



WINEMAKING 101

Vinification is the transformation of grape juice into wine and this process begins as soon as the grapes reach the winery and ends when fermentation is complete.

The vinification timeframe differs depending on the type of wine and the fermentation process that is selected. The process can take from a week to three months. The vinification process is different for white and red wines. However, since the majority of wine made at LDV Winery is red wine following is the typical vinification process.



Initial Processing

As soon as the grapes reach the winery, they are put in a destemmer that removes the whole berries from stems. The whole berries are pumped into the fermentation vessel. The grape juice mixture is called "must".

At this point the winemaker makes a decision about any additional processing prior to fermentation.



For example, some must could be cold soaked to extract flavor and delay natural fermentation or a decision might be made to start fermentation immediately.

Fermentation – Red wine grapes ferment in contact with the skins which give the wine its color, tannins, and flavor. After initial processing, the must may be allowed to begin a natural fermentation process initiated by the native yeast (those occurring naturally on the grape skins at harvest times). Conversely, the winemaker may choose to inoculate with cultured yeast to begin the fermentation process. Different types of yeast will result in different characteristics in the finished wine.



There is considerable debate among winemakers about the use of native yeasts versus specifically selected pure yeast strains which are added to the grape must. At LDV Winery we select specific yeast to complement each grape variety and sugar content at harvest. The yeast's purpose is to convert sugar molecules into alcohol and carbon dioxide.

During fermentation, carbon dioxide is released creating a "cap" comprised of the solids (skins, seeds, and pulp) that rise to the top of the fermentation vessel. Several times per day at LDV Winery, we hand "punch down" the cap which basically submerges it into the juice. The fermentation of the must continues until the winemaker determines the desired sugar and alcohol level. The winemaker watches this process closely and may determine to extend the maceration (continued contact of the juice with the solids) process past the time fermentation ends in order to extract maximum color, flavor, and tannins.

During the fermentation process the solids separate from the juice and the resulting juice is called "free run." Once this process is complete, the free run is removed from the fermentation vessel and goes directly into barrels or holding tanks. The remaining must is then removed from the fermentation vessel and goes through the wine pressing process to extract the remaining juice. This juice is called "press wine." The remaining solids are called the "cake" and are removed from the press and composted.

Barrels

Choosing the type of barrel in which to age the wine is based on the winemaker's vision. The wood of the barrel contributes to the wine's aroma, flavor, and texture. The newer the barrel the more flavor.

Every year a barrel is in use it loses its ability to impact the wine's characteristics. After the third year, a barrel is considered neutral because it no longer can contribute to the wine's flavor attributes.



At LDV Winery we use both American and French oak barrels. Additionally, we use a variety of "toast" levels depending on the desired characteristics we want to impart in the wine.

Toasting is the burning of the inside of the oak barrel the cooper does during the barrel's construction. When purchasing the barrel, we choose the type of barrel and level of toast. Generally, higher toast values impart more intense flavor into the wine from the barrel.

Barrel Aging – The majority of the world's wine is consumed within a few years of its vintage date. However, barrel aging is still very important. Red wines can spend anywhere from a few months to several years barrel aging. This step allows the tannins to soften and the wine's fruit flavor to emerge.

It is important that the aging process occur in a cool, dark place with a consistent temperature. LDV Winery's 1700 square foot barrel room is temperature controlled at 59° F.

Blending

The art of wine blending reflects the winemaker's mastery. Much of the wine we drink is not 100 percent one variety without blending in other wines. The winemaker uses blending to impact the flavor, aroma, color, and body of the finished wine.

Have you had a California Cabernet Sauvignon? It probably had Merlot, Cabernet Franc, or Petite Verdot in it (or all three) and you didn't even know it!

Listed on many wine labels is a varietal designation that indicates the name of the wine's dominant grapes. Chardonnay, Zinfandel, Petite Sirah, and Grenache are examples of varietal designations. Information on wine labels is regulated by the Alcohol and Tobacco Tax and Trade Bureau (TTB).



For this discussion, we are talking about wines made in the U.S. Wines made elsewhere have a different labeling system and requirements. According to the TTB, a wine's varietal designation indicates that at least 75 percent of the grapes used to make the wine are of the varietal identified. The label does not have to include information about what types of grape varieties might have been blended into the wine. Therefore, if a wine label reads Syrah, it tells you that the wine is made of at least 75 percent Syrah. If a wine is less than 75 percent one variety, it must be labeled "Red Wine" or "White Wine."

LDV Winery's philosophy is to always tell you what grapes are in the finished wine and what type of aging vessel was used. We think this is vital information when selecting the perfect wine and helps you to identify different wine characteristics – things you like and things you don't!

Blending allows the winemaker to pick and choose from different barrels of the same variety or to blend in a different variety to achieve or enhance the final wine desired characteristics. Usually the blending process occurs once the various wines are made and have aged. It does not typically occur during the fermentation process although this may occur at other wineries. Is blending artistry or magic? We are not certain. We just want to make wines that taste, smell, look, and feel good in your mouth every time, every sip.

Finishing the Wine

There is an expectation by consumers and lovers of wine that when they open that special bottle of wine it is clear and free of particles.

Since we use all of our senses while enjoying a wine, the look of the finished product is very important. Most wines go through some sort of clarification process before they are finished.



The various methods for clarification differ in how much time it takes to complete the task. Some are very labor intensive and time consuming while others are intended to move large quantities of wine through a clarification process in a short amount of time. It is also said that the various techniques may have an impact on the wine's final character.

The typical clarification techniques used today include:

- Racking which is moving the wine from one container to the next to separate the wine from the solids that have fallen to the container bottom.
- Fining which adds some type of agent that will cause the solids to come together and therefore become heavy and fall to the container bottom. Then the wine would be racked off the sediment. Fining agents might include proteins such as egg whites and gelatin.
- Refrigeration or cold stabilization encourages the solid materials to sink to the container bottom. Like the previous technique, the wine is racked off the sediment.
- Filtration is a faster clarification technique which pumps the wine through a series of cellulose pads. Some winemakers are concerned that this technique reduces the wine's color and flavor characteristics.
- Centrifuge is the fastest and most efficient clarification technique. As the wine is spun at a high rate of speed any wine solids are removed. But similar to the filtration process, some critics believe this technique also impacts the wine's color and flavor characteristics.

You may see "Unfined" and/or "Unfiltered" on a bottle of wine indicating that the winemaker felt it was important to point out the fact that this type of process was not used to clarify the wine. In this case there may be a bit of sediment at the bottom of the bottle that the winemaker has deemed acceptable.

To maintain the characteristics of the wine we recommend decanting unfined or unfiltered wines to ensure any sediment that may be left in the bottle does not end up in your glass. Since LDV Winery focuses on hand-crafted, small lot wines, it is our approach to minimally handle our wines so we only fine or filter when absolutely necessary. However, we will always disclose how the wine has been processed on our labels.

Bottle Aging

Once our red wine is bottled, it is aged in the bottle before it is ready for public release. The amount of time that the bottle is aged depends on the type of wine and the winemaker's vision. It can also be done to minimize "bottle shock" that can occur as a result of the wine being transferred from the barrel to the bottle.

Bottle shock can temporarily mask the wine's flavor characteristics. After each bottling and prior to release, LDV Winery wines are periodically sampled to determine their drinkability and if ready for public distribution.

