## Adjusting Acidity

If acid addition is necessary, one of the easiest ways is to blend high acid must/wine with low acid must/wine, if such is available to the winemaker. Most often this is not an option. We then need to add either Acid Blend, Tartaric acid, or Citric acid. Each comes as a dry powder and must be diluted appropriately before adding. The following measures should be adhered to:

Acid Blend and Tartaric Acid should be dissolved in water at the rate of one gram per liter of must/wine or 3.8 gms ( 0.14 oz ) per gallon.

Citric Acid should be dissolved at the rate of 0.85 grams per liter or $3.3 \mathrm{gms}(0.12 \mathrm{oz})$ per gallon.
These will both increase acidity of the wine by $0.1 \% ~(1 \mathrm{gm} / \mathrm{L})$.
When acids are too high several methods can be employed. As above, the best way to reduce is to blend with a low acid must/wine, if available. A second method is to ameliorate with water. This should be limited to $10 \%$ for hybrid musts/wines and $5 \%$ for $v$. vinifera varieties. If this method is employed, sugar must be added as well to maintain proper balance. Cold Stabilization will reduce acidity further by precipitating out tartrates in the form of 'cream of tartar'. This must be done with refrigeration or by placing the wines outside during cold winter temperatures (between 25-28 degrees F) for several days. Acids can also be reduces with the addition of potassium bicarbonate. For each $0.1 \%(1 \mathrm{gm} / \mathrm{L})$ that the acidity must be reduced, add $0.9 \mathrm{gms} / \mathrm{L}$ ( 3.4 gms or 0.13 oz per gallon) and then chilled to precipitate the potassium bitartrate. With red wines in particular and some whites, such as Chardonnay, Malo-Lactic Fermentation (ML) will also reduce the amount of malic acid in wines thereby giving a smoother, mouth feel to the finished wine.

