



Wine From Grapes

This is meant to be a somewhat basic and cursory discussion of winemaking procedures using fresh grapes. If further information is desired, the reader is encouraged to study literature on metabisulfite additions, acid & pH testing, and acid adjustments.

When making wine from fresh grapes, the winemaker must first determine the size of the fermenters he/ she will use during the fermentation process (properly sized equipment will ensure the best results).

As a general rule, 15 pounds of grapes results in one gallon of juice. A 5-gallon pail will hold about 20 pounds of grapes, a bushel holds about 50 pounds and a crate, or lug, holds about 35 pounds. Given these figures, the winemaker can acquire a fairly accurate estimate of the gallons of juice that can be pressed from a given amount of fruit.

It is important to estimate the number of gallons that the winemaker will be producing so that the proper secondary vessel may be acquired. During primary fermentation, the fermenting “must” will release CO₂ which will act as a protective shield from the air. Air space in the primary is not, therefore, detrimental to the must and it is not necessary to match the batch size to the volume of the primary.

The winemaker must, however, be concerned with matching the volume of wine with the size of the secondary container which the wine will be racked into after the primary. Towards this end, the winemaker will siphon the wine into one or a combination of the following carboy sizes: 1/2 gallon, 1 gallon, 3 gallon, 5 gallon, 6 gallon, 6.5 gallon or 15 gallon.

The amount of fruit the winemaker has will also determine how the grapes are de-stemmed, crushed and pressed. When working with 50 pounds or less, it is practical to de-stem, crush and press by hand. Mechanical equipment will expedite the process when using larger amounts of fruit.

The grapes must be separated from the stems before crushing. When working with small amounts of fruit, the winemaker has the option of using a large straining bag to hold the de-stemmed grapes. The bag is then placed in the primary fermenter where the fruit can be manually crushed. Red wines are fermented on the skins for up to five days before the juice is pressed from the skins and racked into a clean secondary. White wines should not be fermented on the skins.

Small amounts of grapes can be pressed using a large colander or strainer lined with cheesecloth. Simply place the strainer over a bucket and manually press the skins and collect the juice.

For large amounts of fruit, a mechanical crusher/de-stemmer and fruit presses should be used. After the grapes have been de-stemmed and crushed, the must should be analyzed for sugar content and sugar should be added, if necessary, to bring the gravity up to the desired level. There are many "wine making" recipes that call for adding a certain amount of sugar per gallon of must. Throw those recipes away. Sugar additions should be relative to the initial gravity reading and to where the winemaker wants the starting gravity of the must to be. Refer to a chapitilization chart for accurate sugar additions.

Follow instructions on the packages of Pectic enzyme and yeast nutrient for additions per gallon.

If the winemaker desires, acid and ph tests and adjustments can be made at this time.

Red wines are allowed to ferment on the grape skins for a number of days in order to extract color and tannins. The CO₂ given off during fermentation will force the skins up, forming a cap that needs to be punched down twice a day so that the skins stay in contact with the juice. After the desired amount of color and tannin are extracted, the skins are pressed and the juice is collected and racked into a clean carboy where it continues to ferment.

White wines are not fermented on the skins.

Wines are ready to be bottled when fermentation is complete and the wine is crystal clear. If a sweet wine is desired, we recommend fermenting to dryness and then back-sweetening to the desired taste and stabilizing with potassium sorbate

FURTHER READING

There are many print and internet sources which offer great information on advanced technical winemaking procedures.

A very good book that we use in the store is **TECHNIQUES IN HOME WINEMAKING** by Daniel Pambianchi.