What does a hydrometer do?

A hydrometer is an inexpensive yet essential piece of test equipment used by winemakers. It is generally made of blown glass, with a weighted, bulbous bottom and a long narrow stem. The hydrometer is designed to float in liquid with the bulbous end down. A reading is taken by looking at a scale (contained in the stem) at the surface of the liquid being measured. A hydrometer allows the winemaker to figure the specific gravity (SG - the relative "weight" of a liquid compared to plain water) of wine or must. Depending upon the readings observed, a winemaker can monitor the progress of fermentation and make immediate adjustments if necessary. There are many reasons why a winemaker might want to use a hydrometer:

- To measure the specific gravity (SG) of must or wine
- To determine progress of fermentation
- To calculate potential percentage of alcohol
- To measure the amount of sugar present in wine or must
- To allow the winemaker to determine when fermentation is finished or should be stopped

What is the alcohol content in the wines?

The alcohol content of most wines range from 10% to 14%. Wine is produced by fermenting crushed grapes using various types of yeast. Yeast consumes the sugars found in the grapes and converts them into alcohol.

To calculate potential percentage of alcohol, take your original specific gravity (SG) and subtract the specific gravity of the finished wine. Multiply the result by 131; this gives you the percent alcohol by volume. An example:

Day 1 SG = 1.085
Day 14 SG = 0.998
1.085 – 0.998 = 0.087
0.087 x 131 = 11.397 - The wine’s alcohol content is approximately 11.4%