Frontenac Wine Recipe

8/31/2005

Recipes for 1 Gallon

FRUIT	WEIGHT	WATER	SUGAR	ACID BLEND	TANNIN	YEAST
Frontenac	14-16 lb.	little if any	none	none	none	RC212, Pasteur Red,

Frontenac makes a big, red wine whose aroma and flavor are dominated by cherry notes, with lesser hints of blackcurrant and general red fruit. Other flavors noticed are notes of grass, green bean, evergreen, tar, and even chocolate.
The main consideration in making Frontenac wine is the high initial acidity, which should be lowered in making most wine styles. This is usually done by: adding water to dilute, malolactic fermentation, adding potassium bicarbonate, and chill proofing to remove excess tartaric acid. All 4 practices may sometimes be needed.

IMPORTANT: The above recipes should also include the following ingredients:
Pectic enzyme - None, tends to make a mess. **Yeast–** See above, or Cotes de Blanc for rose style.
Yeast Nutrient - usually not needed.
Campden Tablet - ¼ - 1 tsp/gallon (varies with pH)
(Certain yeasts require a **yeast starter *to be made*** before adding to the must. Check on the package!)

DIRECTIONS

1. Crush grapes, remove most of the stems.
2. Add crushed **Campden tablet**, or **Sodium (Potassium) Metabisulfite** powder.
3. Eight hours after step 2, add rehydrated **wine yeast**; or add prepared yeast starter. Use a primary fermentor large enough to allow for foaming (2-3 gallons excess). Food grade plastic makes a good fermentor. Cover with plastic wrap.
4. Stir three times daily. Ferment on skins 2-5 days. Longer is not recommended. Towards end of primary fermentation, introduce the Malo-Lactic culture (MLF). To do this keep the amount of SO2 low, and add the culture without racking so the yeast lees may provide nutrients for the culture. When primary is through, press the grapes, and put the juice into your secondary fermentor.
5. Once the malo-lactic culture has finished the TA (total acidity) of the wine may be checked again, and potassium bicarbonate may be added to lower the acid further. Note: final acidity should fall in the 0.9—1.4% range.
6. Fill the Secondary completely up, allowing just enough space to attach the fermentation lock without the wine touching the rubber stopper. Fill fermentation lock half way with water. From this time forward till bottling, the Secondary Fermentor ***must always*** be kept full to the top. **Glass** is the preferable Secondary, with wood barrels next and plastic a very, very distant third. Plastic will oxidize the wine. Add malo-lactic culture if desired.
5. Fermentation should cease in 2-8 weeks, at 70 F., or above. Wine should be racked (syphoned) from sediment 3 weeks after placing in Secondary, and then again twice at monthly intervals after fermentation has stopped. Add ½ Campden tablet/gal. at these last two rackings, but not at bottling. If closely monitoring SO2 levels, keep at 30 ppm at bottling.
6. Increased aging potential and improved flavor characteristics can be achieved through barrel aging or contact with oak chips, cubes, or staves. These may be added while the wine is in the secondary.
9. Frontenac wine will benefit from chill proofing. To do this store the wine in secondary at 50ºF temps for several weeks. Rack the wine from the colored tartrate sediment.
10. **Wine may be sweetened—but do not add Potassium Sorbate if a malo-lactic fermentation was used. It can result in off flavors.**
11. Wine is now aged till ready, which can take a year or more. Suit your own taste. Drink when good!
12. You can be more accurate with your measurements by using these instruments: **Hydrometer** for sugar and alcohol levels,

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Winemaking Techniques & Tips

Frontenac Port. Frontenac has been making port-style wines of very high quality. In port production, fermentation is stopped by adding grape neutral spirits or brandy while the sugar content is still high, which results in a wine with higher sugar and 18-22% alcohol. When doing this the winemaker must have brandy on hand to immediately add to the wine when it reaches the desired sugar level in the primary fermenter. This might occur at 1 pm, 4 pm, or 3:30 am. Be prepared! It may also be helpful to use a yeast with a low alcohol tolerance so the wine yeast may be more easily stopped by the addition of alcohol.

"In Frontenac ports the higher acid levels balance the increased sugar beautifully, deepening the typical fruit notes into lush shades of cherry, raspberry, black current, and stewed fruits. Some ports exhibit pronounced chocolate notes."*

Determining sweetness level. The reason you may be up at 3:30 am as mentioned above is that you want to catch the fermenting wine with enough natural Frontenac sugar in solution to have it as sweet as *you* like it. The only way to do this is to keep tasting it until the sweetness level is perfect, then adding enough brandy to get the alcohol content high enough to stop the fermentation. It only took us 3 attempts to get it right. Having extra brandy on hand is a good idea, if only for consolation at 3:30 am. Another method is to buy some commercial port you like, measure it's sugar content with a hydrometer, then plan on stopping your fermentation at the same brix (sugar level) with alcohol.

****Blending Formula.**

$$\text{\% alc./vol. of blended wine} = \frac{(A \times D) + (B \times E)}{(D + E)}$$

Where:

A = %alc/vol. of first wine
B = % alc/vol. of second wine
C = volume of first wine
D = volume of second wine

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*Anna Katharine Mansfield, Notes From the North, Vol 31, # 2.
**References: Techniques In Home Winemaking, Daniel Pambianchi