |
| Ethanol > 14%                     | Dessert                        |
| Sulfites                          |                                |
| Maximum Total SO <sub>2</sub>     | 350 ppm                        |
| No "Contains Sulfites" on label   | < 10 ppm Total SO <sub>2</sub> |
| Maximum Copper                    | 0.5 ppm                        |
| Additional California Regulations |                                |
|                                   | TA (g tartaric/100 mL)         |
| Minimum for red wine              | 0.4                            |
| Minimum for white wine            | 0.3                            |
| Minimum for other wine types      | 0.25                           |



Fanny T. Flask says,  
'Baker Wine & Grape  
Analysis is Great!'

## Answer to Mystery Photo:

Smack in the middle of harvest the mailman quickly walked into the lab and stated, 'This thing keeps getting bigger!'. Although we had some great guesses from all of you, such as mail order implants and the blob - turns out it was just a juice sample that got a little warm on the way! Opening the bag was anti-climactic because Brenda put the bag in the freezer for a bit to cool it down. If only she wasn't so darn smart!







Baker Wine & Grape Analysis  
TTB Certified  
COOC Lab  
2921 Union Rd. Ste. G  
Paso Robles, CA 93446

Presorted Standard  
US Postage  
Permit 163 AMS  
Paso Robles CA

Download Labels for your samples on our website: [www.bwga.net/services](http://www.bwga.net/services)  
Labels are formatted for Avery 5163, and you can download  
it in Microsoft Word, or pdf format.

**Baker Wine & Grape Analysis**  
Customer: Tom's Wine Cellars  
Sample ID: OS merlot  
Preharvest Fast Pack ☐ Juice Fast Pack ☐  
Wine Fast Pack ☒ Alcohol ☐ pH ☐ TA  
VA ☐ GF ☐ Malo ☒ Free SO<sub>2</sub> ☐ Total SO<sub>2</sub>  
Heat Stab ☐ Cold Stab ☐ Bent. Fining Trials  
Other: \_\_\_\_\_

Baker Wine & Grape Analysis online at: [www.bwga.net](http://www.bwga.net)



**Features for the Standard 2 Inch Inlet Model**  
(other inlet sizes available)

- Constructed of stainless steel with food grade UHMW (Teflon) bearing cone
- USA Patented
- Throw range diameter of 3-24 feet
- No clogging
- Self cleaning
- Only 3.3 pounds
- Full coverage leaves virtually no footprint

Over 1000  
units  
sold since  
2002!

**2" Hi Flow** - For larger  
volume with a smaller  
throw range



Minimum  
5 hp pump



Minimum  
15 hp pump

**3" Toad** - For heavy duty pumps  
and larger quantities of wine

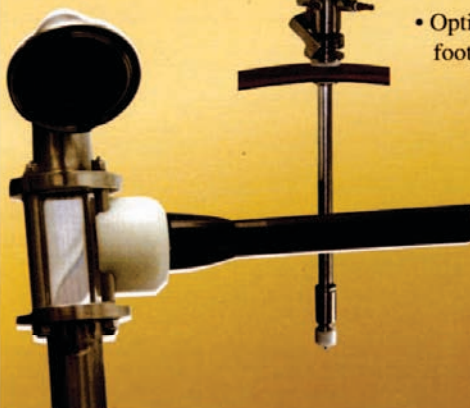
Tony Pratt: 805-235-0729  
[www.bwga.net/the\\_toad](http://www.bwga.net/the_toad)



USA Patented

**FEATURES**

- Stainless Steel
- 135 degree Tri-Clover Sweep prevents hose kinks
- Sight Glass allows user to see only cleanest wine
- Sure grip wand lets you lock the racking wand at the perfect depth
- Hands-free flashlight holder
- Optional non-drip sanitary foot valve



**Optional Locking Finger Bung:**  
Retractable locking fingers secure  
The Rackitbeer in the barrel

Tony Pratt  
805-235-0729  
[www.rackitbeer.com](http://www.rackitbeer.com)

Would you like to advertise in our next newsletter? Ask us how - [baker@bwga.net](mailto:baker@bwga.net).