FINISHING WHITE & ROSE' WINES IN PREPARATION FOR BOTTLING

1. WINES ARE READY FOR FINISHING

- Alcoholic fermentation complete.
- Blending for fine tuning of aroma, fruit, mouthfeel, or acid balance should be completed 1 – 2 months prior to bottling and before Cold Stabilization.
- Fining, Protein and Cold Stabilization after Alcoholic Fermentation.

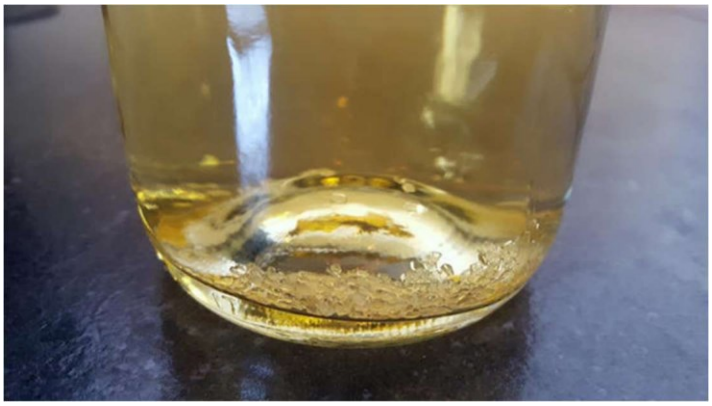
2. PROTEIN STABILITY

- "Heat Haze" can occur in wines that are not protein stable.
- Typically occurs when the wine gets warm.
- Protein stability achieved by the addition of
- Bentonite early in the fining process.
- 0.20 - 0.75 g/liter.

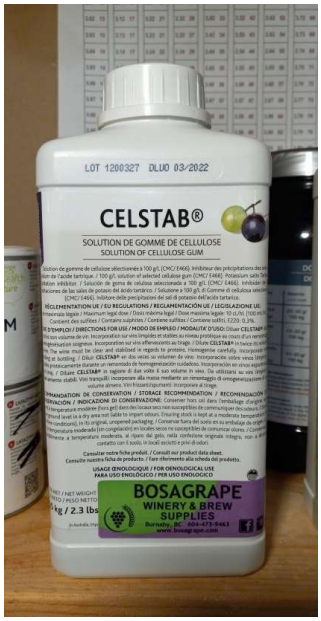
- Test for protein stability via Hot Water Bath for 30 minutes at 80 degrees Celsius.
- Check Wines for clarity 24 hours after Hot Water
- Bath.
- Stubborn unstable wines can be treated with a repeat of Bentonite addition.
- Additional Bentonite settles very quickly.

3. TARTRATE STABILITY - "Cold Stabilization"

- Tartrate instability evident by the precipitation of tartrate's, "Wine Diamonds" in the carboy or bottle.



- Achieved by chilling the wine to around 0 degrees Celsius for 2 weeks or more.
- Will precipitate and reduce some Tartaric Acid.
- The amount of Tartaric Acid precipitated varies by pH and Wine.
- Tartrate Stabilization can be facilitated by the "Contact Method" with the addition of Potassium Bitartrate (Cream of Tartar).
- 4g Potassium Bitartrate/liter of chilled Wine with some agitation and a contact time of 1.5 to 2 hours works efficiently.
- *Crystalflash* by AEB – Speeds up Tartrate Stabilization to 3-5 days.
- Caution: Gases are absorbed more easily at low temperatures increasing the risk of oxidation.



- **CELSTAB** by Laffort - an alternative method for Tartrate Stabilization.
- Wine must be Protein Stable.
- CELSTAB forms a haze in Wine treated with Lysozyme.
- Add 1ml CELSTAB/ liter of Wine 24 hours before bottling.
- Cost = $0.72 per 23 liter carboy.

4. **BALANCE -** The relationship between Titratable Acidity (TA)and Residual Sugar (RS)

- The key to maximizing the potential of any wine.
- Often starts early in Winemaking with Blending and various methods of Acid adjustments.
- TA can still remain high prior to bottling.
- Wine may benefit by Balancing with some RS.

The Stigma on RS in Wine! Examples of RS in Wine:

Tantalus Old Vines Riesling 2018

ACCOLADES

93 POINTS - Chris Waters, Globe and Mail

93 POINTS - David Lawrason, Wine Align.com

93 POINTS - Treve Ring, Gismondi On Wine

92 POINTS - Anthony Gismondi, The Vancouver Sun

Varietal: 100% Riesling

Alcohol:	12.6%
RS:	11.41 g/L
pH:	2.77
Total Acidity:	10.7 g/L

Varietal: 100% Riesling

Alcohol:	12.38%
RS:	7.5 g/L
pH:	2.87
Total Acidity:	8.83 g/L

Varietal: 35% Riesling, 20% Ehrenfelser, 18% Sauvignon Blanc, 18% Pinot Blanc, 8% Chard & 1% Semillon

Alcohol:	13%
RS:	13.0 g/L
pH:	2.89
Total Acidity:	8.14 g/L

Varietal: 100% Chardonnay

Alcohol:	13%
RS:	3.12 g/L
pH:	3.41
Total Acidity:	6.56 g/L

Analysis of Wine Tasted at Zoom Meeting

Alcohol	13.0%
Total Acidity	6.5g/L
Residual Sugar	7.6g/L
pH	2.94

2020 Vintage:

BEST OF CLASS/GOLD
Cascadia Wine Comp

GOLD
All Canadian Wine Comp

5. BENCH TRIALS – Balancing with RS

- Encourage Spouse, Partner(s), Significant Others etc. to Participate.
- Dissolve 5 grams of Sugar into 500 mls of the Trial Wine = 10 g/liter RS.
- Measure out 300 mls of the Trial Wine unadjusted = 0 g/l RS.
- With a non-permanent marker label 5 wine glasses.

#1 – Control

#2 – 2.5 g/l RS

#3 – 5.0 g/l RS

#4 – 7.5 g/l RS

#5 – 10.0 g/l RS

Using a 100 ml graduated cylinder measure into each glass:

#1 – Control 100 mls of unadjusted Trial Wine

#2 – 2.5 g/l RS 75 mls unadjusted Trial Wine + 25 mls 10 g/l RS Wine

#3 – 5.0 g/l RS 50 mls unadjusted Trial Wine + 50 mls 10 g/l RS Wine

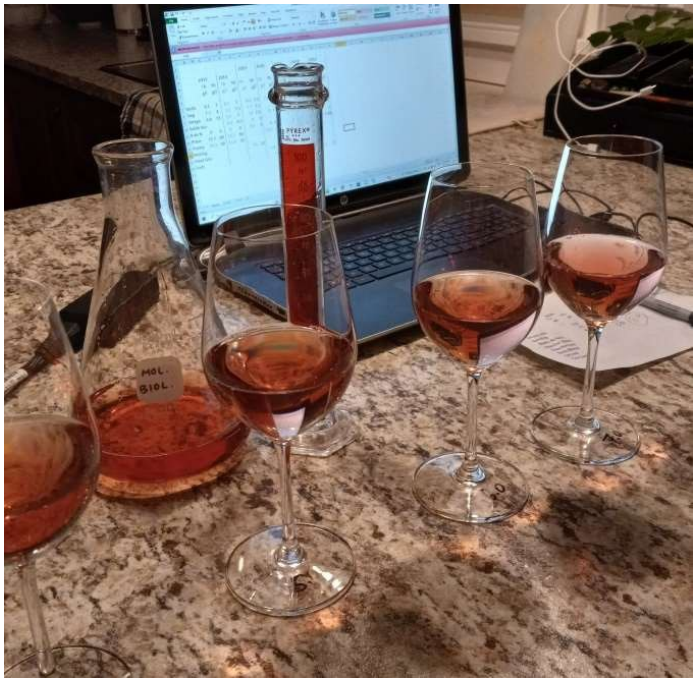
#4 – 7.5 g/l RS 25 mls unadjusted Trial Wine + 75 mls 10 g/l RS Wine

#5 – 10.0 g/l RS 100 mls 10 g/l RS Wine

- Taste through Wines to determine the preferred RS Range.

- Repeat Trials within the RS Range to fine tune preference.

- Bench Trial with previous Vintages.



- Record Acid/RS for comparison with Future Vintages.

- Option: Label glasses Alphabetically to disguise RS Levels.

6. FILTRATION

- Filtration recommended to achieve Brilliant lasting Clear Wine.
- Unfiltered Wines often will produce some sediment in the bottle after a period of time.
- 0.5 micron “sterile” filter pad will render Brilliant Clear Wine.
- 0.45 micron Absolute Filtration provides true Sterile Filtration.
- 0.45 micron Nominal cartridge Filtration - next level for the amateur winemaker.

7. PROTECTING/PRESERVING WINE

- Measure and adjust *Free SO2* prior to bottling.
- The amount of Free SO2 needed to protect a Wine is pH dependent.

	Free SO2	Free SO2
pH Reading	Minimum effective protection (0.8 mg/L molecular SO2)	Maximum protection before sensing (2.0 mg/L molecular SO2)
2.8	9	23
2.9	12	29
3.0	14	36
3.1	18	45
3.2	22	56
3.3	28	70
3.4	35	87
3.5	44	109
3.6	55	137
3.7	69	172
3.8	87	216
3.9	109	272
4.0	137	342
4.1	172	430
4.2	216	540

- Wine is protected from re fermentation in the bottle???

READY TO BOTTLE!