



THE FLYING WINEMAKER

EXPLORE

Your passport to travel the world of wine,
one introductory chapter at a time

WRITTEN BY THE FLYING WINEMAKER

From all of us at The Flying Winemaker, thank you for downloading our educational e-book! We're a small group of wine enthusiasts who simply want to share our knowledge and offer some helpful direction to those beginning their wine journey.

Based in Hong Kong (the land of zero wine tax!), we specialise in educational tastings, lifestyle events, and offering wine online. We also enjoy writing for our [Wine Education Blog](#) - our platform to share our first-hand experience across a wide range of topics. It includes casual reads to wine advice we put into practice ourselves. Check it out and subscribe to stay updated.

Learn more about [The Flying Winemaker](#) and follow us on:

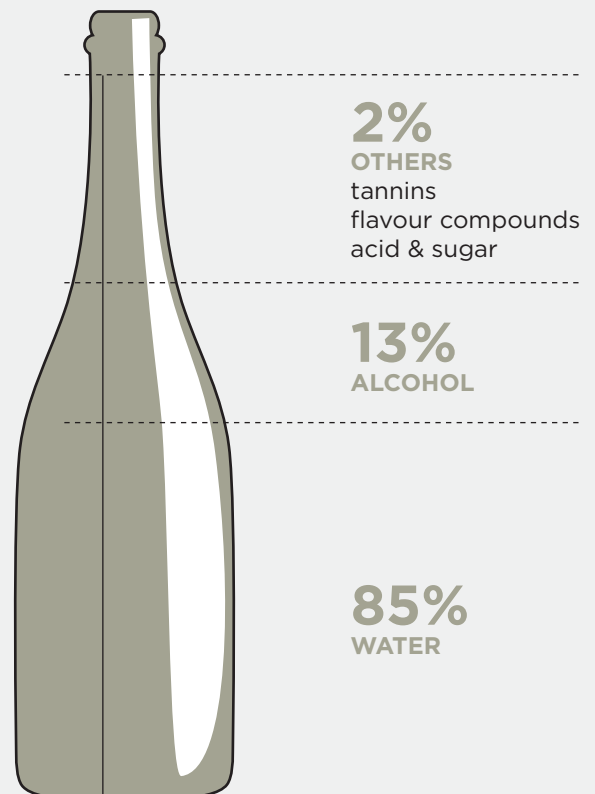
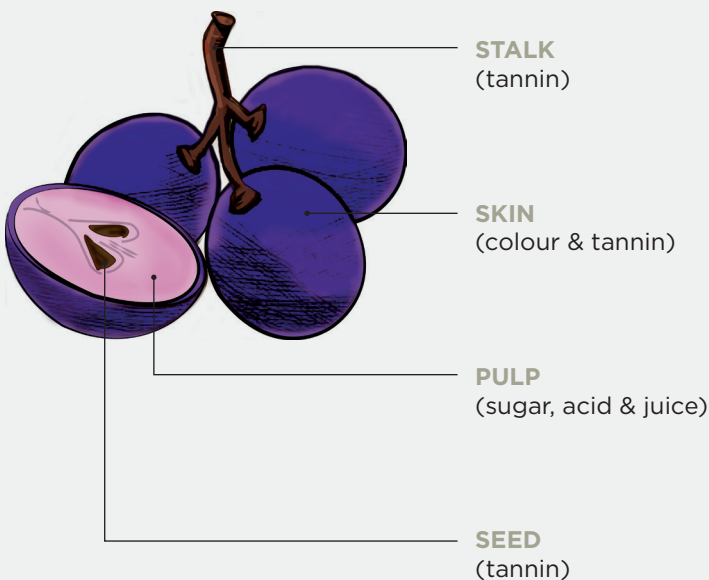


CHAPTER 1:

What Is Wine?

Wine is an alcoholic beverage made from fermented grapes. However, don't confuse wine grapes (*Vitis Vinifera*) with table grapes (*Vitis Labrusca* or *Vitis Rotundifolia*). We are all familiar with table grapes, but did you know that wine grapes are even sweeter? Wine grapes are fermented with yeast that is either naturally present in the grape or in the winery, or with commercially made strains. Fermentation usually occurs without the addition of sugar, acid, enzymes, water, or other nutrients, as these properties are found naturally in a grape.

WINE GRAPES	TABLE GRAPES
Smaller	Larger
More sugar	Less sugar
Always contains seeds	May not contain seeds
Skins are thicker	Skins are thinner
Higher acidity	Lower acidity
Higher concentration of flavour	Lower concentration of flavour
Higher juice content in pulp	Lower juice content in pulp
Lower yield per vine	Higher yield per vine



History of Wine

The earliest evidence of an operational winery dates back to 4100 BC in Ancient Armenia, however, there is evidence of wine being made and consumed as early as 7000 BC in China. Bear in mind that wine back then was not the same as what you find in bottles today. Wine was made from many things such as honey, rice, and other fruits. In those days it was safer to drink wine than water as water was not always the cleanest to drink.

[Learn Why Wine Can Be So Expensive](#)

Old World vs. New World

Do you ever wonder what the terms “Old World” and “New World” mean? The difference between these terms is mainly geographical but is also based on how long the countries have been making wine.

OLD WORLD	NEW WORLD
European countries	Non-European countries
Traditional winemaking practices	Modern winemaking practices
More elegant wines	More robust wines
Bound by laws	Free to experiment
Generally lower in alcohol	Generally higher in alcohol
Richer history	Relatively new to the game

Read more on: [The Differences Between Old World and New World Wine](#)

New Latitudes

New Latitudes refer to wines being grown and produced in tropical climates such as Bali and India. The climate doesn't allow for a dormant phase (when the vines go to sleep during winter). The viticulture challenge is having to coax and educate the vines to enter their reproductive cycle during the right season i.e. to avoid harvesting during monsoon season.

Read more on Asian wine at: AsianWineReview.com



Tasting Wine

There is a basic 3-step process to understand how to taste and evaluate wine. This technique focusses on your ability to separate and identify key characteristics in a wine and improves your personal flavour and taste memory bank.



LOOK

The colour in wine can be an extremely complex topic. To the unseasoned taster, it can be difficult to identify the clues about wine just from inspecting the colour, intensity, and viscosity. Colour can tell you a lot about the wine such as its age, whether it's wooded or not, as well as if there are any faults due to instability in its clarity.

- Inspect the wine by holding the glass at an angle over a white backdrop.
- Observe the wine from the rim to the middle. You should notice a small difference in colour and clarity.



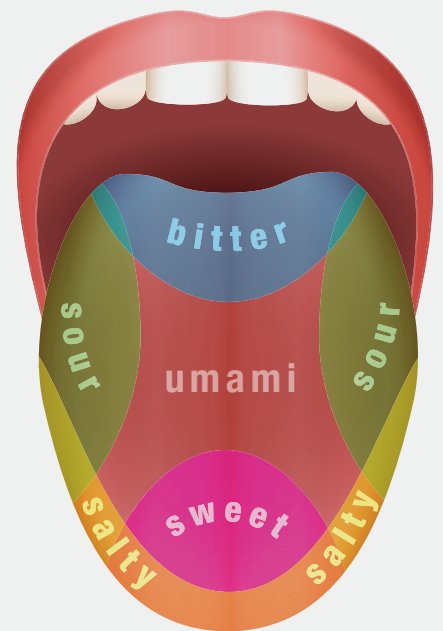
SMELL

Hold the glass under your nose and sniff once to “prime” your nose. Swirl the wine to release aromas and smell again. This time smell the wine for an extended period and alternate between nostrils. Smelling wine is arguably the most important part of the process, as 75% of what you smell is evidently what follows through onto your palate. This is due to your mental memory bank of flavours that you have built to identify and associate certain aromas to certain flavours. Smelling a wine is also needed to identify any faults in a wine and to make sure that it's in perfect condition for drinking.



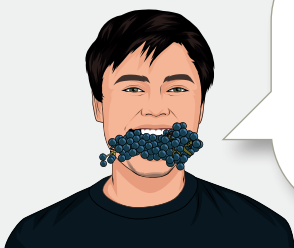
TASTE

Take a large sip to coat your palate and swirl it around your mouth like mouthwash. While the wine is still in your mouth slowly breathe in to take in some oxygen to expand the flavour on your palate. There are 5 taste sensations that should help you identify the style of wine.



FUN FACT

Believe it or not, there are some people that have a fear of wine. It's called "oenophobia".



Tasting Wine

Aromas & Flavours

PRIMARY CHARACTERISTICS	SECONDARY CHARACTERISTICS	TERTIARY CHARACTERISTICS
Flavour from the grape	Flavours from the oak, yeast and malolactic fermentation	Flavours developed during bottle ageing
Citrus	Popcorn	Jammy, stewed fruits
Red fruits	Breads/pastries	Cedar/cigar box/tobacco
Florals	Butter/dairy	Caramel & butterscotch
Tropical fruits	Baking spices: vanilla, clove, cinnamon	Dried mushrooms
Tree fruits	Coffee	Dried herbs & spices
Fresh herbs	Chocolate	Toasted nuts
Black fruits	Toast	Dust

Common Wine Faults

TYPES OF FAULT	CAUSE OF FAULT	CHARACTERISTICS ASSOCIATED WITH FAULT
Corked wine	Trichloroanisole (TCA) – bacteria grown on cork trees	Aromas of wet cardboard, wet dog, musty cellar, damp forest floor
Reduction	Not enough oxygen entering the bottle – more common in screw caps	Aromas of boiled garlic or cabbage
Oxidised	Too much exposure to oxygen	Lacks aroma & smells flat, slightly brown in colour. A typical aroma is bruised apple or apple cider. Red wine will taste dry & bitter
Heat damage	Repeated fluctuations in the temperature of the wine	Fruit characteristics become dull & can turn sour
Volatile Acidity (VA)	Bacteria in the wine producing acetic acid	Smells like nail polisher remover. Adds the same aromas & flavours characteristic of vinegar

[Learn Where Aromas in Wine Come From](#)



Wine Styles

Sparkling Production Methods

Sparkling wines contain a significant amount of carbon dioxide (CO²), which makes them fizzy. This occurs either naturally during Champagne, Prosecco, Cava, and Crémant production or induced artificially by a machine for producing generic sparkling wine.

NAME	REGION	PRODUCTION METHOD	COMMON GRAPES USED
Champagne	Champagne, France	Traditional – secondary ferment in bottle	Chardonnay, Pinot Noir & Pinot Meunier
Prosecco	Veneto, Italy	Charmat – Secondary ferment in tank	Glera
Cava	Catalonia, Spain	Traditional – secondary ferment in bottle	Macabeo, Xarello & Parellada
Crémant	Any region outside of Champagne, but within France	Traditional – secondary ferment in bottle	Loire: Chenin Blanc & Gamay Noir Alsace: Pinot Blanc & Riesling Burgundy: Chardonnay & Pinot Noir
Sparkling Wine	New World	Injecting the bottle or tank with CO ²	Whatever floats the winemaker's boat

White Wine

Light-bodied whites are dry and refreshing wines that are easy to drink and extremely pleasant. Look for distinct fruit flavours and lively acidity.

Aromatic whites are highly perfumed with strong aromatics that lean towards sweet tropical fruits and florals. Usually fuller in body, they can also range from dry to sweet and anywhere in between.

Medium- to full-bodied whites are generally wines that are associated with being matured or fermented in oak. They have bold flavours and a richer mouth feel. These wines can also be aged in bottle for an extended period of time to allow secondary and tertiary characteristics to develop.

Examples

- Sauvignon Blanc
- Pinot Grigio
- Koshu
- Grüner Veltliner

Examples

- Gewürztraminer
- Riesling
- Muscat Blanc
- Chenin Blanc

Examples

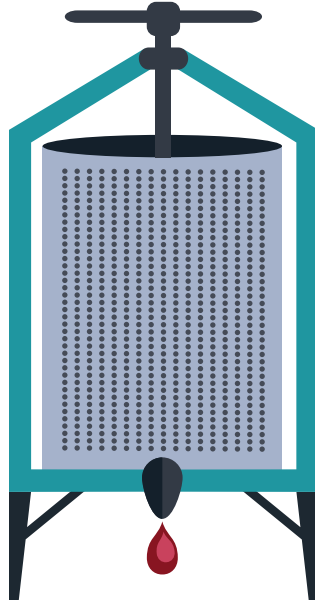
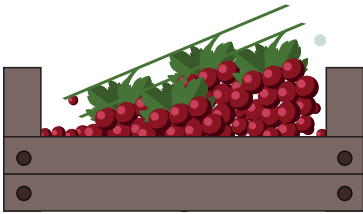
- Chardonnay
- Viognier
- Semillon



Wine Styles

Rosé Wine

Methods of production



SKIN CONTACT

The most flavour-incorporating method to make rosé wine is to crush red grapes and let the skins stay in contact with the juice for a very short time – from a few hours to three days. It's skin contact that turns the juice pink. From here, that pink juice is transferred away from the skins and into another tank where fermentation will begin.

SAIGNÉE

Another method, less popular in Provence but more commonly adopted in Languedoc, is called saignée (roughly pronounced “sen-yay”), which translates to “bleeding”. This involves some juice being bled out from a red wine fermentation tank for the purpose of improving the red wine and making it more intense. The rosé produced via this process can be considered a by-product, though the quality of the final product is not affected.

BLENDING

A third option is to mix red and white wine. However, this is illegal in France (except in Champagne) due to the laws passed to protect a region's quality. This process is generally used for cheap, bulk wine. The quality of these rosés will be lower than those produced using the skin contact and saignée method.

[Learn more on Rosé Production Methods](#)

Wine Styles

Red Wine

Light-bodied reds are very aromatic. The grape's thin skins make the colour of the wine a bright ruby red. These wines are high in acidity but don't expect a lot of tannin from them. They're fruity and delicious.

Medium-bodied reds are juicy and make great food-pairing wines. They have dominant red fruit flavours and are generally very well balanced with a good amount of tannin and acidity. Most of these wines will have spent some time in oak, which adds a layer of complexity but it's not a must.

Full-bodied reds have bold flavours, higher tannins and a darker colour that is attributed by thicker skinned grapes. These wines spend longer periods of time in oak and are very age-worthy.

Examples

- Gamay Noir
- Pinot Noir

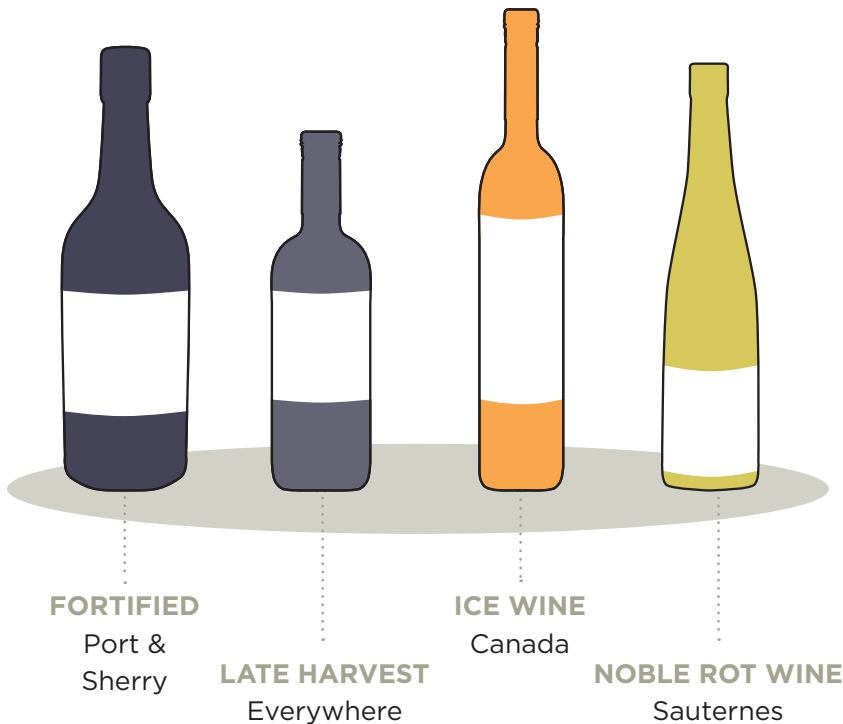
Examples

- Merlot
- Sangiovese
- Grenache
- Cabernet Franc

Examples

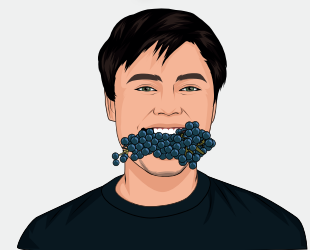
- Cabernet Sauvignon
- Syrah/Shiraz
- Nebbiolo
- Malbec

Sweet/Fortified



FUN FACT

Roman Historian, Pliny the Elder, rated 121 B.C. as a vintage "of the highest excellence". This was the first recorded reference to a specific wine vintage.



White Grapes

Sauvignon Blanc

ORIGIN

Bordeaux, France

NOTABLE REGIONS

Loire Valley, France; Marlborough, New Zealand

STYLE

Light-bodied, stainless steel ferment, zero oak, high acidity.

FUN FACT

The late Robert Mondavi was the first person to ferment Sauvignon Blanc in oak, which is known today as Blanc Fumé.

FLAVOURS



Green pepper, cut grass, lime, passion fruit, guava, melon

Chardonnay

ORIGIN

Burgundy, France

NOTABLE REGIONS

Burgundy & Champagne, France; Napa Valley, USA

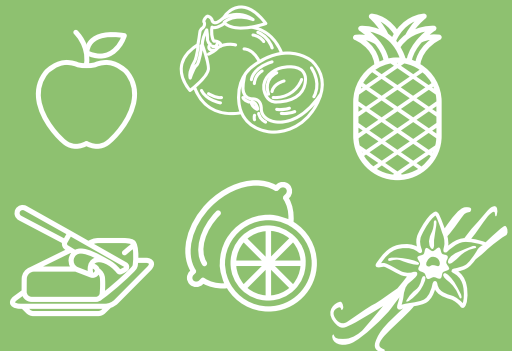
STYLE

Versatile as it can be light, fresh and unoaked or full, bold and barrel aged and even sparkling.

FUN FACT

Around 800 AD, the wife of Emperor Charlemagne, disgusted by the red wine ever staining her husband's white beard, ordered that white grapes be planted in their Burgundy vineyard, which is now called Corton-Charlemagne (a Grand Cru appellation in Côte de Beaune that only produces Chardonnay).

FLAVOURS



Green apple, lemon, pineapple, stone fruit, vanilla, butter

Gewürztraminer

ORIGIN

Tramin, Italy

NOTABLE REGIONS

Alsace, France; Mosel, Germany; Okanagan Valley, Canada; Washington State, USA

STYLE

Very aromatic, usually off dry, medium-bodied and easy on the palate.

FUN FACT

Despite producing white wines, Gewürztraminer grapes are actually red.

FLAVOURS



Lychee, ginger, rose petals, Turkish delight, tangerine, mango

White Grapes

Riesling

ORIGIN

Rhine, Germany

NOTABLE REGIONS

Rheingau, Germany; Alsace, France; Luxemburg; Oregon, USA; Clare Valley, Australia

STYLE

Anywhere from dry to sweet, naturally high in acidity, can be aged for a long time due to high acidity.

FUN FACT

Riesling is very rarely blended and is normally never exposed to any oak at all.

FLAVOURS



Petroleum, lime, green apple, white florals, apricot, pear

Viognier

ORIGIN

Croatia

NOTABLE REGIONS

Rhône Valley, France; Barossa Valley, Australia

STYLE

An aromatic and fruity wine that is generally fuller in body by being exposed to oak.

FUN FACT

Viognier is best known for being the only permitted grape in the French wine region of Condrieu.

FLAVOURS



Peach, rose, lemon, almonds, pineapple, melon

Chenin Blanc

ORIGIN

Loire Valley, France

NOTABLE REGIONS

Swartland and Stellenbosch, South Africa; Loire Valley, France

STYLE

Very versatile as it can range from light-bodied and unwooded to full-bodied and barrel fermented. Aromatic and very flavourful with high acidity.

FUN FACT

Although of origin to France, South Africa is the largest producer of Chenin Blanc in the world with more than double the area of hectares planted. Chenin Blanc is also the most widely planted variety in South Africa, accounting for nearly one-fifth of all vineyard plantings in the country.

FLAVOURS



Pear, apricot, honey, almonds, passion fruit, jasmine

Red Grapes

Pinot Noir

ORIGIN

Burgundy, France

NOTABLE REGIONS

Burgundy, France; Central Otago, New Zealand; Oregon, USA

STYLE

Light, low acidity, fresh fruits and pleasant.

FUN FACT

Hong Kong is the biggest market in the world for Pinot Noir, especially from Burgundy. In 2013, six Domaine de la Romanée-Conti 1995 magnums were sold for US\$27,300 a bottle (HKD215,000).

FLAVOURS



Raspberry, strawberry, red cherry, mushroom, cloves, plum

Merlot

ORIGIN

Bordeaux, France

NOTABLE REGIONS

Bordeaux, France; Washington State, USA; Stellenbosch, South Africa

STYLE

Medium-bodied with great balance of flavour. Firm tannins and well rounded.

FUN FACT

Cabernet Franc is the father of Merlot, but its mother is Magdeleine Noire des Charentes (super rare!) – an old and esoteric variety only discovered by DNA testing.

FLAVOURS



Plum, cherry, cloves, cigar, chocolate, blackberry

Cabernet Sauvignon

ORIGIN

Bordeaux, France

NOTABLE REGIONS

Bordeaux, France; Maipo Valley, Chile; Napa Valley, USA; Margaret River, Australia

STYLE

Full-bodied, high in tannin, high in alcohol, very fruit forward with well-rounded oak characteristics. Very age-worthy.

FUN FACT

Cabernet Sauvignon is the most planted wine grape in the world and is the offspring of Cabernet Franc and Sauvignon Blanc i.e. a genetic cross.

FLAVOURS



Blackcurrant, plum, vanilla, leather, mint, cedar

Red Grapes

Syrah/Shiraz

ORIGIN

Rhône Valley, France

NOTABLE REGIONS

Rhône Valley, France; Barossa Valley, Australia; Swartland, South Africa

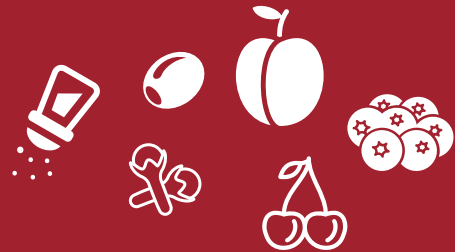
STYLE

Full-bodied, full of fruit, lots of spice and is delicious.

FUN FACT

Syrah shouldn't be confused with Petite Sirah, which is an entirely different grape (and not just a smaller version of Syrah grapes, as the name suggests). Petite Sirah is actually a hybrid variety created in 1880, which resulted from crossing Syrah with another variety called Peloursin.

FLAVOURS



Black pepper, black olive, plum, blueberries, clove, red cherry

Malbec:

ORIGIN

Cahors, France

NOTABLE REGIONS

Mendoza, Argentina; Bordeaux, France; Maipo Valley, Chile

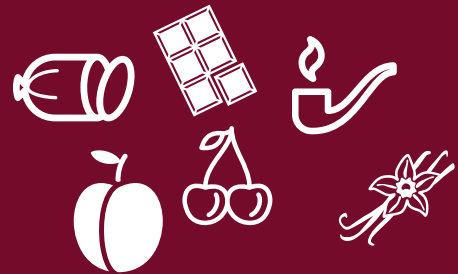
STYLE

Full-bodied and robust. High alcohol, medium tannin. Lends well to barrel ageing.

FUN FACT

Malbec grown in Argentina have smaller berries and bunches than Malbec grown in France, which produce an Argentinian Malbec of richer, deeper, and more concentrated flavour. This is the effect that soil and climate (a.k.a. terroir) can have on a vine.

FLAVOURS



Cured meat, chocolate, tobacco, red plum, black cherry, vanilla

Sangiovese

ORIGIN

Tuscany, Italy

NOTABLE REGIONS

Tuscany, Italy; Mendoza, Argentina; Sonoma, USA; King Valley, Australia

STYLE

High acidity, high tannin.

FUN FACT

The name "Sangiovese" is derived from the Latin word "*Sanguis Jovis*" which means "Blood of Jove". Jove is the Roman king of gods.

FLAVOURS



Sour cherry, tomato, cranberries, tobacco, cloves, coffee

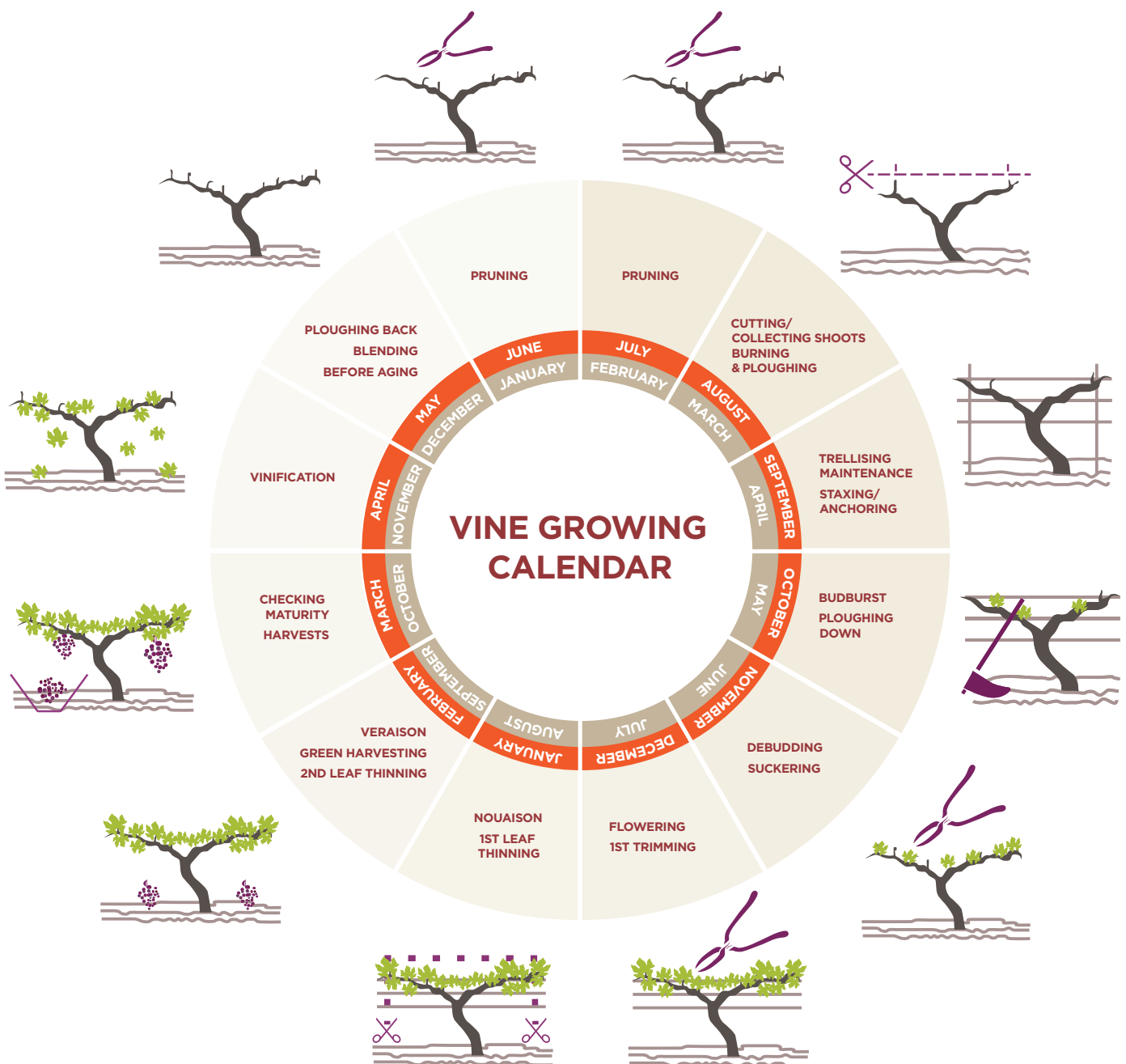
CHAPTER 6:

Viticulture

Viticulture is the science, cultivation and study of grape growing. The quality of the grapes influences the wine greatly, therefore it's important that viticulturists maintain a healthy vine. Viticulture requires a solid understanding of soil science and topography, along with mastering the techniques of canopy management and pruning.

■ SOUTHERN HEMISPHERE HARVESTING: End of January to late April

■ NORTHERN HEMISPHERE HARVESTING: Early August to early November



Viticulture

What is Terroir?

“Terroir” (pronounced “*ter-wahr*”) is the French word that describes a region’s soil, climate and site that ultimately determines how, where, and why a specific grape is grown. For example, Grenache prefers hotter climates with free-draining gravel soils compared to Pinot Noir, which grows best in cooler regions with sandier, more alluvial soils.

Trellised Vines vs. Bush Vines

TRELLISED VINES	BUSH VINES
Machine and/or hand harvested	Only hand harvested
Higher yield	Lower yield
Younger vines	Older vines
Vine growth can be manipulated	Vines grow wild
More labour intensive	Less labour intensive
Marginally lower quality grapes	Higher quality grapes

Machine Harvest vs. Hand Harvest

MACHINE HARVEST	HAND HARVEST
Fast & efficient	Slow
Cheap	Expensive
Can operate 24/7	Labour intensive
No grape sorting, will harvest under-ripe, overripe & rotten bunches together	Gentle harvesting & allows for grape sorting - no under-ripe, overripe or rotten grapes
Will also harvest MOG (Material other than grapes e.g. insects, branches & animals)	No MOG will be harvested
Marginally lower quality grapes	Higher quality grapes

Pests & Diseases

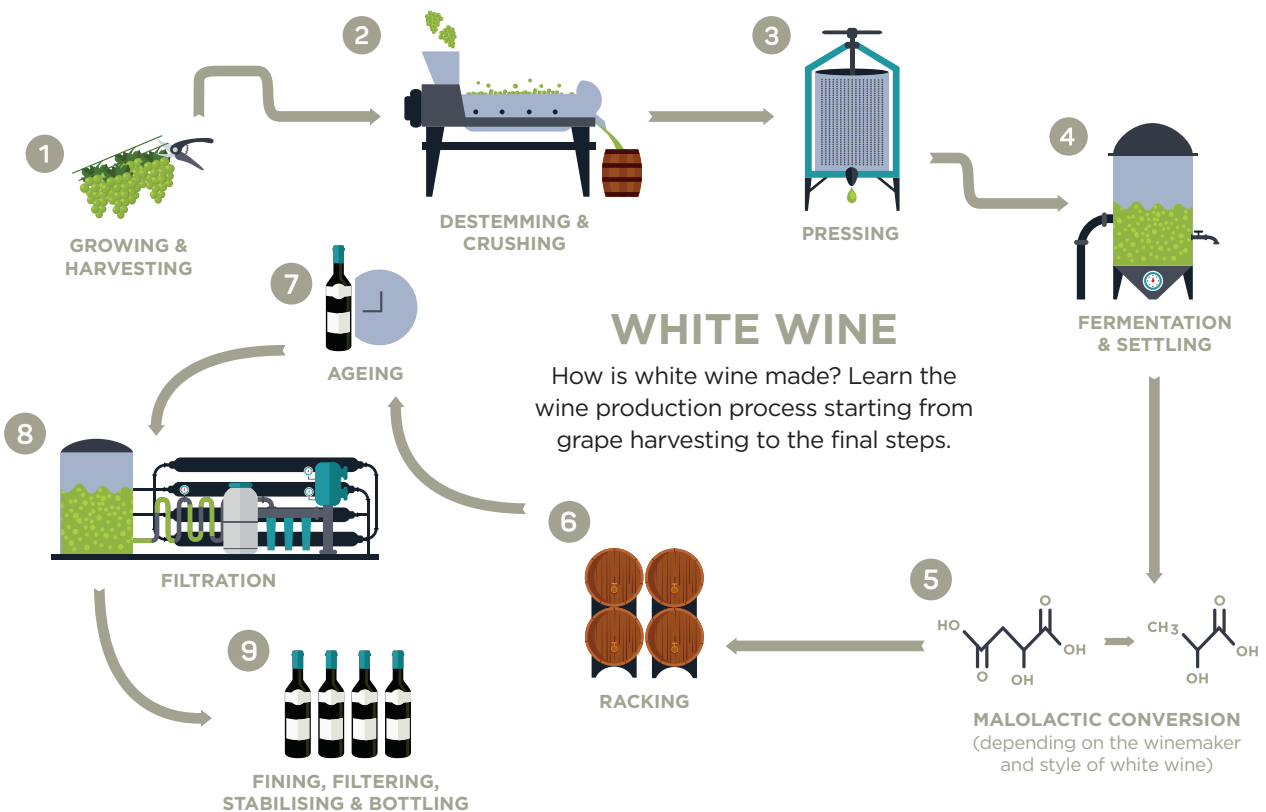
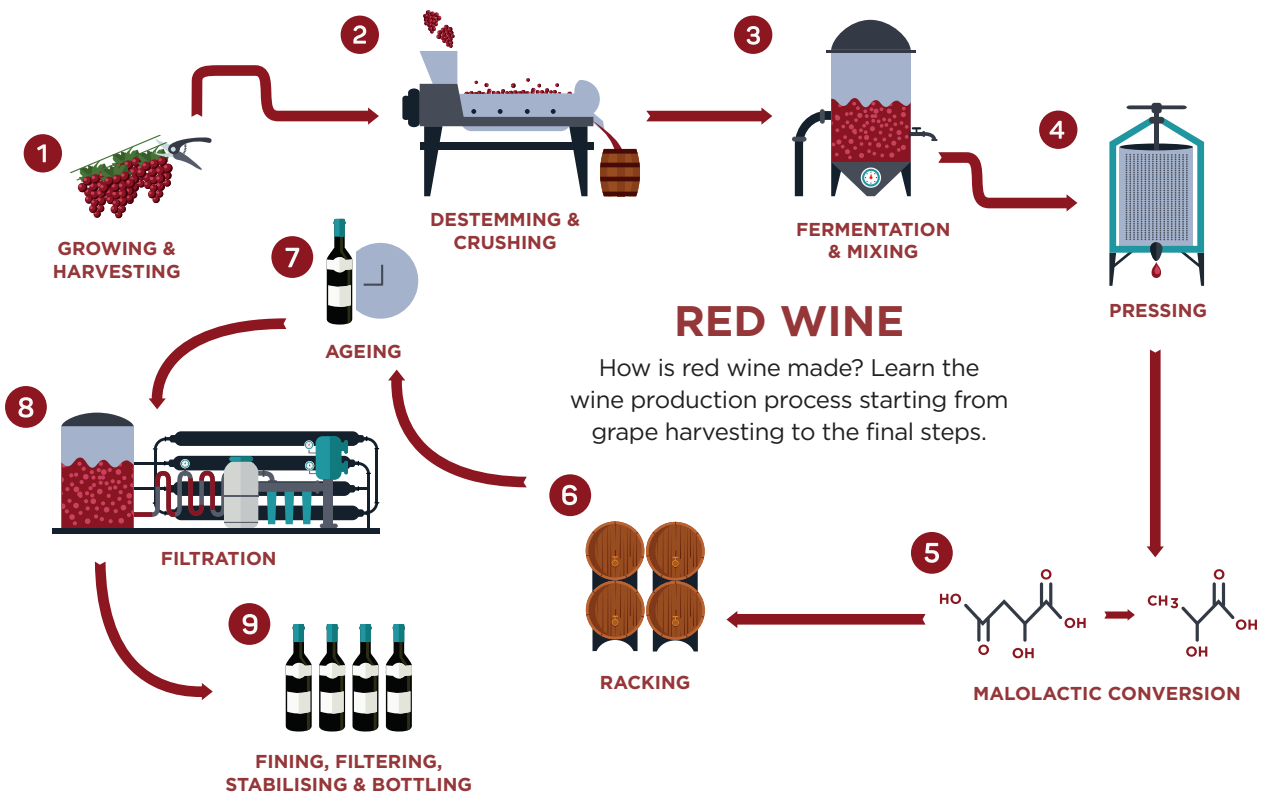
Phylloxera – A microscopic, pale yellow sap-sucking root louse that wiped out almost every vine across the world during the late 19th century. They feed on the vine’s roots.

Grey Rot – Also known as Noble Rot. It’s a fungus that infects individual berries leading to dehydration and mould growth on the fruit. In some cases, this may be a desirable occurrence for sweet wines.

Powdery Mildew – Is a fungal disease that affects all green tissue on the grapevine, which can lead to loss of crop or a poor quality harvest if not treated. Easily noticeable due to a powder-like residue being visible on both leaves and grapes.

Downy Mildew – Is considered to be the most devastating disease affecting grapevines. It’s a pathogen that attacks all the green parts of the vine and is easily noticeable by irregular, yellow spots on the surface of the leaves. The ultimate result is a premature loss of leaves (due to tissue damage) as well as infecting the berry, which will eventually drop and reduce the vine’s yield.

Winemaking



Winemaking

Oak Barrels

There are two main aspects to focus on to understand how oak barrels enhance wine.

1. When red wines are ageing in the barrel, a process called controlled oxidation occurs.

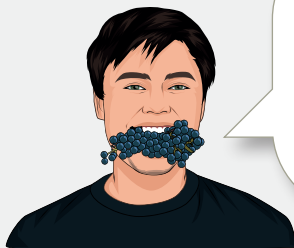
This is a slow and gradual process, made possible by the wood being porous, which benefits the wine by reducing the astringency and increasing the colour and stability.

2. There are five chemical compounds found in oak.

Each imparts its own flavour and texture to both red and white wines, the most common being vanilla, followed by sweet, toasty notes and lastly tea and tobacco.

FRENCH OAK	AMERICAN OAK
Species: <i>Quercus Petraea</i>	Species: <i>Quercus Alba</i>
Slower growing	Faster growing
Finer grain	Wider grain
Higher tannins	Lower tannins
Staves are hand split	Staves are split by saw
Wood fire is used to bend staves	Kilns are used to bend staves
Naturally air dried	Kiln dried
20-25% of the oak tree can be used	40-50% of the oak tree can be used

[Learn All You Need to Know About Oak Barrels](#)



FUN FACT

The dark green wine bottle is an English invention, the work of Sir Kenelm Digby (1603-1665). Before this, wine was kept in goat skin bags.



Winemaking

Blending

Wine blending falls into two practices. The most well-known is by combining two or more varietals to create one wine. The other, but less obvious, is single-varietal blending, which is the blending of the same varietal but from different vineyard blocks or vineyard areas. Some famous examples of classic varietal blends are from: Bordeaux, Rhône Valley (especially Châteauneuf-du-Pape), and Champagne in France; Rioja in Spain; and Tuscany in Italy.

1. Blending different varietals

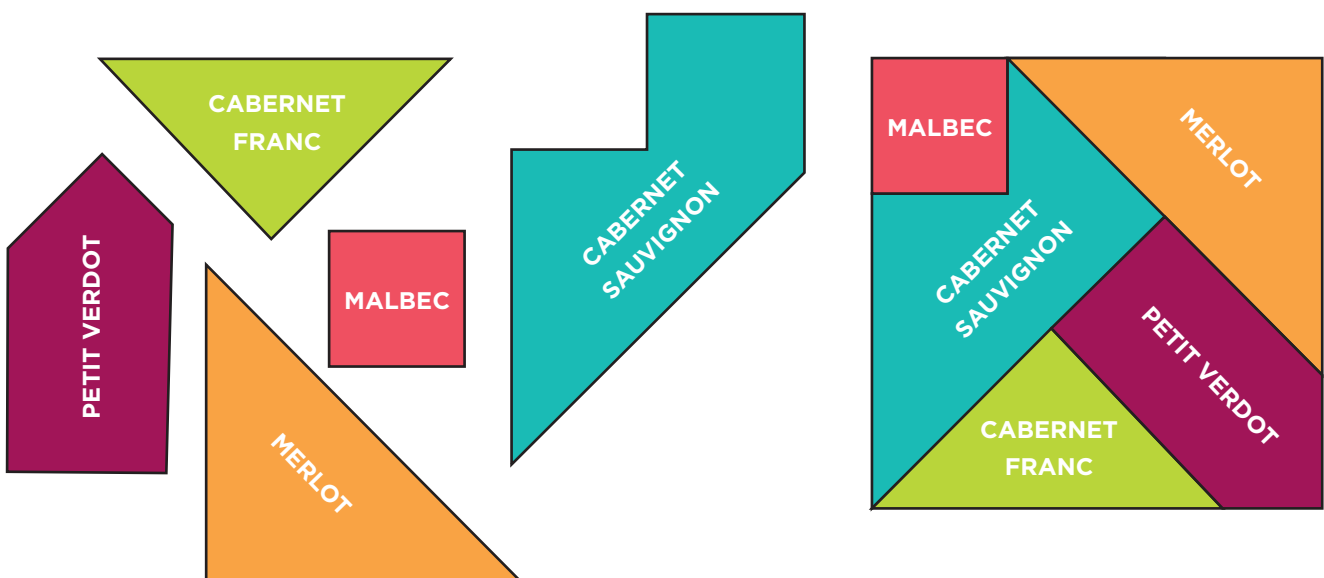
The purpose of blending is to improve the flavour and aromas of a wine and to add complexity. Each grape variety that is added to a blend contributes its specific characteristics, which when combined should create a perfectly well-rounded, rich, and smooth-tasting wine.

2. Blending single varietals from different vineyard blocks

When it comes to single varietal blends, the main purpose is to maintain consistency of product. Many people become familiar with a specific brand, the style, or flavour profile of that particular wine. Winemakers blend from different vineyard blocks and regions to keep a relatively similar flavour profile across multiple vintages, whilst maintaining consistent production volumes. This method of blending is mainly for bulk production.

Learn Why Winemakers Blend Wine

The purpose of blending is basically extracting something that is one dimensional and turning it into something that is three dimensional.



Winemaking

Organic, Biodynamic & Natural Wines

Organic Wines

- Organic grapes cannot be grown using synthetic pesticides or additives such as:
 - Chemical or artificial fertilisers
 - Herbicides
 - Pesticides
 - Growth hormones
 - Genetically modified organisms (GMOs)
- If a vineyard wants to become organic, it must undergo a degree of cleansing to remove material that would disqualify the vineyard from being labelled organic. Generally, getting an official certification takes at least three years and is an expensive process that enforces very particular regulations on the entire production.

Biodynamic Wines

- Biodynamics goes beyond organic farming. Although it incorporates elements of organic farming, it also considers the vineyard as only a small part of a larger ecosystem. Biodynamic farming takes into consideration astrological factors and lunar cycles (minus fortune-telling and black magic).
- The challenge of biodynamic farming is to maintain a balanced ecosystem and harmony between the soil, plants, animals, and other environmental factors in order to obtain a high-quality wine. A biodynamic wine is made with minimal intervention – without additives or commercial yeasts.

Natural Wines

- Some natural wine producers operate on a philosophy of minimal intervention in both the vineyard and during the winemaking process. Natural wine can be made from organic or biodynamic grapes that are harvested by hand.
- There is no official or legal certification for natural wines, which makes it hard to define them. Different associations have their own definition for them, which really means that there are no real specifications and everyone does what they consider appropriate.
- A wine labelled “natural” sometimes means it was vinified without chemical additives and with no additional amount of sulfites added to it (wine naturally contains sulfites, which help stabilise it).

[Learn The Differences Between Organic, Biodynamic, and Natural Wines](#)



CHAPTER 9:

Bottles



Cork vs. Screw Cap

The debate over cork versus screw cap has been made countless times. There have been scientific articles published and you may have heard winemakers lament about it. Corks have been used for hundreds of years, whereas screw caps are the new kid on the block.

CORK	SCREW CAP
Natural	Man-made
Expensive	Cheap
Needs a wine opener	No need for a wine opener
Can contain TCA	Will never have TCA
Oxygen permeable	Retains freshness
Brittle	Strong
Associated with premium wine	Associated with mass-produced wine
Variable oxygen penetration	Controlled oxygen penetration

[Learn Why Screw Caps Are Better Than Corks](#)

Common Bottle Shapes

There are roughly 12 classic wine bottle shapes, however, there are four distinct bottle shapes that most winemakers choose to bottle their wines.



Handling, Storage & Service

Handling wine includes many things such as using the correct glass for the style of wine you serve, the correct temperature to serve the wine at, and how to store wines properly. But first, before we serve wines at the right temperature and in the right glass, we need to know how to open a bottle correctly.

Opening a Bottle That Has a Cork

STEP 1

When removing the foil, make sure you cut the foil below the lip.

STEP 2

Insert the worm into the cork just off centre and rotate the screw until the worm is 90-95% of the way in.

STEP 3

Rest the first bootlever notch on the bottle's lip and hold it with your hand. Lift the handle upwards until the cork is halfway out pulling slowly to avoid spillage or breaking the cork. Then rest the second bootlever notch on the bottle's lip and repeat.

STEP 4

Once open, pour a small splash (~25ml) then smell and taste the wine for any faults (refer to Chapter 3 for faults). If not faulty, pour a standard glass (150 - 180ml). Enjoy!

Opening a Bottle of Champagne

STEP 1

On a champagne bottle, the cork is covered by a wire cage to prevent the cork from exploding out due to the pressure built up inside the bottle. To open, begin by removing the foil and untwist the wire tab until it is loose. Never remove the cage!

STEP 2

Keep your thumb on the cage and cork and hold firmly. Use your other hand to rotate the bottle (never twist the cork), this will give you more control over the cork and allow you to release it slowly so that when the cork does eventually come out it doesn't pop! This prevents carbon dioxide (CO²) loss and so retains the bubbles.

STEP 3

Once the cork is removed, hold the bottle at a 45° angle for a few seconds to let the wine settle and not bubble out.

STEP 4

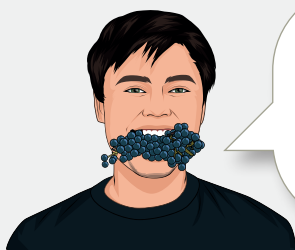
When pouring into a glass, hold the glass at an angle and let the wine run down its side to prevent the bubbles from forming a foamy mousse - similar to pulling a pint of beer.

Handling, Storage & Service

Selecting The Correct Wine Glass

Wine glasses come in many different shapes and sizes and can be made from either glass or crystal. Shape and size is important as it affects the aroma intensity. For example, a wider bowled glass will offer more intense aromas than a narrower bowl as the wine's surface area is greater, and therefore is exposed to more oxygen.

When it comes to glassware, crystal is the better choice, however, they are also a lot more expensive. This is because crystal contains no lead, which can affect the taste of your wine. Glass is spun thicker making it a lot stronger than crystal, which is very thin and fragile. A lot of drinkers prefer thinner glassware because when you take a sip, you end up with more wine than glassware in your mouth.



FUN FACT

To get the same amount of antioxidants you find in a standard 250ml glass of wine, you would need to drink 20 glasses of apple juice or seven glasses of orange juice.

Handling, Storage & Service

Serving Temperature

STYLE OF WINE	BY TOUCH IT SHOULD BE:	BEST SERVING TEMPERATURE (°C)
Sparkling	Ice Cold	3 - 7
Light-bodied white	Ice Cold	3 - 7
Medium-to-full-bodied white	Cold	7 - 13
Aromatic white	Cold	7 - 13
Rosé	Cold	7 - 13
Light-bodied red	Cellar temperature	13 - 16
Medium-bodied red	Cellar temperature	13 - 16
Full-bodied red	Room temperature	16 - 20
Fortified wines	Room temperature	16 - 20

No doubt you'll eventually experience wines served too cold or too warm. However, it's important to note that it's better to be served a wine too cold as you can always raise the temperature, but it's a lot more difficult to lower the temperature if the wine is too warm (unless you have an ice-bucket).

Storing Wine

The ideal storage temperature is 10 - 13°C with approximately 75% humidity and very little light. Ideal humidity will prevent corks losing moisture and getting too dry or brittle and breaking.

Make sure that wines are not stored in areas where temperatures fluctuate as this could result in wine developing faults such as heat damage. If you don't have a wine fridge, the best places to store wine are in your pantry, at the bottom of your closet or under your bed. A wine fridge is the best way as temperature is regulated with the addition of having the perfect humidity. If you pull a wine from the fridge and it's faulty, it won't be the fridge's fault!

Storing a bottle that's been opened is a lot trickier, as the wine will deteriorate very quickly due to the oxygen exposure in the bottle. If you're storing open wines, make sure you seal them as best you can and always put them into a fridge so the wine's temperature is regulated.

STYLE OF WINE	HOW MANY DAYS THE WINE CAN BE STORED IN A FRIDGE ONCE OPEN
Sparkling	1 - 3 days
Light-bodied white	1 week
Medium-to-full-bodied white	3 - 5 days
Aromatic white	1 week
Rosé	1 week
Light-bodied red	3 - 5 days
Medium-bodied red	3 - 5 days
Full-bodied red	3 - 5 days
Fortified wines	1 month

Basic Concepts for Food & Wine Pairing

When pairing food with wine you want the characteristics of both to compliment each other. You need to take into consideration the flavour, texture, aroma, and intensity of both the food and wine to result in harmony. Learning to pair food and wine can be extremely fun and exciting.

Below are basic guidelines for pairing food and wine.

Remember, the aim of the game is BALANCE:



Acidic food such as salads with a balsamic or lemon dressing.
Needs wines with high acidity as low acidic wines will taste comparatively flat.
Try a Sauvignon Blanc or dry Riesling.



Rich food such as stews (especially venison based).
Are generally fatty foods, which will require a wine with high tannins to break down the fat.
Try a Cabernet Sauvignon, Shiraz, or a heavily oaked Chardonnay.



Spicy food such as Szechuan cuisine.
Only one wine comes to mind: a cold sticky dessert wine to numb the spiciness.
Try a Noble Rot wine such as Sauternes.












Bitter food such as sautéed broccoli and kale with toasted garlic butter.
Avoid high tannic wines as it will only make things more bitter. Instead, look for wines with low to zero tannins, some minerality or some sweetness.
Try a Pinot Noir, Prosecco, or Pinot Gris.



Sweet food such as any sweet dessert.
Avoid dry wines as they will taste metallic. This is a straightforward pairing: sweet food with sweet wine.
Try a Moscato or sweet Riesling.

CHAPTER 11:

Basic Concepts for Food & Wine Pairing

WHITE MEAT		BEST STYLE OF WINE TO PAIR
	Mollusc	Sparkling Light-bodied white
	Shellfish	Light-bodied white Medium-to-full-bodied white Aromatic white
	Fin Fish	Light-bodied white Medium-to-full-bodied white
	Poultry	Full-bodied white Light-bodied red
	Swine (Pork/Boar)	Aromatic white Rosé Light-bodied red Full-bodied white Medium-bodied red
RED MEAT		BEST STYLE OF WINE TO PAIR
	Cured Meat	Sparkling Light-bodied red Medium-bodied red Full-bodied red
	Bovine (Beef/Veal)	Medium-bodied red Full-bodied red
	Ovine (Lamb/Mutton)	Full-bodied white Medium-bodied red Full-bodied red
	Game (Venison/Wild Game Birds)	Full-bodied white Light-bodied red Medium-bodied red Full-bodied red

[Learn How to Pair McDonald's with Wine](#)

Another huge thank you for reading what we put together!
We sincerely hope that you've learnt a whole lot, and are inspired
to continue exploring the world of wine.

This is our introductory level resource and we'll be working on more
educational tools to cover topics in more depth in the near future.
If you have any feedback or ideas on how you think we can improve,
please get in touch and let us know.

We'd love to hear from you! [Contact us here.](#)

Keep exploring,
The Flying Winemaker Team



Eddie



Kyle



Nicole



THE FLYING WINEMAKER

Learn more about [The Flying Winemaker](#) and follow us on:

