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Hand Sanitizer - Q & A

Q: HOW DOES HAND SANITIZER WORK?

A: In situations where hand washing isn't an option, hand sanitizer can be effective against many microbes. The World Health Organization formula for hand sanitizer consists of: 80% ethanol, glycerin and hydrogen peroxide. Each ingredient has a role to play in sanitation:

80% Ethanol - Ethanol destroys the proteins in bacterial cell walls/ membranes as well as the proteins in the coats of viruses. Once into the microbe, the 80% ethanol can then destroy the inner lipid layer and the genetic material, which kills the organisms.

Interestingly, 100% ethanol works too quickly - it 'melts' the outer proteins, which seals the inner cell. The microbes can then live on and eventually survive. A concentration of 60-95% ethanol will kill bacteria, fungi and viruses, but it will not destroy spores. Ethanol under 60% is not strong enough to work effectively.

0.125% Hydrogen peroxide - Hydrogen peroxide oxidizes spores and kills them. The hydrogen peroxide dissolves the outer protein coat of the virus, so that the ethanol can denature (break up) the inner DNA.

Glycerin is added to protect the skin from the drying effects of the ethanol. Aloe vera is also used in this capacity for hand sanitizing gel.

O: WHAT IS THE MOST EFFECTIVE **WAY TO USE HAND SANITIZER?**

A: Fully cover both hands with sanitizer and rub vigorously for 30 seconds, or until the sanitizer is completely dry.

O: CAN YOU TEST THE **ETHANOL CONTENT OF MY HAND SANITIZER?**

A: Yes! We are able to test both ethanol content and hydrogen peroxide concentration using a densitometer. If you are making hand sanitizer for donation we are happy to test the ethanol and hydrogen peroxide for free!

Export Analysis

We offer *timely export* panel analyses for

most countries. Please provide two labeled bottles of each wine. Standard Export Panel \$165.

WiVi 2020

We look forward to catching up with all of you in August at the rescheduled 2020 WiVi! Visit us for games and fun

at booth 605.









Rebecca is TTB Certified

We are proud to announce that our lab chemist Rebecca Chapman is now a Certified TTB Chemist! Rebecca joined the Baker team in the summer of 2019; she is an incredible asset to our organization with her vast



experience in microbiology, precision in lab techniques and practical winery experience. We now have three TTB Certified Chemists and can continue to promptly and accurately run your analyses and export panels. About TTB Certification: The Alcohol and Tobacco Tax and Trade Bureau offers certification opportunities twice annually. Applicants must have an approved educational background and are required to analyze a multitude of tests on samples provided by the TTB. Results must fall within range in order to pass and each chemist is retested every two years. We take great pride in securing these certifications and that BWGA has maintained constant certification since 2002.

JOIN US for BWGA'S Wine Sharing Series

THE FORMAT:

Bring a 750 mL bottle of specified wine that you made to the lab (can be a tank or barrel sample). BWGA will 'brown bag' all wines and arrange them in our back area in ran-



dom order. Participants will taste through them starting at 4:30pm sharp. At 5:15pm, the bags come off and the wines are revealed. No voting or ranking, just an unbiased way to evaluate your wine amongst a few of your peers. Wines need to arrive by 4:25pm to be 'brown bagged' or they can be dropped off ahead of time. Commercial and home winemakers are welcome.

Please bring your own tasting glass.

BWGA will provide tasting cards, brown bags, and spittoons.

BWGA WINE SHARING SERIES SCHEDULE:

Tuesday, August 18th 4:30-5:30pm

Topic: Rhone Reds

Topping Time

When the time comes to top your barrels, take it as an opportunity to think about the quality of your topping wine. Worst case scenario, you add some bacteria or high VA to a clean wine. The good news is this can be avoided and we can help! Some suggested tests we can run to check the quality of your topping wine include:

- General Microscan: We will take a look under the microscope and identify any unwelcome yeasts and/or bacteria. We specifically look for Acetobacter, Pediococcus, Lactobacillus, and Oenococcus.
- Glucose/Fructose: This serves as a double check to make sure the topping wine is dry, which means less food for spoilage microbes.
- Malic: Again, another way to double check dryness.
- Volatile Acidity: It is always a good idea to know your VA baseline and this is an easy way to identify trouble wines.
- Free/Total Sulfurs: SO₂ levels protect the wine against microbes and oxidation.
- Brettanomyces DNA testing: If you are concerned about Brett., we can positively identify Brett. through DNA testing and give you a general idea of how severe the count may be.



Acetobacter: Produces acetic acid and ethyl acetate, actually oxidizing ethanol into acetic acid. Increases in Acetobacter occur during racking due to oxygen exposure.

Pediococcus: These bacteria are acid tolerant, difficult to filter and produce lactic acid, diacetyl, and slimy polysaccharides. These slimy polysaccharides appear as ropiness in wine



and can actually help protect the bacteria, allowing it to be tolerant to higher alcohol.



Lactobacillus: An acid tolerant microbe that produces lactic acid and diacetyl. Some lactobacillus is associated with Tourne Disease, a tartaric acid fermentation that increases VA

and lowers TA, leaving wine carbonated and flabby.

Oenococcus: Produces lactic acid and diacetyl. Some species produce a mousy sensory effect.









Welcome Amy & Ike!

We are excited to announce that **Amy Freeman is now a permanent staff member here at the lab!** We were thrilled to have her come work for us last harvest, and as harvest came to an end we knew keeping her on board was the right move for all of us. With a degree in Nutrition and a vast amount of experience in the wine industry we are happy to have her on the Baker Team!

Amy has experience in winery production (lab tech, cellar worker, enologist, assistant winemaker and winemaker), and also in the vineyard (field work, crew management, vineyard management, SIP Certification). She is an active volunteer with the Vineyard Team and is on both the SIP Certified Vineyard and SIP Certified Winery technical advisory committees.

During her free time when she is not out hiking with family or friends, skiing, crafting, baking or raising livestock, she is also on the board of ECHO and a soccer coach! As you can see, she is happy to be fostering the amazing sense of community that exists on the Central Coast!



Hello Ike!
A new addition to our dog squad is Amy's pup, Ike!
Ike's favorite things are meeting new people and playing any sort of fetch game,

especially rapid-fire catch.

Pre-Bottling Spotlight - Using CMC Products for Tartrate Stabilization



White Wine with Tartrate Crystals

Once you have verified that your white or rosé wine is protein stable (i.e. heat stable), it is time to check for tartrate stability. Naturally occurring tartrates (like potassium bitartrate) can form big crystals that are visible in white and rose wines. Typically, under cold temperature conditions, these crystals settle out of the wine naturally. But sometimes they are a little more stubborn. If not caught before bottling, your wine consumer can put a bottle in the fridge to chill, only to pull it out later with lots of white crystals floating around. Nothing dangerous, for sure – but not aesthetically pleasing.

You can ensure that your wine is cold stable by a few different methods. Most common is the subtraction method – in which you remove the excess potassium bitartrate ions by chilling the wine to cold temperatures over a period of time.

A second method, which is becoming more popular, is the stabilization method – in which a product is added to wine to prevent the crystals from forming. The most common of these products is carboxymethylcellulose (CMC) – which goes as the brand name of Celstab (Laffort), or Cellogum (Enartis). Winemakers for years in Europe and now in the USA have been very satisfied with how these CMC products stabilize their wines.

But with all new technology comes new rules - and to use CMC correctly, there are conditions that must be met:

- 1. The wine must be heat stable (standard analysis is 2 hours at 80°C).
- The wine must have some degree of cold stability already. Severely unstable wines will not be stabilized with a CMC product.
- 3. The calcium concentration needs to be below 60 mg/L.

At Baker Wine & Grape we offer a Celstab Trial panel. This includes verifying that the wine is heat stable, double checks to see how cold instable the wine is and verifies that CMC will indeed stabilize the wine. In addition, we also offer a color stability test, included with rosé wines, to ensure that the CMC product will not affect the color.

If you are concerned about the amount of calcium in your wine based on where your grapes were grown, we do offer a separate test for calcium ions. Calcium concentration can be high in grapes grown in high limestone content soil.







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BWGA hours MON-FRI, 9am-5pm

Sample drop-off at front door, as well as labels, sample bottles and tubes to take. Call to inquire about sample pick-up.

Bench Trials

A bench trial is a small-scale trial meant to simulate the addition of an additive or fining agent to a larger volume of wine to determine what effect it will have on the wine and to pinpoint the dosage needed.

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Trial	Description	Volume Needed	Cost per sample
Celstab Trial	Heat (protein) stability, cold stability, cold stability with Celstab addition, and color stability for Rosé	750 mL	\$85
Bentonite Trial	How much bentonite required to heat (protein) stable white and Rosé wine	750 mL	\$75
Sulfide (Copper) Trial	Evaluating sulfide issues and the addition of ascorbic acid or copper sulfate	750 mL	\$50
Acid Adjustment Trial	Balancing the acidity by hitting a pH or TA target	750 mL	\$50
Wine Stylizing	Wine enhancing and getting the full potential from your wine	(2x) 750 mL	\$100
Troubleshooting	Identifying wine flaws or undesirable characteristics and how to fix them	750 mL	\$80
Alcohol Bench Trial	Hitting a target alcohol with dilution or fortification	500 mL	\$165
Fining Trial	Gelatin, isinglass, egg white, casein, carbon, and PVPP	750 mL	\$50



