



Reference Notes for Wine Trade Professionals who are providing consumer tutored tastings.

## Port and the Douro

(References to Douro or Douro Valley refer to the appellation, rather than the extent of the whole river in Portugal).

### Potted History

There is evidence of winemaking in the Douro (granite troughs - *lagares* - for treading, etc) dating back to at least the 3<sup>rd</sup> Century AD.

One year after Portugal won back independence from Castile with English help, the Treaty of Windsor signed in 1386 (military, economic and political).

Only during the second half of the 17<sup>th</sup> Century is reference made specifically to Port Wine. The British and Flemish sought out and developed wine production in Iberia, mainly at the expense of Bordeaux.

1689 – war between Britain and France means French wine became associated with the Jacobite cause, and the natural source for England was the Douro, with traders already based in Oporto. Richard Ames writes in 1693,

“Mark how it smells, methinks a real pain,  
Is by the odour thrown upon my brain.  
I’ve tasted it – tis spiritless and flat,  
And has as many different tastes, as can be found in compound pastes,  
But fetch us a glass of any sort,  
Navarre, Galicia, anything but port.”

1703 – The Methuen Treaty between England and Portugal allowed 1/3 less duty on Portuguese wine, in exchange for English Textile concessions in Portugal. Trades seriously develops, encourages fraud, then collapses.

1756 – The Marquis of Pombal demarcates the Douro, and created an Institution to prevent fraud, ensure quality and stabilize prices (Pombal was later dismissed in 1777). 355 granite posts – with the “feitoria” designation, defined where the best wines were made, and so suitable for export.

1765 – First Vintage port.

1850 - oidium

1862 – phylloxera

In 1907, following further issues with fraud, new legislation not only reiterated Pombal's ideas, but also extended the demarcated region to now include the developing Upper Douro.

1926 saw the creation of the Entrepasto (bonded area) of Gaia, such that it became an extension of the demarcated wine region, and legislated that all wine had to pass through this zone to qualify for the appellation. (This was deregulated after Portugal joined the EU in 1986, thus allowing any Douro producer to sell direct to the market).

In 2001, both the Douro Valley and the Riverfront area of Porto-Gaia were given UNESCO World Heritage status, in recognition of their importance in the wine trade over the last two thousand years.

### **Size, Soil and Climate**

The demarcated area of the Douro Valley covers some 250,000 hectares, of which around 45,000 are planted to vines (so just over 18%). There are around 39,000 'farmers' of grapes, tending a total of over 135,000 individual vineyard plots: with an average 1.17 ha under vine per farmer, tending an average of 3.5 plots each, this is a region of complex, most often small-scale farming.

The region begins around 80 kilometres upstream from Porto and the Atlantic coast, and follows the river Douro upstream to the Spanish border, a further 120 km.

The lower part of the Douro river (ie towards the coast, before the demarcated region), flows through the southern part of the Vinho Verde appellation. The two regions are separated by the Marao mountains, which creates a rain shadow into the (demarcated) Douro Valley.

Consequently, the Douro has very cold winters and very hot summers ("Three months of winter and nine months of hell!"). These extremes mean that monthly rainfall figures vary from 6.9mm to 204mm, with conditions becoming more arid the further inland.

Whilst average annual temperatures vary within the region from 11.8 C to 16.5 C, this doesn't obviously reflect that in high summer, temperatures can go above 40 C at times, especially closer to Spain, and in January / February you are likely to see snow on the tops, and find heavy frost and ice in the Valley (drivers beware!)

The Douro begins its life in Spain as the Duero, which also has an important influence on a number of Spanish wine regions.

The soil is mainly schistose, with granite outcrops on higher ground.

Vineyards are planted as low as 80m above sea level, to around 800m. This, combined with the almost total spectrum of exposure of vineyards (North, South, East, West), means that individual vineyard plots can vary greatly.

### **Vineyards and Grape Varieties**

Each vineyard plot allowed for port production is rated from A to F (A being the best), depending on a number of factors, including altitude, exposure, vine stock and so on. This is known as the *Cadastral*, or register of vineyard properties. Each year, a legal limit is set as to how much wine produced in these vineyards can be made into Port Wine (known as the *beneficio*).

This rating has a governance on whether the grapes are allowed to be used for the production of Port wine; in fact only around 26,000 of vineyard meet this criteria (other vineyards are categorized G,H or I).

Vines must be a minimum of 5 years old before grapes can be used for port production.

Maximum authorized yield is 55 hl/ha (7,500 kg per ha), but in reality the overall average is around 30 hl/ha (4,100 kg per ha).

The Douro Valley is known for its large range of permissible varieties, both white and black (totaling 116 varieties according to 2001 recorded documentation).

The most noteworthy black varieties include Tinta Amarela, Tinta Barroca, Tinta Roriz, Touriga Franca, Touriga Nacional and Tinto Cao.

Most vineyards are terraced, although there is some vertical planting too (Vinhas ao alto). Despite the modification of much terracing to allow for limited mechanization, a great deal still needs to be done by hand.

### **Winemaking**

During day each lagar is filled with grapes, treading starting after nightfall. First linking arms for two or three hours, it starts regimented (the Corte). Afterwards, several hours of informal treading.

Fermentation commences, stalks and skins (cap) rising to surface. This is plunged with a spiked stick (macaco) to aid extraction. Once sufficient colour and flavour attained, and sugar levels fallen, the must is run off, and grape brandy added to stop fermentation.

Typically, 110 litres of (77%) spirit is mixed with 440 litres of fermenting must to create a 'pipe' (unit of measurement which is also the name of maturation barrels) of embryonic port.

Other methods include autovinification, robotic treading and tank.

## Maturation

The Spring after the harvest, this fortified wine (it cannot yet be legally called port) is moved down to the shippers' maturation lodges at Vila Nova de Gaia, on the southern side of the Douro, opposite Porto City. The exceptions are the individual quintas who maintain stocks for maturation in the Valley itself.

The wines are categorized by the blender or winemaker, and then transferred into pipes or vats for ageing. Generally speaking, larger vats (balseiros) are used for port styles where the blender wants to maintain a richer, fruitier port style (Ruby, LBV, Vintage), whilst barrels (pipes, or pipas) are used for wines which will eventually become Tawny styles, due to the greater proportion of surface contact with the wood, which provides the environment for controlled oxidative ageing.

## Port Styles

Sweet ports will have between 90 and 130 g/l of residual sugar.

Dry White Port has between 40 and 65 g/l residual sugar.

**White Port (undated and dated)** – can dry extra dry, dry or sweeter in style. 0, 20, 30 and 40 Year Old White Ports are also allowed, but rare.

**Red Ports (include Ruby, Late Bottled Vintage, Crusted, Vintage)** – Vintage Ports are bottled between 2 and 3 years old, LBVs between 4 and six years old. Crusted is a blend of more than one year, aged for a minimum of two years in bulk and three years in bottle prior to release, and bottled without filtration.

**Tawny Ports (undated, dated – 10,20,30,40-Years Old, Colheita)** – ports which display their oxidative ageing characteristics in both colour and flavour. Colheitas are the product of a single harvest, bottled at not less than seven years old, and displaying the year of bottling as well as the vintage.

**Rosé Port** – Pink-coloured, young, fresh with no oxidative character.

## The Markets

109 companies registered with IVP as shippers (47 Gaia Shippers, 15 Shippers, 47 Producers in Douro)

In 2009, global sales of Port wine totalled 111.5 million bottles. 91.8 million of those bottles were of so-called Standard Ports, and 19.6 million were premium category.

*Top Five Markets by Volume:*

1. France (29.9%)
2. Holland (14.7%)

3. Belgium (12.1%)
4. Portugal (11.4%)
5. United Kingdom (9.9%)

So, the top five account for 78% of global port sales.

*Top Five Markets by Value:*

1. France (23.9%)
2. Portugal (12.7%)
3. Holland (11.9%)
4. United Kingdom (11.1%)
5. Belgium (10.6%)

Statistics from April-October 2011.

### **Storage and Service**

Port is best stored, as with most other wines, on its side, in a constant temperature (preferably cool), in the absence of strong light.

If you are intending to decant it (which is advised for Unfiltered LBV, Crusted and Vintage Ports), it is advisable to stand them up for two days before decanting. The decant into a clean vessel, with a strong light underneath the bottle neck and/or a decanting funnel, so you can see when the sediment starts to appear, and so stop pouring.

Most ports are best served at a cool room temperature. White Ports and Rosé Ports are generally best chilled, and Tawny ports can be excellent if served cooled, especially in the summer months.

White ports are generally served as aperitifs, but also work very well with fresh, lactic cheeses (Wensleydale, Lancashire, Cheshire)

Tawny Ports are excellent after a meal (although can make very good aperitifs), but also pair well with nutty-flavoured cheeses such as Mature Cheddar, or Cave-Aged Gouda. With desserts, they work well with dishes which feature caramel, praline, nuts and/or dried fruits.

Red Ports are renowned for their pairing with a fine cheeseboard, most notably Stilton, but can also be very successful with chocolate- or very-dark-fruit-based desserts.

The majority of ports enjoy a longer life once opened than do most other wines.

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