
# *Making Muscadine Wine at Home* ***(Advanced)***

by

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with winemaking tips from

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## Outline of this class

Legal stuff

Supplies needed for better winemaking

Some testing equipment you need

Some useful charts/tables

A few useful equations

Recipe for making good Muscaine wine at home

How wine judges evaluate your wine

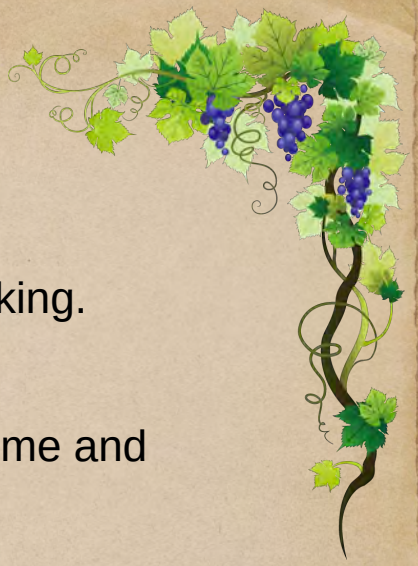
Useful references

***Why are you sitting in on this class?***

- To kill a morning
- I’m seeking a cheap buzz
- I’m frugal - $1.50 per bottle
- Curiosity / interest in winemaking
- To have fun!

# Winemaking Philosophy

**Where I stand on winemaking at home.**



There are two basic positions that make sense in home winemaking.

1 - To make wine as cheaply and simply as possible without wasting time and effort - just getting by with basic table wine – also known as plonk!

2 – To make wine involving a commitment to quality bordering on the obsessive that requires a body of knowledge at a level nearing that of commercial vintners. I follow this position.

It is a lot easier to get novices started off on the right foot than to change 30-year-old bad habits of veterans.

# In this class you will learn:

a little math…

a little physics…

a little chemistry…

a little zymology…

a little bacteriology…

a little practical lab skills…

somewhat like cooking…

But a lot more fun!

Just chill out and take good notes – winemaking is not hard!

# Legal Stuff…

How much wine can I legally make?

Note: You can make alcohol, but you can't concentrate it!

**The U.S. Law Concerning Alcohol Production**

The aggregate amount of wine that may be produced exempt from tax with respect to any household may not exceed:

(1) 200 gallons per calendar year for a household in which two or more adults reside, or

(2) 100 gallons per calendar year if there is only one adult residing in the household.

## What factors impact the quality of wine made at home?

Quality of your must or juice source

Sanitation level

Ability to test/taste your wine

Ability make necessary adjustments of acidity, sweetness, residual sulpfite, etc.

Your winemaking skills

# Supplies


**Winemaking supply kits**

# Supplies

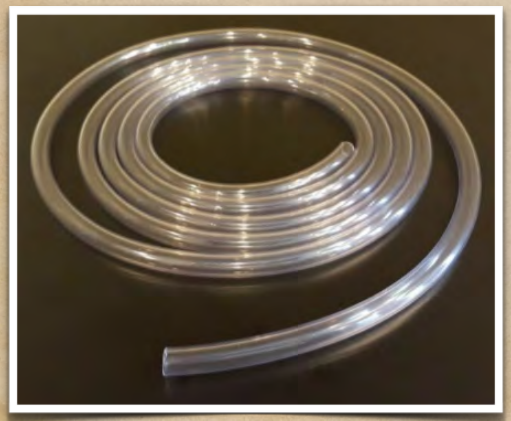
Airlocks

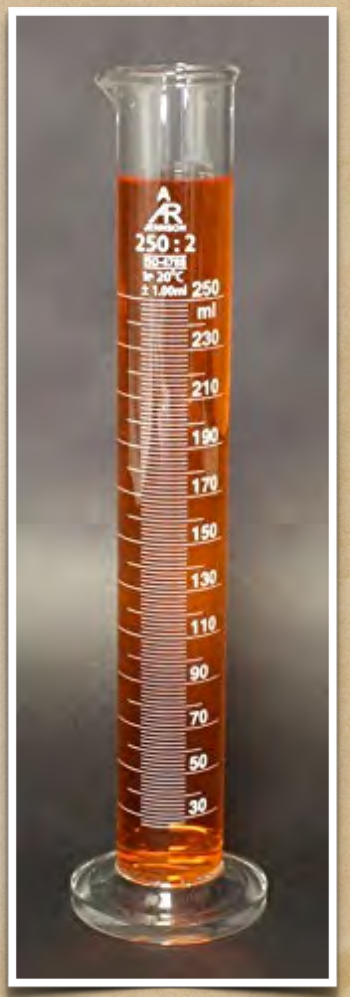
Food grade plastic tubing

Stirring rods

24” stirring paddle

250 ml graduated glass cylinder





# Supplies

**Food grade plastic buckets**

**Glass carboys - 1, 2, 3, 5 or 6.5 gallons**

**Motorized transfer pump (optional)**

**Measuring spoons and cups**



# Supplies

**RO or distilled water (install under-sink or buy bottled)**

**Bottle drying racks**

**Bottling cane**

**Funnels**



## Supplies

**Wine bottles (new or recycled)**

**Wine bottle labels ( make your own)**

**Paper towels**

**Stiff paper**

**Hanging tags**


# Supplies


**Corks**

**Buy the best quality you can get**

**Only the glass bottle and the cork are protecting your wine**

Less expensive

More expensive

# Supplies

**Capsules**

**Heat Shrink Capsule Tool**

- **Manual (Dip in boiling water for 3 seconds**
- **Hair dryer/heat gun**
- **Small electric heat shrink machine**

My favorite

# Supplies

Masking tape or clear packing tape

Sponges (for spills)

Bottle brush & Carboy brush

Razor blades (label removal)

Glue sticks (label attachment)

Permanent marker



# Supplies


**Yeasts – Dry versus Liquid**

**Toasted oak chips (or oak powder) – adds oak flavor to wine**

**Campden Tablets (KMS) – kills rogue yeasts in the must**

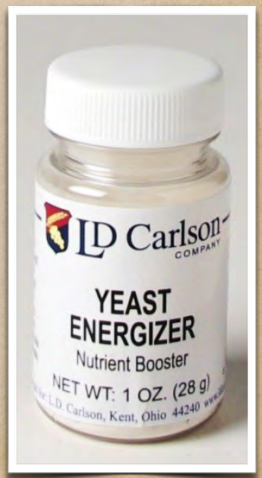
**Tannin Plus – gives your wine a tannin kick**

**Dextrose or Simple sugar – to chaptelize low sugar musts**

**Yeast Energizers/Nutrients**





# Supplies

## Corking Machines


# Supplies

**Floor/Table Top**
**Corking Machine**

## Supplies

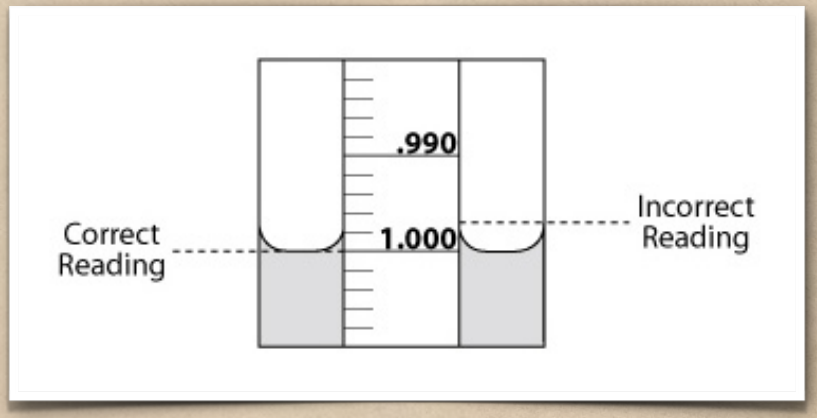
# Testing Equipment

Mercury (silver) or alcohol (red) column thermometer


Digital thermometer

## Supplies

# Testing Equipment

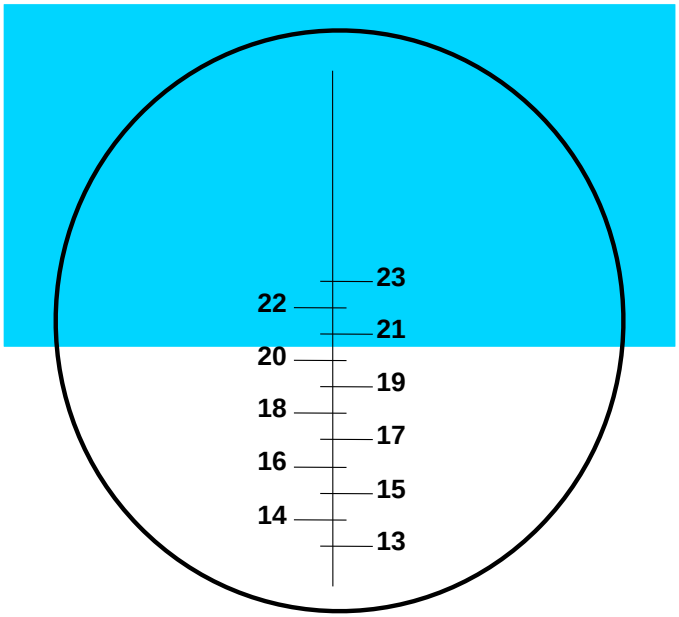



Hydrometer

| Specific Gravity * | Brix (Balling)<br>% Sugar | % Potential Alcohol<br>(Baume) |
|---|---|---|
| 1.059 | 14.4 | 8.0 |
| 1.063 | 15.4 | 8.5 |
| 1.066 | 16.2 | 9.0 |
| 1.071 | 17.1 | 9.5 |
| 1.075 | 18.0 | 10.0 |
| 1.079 | 19.0 | 10.5 |
| 1.083 | 20.0 | 11.0 |
| 1.087 | 20.8 | 11.5 |
| 1.091 | 21.7 | 12.0 |
| 1.095 | 22.5 | 12.5 |
| 1.099 | 23.5 | 13.0 |
| 1.103 | 24.3 | 13.5 |
| 1.108 | 25.4 | 14. |
| 1.112 | 26.3 | 14 |
| 1.116 | 27.1 | 15.0 |

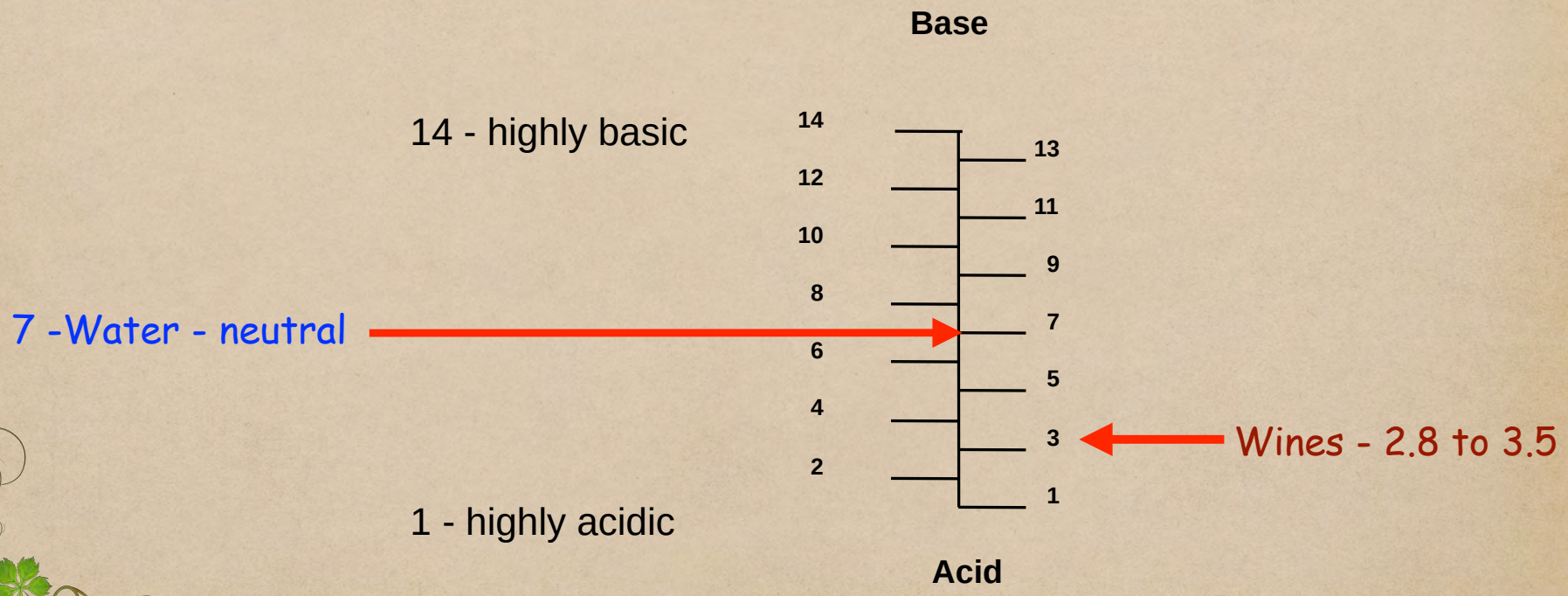
*Make temperature corrections for Hydrometer readings

# Supplies




# What is pH?

pH - potential of Hydrogen (acidity) measured on a logarithmic scale



## Supplies

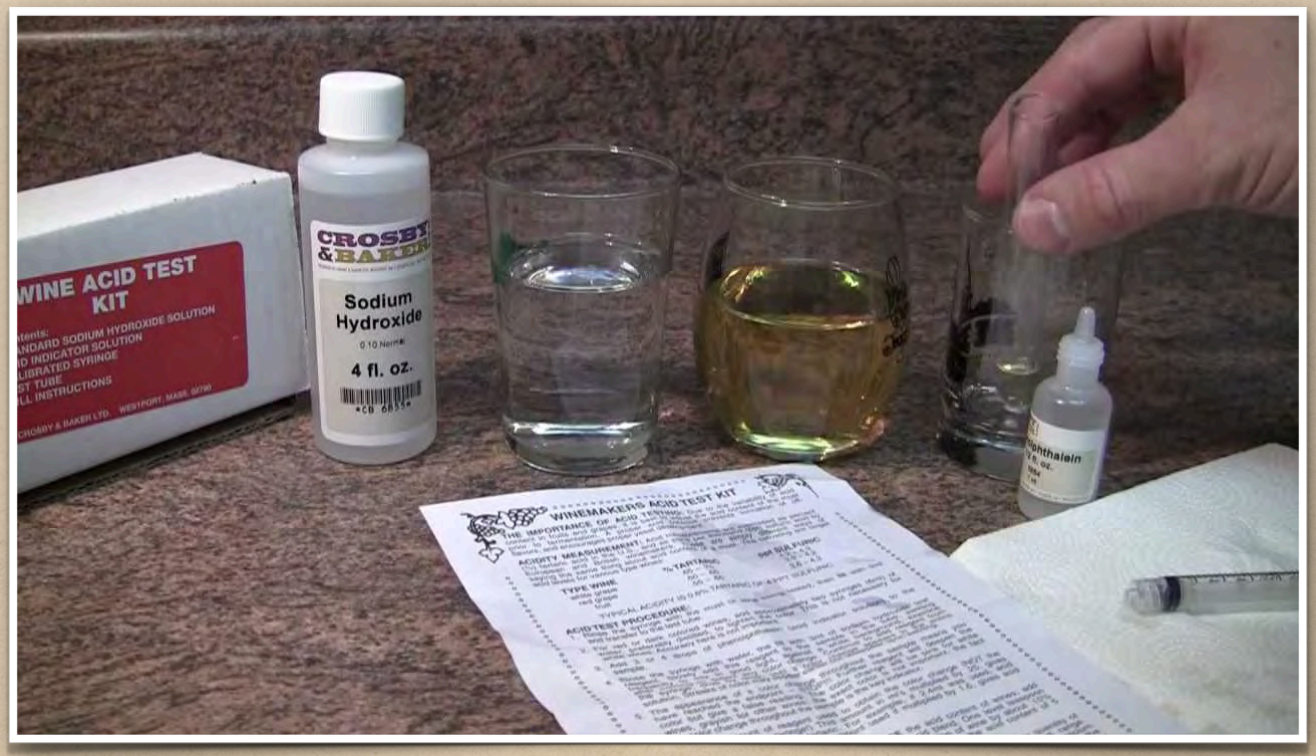
# Testing Equipment

Portable pH Meters



# Supplies

## Testing Equipment

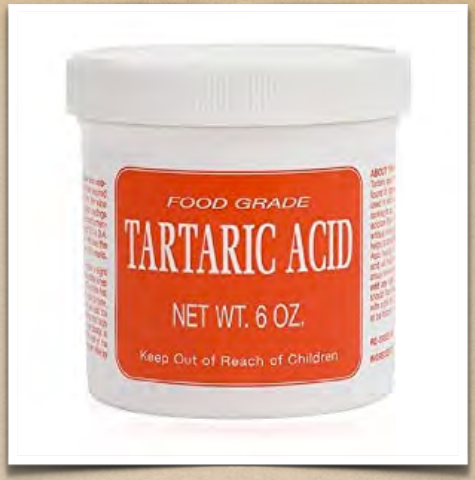



**Total Acidity (TA) Test Kit - follow directions**

**Deficiencies in acid can be corrected by adding Tartaric acid, or an Acid Blend**

**Minimum TA for wines is 6 to 8 g/L for red wines**

**Optimum being 6.5 to 8.5 g/L for white wines**




| Total Acidity (TA) | To obtain 6 g/L add to each gallon | | To obtain 8 g/L add to each gallon | |
|---|---|---|---|---|
| (g/L*) | (g) | - oz | (g) | - oz |
| 3.0 | 11.3 | 0.39 | 18.9 | 0.66 |
| 3.5 | 9.4 | 0.33 | 17.0 | 0.60 |
| 4.0 | 7.5 | 0.26 | 15.2 | 0.53 |
| 4.5 | 5.6 | 0.19 | 13.2 | 0.46 |
| 5.0 | 3.8 | 0.13 | 11.4 | 0.40 |
| 5.5 | 1.9 | 0.66 | 9.5 | 0.33 |
| 6.0 | | | 7.5 | 0.26 |
| 6.5 | | | 5.6 | 0.19 |
| 7.0 | | | 3.8 | 0.13 |
| 7.5 | | | 1.9 | 0.66 |

* Titratable acid as tartaric acid

**Alcohol (ALC volume %) = (B * 4.16 - SG + 1000) * 0.365**

**Solids (sugar) (g/L) = (SG - 1000 + ALC * 1.264) * 2.52**

**Where SG is in 3 or 4 digits, B is the Brix reading.**

Must solids mostly sugar, but also acids, other minor solid components in wine

In sweet wines, nearly all solids assumed to be sugar

Measurement accuracy affected by temperature. Essential to stabilize at same temperature, preferably in 59 - 64.5 Fahrenheit range

**Clean & sanitize EVERYTHING** – bottles, glasses, corks, tubing, caps, stirrers, carboys, hands – anything that may come in contact with the wine

# Supplies for Cleaning/Sanitizing


**One Step**™(cleaner & sanitizer)

One tbsp per gallon of warm water

25 minutes soak


**Iodophor**™ (sanitizer only – you still need a cleaner)

Two caps/5 gallons

60 second soak

**KMS** (Potassium Metabisulphite - sanitizer only – you still need a cleaner)

Two oz./ gallon of water

20 second soak

Works great in a spray bottle too!

# Supplies

## Grapes

Grape Crusher

Wine Press

Press bag

# Supplies

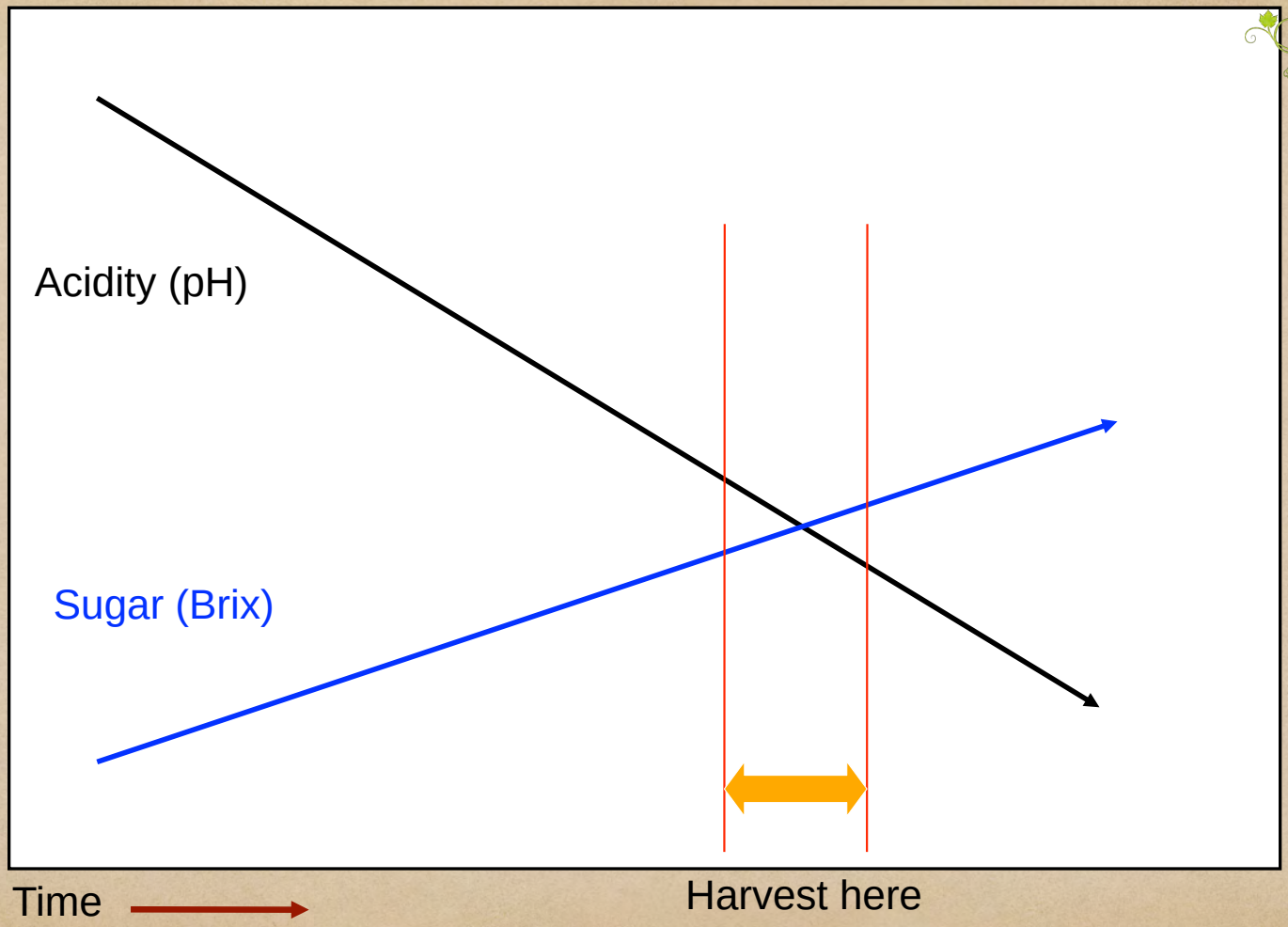
Carboy carrier strap

5.3 gallon bucket of water = 44.2 pounds

5.3 gallon bucket of juice weighs 47.5 pounds

Carboy handle

Carboy dolly


Acidity (pH)
Sugar (Brix)
Time
Harvest here

**Weight of Grapes Depends upon Variety**

**Stems - 2 to 8%**

**Skin - 5 to 20%**

**Flesh - 74 to 90%**

**Seeds - 0 to 6%**

**1 ton of vinifera yields ~ 150 gallons of juice**

**1 ton of muscadine grapes yields ~ 125 gallons of juice**

**STALK & STEMS - (pedunkles and pedicels) have pH between 4 and 5**

**High in potassium**

**Sugar content less than 1%**

**Polyphenols - (leucoanthocyanins & catechins which have a harsh astringent taste) make up 0.5 to 3.5% by weight**

**Makes up to 20% of tannin in harvested grapes**

**SEEDS - contain up to 50% similar tannins**

**Seeds contain bitter grape oils**

**SKINS - contain considerable sugar - about 80% of the flesh.**

**About 10% of the total phenolics in white grapes are in skins**

**Dark grapes have 65% phenolics in the skins.**

**WAXY BLOOM - contains fatty acids and sterols which stimulate yeast and bacterial growth.**

Muscadine grape must - 15 to 17 Brix (1.060-1.070 SG)

Musts falling short of these values can be corrected using several methods:

Back sweeten

Adding sugars

# How much sugar to add to your juice to make potential alcohol higher

$$S = W \times \frac{B-A}{(100 - B)}$$

S = weight in pounds of sugar to be added to the must

W = weight in pounds of the grape must (SG x weight of water equivalent - 8#/gal)

B = desired Brix

A = original Brix of grape must

For example, if you want to raise the Brix of 10 pounds of must or juice from 15 to 23 calculate as follows:

$$S = 10 \times \frac{23 - 15}{(100 - 23)} = 1.04 \text{ pounds}$$

## Some common clarifiers used by home winemakers:

Time +/-

Refrigeration +/-

Super-Kleer (Kieselsol/Chitosan (shellfish)) + -

Activated Carbon

Crushed egg shells

Diatomaceous earth

Polyvinylpyrrolidone (PVP)

Polyclar

Milk (2-3 drops per gallon)

Egg albumen (egg whites) +

Gelatin +

Isinglass (fish scales) +

Casein and caseinates +

Chitosan (chitin) +

Sparkolloid +

Enolophin / Kieselsol -

Bentonite clay -

# Sulfites

There are six names used for sulfites:
sulfur dioxide
sodium sulfite
sodium bisulfite
potassium bisulfite
sodium metabisulfite
potassium metabisulfite

Sulfites, bisulfites, and metabisulfites are all dry chemical forms of the gas, sulfur dioxide.

Sulfite addition after fermentation and before bottling

## DISTRIBUTION OF FREE $SO_2$

**From pH 3.0 – 4.0**
**(pKa = 1.81)**

| pH | % Molecular $SO_2$ (m) | % Bisulfite ($HSO_3$-) | % Sulfite ($SO_3$=) | Minimum ppm of Free $SO_2$ 0.8 molecular | 0.5 molecular | 0.3 molecular |
|---|---|---|---|---|---|---|
| 3.00 | 6.1 | 93.9 | 0.012 | 13 | 8 | 5 |
| 3.05 | 5.3 | | | 15 | 9 | 6 |
| 3.10 | 4.9 | 95.1 | 0.015 | 16 | 10 | 6 |
| 3.15 | 4.3 | | | 19 | 12 | 7 |
| 3.20 | 3.9 | 96.1 | 0.019 | 21 | 13 | 8 |
| 3.25 | 3.4 | | | 23 | 15 | 9 |
| 3.30 | 3.1 | 96.8 | 0.024 | 26 | 16 | 10 |
| 3.35 | 2.7 | | | 29 | 18 | 11 |
| 3.40 | 2.5 | 97.5 | 0.030 | 32 | 20 | 12 |
| 3.45 | 2.2 | | | 37 | 23 | 14 |
| 3.50 | 2.0 | 98.0 | 0.038 | 40 | 25 | 15 |
| 3.55 | 1.8 | | | 46 | 29 | 17 |
| 3.60 | 1.6 | 98.4 | 0.048 | 50 | 31 | 19 |
| 3.65 | 1.4 | | | 57 | 36 | 21 |
| 3.70 | 1.3 | 98.7 | 0.061 | 63 | 39 | 23 |
| 3.75 | 1.1 | | | 72 | 45 | 27 |
| 3.80 | 1.0 | 98.9 | 0.077 | 79 | 49 | 30 |
| 3.85 | 0.9 | | | 91 | 57 | 33 |
| 3.90 | 0.8 | 99.1 | 0.097 | 99 | 62 | 38 |
| 3.95 | 0.7 | | | 114 | 71 | 43 |
| 4.00 | 0.7 | 99.2 | 0.122 | 125 | 78 | 43 |

This table shows the percent of molecular $SO_2$ present in the pH range from 3.0 to 4.0. Multiplying this percent by the free $SO_2$ will give the ppm (mg/L) of molecular $SO_2$. To attain a desired level of molecular $SO_2$, the amount of free $SO_2$ needed can be determined by dividing the desired molecular (mg/l) by the percent available at the given pH. For example, if the wine pH is 3.5 and the desired molecular level is 0.8 mg/L, then the needed amount of free $SO_2$ would be calculated 0.8/0.02 = 40ppm free $SO_2$.

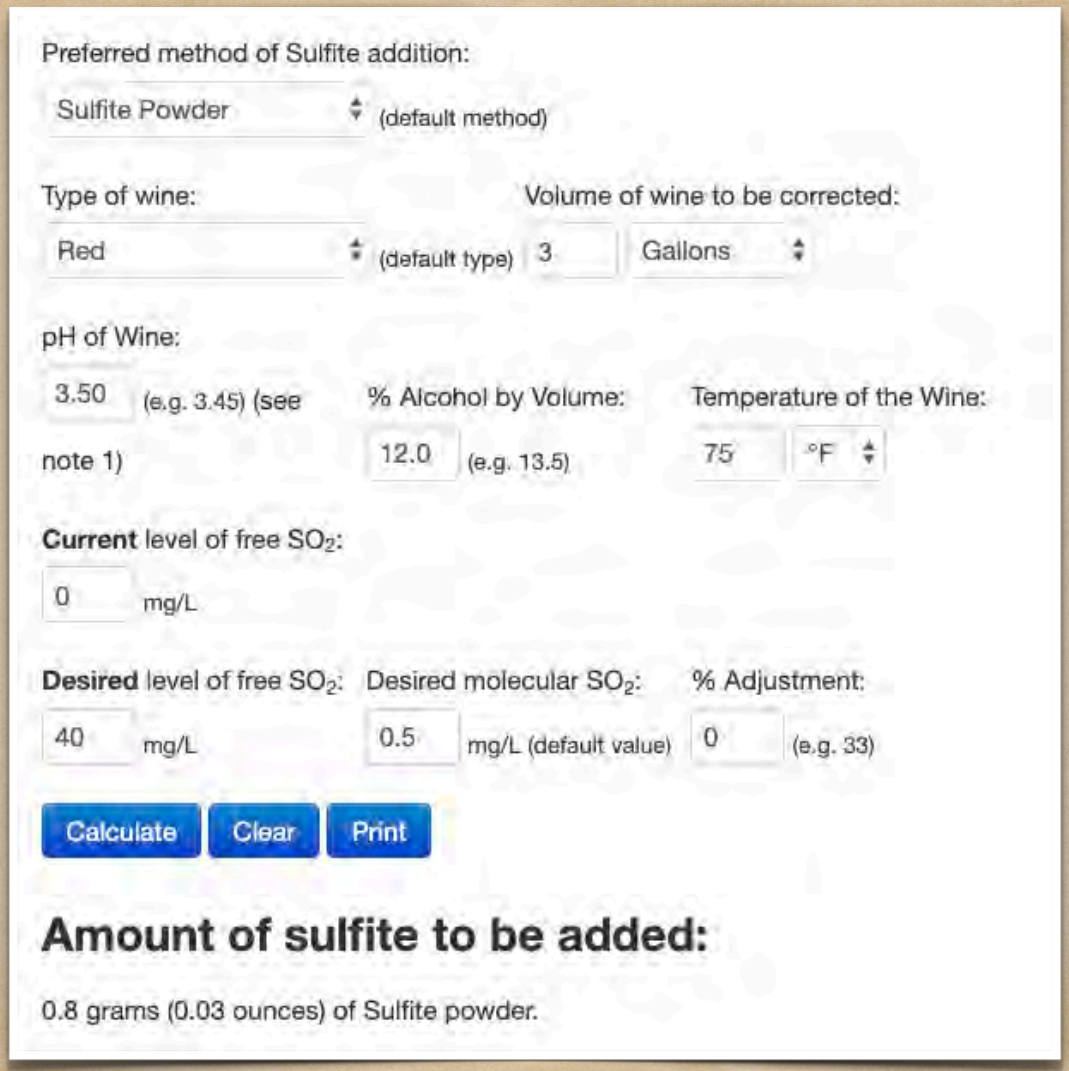
**Free SO2 levels required to maintain a molecular level**

| PH | .6mg/L | .8mg/L |
|---|---|---|
| 3.1 | 12 | 16 |
| 3.2 | 15 | 20 |
| 3.3 | 19 | 26 |
| 3.4 | 24 | 32 |
| 3.5 | 30 | 40 |

**SO2 Additions with Powder**

| PPM | Liter | | Gallon | | 3 gallon | | 5 gallon | |
|---|---|---|---|---|---|---|---|---|
| 12 | 0.021 | grams | 0 | grams | 1/16 | tsp | 1/16 | tsp |
| 13 | 0.023 | grams | 0 | grams | 1/16 | tsp | 1/16 | tsp |
| 14 | 0.024 | grams | 0 | grams | 1/16 | tsp | 1/16 | tsp |
| 15 | 0.026 | grams | 0 | grams | 1/16 | tsp | 1/16 | tsp |
| 16 | 0.028 | grams | 0 | grams | 1/16 | tsp | 1/16 | tsp |
| 17 | 0.030 | grams | 0 | grams | 1/16 | tsp | 1/16 | tsp |
| 18 | 0.031 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 19 | 0.033 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 20 | 0.035 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 21 | 0.036 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 22 | 0.038 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 23 | 0.040 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 24 | 0.042 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 25 | 0.043 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 26 | 0.045 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 27 | 0.047 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 28 | 0.049 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 29 | 0.050 | grams | 0 | grams | 1/16 | tsp | 1/8 | tsp |
| 30 | 0.052 | grams | 0 | grams | 1/8 | tsp | 1/8 | tsp |
| 31 | 0.054 | grams | 0 | grams | 1/8 | tsp | 1/8 | tsp |
| 32 | 0.056 | grams | 0 | grams | 1/8 | tsp | 1/8 | tsp |
| 33 | 0.057 | grams | 0 | grams | 1/8 | tsp | 1/8 | tsp |
| 34 | 0.059 | grams | 0 | grams | 1/8 | tsp | 1/8 | tsp |
| 35 | 0.061 | grams | 0 | grams | 1/8 | tsp | 1/8 | tsp |
| 36 | 0.063 | grams | 0 | grams | 1/8 | tsp | 1/4 | tsp |
| 37 | 0.064 | grams | 0 | grams | 1/8 | tsp | 1/4 | tsp |
| 38 | 0.066 | grams | 0 | grams | 1/8 | tsp | 1/4 | tsp |
| 39 | 0.068 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 40 | 0.069 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 41 | 0.071 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 42 | 0.073 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 43 | 0.075 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 44 | 0.076 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 45 | 0.078 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 46 | 0.080 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 47 | 0.082 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 48 | 0.083 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 49 | 0.085 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |
| 50 | 0.087 | grams | 1/16 | grams | 1/8 | tsp | 1/4 | tsp |

# On-Line Sulfite Calculator



Racking (siphoning) is a necessary skill to develop if you are making wine at home.

There are several ways to rack wine from one container to another.

## Supplies

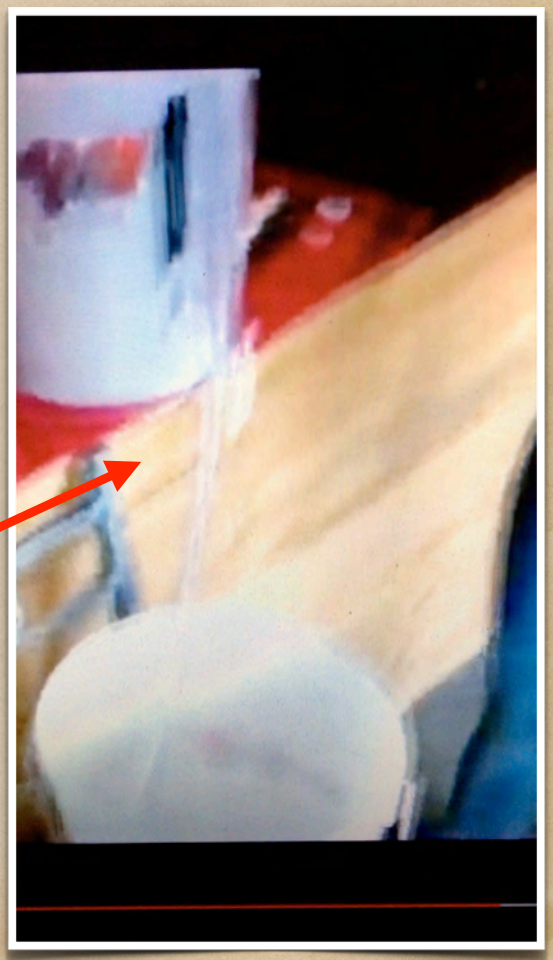
Pouring (not recommended)

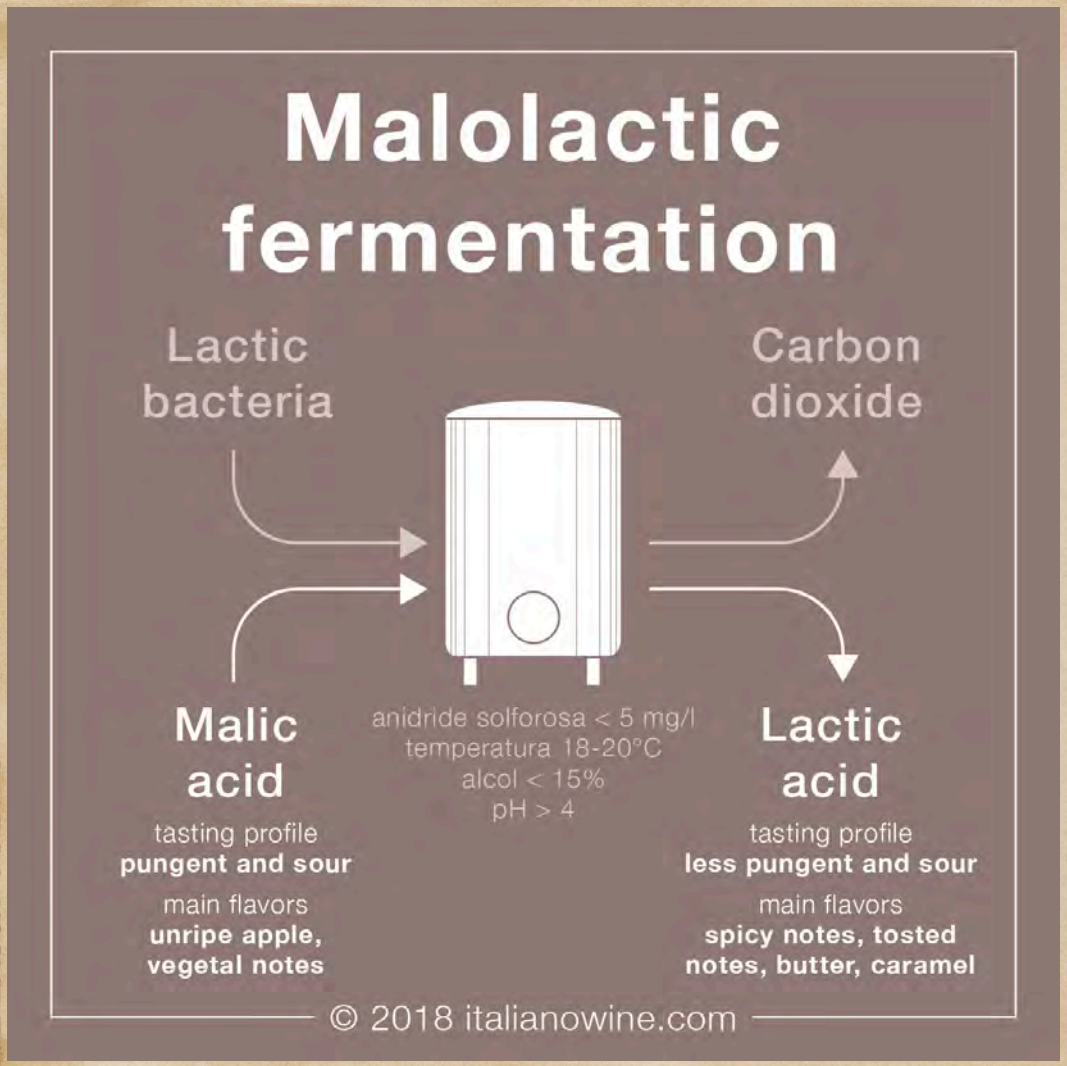
Siphon by mouth with food grade tubing (careful!)

Small motorized pump

Hand squeeze pump

The Auto-Siphon (best method for home winemakers)






## Supplies

There is a phenomenon called malolactic fermentation that can make your wine taste better

BUT

can also cause problems, like bottles exploding

# Supplies

You may want to consider filtering before bottling if your wine has not cleared.
But keep in mind that filtering also takes out many of the taste elements.

Manual

Electric

# Let’s Make Some Wine!


Assemble your equipment, grape juice, and supplies

Add Campden to must in a Primary Fermenting Bucket for 24 hours

Pitch the yeast (it is now wine)

Press down the cap hourly if using grapes/fruit

1st racking off skins/seeds/pulp when wine reaches 10.5% alcohol

Use air locks to prevent oxidation and growth of rogue yeasts & bacteria

4-6 hours for Muscadine

Add clarifiers after 6 months if needed

Keep air locks filled with sterile water (Iodophor or KMS mixture)

Bottle wine after 6 months for Muscadine

# Preservatives

**Sulphur Dioxide**

a) Potassium Metabisulphate - Campden tablets - 1 tablet = 75ppm/gallon

b) Very pH dependent, lower pH requires less SO2

c) 40 ppm free SO2 ususally sufficient unless pH is greater than 3.4

d) Dry wines (pH less than 3.4 & alcohol greater then 12%) relatively stable, less dependent on SO2

e) Taste threshhold for SO2 for most people is ~70ppm

# Preservatives

**Sorbic Acid**

a) Potassium sorbate
b) NOT active against bacteria in wine; effective against yeast and mold growth
c) Must be used with proper amount of SO2
d) Use in wines with more then 0.5% residual sugar at bottling to prevent refermentation
e) Activity is dependent upon alcohol level - Higher the alcohol, the less sorbic acid needed,
f) 200 ppm usual treatment - 1 gram potassium sorbate/gallon = 200ppm
g) Flavor not affected in sweet, fruity wines
h) Always add SO2 before adding sorbic acid

Sorbate addition is dependent upon several interdependent criteria:

Wine pH;
Concentration of free SO2;
Percent alcohol by volume;
Concentration of sorbate; and,
Viable yeast cell concentration.

# POTASSIUM SORBATE (Cont'd)

Assuming that proper levels of free SO2 are maintained and the pH's are within the desired ranges, sorbate additions can be determined by the estimated alcohol of the wine. The following table is based upon the percentage of alcohol in the wine:

| % Alcohol | Sorbate | Addition |
|---|---|---|
| 10 | 0.20 g/l | 0.026 oz/gal |
| 11 | 0.17 g/l | 0.022 oz/gal |
| 12 | 0.135 g/l | 0.012 oz/gal |
| 13 | 0.10 g/l | 0.013 oz/gal |
| 14 | 0.07 g/l | 0.009 oz/gal |

Amount of sorbate required decreases as the alcohol level increases because:
1) At the lower alcohol levels, there may be a greater volume of viable yeast cells; and
2) Higher alcohols have an inhibiting effect on refermentation. 200 ppm usual treatment - 1 gram potassium sorbate/gallon = 200ppm

Do not use sorbate in any wine that has undergone MLF because the resultant unpleasant odor will be **geraniol**, a geranium-like smell.

# Muscadine Home Winemaking Equipment & Supplies

**Equipment needed:**

- **Primary Fermenter.** A 6-8 gallon bucket with a lid would be preferable - food grade plastic
- **Secondary Fermenter.** A 5 gallon narrow-necked carboy, preferably glass
- **Airlock.** To allow carbon dioxide gas to escape and keep out air. Fill and keep full with sterilizing agent
- **Siphon.** 6 feet of food grade plastic tubing or Auto-Siphon
- **Small crusher.** - to break the skins of the grapes
- **Strainer.** Either cheese cloth or a nylon bag (or small wine press)

**Supplies:**

- **Wine Yeast -** One packet of EC-1118 or Lalvin RC 212 (Scott Labs W15 works well too)
- **Campden tablets -** This kills off wild bacteria and yeast found on the fruit skins; acts as preservative in bottles
- **Grapes -** 90 pounds to yield 5 gallons of wine
- **Yeast Nutrient** - Lallemand Fermaid O works best.
- **Simple Sugar* -** Turbinado sugar works the best for home winemaking (boil water and sugar, then cool before using)
- **Non-chlorinated water**

**Simple Sugar is turbinado sugar mixture 1:1 with water that has been boiled and cooled*

# Muscadine Wine Recipe - (5 Gallons)

Pick or buy your grapes. Ripe Muscadine grapes have a sugar level of about 14-16 Brix.

**Directions:**

1 - For **white muscadines** immediately crush & press the grapes to remove the grape skins, pulp and seeds and pour juice into a carboy. Measure the Brix to determine how much sugar to add to bring the potential alcohol up to 10-11%. Next, slowly stir simple sugar* into the must making sure hydrometer reading does not go higher than 1.085 (20 Brix). Multiply the Brix reading by 0.57 to get potential alcohol. If you have an acid test kit at home, test your wine and adjust it accordingly at this point. You need a Total Acidity (TA) of about .60 to .80. Add tartaric acid if TA too low, and potassium bicarbonate if TA is too high. Mix yeast nutrient with 1-2 packets of wine yeast in a cup of warm water and add to must. Primary fermentation will begin. Seal/cover fermenter.

2. For **red muscadines**, crush the grapes into a primary bucket and cover. Wait for 4-6 hours, before pressing the grapes to remove the grape skins, pulp and seeds. Then slowly stir simple sugar into the must making sure hydrometer reading does not go higher than hydrometer 1.085 (20 Brix)… If you have an acid test kit at home, test your wine and adjust it accordingly at this point. You need a Total Acidity (TA) of about .60 to .80. Add tartaric acid if TA too low, and potassium bicarbonate if TA is too high. Mix well… Mix yeast nutrient with 1-2 packets of wine yeast in a cup of warm water (~ 110F) and add to must. Primary fermentation will begin. Pour juice into a carboy and seal with an airlock.

3. Let the wine ferment/age for 6 months.

4. Make a final check of the TA and taste test. Make any sweetness/acidity adjustments prior to bottling.

5. Dissolve 1 crushed Campden tablet in a small cup of water for each gallon of wine and add to carboy

6. Bottle and cork - Ready to drink now but tastes better if you can wait about 6 months.

You Have Made Some Good Wine…

Want to enter it in an Amateur Wine Competition?

This is how it will be judged

## Wine Judges Tasting Chart for Muscadine & Fruit Wines (rev13Mar29-21)

Wine: _____ Vintage: _____ Date _____

TA:____grams/liter pH:____ Residual Sugar_____grams/liter

**SIGHT** **Score (maximum 3)** _____

0 - cloudy
1 - browning or other off-color
2 - clear but particulate matter
3 - clear, brilliant, reflective with characteristic color

**AROMA** **Score (maximum 5)** _____

0 - very strong/objectionable fault recognizable by all
1 - flaw recognizable by many but not all
2 - prominent nasal irritation
3 - characteristic but weak aroma intensity
4 - moderate floral intensity
5 - strong characteristic intensity but not overwhelming or nasally irritating

**TASTE** **Score (maximum 7)** _____

***Acid level***
0 - perceived acid is too low or too high
1 - medium acid level

***Sweetness for the acidity level***
0 - perceived sugar level is too low or too high
1 - pleasant sugar level

***Tannin level***
0 - tannins are excessively high or bitter
1 - tannins are at pleasant level/mouthfeel for style

***Alcohol level***
0 - alcohol level is too hot or too flabby
1 - pleasant ABV level

***Body***
0 - flavors (phenols) are too low or too high for the floral/fruit taste
1- flavors (phenols) quite pleasant

***Balance***
0 - more than one taste components are too low or too predominant
1 - one taste component is out of balance, too high or too low
2 - very well balanced taste components

**FINISH/LENGTH:** **Score (maximum 2)** _____

0 - bad taste on finish
1 - pleasant taste but short (<5 seconds)
2 - pleasant taste long finish (6-10 seconds)

**OVERALL QUALITY** **Score (maximum 3)** _____

0 - undrinkable
1 - acceptable quality
2 - very well made wine
3 - outstanding, I'd buy

**SCORING** (Total score out of possible 20) **Total Score** _____

Developed in collaboration with (among others) Dr. Rick Jelovsek whose certifications include: Certified Wine Specialist (CSW); Certified Wine Educator (CWE); French Wine Scholar (FWS); American Wine Society certified Wine Judge for Commercial and Amateur Wine Competitions (CWJ).

Rick is also co-author of the book "Competition Wine Judging" (2019).

Several other international wine judges & winemakers made suggestions/contributions to this document

# Wine Judges Tasting Chart for Muscadine & Fruit Wines

Wine: _____ Vintage: _____ Date _____

TA:____grams/liter pH:____ Residual Sugar_____grams/liter

**SIGHT** **Score (maximum 3)** _____

0 - cloudy
1 - browning or other off-color
2 - clear but particulate matter
3 - clear, brilliant, reflective with characteristic color

**AROMA** **Score (maximum 4)** _____

0 - faulted/objectionable or strong, unpleasant nasal irritation,
1 - flawed
2 - characteristic but weak aroma intensity
3 - moderate floral intensity
4 - strong characteristic intensity but not overwhelming or nasally irritating

**AROMA** **Score (maximum 4)** _____

0 - faulted/objectionable or strong, unpleasant nasal irritation,
1 - flawed
2 - characteristic but weak aroma intensity
3 - moderate floral intensity
4 - strong characteristic intensity but not overwhelming or nasally irritating

**TASTE** **Score (maximum 7) _____**

Acid level
- 0 - perceived acid is too low or too high
- 1 - medium acid level

Sweetness for the acidity level
- 0 - perceived sugar level is too low or too high
- 1 - pleasant sugar level

Tannin level
- 0 - tannins are excessively high or bitter
- 1 - tannins are at pleasant level/mouthfeel for style

Alcohol level
- 0 - alcohol level is too hot or too flabby
- 1 - pleasant ABV level

Body
- 0 - flavors (phenols) are too low or too high for the floral/fruit taste
- 1- flavors (phenols) quite pleasant

Balance
- 0 - more than one taste components are too low or too predominant
- 1 - 1 taste component is out of balance, too high or too low
- 2 - very well balanced taste components

**FINISH/LENGTH:** **Score (maximum 3) _____**

0 - bad taste on finish
1 - pleasant taste but short (<5 seconds)
2 - pleasant taste, medium finish
3 - pleasant taste long finish (8-10 seconds)

**OVERALL QUALITY** **Score (maximum 3)** _____

0 - undrinkable
1 - acceptable quality
2 - very well made wine
3 - outstanding, I'd buy

**SCORING** (Total score out of possible 20) **Total Score** _____

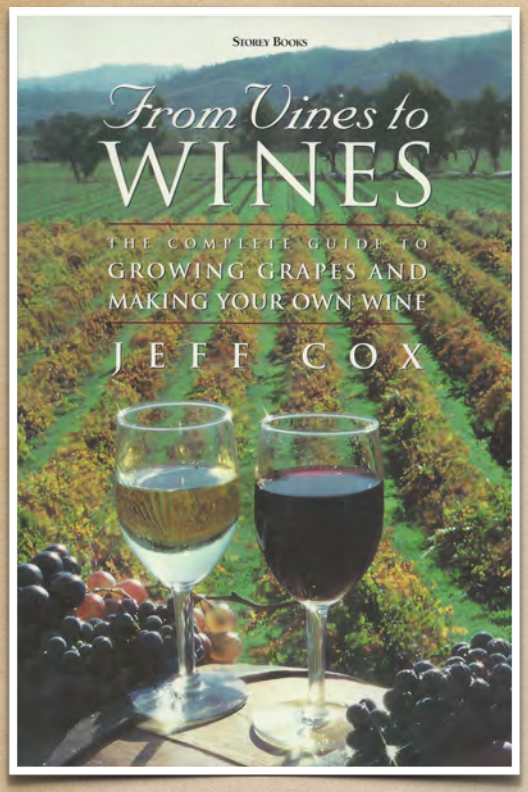
## Wine Judging Awards

Blue Ribbon wine 17.5-20 points;

Red Ribbon wine 15.0-17.49 points;

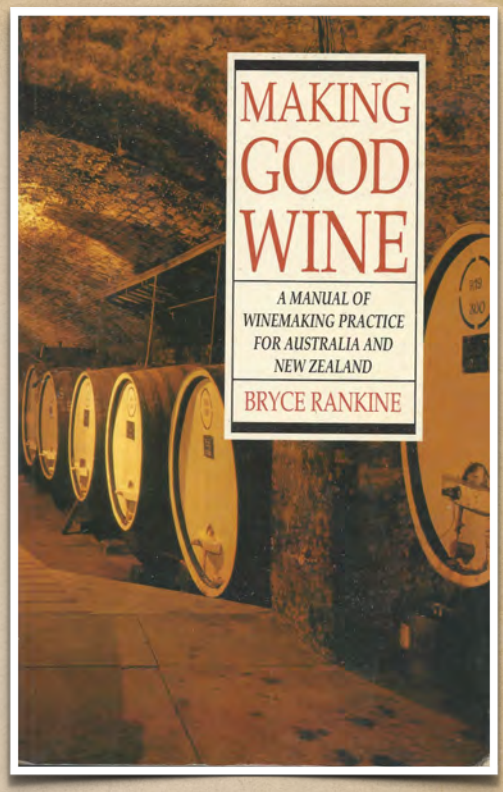
Yellow Ribbon wine 12.5-14.99 points

# Bibliography & References




***From Vines to Wines -*** Storey Books Publishing

***Making Good Wine -*** Pan Macmillan Publishing



# Local Winemaking Supply Sources

**Asheville Brewers Supply**
712 Merrimon Ave
Asheville NC 28804
(828) 285-0515
brewgeeks@ashevillebrewers.com
ashevillebrewers.com

# *Making Muscadine Wine at Home (Advanced)*


by

***Chuck Blethen***

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with winemaking tips from

***Alan Staton*, *VP Education, French Broad Vignerons***

***& Board Member, North Carolina Muscadine Grape Association***

***August 21, 2021***

North Carolina Muscadine GRAPE Association

Music: ***Chug-a-lug*** by Roger Miller

Jewel of the Blue Ridge Vineyard