2018 HARVEST
WHAT TO DO NOW!

Here we are, late-November. Everything's been harvested, finally. Late ripening season due to weather irregularities in the Spring.

Your wines should all be pressed and into your full secondaries.

Your wines should be "dry", all of the sugar gone.

If **you've been keeping your storage area in the ideal 63*F – 72*F range, your MLFs (Malo-Lactic Ferments) should be complete or close to complete.**

When, and only when, your MLFs are complete, should your Acidity and SO_2 should be adjusted.

Then your cellar needs to be as cold as possible to promote Cold Stability.

Let's take each task separately.

✓ Your wines should be "dry". No perceived sweetness. "Fruity", yes. "Sweet", no.

That's about -2°Brix on your Hydrometer. Below 500 mg/L (.5%), if using the *Accuvin Residual Sugar Test Strips*.

If **your grapes were accurately diluted to below 25°B at crush and didn't soak up higher;** ***if*** **the right quantity of new, viable yeast was used;** ***if*** **the right kind of nutrient, added at the correct times was used;** ***if*** **the cellar isn't below say, 55 degrees, all reducible sugars should be used up and your wine should be "dry".**

✓ Your Malo–Lactic–Fermentations (MLFs), should be complete.

MLF is the simple conversion of the Malic Acid into Lactic Acid by M-L Bacteria. This makes the wine MLF stable, preventing a "secondary fermentation" from happening later on, resulting in a spritzy, off-flavored, ruined wine.

If **you used the right M-L bacteria for your pH;** ***If*** **you added the right nutrients at the right time;** ***if*** **you did not add too much SO_2 (CH16's SO_2 limits are 40ppm Total/15ppm Free; pH should be above 3.4; alcohols up to 16%);** ***if*** **you've keep the cellar above 63 degrees, but below 77 degrees, MLFs should be complete.**

The only reliable way to tell is to use the *Accuvin Malic Acid Testers* (read & follow direction). If at 30 mg/L, you're complete. If above this, wait it out (at the ideal 63 -77 degrees). *When and not until* MLF is complete, raise and *maintain* your SO_2 to the chart's recommended level, relative to your pH. It's also the time to adjust your acidity.

✓ It's time to Adjust Your SO_2 Levels, *if and only when* your MLFs are totally complete.

(Reminder - *SO_2 does not prevent oxidation.* It only combines with oxidized by-products, like aldehydes, converting them into less noticeable compounds)

Consult your SO_2 Chart, that you all should have. Raise the SO_2 to the recommended level, relative to your wine's pH. *Maintain this level* through to the final bottling. Reminder, if you do not have a Vinmetrica Tester or a Hanna SO_2 Tester; or send your wine to a lab for testing; at least use the Accuvin SO_2 Test Kit,

Here's some decent homespun SO_2 wisdom:

(*At the end of fermentation*, your Free SO_2 level is about 0. Using the SO_2 chart, after MLF, bring your Free SO_2 level to the recommended level, relative to the pH. *After three months*, assume a Free SO_2 loss of 50%. Therefore, add 50% of what you added post MLF. *Repeat every three months.* This coincides with the average racking schedule of every three months.

(eg: at a pH of 3.5, ¼ of a tsp. of Sulfite Powder per 5 gallons of wine, will give you about 50 ppm Total SO_2 and 25 ppm Free SO_2. In three months, you've lost 50% of the Free SO_2, down to about 12ppm Free SO_2. Therefore, you'd add 1/8 of a tsp. per 5 gallon of wine to bring your Free SO_2 level back to the chart's recommended *minimum* levels. Repeat every three months)

✓ After MLF completion, it's also time to adjust your wine's Acidity.

Always adjust your acidity in the early Fall, leaving the cooler Winter months to naturally "cold stabilize' your wines.
Only use Tartaric Acid for acidifying.

Acidifying, is done *"To Taste"*, not to some arbitrary pH or Total Acidity (T.A.) level. However, you still should know what your pH/T.A. are, before and after adjustment.

(unless sending a sample to a Lab, you will need a pH meter that reads to hundredths. pH papers just are not nearly accurate enough and you are just guessing at the color change)

Take a small sample ("mess up a small amount before messing up a large amount of wine") of your wine and slowly add your Tartaric Acid. Being sure that the acid is dissolved, stop adding when your sample tastes *"balanced"*, to *your* preference.

Too low an acidity, tastes "flat/dull/lifeless". Too much acidity, tastes "tart". Now, measure this acidity, and adjust the remainder of your wine. Always, add the Tartaric Acid in small stages, to avoid adding too much. The last additions will give a much greater change than the earlier additions. Reminder, that a little excess acidity will drop out, softening the taste, as your wine is chilling over the 2 – 3 winter months)

✓ Finally, it's time to chill your wines.

The colder your wine gets, the faster it achieves *"Cold Stability"*. Three weeks in a refrigerator. Three months at cool "winter" temperatures.

(Chilling forces the "excess" Tartaric Acid to precipitate out as crème of tartar / tartrate crystals / KHTa, lowering the perceived acidity. The amount of this acidity drop, depends on the Temperature and the amount of Potassium (K^+) ions available to bind with the Tartaric Acid (H_2Ta) ions) (The "cold cellar" technique, is usually adequate for red wines that will not be chilled before serving. For whites, "cold stability" can only be completely achieved via forced refrigeration)

✓ What's next? –

- **Maintaining SO_2 levels**
  Egg White/Skim Milk fining of reds to reduce excess astringent tannins (seldom needed in SoCal grapes)
- **Bentonite with Sparkolloid fining for whites (mandatory for "Heat Stability")**
- **Never re-adjust acidity again, unless you can force chill out the "excess" Tartaric Acid.**
- **Bottle late Spring or Summer to preserve "fruitiness". Or, extend aging to the next Spring or Summer to increase "complexity" at the expense of fruit forwardness.**

✓ "POST CRUSH CLINIC"

After the first of the year the Cellarmasters Winemaking Club usually has a super clinic to help you evaluate and adjust your new wines.
www.cellarmastersla.org

Or, give our winemaker, Shaun Frohn, 805-823-5553/sf_80@comcast.net, a jingle to arrange a private evaluation session.
A small charge is made for chemical testing

(Bring a 5 oz sample/variety)

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