

ACID TESTING & ADJUSTMENT

Many grapes grown in the Northeast are found to contain excess amounts of acid. Although the proper amount of acid in each type of finished wine is a matter of personal taste, some very broad standards have been established over the years.

White Table Wine	0.65 to 0.80 %	
Red Table Wine	0.60 to 0.70 %	
Rose' Wine	0.60 to 0.65 %	1% Acid = 1.0 gm Tartaric Acid/100 ml wine
Dessert Wine	0.60 to 0.75 %	
Most Fruit Wine	0.55 to 0.65 %	

Testing of the juice or wine is best accomplished with one of the many acid test kits available in the home winemaking shops. Many variations are found between the kits from different manufacturers and it is extremely important to follow the directions supplied with the kit.

If you are purchasing juice from a reputable supplier, you can usually rely on that supplier to have both the acid and sugar readings available at the time of pick-up.

ADJUSTMENT

If the acid content of the juice is above the desired range, and the juice is strongly flavored, or the flavor and body will not suffer with dilution, the acid can be reduced by adding a 22 °Brix sugar solution. A 22 °Brix sugar solution can be made by dissolving 2 pounds of cane sugar in just enough water to make 1 gallon.

If the acidity of the juice is greater than 1.2 gm/100ml, Calcium Carbonate may be added before fermentation. It should be added at the rate of 2.5 gm or 5/8 tsp /gallon to lower the acid 0.1 gm/100ml. The acidity should be reduced to only 1.0 gm/100ml in this case.

If the acidity of the wine at the first racking is between 0.8 and 1.0%, Potassium Bicarbonate powder may be added. It should be added at the rate of 3.4 gm or 1 tsp /gallon to lower the acid 0.1 gm/100ml. The treated wine should then be cold stabilized. In using Potassium Bicarbonate, about a half of the acid reduction takes place as it is added to the wine. The remaining reduction occurs in the form of a precipitate as the wine is cooled. When using Potassium Bicarbonate do not reduce the acid more than 0.2 gm/100ml.

If the acidity of the wine at the first racking is between 1.0 and 1.2 gm/100ml, Calcium Carbonate may be used, but in a different manner. It should be used at the rate of 2.5 gm or 5/8 tsp /gallon to lower the acid 0.1 gm/100ml, but in this case the total calculated amount is added to only 1/2 of the total volume of wine by slowly adding the wine to the Calcium Carbonate while stirring vigorously. This treated portion should be kept as cold as possible for several days then racked into the other, untreated half. Because the treated wine is highly susceptible to oxidation, it should be kept in full containers.

Both methods, dilution and the use of either Calcium Carbonate or Potassium Bicarbonate, can be combined to effectively reduce the acid. In any event, it is advisable to test the acid content when the acid reduction is completed.

If the acid content falls below the desired range it can be increased by the addition of tartaric acid. Add 3.8 gm or 3/4 tsp of Tartaric Acid to each gallon of juice to raise the acid 0.10 gm/100ml. If the acid level is low it should be increased before fermentation.

In all cases, the dry chemicals should be dissolved in a little warm water before adding to the juice or wine.

NYSHWC 8/15/82 (rev 6/20/96)