SWEETENING A FINISHED WINE

SWEETENING:
Wines that are high in acid or those with a strong fruity character can often benefit from the addition of sugar. Since it is impractical to stop fermentation at a desired level of sweetness, or to add excess sugar before or during fermentation in hopes of having it stop with some sweetness left, the wine, (with the exception of Sweet Reserve described below), should be fermented out dry and sweetened at a later time. Bottling untreated wines with residual sugar is always a risky proposition.

There are no safe chemicals that can be added to a wine that will stop an ongoing fermentation. Once the fermentation has stopped Potassium Sorbate can be added to prevent the fermentation from restarting. Potassium Sorbate works by preventing the yeast from multiplying. The addition of Potassium Metabisulfite in conjunction with Potassium Sorbate at this time is required to prevent a subsequent Malo Lactic fermentation which could result in producing a geranium odor.

SWEETENING TO TASTE:
A few days before bottling, the wine should be racked into a clean carboy to which has been added the equivalent of 50 ppm SO2 (1/16 tsp Metabisulfite for each gallon of wine) and 1/4 tsp Potassium Sorbate for each gallon of wine, each first dissolved in a small amount of warm water.
After two days, sweeten the wine to taste by using a small amount of sugar syrup. Make the sugar syrup by dissolving 2 cups of cane sugar in 1 cup of hot (boiling) water. Then raise the sugar content of the wine in 0.5% increments by adding about 1/8 cup of the above sugar syrup for each gallon of wine. Mix well and taste after each addition. Once thoroughly mixed, the wine can then be bottled.
(1% sugar solution = 1/8 lb sugar/gal = 0.28 cups granulated sugar/gal = 1/4 cup of above syrup.)
To bypass the many possible iterations with large volumes, a small sample can be worked on first and then scaled (multiplied) up to the larger volume.

SWEET RESERVE
In place of adding sugar or sugar syrup, as above, previously prepared unfermented juice can be added to not only increase the sweetness, but provide additional flavor or fruitiness. In this case a portion of the original juice is set aside by adding 200 ppm SO2. This treated juice is held in a glass jug with an air lock and placed in a refrigerator. The juice is allowed to settle out and racked for clarity a few times before using. At bottling add, to taste, the treated juice to the batch of wine to be sweetened, then bottle with the usual dose of 50 ppm SO2 per gallon and 1/4 tsp Potassium Sorbate per gallon. (One gallon of juice with 22% sugar added to five gallons of dry wine will give a mixture with 3.5 % sugar.)

WINE WITH NATURAL RESIDUAL SUGAR
Many times a wine will stop fermenting with some residual sugar. If ignored, the chances are good that fermentation will start up in the bottle with sometimes dangerous results. To avoid this add the Potassium Sorbate (1/4 tsp/gal) and the Potassium Metabisulfite (1/16 tsp/gal) at the last racking and bottle after a few days.

STOPPING AN ONGOING FERMENTATION
Yeast will not function at extremely low temperatures, therefore one method of stopping the fermentation is to lower the temperature to as low a value as possible, preferably 28 deg F, adding 100 ppm SO2 and holding the wine at that temperature for several months. During this period the wine should be racked at least twice to remove the dormant yeast that has settled to the bottom. The wine should then be treated with Potassium Sorbate (1/4 tsp/gal) and Potassium Metabisulfite (1/16 tsp/gal) at the last racking, and then bottled after a few days.

SHORTCUT
If the wine is not to be given away, the wine can be sweetened at the time of opening by adding a known amount of cane sugar to the individual bottle and mixing. The wine should be used that day, before fermentation can start up. The use of Domino Superfine Instant Dissolving Sugar, or equivalent, will reduce the amount of mixing required.

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The New York State Home Wine Committee of the American Wine Society
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