

A Note About Humidity

Humidity in wine cellars is an important factor in the long term aging of fine wine. Of the four factors affecting wine; {temperature, humidity, vibration and light}, the most important is temperature. **Specifically the consistency of temperature.** Fluctuation of temperature is perhaps the most deleterious to wine. A slow fluctuation of 5, even 10 degrees, swinging over a period of 12 months is not going to have a noticeable affect on the wine or its aging potential.

Humidity is another matter. Most experts recommend 60% to 70% humidity as an ideal. This ideal is part tradition and part science. We are all familiar with the caves of France and wine cellars hewn out of rock. For the most part these caves and underground storage cellars were used in the making of wine, in particular the barrel fermentation and aging of wine. Barrels are wood and they are porous. Evaporation from barrels through the wood is called "the Angels Share". To combat this loss winery cellars need to be as humid as possible, sometimes in excess of 80%. This high humidity cuts down the evaporation from barrels. In the modern cellar environment this generally speaking not a problem. We are not storing porous barrels but glass bottles with corks and either lead, tin, plastic or wax capsules. Most wine cellars and all cabinet type cellars do not add moisture to the cellar air. In stead they rely on the inherent nature of a refrigeration system which as the temperature drops the Relative humidity increases. A cellar at 55 degrees will have a humidity of 60% to 70%. The Realative humidity can be affected by the outside air (Santa Ana conditions will lower humidity), house air conditioning, cellar door opening and closing, etc. Realistically cellar humidity may vary from 50% to 80%, a range that is well within proper cellaring conditions.

In our cellars with our racking system every bottle is on its side or at a slight angle, as in our lighted display. The cork is at all times immersed in wine and the opposite end is covered by a capsule of some type. It is true that not all corks are created equal and some may not form a perfect closure but it would take a higher temperature {+65 deg} and a lower humidity {-50%} over some period of time before the cork would "dry out". In the scheme of things the wine would in probability be spoiled before the cork failed.

Our cellars are set to run at 55 degrees +/- 3 degrees. Our humidistats are set at 70%. Through a combination of fan speed and heaters we reintroduce the moisture on the coil back into the cellar as opposed to pumping it away. In our cellars in desert areas and for certain cellars containing very old and rare wines, we do install steam humification but for the most part it is an unnecessary additional expense.

On the opposite end we don't want our cellars much over 80% which could cause the labels to peel. Also at the higher humidity some forms of mold become more likely and can affect both the bottles and the cooling system.

Finally, in our experience we have found that humidity readings ranging between 50% and 80% seem to have no impact on the aging of the wine.