



Lighting can change how one perceives the color of wine. Image Credit: Flickr user [idea-saras](#)

I once opened a bottle of white wine, and before I even took my first sip, I knew it had gone bad. How did I know? It was a dull brown color that resembled a dry, dead leaf. Since the wine should have been a light straw yellow color, I was able to quickly discover that it had oxidized in the bottle<sup>1</sup>. Sure enough, I found that the bottle had a leaky cork, which spoiled the wine inside and gave it that brownish tinge.

Sommeliers and casual wine drinkers alike [look at color](#) to determine the wine's style, quality and age. However, winemakers themselves also use [color quality control](#) to decide whether their wine is worth bottling in the first place. It's essential for winemakers to find and prevent serious flaws in their wines before they reach the bottling stage, and color quality control is one common method for spotting inconsistencies. Additionally, some high-end wineries have to go through extensive tasting panels before their wines can receive certain prestigious titles. Meeting critics' precise color standards allows these wineries to sell their products at a higher price.

### **Better Coloration Means Higher Value**

In Germany<sup>2</sup>, high-end wines are rated on a five-point scale by a panel of experts from the German Agricultural Society. The panel scores each wine on overall quality, including whether the wine is the correct color and opacity for its style. Wines that receive a score higher than 4.5 points out of 5 are

eligible for the prestigious gold medal, while wines with perfect scores can earn a Gold Prize Extra seal. Just having this quality seal on the bottle could turn a \$15 bottle of Riesling into a \$50 bottle.

Each country, and even some specific regions like Bordeaux and Burgundy, have their own rating systems that winemakers and consumers rely on to decide whether a wine is worth its asking price. Part of this comes down to color. Higher quality wines tend to be richer in color than their lower-quality peers. As a result, some wineries have resorted to using color additives<sup>3</sup> in their wines in order to appear more valuable. However, these methods aren't usually effective, since they're often easily spotted by a trained expert, especially one who uses a spectrophotometer.

### **Spotting Inconsistencies in the Wine**

Rather than adding false colors to their wines, the best wineries focus on grape quality, from the time the buds grow on the vine until the wine reaches the bottle. In order to produce the best wine possible, however, wineries need to pay close attention to color quality control.

### **The Pressing**

There's a reason why rose wine is pink — the winemakers only steep the juice in the grape skins for a short period of time before straining out the skins. If they leave the skins on for too long, the wine will become a normal red wine. Every winery that makes rose uses some form of transmission instrumentation during grape pressings to ensure that they get the precise color (and flavor) that they want.

Winemakers can't rely on their eyes alone to ensure that the juice has a consistent color, especially for slightly translucent juice like rose or white wines. A scanner like an [UltraScan VIS](#) is a great option for winemakers, as it can measure samples ranging from transparent to opaque; this is a good thing because some wines can be a combination of both, especially during the pressing stage.

### **Barrel Aging and Bottling**

A winery's color quality control doesn't end after the wine ferments. Skilled winemakers continue to check on the maturation of color in the wine as it sits in the barrel. Here, it's prudent to use different measurement systems for each wine varietal. The transparency of light-colored wines like Sauvignon Blanc lends well to instruments like HunterLab's [VISTA spectrophotometer](#). Once the winemaker sees the wine reach its target color (it will become slightly more garnet in color as it ages in the barrel), they know when to stop aging the wine and start the bottling process.



Image Credit: Flickr User [alex ranaldi](#)

### **Why Every Step Matters**

The wine industry is in a unique position that's unlike many other beverage companies. The best producers often have strict agricultural organizations and picky wine reviewers looking closely at their products every step of the way, long before they reach consumers. For instance, during En Primeur week in Bordeaux<sup>4</sup> every spring, wine journalists visit the region to sample wines directly from the barrel, often years before they're released to the public. If the wines aren't up to snuff very early on, then the winery risks losing collectors' investments in the future.

Collectors rely on the earliest wine tastings to determine whether the wine is worth buying. This is why it is so essential for wineries to pay attention to every detail in the process, from harvest to bottle — especially the wine's coloration. Color consistency is the first factor that any sommelier or critic notices, and it's capable of making or breaking a wine on the fine market.

1. "What is oxidation and what is it doing to my wine?" 2016, <https://vinepair.com/articles/what-is-oxidation-in-wine/>
2. "Quality control testing," <http://www.germanwines.de/knowledge/quality-standards/quality-control-testing/>

3. "What is mega purple and what is it doing to my wine?"  
2016, <https://vinepair.com/articles/what-is-mega-purple-and-what-is-it-doing-in-my-wine/>
4. "2016 Bordeaux, En Primeur All the Best Places Dates to Taste in Bordeaux,"  
2016, <http://www.thewinecellarinsider.com/2017/03/2016-bordeaux-en-primeur-best-places-dates-taste-bordeaux/>