



## Winemaker's Series | Winemaking 101

### Glossary of Terms

#### A

**Acetic acid**

One of the primary volatile acids in wine.

**Acidity**

The quality of wine that gives it its crispness and vitality. A proper balance of acidity must be struck with the other elements of a wine, or else the wine may be said to be too sharp – having disproportionately high levels of acidity – or too flat – having disproportionately low levels of acidity. The three main acids found in wine are tartaric acid, malic acid and lactic acid. The first two come from the grapes and the third from Malolactic fermentation which often occurs in the winemaking process.

**Alcohol**

Generally refers to ethanol, a chemical compound found in alcoholic beverages. It is also commonly used to refer to alcoholic beverages in general.

**Alcoholic fermentation**

The conversion by yeast of sugar into alcohol compounds

**Anthocyanin**

Phenolic pigments that give red wine its color.

**Antioxidant**

Chemicals, such as sulfur dioxide, that are used to prevent the grape must from oxidizing.

**Autolysis**

The breakdown of dead yeast cells (or lees) and the process through which desirable or undesirable traits maybe imparted to the wine.

#### B

**Barrel fermented**

A wine fermented in oak barrels as opposed to stainless steel or concrete. Traditional with white Burgundies, some Chardonnays and some Champagne.

**Bentonite**

A type of clay of volcanic origins used in wine as a clarifying agent.

**Blending**

The mixing of two or more different parcels of wine together by winemakers to produce a consistent finished wine that is ready for bottling. Laws generally dictate what wines can be blended together, and what is subsequently printed on the wine label.

**Bottle Age**

The length of time that wine has been allowed to age and mature in bottle.

**Bottle shock**

Also known as **bottle-sickness**, a temporary condition of wine characterized by muted or disjointed fruit flavors. It often occurs immediately after bottling or when wines (usually fragile wines) are shaken in travel. After several days the condition usually disappears.

**Brettanomyces**

A wine spoilage yeast that produces taints in wine commonly described as *barnyard* or *band-aids*.

**Brix/Balling**

A measurement of the dissolved sucrose level in a wine.

**Bung**

A stopper used to seal a bottle or barrel. Commonly used term for corks.

## C

### **Cap**

The layer of grape skins that are forced by rising carbon dioxide gas to the top of the fermentation vessel during cuvaision.

### **Cellaring**

To age wine for the purpose of improvement or storage.

### **Clarification**

A winemaking process involving the *fining* and *filtration* of wine to remove suspended solids and reduce turbidity.

### **Cold stabilization**

A winemaking process where wine is chilled to near freezing temperatures for several weeks to encourage the precipitation of tartrate crystals.

### **Cork**

A wine bottle stopper made from the thick outer bark of the cork oak tree.

### **Cork taint**

A type of wine fault describing undesirable aromas and flavors in wine often attributed to mold growth on chlorine bleached corks.

### **Crush**

After harvest, and prior to pressing, grape are "crushed" or broken up so that the juice is released and allowed to macerate with the skins prior to and during fermentation. In viticultural terms, "Crush" is used as a synonym for harvest time.

### **Cuvée**

A wine blended from several vats or batches, or from a selected vat.

## D

### **Dry**

Wines with zero or very low levels of residual sugar. The opposite of sweet, except in sparkling wines, where dry means sweet.

## E

### **Enology**

American English spelling of oenology, the study of wine.

### **Enzyme**

A protein created by yeast that act as a bio-chemical catalysts in grape or wine development. An example would be the enzyme invertase which aids the storage of sugars within individual grape berries.

### **Ethanol**

Also known as "ethyl alcohol". The primary alcohol in wine and most other alcoholic beverages. The alcohol content of a wine contributes to its body.

## F

### **Fermentation**

A chemical reaction in winemaking. In alcoholic fermentation it is the conversion of sugars to alcohol by yeast while in malolactic conversion it is the conversion of malic acid to lactic by bacteria.

### **Filtration**

The removal of unwanted particles suspended in wine or grape juice.

### **Fining**

A *clarification* process where flocculants, such as bentonite or egg white, are added to the wine to remove suspended solids. Fining is considered a more gentle method of clarifying a wine than filtering.

### **Fortification**

The process of adding pure alcohol or very strong (77 to 98 proof) grape spirit to a wine. Depending on when the alcohol is added, either before, during or after fermentation, this can result in a wine with a high alcohol content and noticeable sweetness.

### **Free sulfur**

The active element of sulfur dioxide that combined with molecules of oxygen to prevent oxidation. For more details see fixed sulfur above.

**Free run juice**

Juice obtained from grapes that have not been pressed.

**G****Gelatine**

A fining agent used to remove excessive amounts of tannins and other negatively charged phenolic compounds from the wine.

**H****Hydrogen sulfide**

The combination of hydrogen and sulfur dioxide which can produce a fault in the wine reminiscent of the smell of rotting eggs that may eventually develop in the bottle into mercaptans.

**L****Lactic acid**

The acid in wine formed during the process of malolactic fermentation.

**Lees**

Wine sediment that occurs during and after fermentation, and consists of dead yeast, grape seeds, and other solids. Wine is separated from the lees by racking.

**Lees stirring**

Also known as **bâtonnage**, A process associated with *sur lie* aging where the lees are stirred up to extract flavor and other sensory components into the wine and to avoid reductive conditions that may contribute to various wine faults

**M****Maceration**

The contact of grape skins with the must during fermentation, extracting phenolic compounds including tannins, anthocyanins, and aroma. See also cuvaison.

**Madeirized**

A wine showing Madeira-like flavor, generally evidence of oxidation. Sometimes used to describe white wine that has been kept long past its prime.

**Malic acid**

A strong tasting acid in wine reminiscent of the flavor of green apples. The amount of malic acid in grapes is gradually reduced during the ripening process while the grapes are on the vine and can be further reduced during winemaking by fermentation and malolactic fermentation.

**Malolactic fermentation**

Also known as **malo** or **MLF**, a secondary fermentation in wines by lactic acid bacteria during which tart tasting malic acid is converted to softer tasting lactic acid, during which carbon dioxide is generated.

**Mannoprotein**

A nitrogen rich protein secreted by dead yeast cells during the autolysis process that occur while the wine ages on its lees.

**MOG**

A winemaking abbreviation for "Material Other than Grapes". Usually refers to debris like leaves, dirt and stems that can be unintentionally harvested with the grapes.[3]

**Muid**

French term for a large oval barrel with a capacity of 159 gallons (600 liters)

**Must**

Unfermented grape juice, including pips (seeds), skins and stalks.

**O****Oak**

The most commonly used wood source for fermentation vessel and barrel aging. Oak influence can also be imparted to a wine by the used of oak chips or staves.

**Oenology**

The science of wine and winemaking.

**Oxidation**

The degradation of wine through exposure to oxygen. In some aspects oxygen plays a vital role in fermentation and through the aging process of wine. But excessive amounts of oxygen can produce wine faults.

## P

### **Pad filtration**

A technique of filtering wine that involves running the wine through a series of pads made of asbestos, cellulose or thin paper sheet.

### **pH**

A measure of the acidity. The lower the pH, the higher the acidity. The term comes from the French *Pouvoir Hydrogène* meaning "hydrogen power". pH is a shorthand for its mathematical approximation: in chemistry a small p is used in place of writing log<sub>10</sub> and the H here represents [H<sup>+</sup>], the concentration of hydrogen ions.

### **Phenolic compounds**

Compounds found in the seeds, skins and stalks of grapes that contribute vital characteristics to the color, texture and flavor of wine. Two of the most notable phenols in wine include anthocyanins which impart color and tannins which add texture and aging potential.

### **Pomace**

The skins, stalks, and pips (seeds) that remain after making wine.

### **Potassium sorbate**

A wine stabilizer and preservative.

### **Protein haze**

A condition in wines with an excessive amount of protein particles. These particles react with tannins to create a cloudy, hazy appearance in the wine. This condition is rectified with the use of a fining agent, such as bentonite, to remove the proteins.

## R

### **Racking**

The process of drawing wine off the sediment, such as lees, after fermentation and moving it into another vessel.

### **Residual sugar**

The unfermented sugar left over in the wine after fermentation. All wines, including those labeled as "dry wines" contain some residual sugars due to the presence of unfermentable sugars in the grape must such as pentoses.

### **Rosé wines**

Pink wines are produced by shortening the contact period of red wine juice with its skins, resulting in a light red colour. These wines are also made by blending a small amount of red wine with white wine.

## S

### **Saignée**

Pronounced "sahn yay" is the removal of grape juice from the "must" before primary fermentation to increase a wine's skin/juice ratio. Typically done after 24 hrs of cold soak and prior to inoculation.

### **Secondary fermentation**

Most commonly the term is used to refer to the continuation of fermentation in a second vessel – e.g. moving the wine from a stainless steel tank to an oak barrel. The Australian meaning of this term is malo lactic fermentation MLF, as distinct from primary fermentation, the conversion of sugar to alcohol.

### **Skin contact**

Another term to describe maceration.

### **Stabilization**

The process of decreasing the volatility of a wine by removing particles that may cause unwanted chemical changes after the wine has been bottled. In winemaking wines are stabilized by fining, filtration, adding sulfur dioxide or techniques such as cold stabilization where tartrate chemicals are precipitated out.

### **Stuck fermentation**

A fermentation that has been halted due to yeast prematurely becoming dormant or dying. There are a variety of causes for a stuck fermentation including high fermentation temperatures, yeast nutrient deficiency, or an excessively high sugar content.

### **Sulfites**

Compounds (typically: potassium metabisulfite or sodium metabisulfite) which are added to wine to prevent oxidation, microbial spoilage, and further fermentation by the yeast.

### **Sulphur dioxide**

A substance used in winemaking as a preservative.

### **Sur lie**

A winemaking practice that involves prolonged aging on the dead yeast cells (the lees).

### **Sweetness of wine**

Defined by the level of residual sugar in the final liquid after the fermentation has ceased. However, how sweet the wine will actually taste is also controlled by factors such as the acidity and alcohol levels, the amount of tannin present, and whether the wine is sparkling.

## **T**

### **Tannin**

Phenolic compound that give wine a bitter, dry, or puckery feeling in the mouth while also acting as a preservative/anti-oxidant and giving wine its structure. It is derived from the seeds (pips), skins and stalks of grapes.

### **Tartaric acid**

The primary acid found in wine that is detectable only on the palate. Prior to veraison, the ratio of tartaric and malic acid in grapes are equal but as malic acid is metabolized and used up by the grapevine, the ratio of tartaric sharply increases.

### **Tartrates**

Crystalline deposits of the tartaric acids that precipitate out of the wine over time or through exposure to cold temperatures such as the process of cold stabilization.

### **TCA**

An abbreviation for trichloroanisole which is the prime cause of wines developing the wine fault of cork taint.

### **Toast**

The charring of the wine staves during cask manufacture or rejuvenation.

### **Topping**

The process of filling the headspace that is created inside a barrel through wine evaporation into the barrel wood.

### **Total acidity**

The total amount of acidity (Tartaric, lactic, malic, etc) in a wine as measured in grams per liter. and then rebottled in small "splits" or large format size bottles. Also known as *transvasage*.

### **Triage**

French term for the sorting of grapes after harvest but before crushing/pressing to remove less desirable bunches or MOG

U[edit]

### **Ullage**

Also known as **headspace**, the unfilled space in a wine bottle, barrel, or tank. Derived from the French *ouillage*, the terms "ullage space" and "on ullage" are sometimes used, and a bottle or barrel not entirely full may be described as "ullaged".<sup>[5]</sup> It also refers to the practice of topping off a barrel with extra wine to prevent oxidation.

## **V**

### **Varietal**

A wine made from a single grape variety

### **Véraison**

French term (now English also) for the onset of ripening of the grape cluster.

### **Vinegar**

A sour-tasting, highly acidic, liquid made from the oxidation of ethanol in wine, cider, beer, fermented fruit juice, or nearly any other liquid containing alcohol.

### **Vinification**

The process of making grape juice into wine.

### **Volatile acidity**

Acids that are detectable on both the nose and the palate. The level of fatty or volatile acids in a wine that are

capable of evaporating at low temperatures. Acetic and carbonic acids are the most common volatile acids but butyric, formic and propionic acids can also be found in wine. Excessive amounts of VA are considered a wine fault.

## W

### **Wine-press**

A device, comprising two vats or receptacles, one for treading and bruising grapes, and the other for collecting the juice.

### **Winery**

A building, property, or company that is involved in the production of wine.

### **Wood lactones**

The various esters that a wine picks up from exposure to new oak. These lactones are responsible for the creamy and coconut aromas and flavors that develop in a wine.

## Y

### **Yeast**

A microscopic unicellular fungi responsible for the conversion of sugars in must to alcohol. This process is known as alcoholic fermentation.

### **Yeast enzymes**

The enzymes within yeast cells that each act as a catalyst for a specific activity during the fermentation process. There are at least 22 known enzymes that are active during fermentation of wine.

## Z

### **Zymology**

The science of fermentation.