PORT

OUTLINE OF A PRESENTATION TO THE VANCOUVER AMATEUR WINEMAKERS ASSOCIATION APRIL 9, 2009

By Clem Joyce

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What is port?

Introduction

Port is a wine that comes from Portugal.

It's a sweet fortified dessert wine that is made in a red and white style.

The taste is balanced with berry fruit to rancio, sweetness, complexity vs alcohol – acid – tannins They should taste sweet, smooth, complex, some hotness, finish dry, not cloying, not astringent. There are a variety of types, intensities, aromas and sweetness levels.

Young immature ports can be fruity, simple, coarse, hot, and astringent until mature.

It is a wine that has natural sugar and added brandy (alcohol) to fortify for stability and aging. Port can be very sweet, sweet, and semi-dry or extra dry. Just how sweet a wine will be is a choice made during production; it depends on when the brandy is added to stop the fermentation of the wine and balancing thereafter.

Sugar 7 – 10 % residual sugar, 6-8° brix (Balling)

Alcohol 17 - 22% by vol

Acidity 3.5 - 6.0 g/l pH 3.6 - 3.8 (Red)

Usage Less sweet, lighter ports can be used as appetizer wines

Richer, darker, heavier, longer aged definitely dessert – after diner.

'Oak should play no part in the flavour of Port'

Colour changes due to aging (oxidation) – red – reddish brown – light brown – final golden tawny Oxidation – production of aldehydes – 'rancio' character

The different types of Ports

Although all port spends some time in wood cooperage, port can be divided into two main categories:

Wood-aged Ports and

Bottle-aged Ports.

Within these categories are numerous styles.

The best-known style of wood-aged Port is **Tawny Port**.

The best-known style of bottle-aged Port is **Vintage Port**.

Predominantly wood-aged Ports are ready to drink right after they're bottled and shipped. They should be consumed within a few years (2-3) after bottling. These Ports do not need to be decanted as most have been filtered. They have a short cork and the bottle is not meant to be laid down. Predominantly bottle-aged Ports, on the other hand, start out in large casks for a brief period of time but then mature and age for a longer, and sometimes very long period, inside a bottle. These have a long cork, are meant to lie on their sides, are not filtered, as a result these Ports usually throw a sediment. Vintage Port, for example, always needs to be decanted.

Brief History

For many centuries, Britain had enjoyed the fine wines of Bordeaux, even having owned the region for three hundred years. Due to this trade war with France declared in 1698, severe taxes on French wine forced English aficionados to look elsewhere. The British merchants soon discovered the heavy red wines of Portugal, but to prevent spoilage during the long boat trips back to England, they topped off the wine casks with brandy. These wines were found to be quite inferior and various techniques to improve them lead to the creation of Port. Techniques of fortification with alcohol and sugar retention started sporadically in the early 1700's and varied until the current formula was adopted in about 1775. It only became uniform practice by about 1850. The British took more control of port production by setting up port houses or lodges in Oporto, the mouth of the Douro River, where blending and quality could be controlled to give more consistent results. Hence still today, many but not all of the major port producers have English names. E.g., Cockburn's, Dow's, Gould Campbell, Graham, Smith Woodhouse, Taylor, and Warre. Port might be from Portugal, but it's an English invention.

While true Port comes from Portugal, port type wines are made in other countries such as Chile, Russia and USA, our local BCLDB only list other port type wines from Australia, Canada, and South Africa.

Geography

Port, is produced in Portugal from grapes grown in the Demarcated Region of the Douro Valley (in the northeast of the country) on steep terraces along the path of the Douro River. There is a specified area (of just over 1000 square miles) in which the port vineyards are situated. The valley stretches east from the city of Oporto on the coast to the border with Spain. This wine region was demarcated in 1756 making it the third oldest defined and protected



wine region in the world after Tokaji (1730) and Chianti (1716). Under European Union guidelines, only the product from Portugal may be labelled as *Port* much like the French lay claim to the title Champagne. In the United States, Federal law mandates that the Portuguese-made product be labeled *Porto* or *Vinho do Porto*. The climate is harsh, which means that the vines must be very hardy. Despite this, the grapes produced result in very rich and complex wines.

The Douro River, which runs through the region, was once a major shipping lane for the Port made up river. Today it is mostly shipped by truck down to the port houses in Oporto at the mouth of the Douro River for aging and blending. The cooler climate on the coast is far better suited for aging than inland where the wine would suffer from the baking effect of the hot summers. This is where they are selected for quality and aging to determine what type of port wine they will become.

Grapes

Port, is made from a bewildering number of grape varieties but the best ranked red grape varieties are:

Bastardo, Mourisco, Tinta Barroca, Tinta Roriz (the same as Spain's tempranillo), Tinto Cão, Touriga Francesa, and the most highly regarded: Touriga Nacional. Vineyards are grades from A-F and growers are paid on a sliding scale according to the level of quality they produce.

White Port

Made primarily from the indigenous grapes: Codega, Gouveio, Malvasia fina, Rabitato and Viosinho. Usually have 20% alc, are semi sweet - dry and are usually served as an aperitif, chilled, straight up or cut with soda water and a twist of lemon.

Here are sets of categories that identify the different types of Port Wine As per BC Guild of Judges (B.Pearson)

Ruby Port is a blend from several harvests, different years and different quintas. It spends a minimum of two years in very large vats before being bottled. The large vats minimize the amount of air that comes in contact with the wine, which reduces oxidization so, the wine retains its bright red hue. Ruby is ready to drink when it is bottled and has a rich red colour and a full fruity taste. It should not be aged, and tends to taste of berries, with light tannins. "A good ruby has rich mulberry fruit flavours."

Tawny port is also a blend from several harvests but is aged for *two to seven years in casks*. The smaller storage vessels allow more oxidization than the vats used for Ruby ports. It is ready to drink as soon as it is bottled. As its name implies, Tawny port has a deep mahogany colour and are usually sweet. They may have a drier and nuttier taste, as well as a buttery, nutty caramel flavor. Aged Tawny is the *best Tawny port*. It can have an age of 10, 20, 30 or more than 40 years. The age will be indicated on the label and describes the average age of the wines in the blend. In a twenty year old aged Tawny, it may contain some 100 years old port which adds complexity to the wine. Aged Tawny port has a refined, subtle taste. It should have a silky mouth feel and a mellow nutty flavour.

Crusted Port is a *type of Ruby* and spends three years in a cask but *most of its ageing is in a bottle.* It is a blend of wines from several different years and gets its name from the sediment that appears in the bottle as the wine ages, since the wine is not filtered.

Vintage Character port is a higher quality Ruby blend of port wines that ages four to six years in the cask - "in wood". This blend of cask-aged ports is designed to replicate (to a certain extent) the characteristics of proper Vintage ports. It is filtered to remove any sediment then bottled. Vintage Character is a full-bodied, fruity wine.

Colheita (pronounced "call yay ta" which means "harvest") is a Tawny port made with grapes from a single harvest (and are therefore very rare). It is aged at least *seven years in casks* - or "in wood" – but is usually aged much longer. The label indicates the year of the harvest. (Colheita Madeiras are by law required to spend a minimum of 20 years in cask and two in bottle before release)

Vintage Port comes from a single harvest of exceptional quality and is bottled after two years in wood. The wine then spends *many years aging in the bottle* (in glass) and the label will show the year of the Vintage and the year the wine was bottled. This is one of the most sought-after wines in the world. See declared Vintages, pages 15-19.

Late-Bottled Vintage port (LBV) is made from grapes grown in a single year, but because the vintage is deemed to be of a lesser quality, they are *cask aged four to six years* before being bottled with some sediment to add character. The label will indicate the Vintage and bottling date. The LBV port is ready to drink earlier than Vintage port and when labeled "Traditional", it may have some sediment. For this reason, L.B.V "Traditional" ports, like Vintage ports, need decanting.

Single Quinta Ports are made with wine from one vineyard. They may be Tawny or Vintage styles. After aging two years in wood they are bottled and spend from 5 to 50 years maturing. The label will indicate the Vintage year and bottling date. Single quinta port has a complex, and refined taste.

Traditional Production Method

Grapes and Fermentation

- * Grapes are hand harvested, 23° 28° Brix, some are foot trodden in stone *lagares*, majority are not, using mechanized crushers
- * Sulphite added today 50 100 ppm (historically 100 200 ppm), it helps extract colour and will delay fermentation enabling better extraction.
- * Some fermentations takes place in smaller farm houses called *quintas*, or in much larger company winery port houses.
- * Yeast culture, 1-2% starter is used.
- * Major port houses use the 'Ducellier Autovinifiers' they work with a complicated system of pressure build up and release, driven by CO2 created during the ferment. The violent agitation over a short period of time causes maximum extraction of colour and flavour.
- * Some houses prefer less aggressive methods submerged cap with pump over or simple floating caps with regular pump over.
- * Fermentation temperatures typically are about 26° 29°C
- * At 4-6% alcohol formed, the free run juice is run off or grapes are pressed to removed juice and run **into** the brandy. Fermentation is interrupted at about 6-8° Brix and fortified to about 18% alcohol. It is typically increased later depending on wine and style up about 20%

Arrest - Fortifying brandy

- * Typically 77% alc spirit is used. (100 litres of 77% alc to 450 litres must is typical). (Proof system different from British 100 proof = 57.1% by to American 50%by)
- * The lower the alcohol, the more flavour and aroma of the brandy.

 Higher proof more neutral brandy character; traditionally a very neutral brandy is used.

 "It is commonly assumed that the character and quality of the wine is derived from the spirit used. Nothing could be further from the truth. The Junta Nacional de Aguardiente held until recently, a monopoly on the supply of spirits to the port houses. It is distilled from cast-off wines from Portugal's southern vineyards or less frequently from the Douro. It is not called *aguardiente* (burning water) for nothing: it is raw and fiery. The sole aim of the houses, in making there choice from a small range of samples, is to select the most neutral spirit" Hugh Johnson, Vintner's Art. Some of my colleagues may challenge that.
- * Tannins and acid may be added later during balancing of the wine.
- * Racking usually November (but some in spring), usually racked 3 times first year, then once a vear.
- * Casks –large, several thousand litres, usually old Yugoslavian Oak Pipes are casks of standard size of 137 gals - 550 litres
 - Many tawny producers will use a type of Solera system to give a uniform consistency.
- * Lodge houses will do a final blending of sweetness and alcohol before bottling. Sometimes younger wines will be added with older wine. Red ruby ports are fined and cold stabilized, usually filtered.

- * White Ports may pick up considerable colour from barrel aging and removed by fining with gelatin and bentonite then cold stabilized and cold filtered.
- * Most ports were exported in casks and bottled in country of destination. Vintage ports today, by regulation must be bottled in Portugal.

New World - California **Grapes**

California port is produced from many different grapes, only a few of which are used for the wine in its native Portugal. To this selected group belong the Tinta Madeira, Tinta Cao, Alvarelhao, Souzao and Touriga. Another is the Trousseau, which has been identified with the Portuguese Bastardo. This grape was once quite popular in California as a varietal, but is now generally considered to lack sufficient colour for that purpose, owing to the current preference for darker wines. There are plans to produce Trousseau Port in Contra Costa County. Rubired and Royalty were also once very good varieties.

The grapes most commonly used for California ports today include the Carignane, Grenache, Mission, Petite Sirah, Valdepenas, and Zinfandel, while the Alicante Bouschet, Alicante Ganzin, Grand noir, and Salvador are useful for the colour they contribute in blending.

California White Ports

A light-straw-coloured, medium-bodied, sweet dessert wine with neutral flavour. It is usually not as sweet as Angelica, which it otherwise often resembles. The wine is made both from white grapes, including the Thompson Seedless, and from dark varieties, such as the Grenache and Mission, fermented off the skins. Thompson Seedless is also used as base for vermouth and other flavoured wines.

Fermentation

Select grapes of high colour, as intense fruit as possible, Brix 23-28°C degrees or higher. Riper grapes may require gentle handling to avoid premature bruising and risk of infection. Spoilage can occur due to acetification and lactic bacteria, use SO2 to prevent. To inhibit lactic bacteria, Lysozyme may be used.

Mouldy grape smell and taste can remain in the wine while sugar is present.

Acetic acid is formed from these grapes.

Use of SO₂ promotes clean fermentation and colour stability ~25ppm, higher as necessary Raisined grapes will require longer soaking to extract sugars, so are better for longer ferments. SO2: Typically in Calif 50 -100ppm add at crush.

(I would suggest much less can be used if grapes are in good condition 20-50ppm)

1 - 2% yeast culture starter is commonly used.

Amerine suggests some tests show results with temperatures 15°-20°C retain more fruit than 30°C+. Cold soak and lower temperatures, prolongs ferment and allows for better extraction. Punching cap frequently – especially with dried, raisin berries.

Submerged caps are sometimes used.

Closed tanks- with pump-over are preferred.

Thermal extraction – colour extracted by heating crushed grapes to $80^{\circ}\text{C} - 2 - 3$ minutes cooling free run juice is fermented and fortified. Whole grapes were sometimes steamed for one minute so just the skin gets heated, not the inside; improves colour extraction.

Other Sources - Bleeding Reds for Port

There are other sources of must for making a port style wine. If one is making a regular red table wine from grapes like Cabernet Sauvignon, Petite Sirah, Syrah, Zinfandel or many other grape varietals, juice can be removed from that fermentation at the appropriate time for fortification to make a port leaving that original wine to carry on to dryness. The remaining must will now have an increased skin to juice ratio and will definitely improve the fruit/tannin concentration. This is similar to bleeding off juice for a blush or rose wine derived from a red grape. The juice removed should be added to the brandy as the traditional method. Careful attention should be paid to acid levels of port. A common fault in handmade port is too much acid but a deficiency may be worse. A pH in the range of 3.60 - 3.80 is typical.

Fortification

Traditional method is common but other variations also used.

California – commonly uses 190 Proof alcohol. Approx 95% abv, very neutral,

Some California producers blend dry wines of good colour from long skin contact with very sweet wines with no skin contact.

High quality red grape concentrate used to sweeten.

Inexpensive commercial ports are artificially aged by heating to 43°C for one week, often with some oxygen added to develop aldehydes.

Some oak chips added @ 2 grams per 4 litres if not aged in barrel.

SO2 at bottling 25-50 up to 100ppm will bind excessive aldehydes

Hydroxymethylfurfural is produced during heating fructose in an acidic solution. Glucose and fructose are found approximately equal in grape juice. Since heating port to give it a tawny character is prohibited in Portugal a low legal limit has been placed on its presence. It has a caramel like odour. Heating dessert wines to rapidly age was a common practice in the US. Its presence will be found in our concentrates. This is a common component in Madeira because of its baking procedure.

Arresting the Fermentation

At the correct time, the must is pressed or free run juice is separated from the must and added 'to' the determined amount of brandy (alcohol) – ferment should stop almost immediately.

How to determine the correct time to fortify to retain the desired sugar level.

The style of port you wish to make: how sweet, and alcohol content will determine how much alcohol to add and when.

You should carefully monitor the gravity every few hours to anticipate the time to fortify. Invariably it comes at the least convenient time of day or night.

The question of when to stop the ferment with the desired amount of sugar and how much alcohol to add is an approximation and further adjustments may have to be done with the balancing later in the life of the port. The strength or alcohol content of your brandy and the desired finished content will play a role in the 'how much to add'.

When

A 'standard' port has 18% alcohol and a gravity of 7° Balling (Brix). The table from Joslyn & Amerine, 'Technology of Winemaking', provides a guide as to when to add the alcohol.

The example shows that with an initial Balling of 26.5 to achieve a final Balling of 7.3, the fortifying brandy must be added at 12° Brix or a gravity of 1.048 See Below

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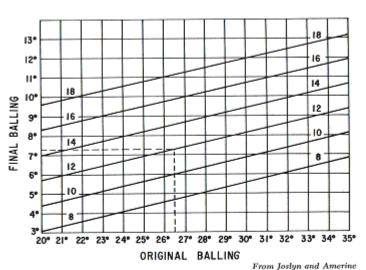
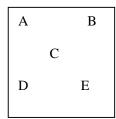


Fig. 69. When to Fortify Musts of Varying Original Balling to Produce Wines of 18.0 Per Cent Alcohol and a Given Balling

In the example: to produce wine with 7.3° Balling and 18.0 per cent alcohol from a must whose original Balling was 26.5° , it is necessary to add the fortifying spirits at 12° . This assumes immediate cessation of fermentation after fortification which may not be strictly correct.

Fortification Formula

Pearson's Square



- A Alcohol of wine %
- B Strength of spirit %
- C Desired Alcohol strength %
- D B-C= Volume of Wine needed
- E C-A= Volume of Alc needed

How much Alcohol

First you must determine how much alcohol the ferment has already produced. Multiplying the gravity drop (initial reading minus the current reading) in degrees Balling by 0.5 will give you the amount as a percentage. Be consistent with your volume units.

VA – Volume alcohol to be added

VW – Volume wine

F – Final alcohol desired

A - % alcohol strength fortifying with

S – starting alcohol (Brix drop x .5)

$$VA = VW (F-S)$$

A - F

Adding your measured amount of wine (pressed or free run juice) **to** the determined amount of alcohol will insure the fermentation will stop in the quickest time. Usually immediately. Thorough mixing during the addition is very important, as the two will tend to stratify.

Full Ferment and Fortify (Sherry Method)

Grapes are crushed and de-stemmed as normal and a clean ferment is desired.

Yeasts: DV-10, EC-1118, ICV-K1 (V1116) are good strong fermenters for alcohols up to 18%. Allow fermentation on the grapes to complete as dry as possible, as in a normal red table wine. You can determine the approximate alcohol that has been produced from the starting Brix by multiplying the S.G. drop x 131. If the grape pulp has broken down fully and you are concerned about too much tannin, you can press and allow ferment to continue in the secondary fermenter. If the grapes were heavily raisined and still fairly intact, you can prolong the fermentation on the skins monitoring the gravity. When gravity has stalled, it's time to press.

You can add small amounts of cane sugar or grape concentrate (preferred) to keep fermentation going in the secondary, to achieve an alcohol level as high as possible.

Depending on the grapes – amount of raisins, starting Brix, ferment may have some residual sugar. Latent sugar from raisins will result in a longer ferment and higher alcohol.

When ferment has stopped, rack off lees and let settle. Check gravity and estimate current alcohol content. Alcohol may be 16-18% depending on yeast used.

Wine will generally settle quickly. Don't worry about any excessive tannins at this point as they will gradually soften over time and can be dealt with prior to bottling if found too high.

Sweetening and Fortifying.

Using a good grape juice concentrate such as Syrah, Petite Sirah or Zinfandel generally gives a good fruit character. Depending on the style, you will be looking for a finished gravity of about 1.025, higher if a sweeter port is desired. A bench test with your hydrometer can determine how much back sweetening juice is required for total volume. Then, use Pearson's Square formula to determine the amount of alcohol to add to fortify up to 18-20%. The alcohol will reduce the S.G. by about .005 -.010 so some adjustments will need to be made.

Mix all ingredients well. I have found that the natural longer fermentation gives a better-integrated alcohol effect to the wine in its younger age. Some balancing with sweetness and alcohol often will have to be done later in the life of the wine.

Barrel Aging

Select old barrels 5+ years of use; younger wood can give a bitter character to the wine's finish if barrel is too new, especially if you intend to age for up to four - five years. Vintage style might be a better if barrel is younger than 7 years. If wine takes on a bitter character, it may have to be fined with gelatin or egg white, ('Ovogel') to remove bitter finish.

Barrels should be maintained relatively full. Excessive ullage will rapidly lead to a pronounced prune (not desirable), nutty character, loosing fruitiness.

Use of sulphite will retain fruity character and slow aldehyde production. Addition of sulphite can reduce nutty if too excessive. Adding sulphite late doesn't bring back the fruit. I generally use no sulphite after ferment for the first 2-3 years, then perhaps 25 ppm, but barrels are topped regularly every 2-4 weeks, keeping ullage to a minimum, particularly if barrels are smaller than 100 litres.

Solera System

A system of gradual blending wines from younger into older. As in a pyramid of barrels, the oldest wine is drawn for bottling from the lowest level and replaced with wine from above. New wine is added to the top barrel. The gradual replacement of wine from the level above is the Solera system. The wines bottled will be a blend of mostly older wines.

A partial Solera can be achieved with one barrel by simply removing a small percentage of wine from the barrel and replacing it with new wine. That way a large percentage of older wine will always remain in the barrel. The wine bottled will be a blend of younger and mostly older wines. Over time, the average age of the wine in the barrel will gradually become older depending on the amount removed. The wine will have a ruby or if old enough a tawny character. While a Solera system is not typically used in port production it can be a useful tool for home winemakers.

Storing and Enjoying Port

Ports should be stored differently depending on their type. The Standard port, including some Late Bottled Vintage (LBV) ports, have a stopper-with-plastic-top seal. These are not meant to be aged, and should be stored upright, so the cork does not have any contact with the liquid within. The plastic seal is not meant to hold in the liquid on its side. Vintage ports, on the other hand, are meant to be aged and have a traditional, "normal" wine -type cork. These should be stored on their sides like any other wine. The standard port is meant to be bought and enjoyed quickly - that's why it doesn't have a full cork. It is not meant to be aged. Once opened, if the bottle is kept corked (stopped), it can last between one (Ruby) and four (Tawny) months before its flavor is lost. A vintage port, once opened, loses its flavor quickly (again, like wine). It should be drunk within 24 hours of decanting if possible. Port should be served around 65 degrees, in a narrow wine glass, and the glass should only be half filled. This keeps the alcoholic content from overwhelming the flavors. It often needs to be decanted, and is traditionally served with Stilton or cheddar cheese.

Port also goes very well with chocolate. Port aromas include pepper, smoke, truffles and black currant. "Standard" port should be drunk within a year or two of purchase. Vintage Port peaks at around 20 years for good quality port. (Bill Pearson)

Serving Port Wine

Tawny, Special Reserve, 10 Years Old, 20 Years Old, Over 40 Years Old Tawnies can keep for a few years when not opened. After opening the bottle, it is recommended to drink the wine within 2 months in order not to risk loosing taste and aroma. As for all Port wine, the Tawny should not be exposed to long durations of direct sunlight or extreme heat.

A Tawny Port does not require any particular serving advice. The suggested serving temperature is often approximately room temperature, but the wine can also be enjoyed when served chilled.

Vintage Port

Vintage Port can be enjoyed after 4-5 years after bottling but can easily be kept for 20 years or more. Before serving, the bottle should stand upright for 48 hours in order to let the deposit sink to the bottom of the bottle. Two to three hours before consumption, the wine should be decanted leaving the deposit in the bottle. This also allows the wine to "open up" with the initial contact with air. Vintage Port has developed its lovely aroma and taste by not being in contact with air, a process that might have taken as much as 20 years. Therefore, after the first hours of contact with air, the wine starts to loose its taste and aroma, and generally should be enjoyed within 24 hours after opening the bottle.

Late Bottled Vintage Port

Late Bottled Vintages can be kept in the bottle for many years, as they will only get better with aging. The advantage of a Late Bottled Vintage is, that it can be drunk immediately or be kept and improve in the bottle for up to 10 years.

If kept for more than two years, the wine will give a deposit, and it is recommended that it is decanted before serving. Rozès Late Bottled Vintage should be served at room temperature or slightly below at 18°C.

What about serving food with Port after dinner? The richness of the wine is enhanced by serving nuts, dried fruit, and cheese, English Stilton is a favourite. Chocolate is a double-barrelled favourite, but notice that dark chocolate is a better match than sweet milk chocolate. (B.Pearson)

1.

History of Port

Source - Portwine2u.com
This is best read with a wee glass of Port ©

For almost two millennia, a unique viticultural landscape rose on the schistous hillsides along the Douro River valley and that has produced an exceptional wine. More than a gift of Nature, Port Wine is at heart the expression of this history, a collective cultural heritage of work and experience, know-how and art, that has built up from generation to generation. Port Wine was, and is, a key product for the national economy and even more, a symbolic asset that represents Portugal throughout the world.



The history of vineyards in the Upper Douro is a long and ancient one. There is no lack of archeological discoveries and documented references to witness the cultural persistence of viticulture from past eras.

Remains of stone treading tanks and casks dating back at least to the 3rd and 4th centuries can be found throughout the region. The designation Port Wine, however, only appears during the second half of the 17th century at a time of the expansion of Douro viticulture and rapid growth in wine exports.

During the last third of the 17th century, at a time of great rivalry between the

maritime empires in the North, the Flemish and the British increased their demand for Iberian wines, to the detriment of wines from Bordeaux and other regions of France. England imported increasing quantities of Port Wine. In 1703, the Treaty of Methuen put the diplomatic seal of approval on this trade by exchanging privileges for British textiles on the Portuguese markets.

Production of Douro wines, stimulated by the rising British demand and very high prices, tried to adapt itself to the new requirements of the market. However, as it has occurred with all great wines, active trading instigated rivalries that often gave rise to fraud and infractions.

It then happened that, as of the middle of the 18th century, exports stagnated although production continued to grow. Prices dropped like a stone and the British decided not to buy any more wine as they accused the farmers of doctoring their wines.

Consequently, the great Douro farmers, desirous of protecting their interests, petitioned the government of the future Marquis of Pombal to create the Companhia Geral dos Vinhos do Alto Douro. This new institution, established by Royal Charter on 10 September 1756, was directed at ensuring the quality of the product, avoiding fraud, balancing production and trade, and stabilizing prices. The first "demarcation of the mountains" was implemented. The borders of the winemaking region were delimited by 335 stone markers bearing the Feitoria designation which indicated the best quality wine, the only one that could be exported to England, commonly known as fine wine. The concept of a register of vines was defined.

During the second half of the 19th century, a series of factors came together to mark the turning point from the Douro of the time of the Marquis of Pombal to the Douro of today. The destruction caused by odium during the 1850's was followed, a decade later, by the ravages of the phylloxera that destroyed most of the vineyards in the demarcated region. In 1865, the new trading freedom regime that was extended to the region led to the opening of the line of demarcation, thus enabling vineyards to expand rapidly to the area of the Upper Douro where the effects of the phylloxera appeared later and less violently.

This was followed by new methods for preparing the land, new planting techniques for vines, the selection of the best regional species of vines for grafting, the rational use of fertilizers and pest control, the perfecting of winemaking procedures.

By the end of the century, the impact of the phylloxera was clearly evident in the manner by which the land was forced to become reorganized.

At the end of the 1880's, whilst the vineyards were slowly being rebuilt and spreading over a wider area than before, the Douro was faced with another crisis, one that would prove more destructive than the



diseases of the vine, fraud. Imitations of Port Wine were invading our main markets where such as French Ports, Hamburg Ports and Tarragona Ports were being sold at prices far below those of authentic Port Wine. And the market suffered.

Trade was declining, farmers were destitute, the Douro was a picture of misery.

The Portuguese dictator, João Franco, upon assuming office on 10 May 1907, signed a

decree that was to regulate the production, sale, export and control of Port Wine, based on the principles applied by the Marquis of Pombal 150 years earlier in defence of the name. New lines of demarcation were drawn around the area of production which now included the Upper Douro. Once again, exports of Port Wine had to be shipped across the bar of the Douro River or from the harbour at Leixões and the Porto denomination of origin was reserved exclusively for fortified wines from the Douro region that contained a minimum of 16.5° of alcohol. Responsibility for defending and controlling the denomination of origin was given to the Viticultural Committee for the Douro Region.

On the other hand, the decree of 27 June of the same year that regulated the brandy trade prohibited the distillation of Douro wines and forced producers to buy the spirits they needed for fortifying their wines, from other winemaking regions, a measure that was violently contested. The excessive enlargement of the demarcated region was also the subject of heated debates, so much so, that the following year Admiral Ferreira do Amaral's government (Decree of 27 November) preferred a demarcation by parishes which resulted in a total area similar to the one that exists today (Decree-Law of 26 June 1986) which, in turn, corresponds to the one established by decree on 10 December 1921.



Exports rose at a totally unexpected rate to more than one hundred thousand pipes in 1924/1925, a volume of trade that would only be surpassed at the end of the 1970's.

In spite of all the above, however, the situation in the Douro villages suffered little improvements. Poverty and hunger worsened as taxes and the cost of products rose at the end of the monarchy and during the First Republic. The political and social unrest of the first quarter of the 20th century proved to

be one of the most turbulent periods in the history of the Douro, with violent demonstrations, political

meetings, riots, the burning of trains carrying brandy from the South of the country, attacks on City Halls and Public Offices.

The new regime that was born with the military uprising of 28 May 1926 enforced new changes to the organization of the Port Wine trade and to Douro agriculture and brought about stricter government control.

In 1926, the government created the Bonded Area, or Entreposto, in Vila Nova de Gaia, an area that was to act as an extension of the demarcated region. All companies connected to the Port Wine trade were forced to build lodges within this area if they wished to age their wines. In practice, this was the end of all trade direct from the Douro.

In 1932, the associative regime created the Farmers' Guilds, consisting of owners of land who were heads-of-households, on which local trade unions held a seat. The Guilds that were formed on a county level then associated themselves to the Syndicated Federation of Farmers of the Douro Region - the Casa do Douro, the entity responsible for protecting and disciplining production. Later regulations (Decree of 30 April 1940) granted this entity the power to prepare and maintain the register of vineyards, to apportion the licenses for fortified wine among producers, to supply grape brandy to winemakers, to supervise the wine made in the demarcated region and to issue the documents that had to accompany all wine transported to the Gaia Entreposto.

The Port Wine Shippers' Guild was created in 1933 as a sectorial association that would endeavour to discipline the trade.

The activities of the Casa do Douro and of the Port Wine Shippers' Guild were coordinated by the Port Wine Institute, an entity created that same year with a mandate to study and promote the quality, control and dissemination of the product.

The register of vineyards was updated. Each year, according to the location, the nature of the soil, the varieties and age of the vines, the Casa do Douro apportions licences amongst all the registered farmers to produce a set amount of fortified wine, according to their classification (from A, the best, to F) for a set price. This is the benefício system.

The associative, or cooperative, movement began to gain strength in the 1950's and by the beginning of the next decade represented about 10% of all growers and all regional production.

This form of organization was extinguished following the 1974 Revolution, although the Casa do Douro and the Port Wine Institute retained their basic responsibilities for defending the quality of the denomination. In turn, the Port Wine Shippers' Guild became the Port Wine Shippers' Association and, more recently, the Association of Port Wine Companies.

Most Port Wine shippers have joined to form groups of companies. At the same time, some of these larger companies have invested heavily in production by purchasing their own estates and vineyards and

in replanting. On the other hand, some farmers have, since 1978, decided to enter the commercial sector to sell their own production directly, thus returning to a custom that ended in 1926. 1986 saw the birth of the Association of Producers -Bottlers of Port wine, directed namely at the sale of this wine directly from the Douro estates and under the respective farmers' own labels.

In 1995, the Demarcated Region of the Douro was once again re-organized from an institutional point of view. It has been endowed with an interprofessional entity - the Interprofessional Commission for the Demarcated Region of the Douro (CIRDD) - on which farmers and producers had equal representation and a joint goal: to discipline and control the production and sale of wines from the region entitled to the denomination of origin. Changes introduced did, however, respect the historical, cultural and social heritage and traditions of the region and followed the guidelines set forth in the framework legislation for demarcated winemaking regions. Two specialized sub-committees, one for the Porto denomation or origin and the other for the remaining quality wines of the region, the VQPRD, made up the CIRDD Board of Directors which was responsible for setting the regulations that applied, under law, to each of these two sectors.

This organisational model was altered in 2003, when the CIRDD was replaced by an Interprofissional Council which is a part of the Douro and Port Wine Institute.

Which way should you pass the port?

Wikipedia

There is a unique body of English ritual and etiquette surrounding the consumption of port, stemming from British naval custom.

Traditionally, the wine is passed "port to port": the host will pour a glass for the person seated at their right and then pass the bottle or decanter to the left (the port side); this practice is then repeated around the table.

If the port becomes forestalled at some point, it is considered poor form to ask for the decanter directly. Instead, the person seeking a refill would ask of the person who has the bottle: "Do you know the Bishop of Norwich?" (after the notoriously stingy Bishop). If the person being thus queried does not know the ritual (and so replies in the negative), the querent will remark "He's an awfully nice fellow, but he never remembers to pass the port."

A technical solution to the potential problem of a guest forgetting their manners and "hogging" the port can be found in a Hoggett Decanter which has a rounded bottom, which makes it impossible to put it down until it has been returned to the host, who can rest it in a specially designed wooden stand known as "the Hoggett."

In other old English traditions when port is decanted, commonly at the dining table, the whole bottle should be finished in one sitting by the diners, and the table should not be vacated until this is done.

Declared Years of Vintage Port

The decision on whether to declare a vintage is made in the spring of the second year following the harvest.

The decision to declare a vintage is made by each individual port house, often referred to as a 'shipper'. The port industry is one where reputations are hard won and easily lost, so the decision is never taken lightly. During periods of recession and war, potential 'declarations' have sometimes been missed for economic reasons. In recent years, some shippers have adopted the 'chateau' principle for declarations, declaring all but the worst years. More conventional shippers will declare, on average, about three times a decade.

This is a chart over the number of vintage ports declared each year since 1955. http://www.geocities.com/vintageportguide/

Number	1965	10	1978	27	1989	19
Year of	1966	29	1979	13	1990	10
Houses	1967	16	1980	31	1991	41
1955 23	1968	3	1981	1	1992	21
1957 11	1969	1	1982	39	1993	1
1958 21	1970	41	1983	36	1994	37
1960 41	1972	6	1984	15	1995	42
1961 4	1974	11	1985	46	1996	23
1962 6	1975	34	1986	5		
1963 44	1976	3	1987	30		
1964 10	1977	33	1988	5		

Here is a list of generally declared Vintage Ports since 1900, together with a rating assigned by Wine Spectator. http://www.thevintageportsite.com/declared-port-vintages.aspx

Wine Spectator ratings 95-100 classic 90-94 outstanding 85-89 very good 80-84 good 75-79 mediocre 50-74 not recommended



can be drunk now, but will improve further

Drinking Status	Year Rating	Description
/	2003 98	The 2003 wines have great 'traditional' tannic structure with attractive ripe fruit flavours - classic Vintage Port. A general declaration.
/	2000 97	The 2000 Vintage will be remembered for the immense concentration of its wines and for the small quantities produced.
/	1997 96	One of the great Vintages of the decade, featuring full-bodied and harmonious wines. General declaration.
/	1994 99	Classic, monumental wines with fabulous rich fruit character. An outstanding Vintage. Probably one of the best of the 20th Century. General declaration
/	1992 94	A good Vintage with some rich and concentrated wines, the best of which are very good. Declared by some Port houses in favour of 1991
/	1991 93	The first "Declared Vintage" for six years – the longest gap between declarations for decades. A very small but good Vintage not dissimilar to some of the 1983's. Declared by most but not all houses.
/	1985 93	A great classic Vintage, with concentrated, rich and potent wines. General declaration.
i	1983 92	An exceptional Vintage, with outstanding, powerful wines, but unjustly overshadowed by the 1985s and the 1977's before them. As a result these wines are very good value at auction.

Declared by most houses.

i	1980 90	A hugely underrated year, the good wines are outstanding. This Vintage is like the '66 in that it only became recognised for its real star quality years after the declaration. Overshadowed by the 1977, but as a result a real bargain at auction. General declaration.
i	1977 97	A classic Vintage, concentrated, long-lasting and complex. Declared by all the major Port houses.
i	1975 80	A light Vintage, but the best are elegant and a pleasure to drink. General declaration.
i	1970 95	A classic Vintage, with great balance, good structure, and long-lived wines. One of the absolute finest Vintage Ports of the last 50 years. Declared by all the major houses.
i	1966 93	An outstanding Vintage of exceptional quality, but always unjustly overshadowed by the 1963. Now recognised as being one of the very best post-war Vintage Ports. Declared by most of the major Port houses.
i	1963 96	A monumental Vintage of legendary proportions that needs no introduction. One of the 20th Century's finest. A Vintage Port against which all others are judged. Declared by all the major Port houses.
i	1960 87	A very good Vintage that produced elegant and sweet wines. Declared by all the major Port houses.
i	1958	A good year with some fragrant and delicate Vintage Ports, despite the rather damp weather conditions throughout. Declared by some but not all the major Port houses.

i	1955 94	Outstanding, fruity wines for long-term ageing - a real pleasure to drink, now or in a few decades time. One of the most underrated Vintages of the 20th Century. Declared by most of the major Port houses.
i	1950 86	Also known as the "Lady's Vintage", this was a delicate and subtle Vintage. Declared by some but not all Port houses.
i	1948 99	Classic Vintage, with rich and individual wines that are unfortunately rather hard to find. Declared by some but not all Port houses.
i	1947 93	An outstanding Vintage that was only declared by a few shippers. Fine, attractive wines.
i	1945 95	A superlative Vintage, the quality in the Douro Valley reflecting that of most other growing regions in Europe. This wine is one of the superb 'reference years' by which all other Vintages are judged. Declared by all the major Port houses.
i	1935 95	Classic refined wines, rich with fruit and tannins without perhaps the power of the 1934's. Declared by several major Port houses.
i	1934	An outstanding Vintage, with powerful and well-structured wines. Declared by some of the major Port Houses.
i	1927 100	A truly majestic Vintage, with poise and class. 1927 was without doubt one of the 20th century's truly great Vintages. Declared by all of the major Port Houses.

i	1924	An excellent vintage, which produced very high quality wine in small quantities. Most major Port Houses declared.
i	1920	This was the first general declaration after the First World War.
i	1912	A superb classic Vintage, considered by many to be one of the finest of the 20th century. Declared by most major Port Houses.
i	1904 90	An outstanding Vintage, not particularly deep in colour now, but well-balanced and delicate. Another great classic Vintage Port. Declared by most of the major Port Houses.
i	1900 90	Despite the fact that the wines were not remarkably dark when young, 1900 proved to be a year of exceptionally fine quality. A classic Vintage Port year. Declared by most of the major Port houses.

Acknowledgements

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Technology of Wine Making - Amerine, et al
Grapes into Wine - Pilip M. Wagner
The Vintner's Art - Hugh Johnson & James Halliday
How to Taste - Jancis Robinson
Introduction to wine - Chris Foulkes
Wines of the world - Jeremy Roberts and Jose Northey
Bill Pearson - BC Guild of Wine Judges
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