BARTENDER ADVISORY GROUP

WINE TEMPERATURES & STORAGE

This section contains a little more detail on the subject of wine than you might expect... but it is *not* intended to be considered a preamble to becoming a sommelier. If that is the direction you eventually choose, you're welcome.

A Bartender's Thoughts

The temperature that wine should be stored is different than the serving temperature. Serving a wine at "room" temperature will be different when you are living in Hawaii or the Mojave Desert. The "experts" will give a range between 38 and 69 degrees with the range based on light or medium-bodied, full bodied, light white or sparkling, but really, whether you are the customer, the wine salesman, the wine maker, or the resident sommelier, it's just an opinion; but the bottom line is that the customer will choose what they like.

White wine and sparkling should be served between 45 and 55 degrees - Red wine should be served between 62 and 69 degrees - Both red and white should be stored at 55 degrees.

I have made an attempt to simplify and narrow it down for the novice. Whether you are considered a rookie bartender or a seasoned veteran; you can choose my **45/55/65** rule. It will be managements job to get it technically right, but it's always good to know your shit. Champagne and sparkling wines should be served at 45 degrees, white wine at 55 degrees and red wine at 65 degrees.

If your guest is carrying a thermometer with them, please let them know where they can stick it... *diplomatically of course*.

The "Experts"

Wine can be delicate, and fragile; and exposing a bottle to higher temperatures for an extended period of time will affect its integrity and potentially "age" the wine prematurely. "Higher" temperature can include "room" temperature... so you'll need to be careful. Here are a few thoughts on how temperature affects wine.

While on your normal errands for the day, you picked up a bottle of Cabernet, which found its way to the trunk of your car, along with the other groceries. A stop at the local cleaners to pick up the dry cleaning, and your best friend was working the day shift at your favorite watering hole... so you stopped for just one. After making it home, you realize that your groceries... and the wine you bought, has been sitting in a hot car approaching 80°F for a good three to four hours; or maybe you left a bottle out on the counter during the day while you were at work, with the air conditioner turned off. Did you just turn that beautiful bottle of wine into an expensive bottle of wine vinegar?

That could very well be the case. There are many factors involved in wine spoilage, and no definitive temperature will make a wine go bad; but *all* wine is best stored between 53–57°F when intended for aging, and temperatures can range from the mid-40s to mid-60s for service, depending on the wine. Once you get to 70°F, wine falls into the danger zone, and is in peril of irreparable damage.

Of Note: Be wary if it's kept in temperatures above 75°F for more than a few days. Above 80°F, that wine is at risk with each passing hour. Sitting in a wine rack, on your kitchen counter, next to your stove, may not be the best place.

If a wine lives in an environment that's too warm for too long, it will race through its peak right into decline, instead of developing gracefully. In addition to temperature and time, a key factor is the wine itself. A bettermade wine can tend to withstand extreme temperature fluctuations and other adverse conditions better than cheap wines, while still maintaining their character. Higher fruit concentration, acids and tannins not only give wine balance and depth, but they can protect it from the elements while in the bottle. Does that mean that a bottle left out in your living room for a week is going to spoil? Probably not, but it may expedite the aging process. That fancy wine cabinet, the one that you bought to match your walnut furniture, but didn't include a refrigeration unit, won't work for long. After a couple of months, if not years, your wine collection will only be good for salad dressing.

One sign that high temperatures have begun to affect your wine is when the cork starts to bulge out of the bottle. A molecular reaction may have occurred, and the wine was probably exposed to additional oxygen and *oxidation* has occurred.

Just because a bottle is a little warm doesn't necessarily mean it has turned. If a wine is meant to age for several years and has been left out in a warm room for a few months, it may just have aged more quickly, allowing lucky wine-lovers to catch it at its peak a little earlier than expected. This "technique" to speed up aging is risky, and rather than a wine's peak drinking window lasting a year or more, it may only be at its best for a few weeks before it begins to deteriorate.

Oxidation

Oxidation may cause a slightly browning effect and the wine may give off a vinegar odor. It's the same process that turns a cut avocado or apple brown and may alter their flavor profile. Oxidation is also a key part of most winemaking. Most wine has likely encountered some form of oxidation. Through contact with the air during the winemaking process, in the barrel while aging, or oxygen that enters through the cork after bottling, it has probably occurred.

Oxidation can be responsible for that element that unlocks the multitude of flavors that wine grapes can offer. It can soften a tannic red, impart nutty, earthy, and roasted flavors, and is responsible for breaking down primary flavors into deeper secondary notes. It can also be responsible for the flat taste of wine that's past its prime. "Controlled" oxidation is a requirement for nearly every great wine.

Reductive Wine

Reduction is the opposite of oxidation; and many wines made with limited exposure to air show characteristics of reductive winemaking. It's not difficult to identify a wine made in a reductive environment. Just think of a really fresh and fruity style of a young, unoaked wine. It usually takes place in hermetic steel tanks, and it's used for many white wines, as well as a few, light-bodied reds. Carbonic Maceration is a popular form of this technique, in which the tank is flooded with inert carbon dioxide gas, while the process blocks contact with oxygen and the whole grape clusters ferment. This method is known to produce particularly fruity aromas. Wine produced in a reductive style will often oxidize much more quickly in a different environment, like a barrel or open bottle.

Basic Wine Knowledge

Most wines sold in the U.S. are made for immediate consumption without the need for cellaring. Some wine lovers, however, prefer to "lay wine down," or store bottles for a few years in order to enjoy them when the flavors have evolved.

Wine's flavor as it ages

When wines are young, we taste their primary flavors, like plum in Merlot, apricot in Viognier, citrus in Riesling or grassiness in Sauvignon Blanc. There may also be secondary notes associated with winemaking techniques, like the flavor of oak (American or French Oak).

When wines age, we start speaking about tertiary notes, or flavors that come from development. This could mean young, bold notions of fresh fruit that become gradually more subdued and reminiscent of dried fruit. Other flavors, previously hidden by bold primary notes, come to the fore, like honey, herbal notes, hay, mushroom, stone, and earth.

Nothing in wine is ever static and acids and alcohols react to form new compounds. Other compounds can dissolve, only to combine again in another fashion. These processes happen constantly and at different rates. Every time you open a bottle, you catch the wine at another stage in its development, with new and different nuances. While the proportion of alcohol, acids and sugars stay the same, the flavors are constantly changing.

Wine Texture

Texturally, the wines also change. Dry, aged white wines can become almost viscous and oily, while reds tend to feel smoother. This is due to phenolic compounds like tannins falling out as sediment over time. In a young wine, these compounds repel each other, staying small enough to remain suspended in the wine. As the wine ages, they lose their charge and start to combine, forming chains and becoming larger and heavier. This reduces the surface area of the tannins, causing them to taste smoother, rounder, and gentler. Once these combined compounds become too large, they fall out of suspension as sediment. Some red wines throw heavy sediment, others almost none.

Tannins

Tannins are naturally occurring plant polyphenols and are a group of bitter and astringent compounds Their main characteristic is that they bind and precipitate proteins. Tannins are common in fruits (grapes, persimmon, blueberry, etc.), in tea, in chocolate, in legumes and legume trees, in grasses and can be found in nature. They're present in the wood, bark, leaves, and the fruit of plants as various as oak, rhubarb, tea, walnut, cranberry, cacao and grapes... and they're also found in wine.

Plants have tannins to make themselves unpalatable. Their purpose in nature is to deter animals from eating a plant's fruit or seeds before it's ripe. Tannins are responsible for that astringent, mouth-coating feeling you get from biting into an unripe pear or plum. Humans have used tannins from various tree barks for a long time to tan animal hides and make leather. Foods are also prized for their tannins. Their bitterness and astringency, when managed well, can be rather pleasant in tea, coffee, dark chocolate and wine. This characteristic can also reflect a wine's age.

Tannins will lose their astringency over time, often making a youthful wine "chewier" than an earlier vintage of the same varietal. Too many tannins can have a harsh drying effect, and finding the right balance is key. Though these bold wines are a mouthful on their own, pairing them with the right food can create an even richer experience.

Wine Color

Wine color changes with age. One of the most visible processes in an evolving wine is slow oxidation; and color is the most obvious indicator of this. As white wines age, they often evolve from pale lemon or golden to amber and even brown. Vivid salmon-hued rosés can take on deeper skin tones as they age. As reds develop, oxidation may move them from the purple end of the spectrum toward tawny or reddish, brown hues. While young reds can be opaque when held against a white background, mature reds often show a lighter color around the edges. *This is known as "rim."*

The rate of oxidation depends on the amount of air left in the neck of the bottle after it was sealed, and how permeable the closure is. Traditionally, natural cork has allowed minimal oxygen exchange, which is why most wines deemed age worthy are still bottled under cork. However, since cork is a natural product, there is no such thing as uniformity and can cause considerable bottle variation, even in the same case of wine. Sophisticated synthetic closures can mimic this oxygen exchange in a more predictable fashion; and the liners of some screwcaps can allow for a certain amount of oxygen exchange. It's perfectly possible to age and cellar these wines with the newer, more sophisticated screwcaps and closures.

Wine stored for aging

Bottles destined for aging need dark and cool storage at around 53–57°F. The temperature should remain constant to allow for slow, even maturation. Higher temperatures accelerate the rate of chemical reactions in a wine, which can be detrimental to the wine's structure and cause it to age prematurely, making fruit flavors taste mushy and baked. Darkness is also important, as ultraviolet rays can spoil wine.

To tell if an older vintage is past its prime, use the same technique you'd use to judge any wine. Bring it to the correct drinking temperature, open it, pour, swirl and smell. If it smells good, taste a little. If you like it, it's good to drink. Red wines which have thrown sediment should be stood upright for 24 hours before opening so the sediment can settle. These may also benefit from being decanted to leave the sediment in the bottle.

Humidity

Humidity control is important if you will age wines for three years or more. Wine, lying on its side will keep the cork moist enough for a couple of years, but for longer-term storage, you need consistent relative humidity (between 50–75 percent) so corks don't dry out. That would allow harmful air into the bottle; often giving that "corked" taste.

Constant motion or moving of bottles agitates the wine and can speed up maturation; and allow your wine to sit relatively still when aging for longer periods. If an option, store the wine in a dark space, as ultraviolet rays can compromise a wine's integrity. Wine has a life cycle, and after it peaks, its decline can happen quicker than you would like. It's always better to open a wine a bit too soon, when it can still be shared and enjoyed, with friends and family.

How Oak Affects White Wine

Winemakers can also decide whether to ferment and/or mature in oak. Both barrel size and age matter, as does the time spent in oak. The newer and smaller the barrel, the stronger the oak influence. A 225-liter barrique will have more impact than a 500-liter puncheon due to a higher percentage of the wine being in contact with wood. Meanwhile, a once- or twice-used barrel will soften the effect.

Fermentation *and* maturation in barrels will favor oak flavor integration than fermentation in steel tanks followed by maturation in barrel. However, fermenting in oak is more cost and labor-intensive than fermenting

in tanks as barrels need to be topped up and are harder to clean than stainless steel, making it a premium option for winemakers, allowing for more subtle flavors. If not done well, just maturing a wine in toasty oak for a short blast of time can make the desired oak flavor feel bolted-on rather than integrated... *perfection takes time*.

How Oak Affects Red Wine

Oak also has a profound influence on red wines. There are notes of cinnamon and coconut from American oak, and spicy hints of cedar and clove from French oak. Higher toast levels can be reminiscent of mocha or espresso.

In red winemaking, the impact of oxygen is even more crucial. The color and tannin of the grape skins need oxygen to form stable phenolic compounds, while the oak's tannins also support the structure of the wine. Barrel aging is important, and very apparent later in the color and tannin of wines.