

DEFINITION	<ul style="list-style-type: none"> Made by adding brandy to arrest fermenting grape must. Sweet & high in alcohol (20%). Name derived from Oporto where it originates. Port = 1/2 of Douro's wine production.
HISTORY	<ul style="list-style-type: none"> Originates from 17th Century trade wars between UK and France with punitive levels of taxations on French wines in 1693 by William III. 'Blackstrap' astringent reds produced in Douro with added brandy for better transportation. 1678: Lamego Monastery where abbot was adding brandy during fermentation. Development of merchants & traders. 1756: Douro boundaries set to regulate production of Port. 1st demarcation in world.
LOCATION	<ul style="list-style-type: none"> 3 regions: 1) Baixo Corgo 2) Cima Corgo 3) Douro Superior 1) Baixo Corgo: coolest & wettest (900mm); best suited => lighter Port styles (cheap Ruby, Tawny) 2) Cima Corgo: heart of demarcation; around Pinhão; lower rainfall (700mm) + higher temp; best for hi quality Tawny, LBV and vintage port. Most of the quintas there; largest area under vine. 3) Douro Superior: most easterly; most arid (400mm); +3C vs Baixo); still relatively unexploited due to difficult landscape. Complex vintage ports and premium port blends.
CLIMATE	<ul style="list-style-type: none"> Hot continental; very dry; increasingly hot and dry further inland V. unpredictable weather: excess heat (50C), frost (Douro sup) & unpredictable rain + Summer & Autumn hail Altitude from 80 to 600m w/ better quality in lower altitude.
SOILS	<ul style="list-style-type: none"> Shallow schist soil broken into terraces. Most vineyards on steep slopes.
GRAPE VARIETIES	<ul style="list-style-type: none"> 20 varieties approved. Most imprtt: Touriga Franca, Tinta Roriz, Tinta Barroca, Touriga Nacional, Tinta Cao 1) Touriga Franca (20% pltgs) -> ALL-AROUND. Lighter, softer and rounder. Tolerates heat + drought. Perfumed w. 2) Tinta Roriz/Tempranillo (16%) -> FINESSE + GOOD LENGTH Medium colour, medium tannin and concentration. Better in cooler years. 3) Tinta Barroca (12%) -> SWEETNESS + JAMMY + RUSTIC. Rarely used as varietal. 4) Touriga Nacional (2%) -> AROMATIC + HI COLOUR & TANNINS Lo yields. Considered finest grape of Douro. 5) Tinta Cao 'red dog' -> deep colour 6) Others: Mourisco (poor quality); Sousao (deep colour)
VITICULTURE	<ul style="list-style-type: none"> Phylloxera devastated in 19th Century. Most vines: Guyot-pruned. Wire-trained. Harvest in late September for 3 wks. 3 types of planting systems: 1) Socalcos: walled terraces. 2 rows wide with hi density planting (6,000 vines/ha) 2) Patamares (1970s): ramps bound together by vegetation to replace stone walls. Lower density (3,500v/ha). Allows small tractors 3) Vinhos ao alto: vines running up & down slope. Allows some mechanisation.
VINIFICATION	<ul style="list-style-type: none"> Key: rapid extraction of colour & tannins + addition of brandy spirit at right moment during fermentation 1) Crushing & maceration <ul style="list-style-type: none"> - Traditional method: whole bunches or crushed grapes into granite troughs (lagares) and trodden by foot. - Nowadays: mechanised crushing & maceration buy robotic punch-down, automatic pumpovers or autovinifiers 2) Fermentation & fortification <ul style="list-style-type: none"> - Fermentation conducted by natural yeasts @ high temp (30C) for colour & tannins extraction - Abv = 6-9% -> wine drained from skins + fortified with Aguardente (77%abv spirit) at 1 parts to 4 of wine - Results: 18-19% abv alcohol and fermentation stopped - White port: same technique but white grapes. 3) Maturation <ul style="list-style-type: none"> - 550l pipes storage. Best batches reserved to declare vintage Port. Others age with some level of oxidation - Tannins soften + colour evolves. Maturation in Vila Nova de Gaia (mandatory to mature there until 1986). - Douro bake: sweet, caramelised flavour typical to maturation in lodges.
STYLES	<ul style="list-style-type: none"> Wood matured 1) Ruby: aged less than 3 years in large oak vats; deep ruby, fresh, fruity & robust. 2) Premium/Reserve ruby: up to 5 years in large oak vats; more colour and depth. 3) White: made from white grapes with skin contact. Most released young (18mths max). Some in casks. 4) Fine Tawny: basic tawny. Often blend of young ruby and white port. 5) Aged Tawny: aged oxidatively in wood casks for 8 years. Tawny colour, soft, silky character. Can be indicated (10, 20, 30, over 40). Date of bottling to feature on bottle. Aged tawny might deteriorate if spends too long in bottle. Colheita: age-indicated + min 7 years in wood. 6) LBV: single vintage. Bottled after 4 to 6 years after harvest (&maturation)+ ready to drink. Most common is fined, cold-stabilised wines before bottling. Can be filtered or unfiltered (traditional LBV) and bottle matured (min 3 years before bottling). Bottle matured 1) Vintage Ports: highest quality; 2% of production; only exceptional years; aged in wood for 2-3 years anaerobically and bottled without filtration for further maturation; needs decanting. 2) Single Quintas: bottled without filtration after 2 years in wood; will mature earlier vs. Vintage Ports.
TRADE & LEGAL STRUCTURES	<ul style="list-style-type: none"> Benificio system: <ul style="list-style-type: none"> - Put in place in 1947 to keep supply & demand in check. Quintas ranked every year from A to F according to 12 factors incl. Location, Altitude, Gradient, Aspect, Vines (variety, density, age, yields), Soil type, Shelters. Point system (x>1,200pts = A) calculated by Instituto dos Vinhos de Douro e do Porto (IVDP).
KEY PRODUCERS	<ul style="list-style-type: none"> 90m litres produced every year. Very fragmented: 38,000ha for 33,000 growers (80% holdings < 0.5ha) Key Port Shippers: <ul style="list-style-type: none"> - Cruz: #1; mainly French market - Symington (Dow's, Graham, Warre): dominant family for 4 generations, founded in 1882; introduced robotic lagares in 80s. - Ferreira: Portuguese port house; sold to Symingtons in 89; leading brand in Portugal; famous for non-Port wine Barca Velha in 50s. - Cockburn: founded in 1815; famous for Premium Ruby Special Reserve - Fladgate Partnership (Taylor, Fonseca & Croft): family-owned; 30% of premium Port worldwide. - Croft: established in 1678 under different name; also invested in Sherry in 70s (pale cream); - Taylor: independent; part of Fladgate partnership; established in 1692 with a lot of different names; famous for vintage port; owns Quinta de Vargellas - Sandeman: established by a Scot in 1790; acquired by Sogrape in 01.
SALES	<ul style="list-style-type: none"> 80% Premium and 20% standard. France: 25% of sales but mainly young Tawny. US/UK/Canada: Premium buyers.

SHERRY

(Jerez de la Frontera, Sanlúcar de Barrameda, Puerto de Santa María/Andalucía, Spain)

DEFINITION	<ul style="list-style-type: none"> Fortified wine made from white grapes that must be aged for min 3 years in one of the 3 towns of sherry triangle Produce of Jerez Do since mid-90s. English corruption of Jerez or Xéres.
HISTORY	<ul style="list-style-type: none"> Jerez: one of the oldest wine-producing town in Spain (Phoenicians 1110BC). Late 15th century: establishment of butt sizes. 1587: Drake flees Jerez w/ wine and contributes to make Sherry popular in the UK. War in early 19th century followed by Sherry soaring production, then phylloxera 1950s-1980s: Ruiz Mateo and his Rumasa empire contributed to Sherry's success but also prices down. Since mid-80s: decline and will to rejuvenate. 00: creation of VOS & VORS for Oloroso, Palo Cortado, Amontillado & PX.
LOCATION	<ul style="list-style-type: none"> Jerez Superior (95%) and Jerez Zona (more/less abandoned now). 6,000ha (Port: 45) of gentle slopes in the Sherry triangle. #1 Jerez #2 Sanlúcar #3 Santa María
CLIMATE	<ul style="list-style-type: none"> Mediterranean with key influence of Atlantic sea (cool Poniente) to cool down Sanlúcar & Santa María (10C lower vs. Jerez in summer). Hot Levante wind dries up land in summer (up to 30C inland).
SOILS	<ul style="list-style-type: none"> Albariza white chalky soil; hi in limestone (40%) then sand & clay; poor in nutrients but hi porosity. Dries without caking. Barros (clay, sand, limestone) / Arenas soils (sand, clay) less important. Arenas areas used for PX
GRAPE VARIETIES	<ul style="list-style-type: none"> 3 key grapes: 1) Palomino (Basto/Fino): adapted to warm dry soils, hi regular yields w/out irrigation, low in acidity & fermentable sugars. 95% pltgs. 2) PX: naturally sweet, thin skinned, prone to disease, reasonably low in acidity. Can be sun-dried or botrytise. 3) Moscatel: planted in arenas soil. Equivalent to Muscat of Alexandria usually.
VITICULTURE	<ul style="list-style-type: none"> Vara y pulgar pruning method (thumb&stick): vine trained with 2 branches. Pulgar is grown to have 8 buds and carries season's fruit; Vara cut back to have only a couple of buds; Pulgar & vara alternated to preserve vine. Pulgar supported by crutch at 60cm above ground (low) -> foliage for sun protection + hand harvest Aserpiado built on soil to retain water. Harvest 8th September when grapes reach min 11^o Baumé
VINIFICATION	<ul style="list-style-type: none"> Pressing generally carried using horizontal press (Vaslin or Willmes) -> 70% free run juice for Fino. Next 20% for Olorosos and less fine wines. Rest for vinegar. Acidification with tartaric acid + cleared via cold settling + racked in stain steel or 600l butts Fermentation inoculated @ 25-30C for 2-5 days to use 90% of fermentable sugar. Last 10% fermented cool for 2-3 mths 11%abv dry low acidity wine put to settle in tank 5/6 full. Dev't of flor that feeds on glycerol, polyphenols, higher alcohols and VA and protects the wine @ 15-20C + hi humidity + aeration. Flor yeasts are benevolent film-forming yeasts which float on surface of wine. Ferment all sugar to dry, then they produce a small white curd when temperature rises in Spring that slowly thickens & browns. Produce acetaldehydes. Vinegar <14.5%abv<film<16%abv<oloroso. Film sherry not in stainless steel as would be watery -> butts. Fortification to 15% for Fino (Flor not killed) and 18% for Oloroso (flor killed) with 95% grape spirit. Solera system (created in 2nd half of 19th for commercial reasons) to refresh flor and aid maturation. Solera: dynamic ageing system using fractional blending of younger wines with older wines. Max 1/3 of 1st criadera at the top will be blended down with 2nd criadera for some time before going down to 3rd and up to 8th or more (min 3). Old US oak to avoid woody flavours. Solera = bottom level criadera = wine ready for 'sacking'. More criaderas needed for Fino/Manzanilla. Clarification + Cold Settling + Sweetening (Cream, Sweet Olorosos, PX, Pale cream) + Bottling
STYLES	<ul style="list-style-type: none"> 4 major classifications: 1) FINO: fortified to 15.5%; aged biologically under flor; bone dry; <ol style="list-style-type: none"> Fino: aged for 3 years min; bone-dry; drink young Amontillado Seco: Fino + oxidative ageing (refortified or flor died away+ new solera for 3yrs). Amber, hazelnut, herby Manzanilla (15%): Fino aged in Sanlúcar with salty tang. Slightly slower maturation + grapes often picked less ripe vs. Fino for a bit more acidity and lower alcohol. Manzanilla Pasada: oxidised Manzanilla Sweetened Fino = Pale Cream (grapey, light colour, Med body). Sweetened Amontillado = Blended amontillado 2) PALO CORTADO: similar to Amontillado but fuller bodied; nutty nose + bitter orange 3) OLOROSO: <ol style="list-style-type: none"> Oloroso seco: wine fortified to 18% to 22% and aged oxidatively (no flor). Selected after 1st fermentation. Mahogany colour, spicy, savoury, meaty, nutty aromas. Oloroso dulce/Cream Sherry: Oloroso + sweet wines e.g. PX 4) Naturally Sweet wines <ol style="list-style-type: none"> PX: sun-dried Pedro Ximenez grapes and fortified to 15% and aged in solera. Dried fruit, raisins & figs, extremely sweet. Moscatel: fortification to 15% and aged in solera for flavour concentration; dark mahogany colour, jasmine orange blossom and honeysuckle + lime & grapefruit. 15% to 22% <p>Mistela: mixture of grape juice & alcohol used as stable sweetening agent in Sherry (also used for VDN). Arrope: syrup made by boiling down and concentrated unfermented grape juice to then sweeten Sherry. Montila-Moriles</p> <ul style="list-style-type: none"> South Spain region (N of Malaga) with hot semi-arid climate, albariza soils. Bush vines + lo yields. PX dominates. Same vinification as in Jerez. Fino styles NOT FORTIFIED and achieve 15% naturally. With oxidation, can reach up to 13-15% abv or be fortified to 16%+. SOLERA SYSTEM used. Minimum 2yrs ageing. Great PX wines. Some PX still exported to Jerez region for blending.
TRADE & LEGAL STRUCTURES	<ul style="list-style-type: none"> Sherry: Oldest demarcation in Spain. Consejo Regulador recognises four classes of Sherry bodega: <ol style="list-style-type: none"> Bodegas de Producción: wine making bodega not allowed to mature wine Bodegas de Elaboración: wine making bodega allowed to hold on stock before selling on Bodegas de Crianza y Almacenado: maturation + stockholding firms (almacenistas). Min stock: 1,000hl with min 60% from Jerez Superior. Bodegas de Crianza y Expedición: mature + sell wine for consumption. Min stock: 12,500hl with 60% from J. Sup. Consejo regulador: 'regulating council' of vine growers, wine producers and merchants who decide on ground rules for DO. VOS/VROS: premium aged for respectively at least 20 or 30 years. Can be carbon-dated, batch by batch.
KEY PRODUCERS	<ul style="list-style-type: none"> 2,720 growers. 7 cooperatives. Zona de Crianza (ageing) vs. production (vines) Gonzalez Byass: established 1835, largest producer of Sherry. Created Tio Pepe in 1849; UK most important market. Domecq: dominated Sherry trade in early 19th; owns La Ina Fino Sherry brand + 1,000ha vines. Controls Harveys. Owned by Pernod Ricard. Harveys: powerful force in mid 20th with Harveys Bristol Cream: biggest selling Sherry brand worldwirse and Cockburn Port. Now owned by US Beam Wine Estates
SALES	<ul style="list-style-type: none"> Spain, Netherlands & UK.

DEFINITION	<ul style="list-style-type: none"> Fortified wine where residual sugar in wine caramelised by heated maturation. Longest living fortified wine from Madeira, volcanic island 1,000km off Portugal, 750km off North Africa.
HISTORY	<ul style="list-style-type: none"> Madeira & Funchal (capital city): port of call for ships in 16th-17th. Wine industry developed. Like Port, alcohol added to unfortified wine to protect during transportation. Devt of vinha da roda (round trip wine) in opposition to vinha de canteiro (matured on the island). 1776: Madeira very popular in US to celebrate independence day. High demand 1850s-70s: oidium then phylloxera nearly wiped the wine industry before US vines species planted in 1870s. 1917-1930s: Russian revolution and then US prohibition -> decline + Madeira wine association
LOCATION	<ul style="list-style-type: none"> Same latitude as Sahara.
CLIMATE	<ul style="list-style-type: none"> Sub-tropical: hot & humid with hi rainfall (3,000mm). Moderated by altitude (up to 1,800m)
SOILS	<ul style="list-style-type: none"> Fertile volcanic soils.
GRAPE VARIETIES (5)	<ol style="list-style-type: none"> Tinta Negra Mole: vinifera variety VERSATILE, hi yield, black, most Madeira, not hi quality. #1 Sercial: noble white grape grown in cooler site (N+altitude), v. lo yields, lo alcohol (11%abv), HI ACIDITY -> lightest, dry, most acid styles almond flavours when aged. Verdelho: noble variety grown in cooler slopes; higher yields, moderate sugar, HI ACIDITY -> Medium dry styles with smoky complexity when aged Bual: grown in warmer sites (south), lo yields HI ACIDITY -> richer medium sweet style. Raisiny Malmsey: noble variety grown in hottest location, low altitude, late ripening, good yields, hi sugar, HI ACIDITY, aromatic -> sweetest styles (60g+)
VITICULTURE	<ul style="list-style-type: none"> Only possible because of altitude (up to 1,800m). Difficult to grow grapes -> poios: tiny step like terraces. New vineyards: cordon-trained. Tradi: latada (low trellises)+pergola to raise canopy above ground. Network of irrigation (levadas) Key risk: fungal disease (19C temp, hi rainfall). No mechanisation possible.
VINIFICATION/ AGEING	<ul style="list-style-type: none"> Tinta negra mole -> some colour extracted from skins Sercial/Verdelho -> little or no skin contact. Fermented until dry, then fortified. Possible weening with surdo (mistela fortified to 20%abv) or abafado (drier wine fortified at later stage) for Verdelho/Sercial. Boal/Malmsey -> fermented on skins for flavour and extract. Fortified early in fermentation. Fortification with aguardente 95% for wine around 17%-18%. Estufa ('hot house') ageing system / Estufagem (heating process): <ol style="list-style-type: none"> Cubas de calor: wine heated directly @40-50C for min 3mths in large 50,000l concrete tanks -> large volumes Armazens de calor: wine heated indirectly @30-40C for 6-12mths in 600l wooden casks. Exclusive to Madeira Wine Co. Heat comes from the Cuba de calor or steam-filled hot water pipes in same room -> Reserve (5yrs) & Special Reserve (10yrs) Canteiro: wine heated naturally by sun for min 20years in 600l pipes in lodges -> Vintage Madeiras Maderization: process of mild oxidation for long period, usually heated. Action of acetobacter keeps hi alcohol wine from turning to vinegar. Maderized wines are amber to brown with distinctive cooked, caramelised flavours.
STYLES (8)	<ul style="list-style-type: none"> Varietal if 85% of grape (as per EU) otherwise simply 'dry', 'medium-dry', 'medium sweet' or 'rich'. <ol style="list-style-type: none"> Granel (bulk): coloured & sweetened. 30-40% of production, now only for cooking. Finest (3 years old): Tinta Negra Mole based; cuba de calor + tank ageing Reserve (5 years old): most likely Tinta Negra Mole-base; blend of Cuba de calor + Armazens de calor wines. Special reserve (10 years old): Verdelho/Sercial/Malmsey-based, most likely Armazens de calor, youngest component of blend 10 years old. Extra Reserved (15 years old): Verdelho/Sercial/Malmsey-based, most likely Armazens de calor, youngest component of blend 10 years old. Colheita: single harvest bottled after spending minimum 5 years in cask (7 for Sercial). Vintage/Frasqueira: from a single year and aged for min 20 years in 600l oak casks. Solera: solera system with ageing indicating foundation date of solera.
LEGAL STRUCTURES	<ul style="list-style-type: none"> Instituto do Vinho de Madeira (IVM) classes Sercial, Verdelho & Malvasia (Malmsey) as noble.
KEY PRODUCERS	<ul style="list-style-type: none"> 6 exporters of Madeira including Justino Henriques Cossart Gordon: older Madeira wine trade company; established in 1745 by 2 Scots; successful thanks to export to US in 19th. Partner in Madeira Wine Co since 1953. No controlled by Symingtons as part of the partnership. Blandy: successful company in 2nd half of 19th. Joined the Madeira Wine company in 1920s. Madeira wine company: includes all British Madeira firms (Cossart Gordon, Leacock, Rutherford & Miles); controlled by Symington family since 1988 in partnership with Blandys.
SALES	<ul style="list-style-type: none"> Modern basic Madeira: France (1/3), Germany + Benelux. Better quality: US, Japan, UK.

Vins doux naturels

(Rhone, Languedoc, Roussillon / France)

DEFINITION	<ul style="list-style-type: none"> French wine specialty where wines are made by mutage i.e. artificially arresting the conversion of grape sugar to alcohol by adding spirit during fermentation. Usually 15-18%abv and potential alcohol of 21.5%. 	
VARIETIES	MUSCAT	GRENACHE
LOCATION	<ul style="list-style-type: none"> Rhone: Beaufort de Venise Languedoc-Roussillon: Riversaltes, St Jean de Minervois 	<ul style="list-style-type: none"> Rhone: Rasteau Languedoc Roussillon: Banyuls, Rivesaltes, Maury
CLIMATE	<ul style="list-style-type: none"> Warm Mediterranean St Jean de Minervois: cooler tx to altitude + calcareous soils 	<ul style="list-style-type: none"> Warm Mediterranean
GRAPE VARIETIES	<ul style="list-style-type: none"> Muscat Blanc a Petits grains / M of Frontignan <ul style="list-style-type: none"> - Oldest & noblest variety - Small berries & seeds; white, pink, red or black - Sensitive to disease + lower yields - Orange flower and spices - BdV and StJM: mandatory 100% MBPG - Dominant in Greece Muscat of Alexandria / Romain <ul style="list-style-type: none"> - Raised as wine and table grape - Larger, more oval berries vs. MBPG - Inferior to MBPG but better yields - Grapey but less fine bouquet vs. MBPG - In high proportion in Rivesaltes Muscat - Dominant in South Africa 	<ul style="list-style-type: none"> Grenache Noir: <ul style="list-style-type: none"> - Well suited for hot, dry, windy vineyards - Buds early, prone to coulure, ripens late - Can achieve hi sugar level - Paler than most reds
VINIFICATION	<ul style="list-style-type: none"> Possible maceration for 24h before fermentation to increase flavour, body and reduce acidity. 95% spirit added to the fermenting must when it reaches 6% abv to stop fermentation and reach 15% abv Mutage: process of stopping a must from fermenting via SO₂ or alcohol. Vins de liqueur and vins doux are 'vins mutés' Vins de liqueur: same as VDN but fermentation stopped earlier and therefore more spirit dominated. Designed to be drunk young 	<ul style="list-style-type: none"> Maceration Mutage Ageing can be made in various containers (stainless steel, wooden casks or bonbonnes), anaerobically or oxidatively (rancio), in various conditions (hot, humid, dry), indoor or outdoor. Bonbonnes: 25l glass jar for VDN storage often after wood ageing
STYLES	<ul style="list-style-type: none"> Muscat Beaufort de Venise: <ul style="list-style-type: none"> - 100% MBPG - Fermentation stopped with spirit to 15% - Min residual sugar: 110g/l -> more finesse + bouquet - Domaine de Durban concentrated + aromatic St Jean de Minervois (Languedoc) <ul style="list-style-type: none"> - One of the three Languedoc VDN AC with Lunel and Mireval. - 100% MBPG - Fortified half way to 15%abv + Min res. sugar 125g/l - More orange-flower flavours - Domaine de Barroubio + Montahuc leading Muscat de Rivesaltes (Roussillon): <ul style="list-style-type: none"> - North of Perpignan. 70% of FR Muscat production - Muscat of Alexandria + MBPG - Skin contact + mutage sur marc (ie skins) 	<ul style="list-style-type: none"> Rasteau (Rhone): <ul style="list-style-type: none"> - Sweet mixture of just fermenting grape juice + pure grape spirit in various shades of red to brown - 90% Grenache noir (rest: G blanc or gris) - Aged in cask or deliberately oxidated (sometimes exposed to sunlight) for min 2 years to produce Rasteau rancio AC Banyuls (Roussillon): <ul style="list-style-type: none"> - Finest and most complex; dry & powerful - No Muscat - Banyuls: min 50% Grenache Noir - Banyuls Grd Cru: min 75% Grenache Noir - Poor yields; often shrivelled before harvest (Oct) - Alcohol added while must still on skins then elevated either in oak for min 30mths (Gd Cru), kept in glass bonbonnes or barrels, outdoor in sun (Banyuls Rancio), local solera system. - Oxidatively aged = 'ambré/tuilé'. Hors d'age: min 5 years ageing. Rivesaltes (Roussillon): <ul style="list-style-type: none"> - Mostly Grenache noir based but potential use of Grenache blanc for white/amber styles. - Stainless steel or wooden cask fermentation - Some solera-type ageing system, glass bonbonnes or sun maturation. - Improving quality Maury (Roussillon) <ul style="list-style-type: none"> - From Grenache Noir grown in hi schist terraces - Produced in greater qty & less famous vs. Banyuls - Tannic in youth and deeper in colour - Dominates by Les Vignerons de Maury. Other: Mas Amiel

Moscatel de Valencia

(Valencia/Spain)

VINIFICATION DEFINITION	<ul style="list-style-type: none"> Mistela (sweet, stable mixture of grape juice & alcohol resulting from addition of alcohol to early fermenting juice) fortified to 15% abv Simple fresh perfumes fruit of the Muscat of Alexandria variety but none of the textural or aromatic by products of fermentation.
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Muscat of Samos & Mavrodaphne

(Samos, Peloponnese / Greece)

	MUSCAT OF SAMOS (Samos Island/Greece)	MAVRODAPHNE OF PATRAS (Peloponnese/Greece)
DEFINITION	<ul style="list-style-type: none"> Greece's most famous wine after Retsina 	<ul style="list-style-type: none"> Port like dessert wine. Aromatic, powerful. Mavrodaphne = 'Black laurel'.
LOCATION	<ul style="list-style-type: none"> Island by Turkish shores. 800m terraces on steep hillsides 	<ul style="list-style-type: none"> South of Peloponnese peninsula
VINIFICATION & STYLES	<ul style="list-style-type: none"> Samos doux: fortified before fermentation Samos VDN: fortified to interrupt fermentation Samos Nectar: unfortified dried grapes wine up to 14% abv+ 3 years in cask 	<ul style="list-style-type: none"> Main grape is Mavrodaphne. Korinthiaki also allowed. Fortified at 4% abv and usually cask aged resulting in tawny style.
SALES	<ul style="list-style-type: none"> 50% of annual production exported to France 	

Commandaria

(Cyprus)

DEFINITION	<ul style="list-style-type: none"> 15% abv dark dessert wine with honeyed, raisiny flavour. Made from partially raisined grapes. Fortified after fermentation.
LOCATION	<ul style="list-style-type: none"> Delimited region around the Troodos foothills (14 villages)
HISTORY	<ul style="list-style-type: none"> In 13th, a commandery was a manor or group of manors which had its own vineyard(s) & under authority of Commendator 1993: 1st Cypriot wine to get full legal protection on origin and production techniques.
GRAPE VARIETIES	<ul style="list-style-type: none"> Mavro: black variety; the most planted variety (75%); hi juice to skin ratio Xynisteri: white variety; 2nd most planted wine grape. Increase
VITICULTURE	<ul style="list-style-type: none"> Low trained bush vines
VINIFICATION	<ul style="list-style-type: none"> After picking (Sept), grapes are dried in the sun for at least 1 week to concentrate sugar up to around 400g/l. Fermentation must take place in the Commandaria region. Fermentation stops before all sugar converted with min abv of 10% Wine moved to Limassol to have 95% pure grape spirit or 70% wine distillate to a 20%abv. Maturation must be in oak casks for min 2 years. Usually underground cellars but can be 3-tier solera system.

Cyprus Sherry

(Cyprus)

VINIFICATION	<ul style="list-style-type: none"> Made by adding alcohol to interrupt fermentation Stored in cask for 1 year before sweetening with concentrated grape must Some dry styles made. These are aged in Solera system under flor yeast, for min 2 years.
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Liqueur Muscat & Liqueur Tokay

(Rutherglen/Victoria/Australia)

DEFINITION	<ul style="list-style-type: none"> Dark, sweet, alcoholic tasting like Madeira & Malaga.
LOCATION	<ul style="list-style-type: none"> Hot north eastern corner of Victoria (Rutherglen & Glenrowan)
CLIMATE	<ul style="list-style-type: none"> Hot, sunny and dry CONTINENTAL
SOILS	<ul style="list-style-type: none"> Water retaining deep red loam
GRAPE VARIETY	<ul style="list-style-type: none"> Brown Muscat (dark skinned Muscat Blanc a Petits Grains) Muscadelle ('Tokay' in Australia)
VITICULTURE	<ul style="list-style-type: none"> Mostly unirrigated. No botrytis.
VINIFICATION & STYLES	<ul style="list-style-type: none"> Grapes semi-raisined on the vine Partial fermentation with 160g/l minimum sugar Fortified with grape spirit Aged in wood in a system resembling both solera and estufagem, in which the wines are blended but also concentrated in flavours & sugars by evaporation. Oxidative ageing. Wines obtained do not change with bottle age
CLASSIFICATION	<ul style="list-style-type: none"> Voluntary, self regulated system with growing richness & complexity 1) Rutherglen Muscat 2) Classic – 5 years avg age 3) Grand – 10 years avg age 4) Rare – 15 years avg age

OTHER AUSTRALIAN Very hi quality **sweet fortified reds** made in vintage and tawny styles from **Shiraz and Rhone varieties**. **Madeira & Sherry style** also produced.

Muskadel

(Robertson & Worcester, South Africa)

DEFINITION	<ul style="list-style-type: none"> Mistelle made from Muscat Blanc a Petits Grains
LOCATION	<ul style="list-style-type: none"> Robertson, Worcester (South Africa)
GRAPE VARIETIES	<ul style="list-style-type: none"> Muscat Blanc a Petits Grains
VINIFICATION	<ul style="list-style-type: none"> Spirit added to the juice (as for Mistela)
SALES	<ul style="list-style-type: none"> Declining

OTHER SOUTH AFRICAN Most **Port styles from Rhone or Port varieties** (e.g. Shiraz, Mourvedre, Tinta Barroca, Sousao). Speciality of **Boberg region**. **Sherry styles based on Chenin Blanc, Palomino, Sémillon and PX**

CALIFORNIA Large volumes of basic sweet fortified wines. Mainly like Cream Sherries with hot oxidative ageing + RCGM sweetening. **San Joaquin & Madera**: better quality **Muscat & Port styles** (Ruby/Tawny). Fortified sweet reds from Zinfandel, Cab Sauv, Petit Sirah.