

Bordeaux sweet wines

Sweet wine: grape growing and winemaking
long tradition, oft from botrytis
yield be low ~ 1/3 of still to ensure high sugar level

pruning to a low number of buds
removing fruits with (potential) disease or damage - prone to grey rot
low yields, reduction in juice by botrytis -> yield at 10 hl/ha common among tops, < max yield of 25
harvesters be trained to identify noble rot vs grey/black rot
many passes through vineyard - in some vintages 10–12 times - to select properly botrytised and ripe bunches or berries
Harvest Sep-Nov
Vital decisions affecting quality made in the vineyard

level of botrytis in the final wine depends on

- if condition correct for spread of botrytis, varies year to year
- position of estates (close to areas where mists forms most regularly?)
- willingness of estates to wait for the best times to harvest and risk crop due to weather THUS resulting wines may be made from varying % of botrytis and late harvested fruit

after picking, handled as a white wine - SS/concrete/barriques fermented then aged for varying period stop quality typically barrel-fermented for best integration of oak and fruit with high % new oak, and barrel aged for 18-36 months for top wines for gentle oxidation to add complexity

new oak usu 30-50% though 100% for Ch. d'Yquem

Appellations:

- Bordeaux
 - Graves AOC: Graves Superieures AOC - late harvest and/or botrytis-affected sweet wines
 - Sauternes AOC, Barsac AOC in southern Graves: for typically botrytized sweet wines from Semillon - 80% plantings, Sauv Blanc and tiny amount of Muscadelle; conditions to produce noble rot: cold Ciron River meets warm Garone River -> morning mists, then burnt off by mid day with sunshine in the afternoon drying the grapes to avoid grey rot
 - Sainte-Croix-du-Mont AOC, Loupiac AOC, Premieres Cotes de Bordeaux AOC: may be botrytis or late harvest
- Alsace
 - Alsace Vendange Tardive (Grand Cru) AOC: no min for VT to have botrytis or to be sweet but min sugar level at harvest gives 14-15% abv if fermented dry | min sugar Muscat or Riesling at 235 g/L, Pinot Gris or Gewurztraminer at 257 g/L
 - Alsace Selection de Grains Nobles (Grand Cru) AOC: SDG must be made from botrytis and be sweet | min sugar Muscat or Riesling at 257 g/L, Pinot Gris or Gewurztraminer at 306g/L
- Anjou: the River Layon and tributaries help to create misty conditions ideal for spread of botrytis at the end of growing season
 - Coteaux du Layon AOC -> Coteaux du Layon AOC Premier Cru Chaume
 - large, on steep slopes, right bank of Layon River
 - specialize in wines from botrytis affected Chenin Blanc <- if botrytis fails to form, wines may be dried on vine
 - Couteaux du Layon AOC + named village has stricter rules
 - Bonnezeaux AOC within Coteaux du Layon AOC (? not sure if botrytis)
 - Quarts de Chaume AOC -> Quarts de Chaume Grand Cru AOC (? not sure if botrytis)
- Saumur:
 - Coteaux de Saumur AOC: sweet Chenin Blanc wines are made as with overripe grapes, with/without botrytis; lusciously sweet, high acid
- Germany
 - Auslese: some affected by botrytis, last category that can be dry $\geq 7\%$
 - Beereauslese: berries need NOT be botrytized but typical
 - Trockenbeerenauslese: grapes must be affected by botrytis, shrivelled raisin-like

- Rheingau: Rhine also wider here, moderates temperature -> reduce frost risks, also increases humidity providing conditions perfect for botrytis development in autumn: whites ~85% plantings, Riesling leads at 78% plantings, majority in dry styles, but also reputed for botrytised sweet wines - country wide trend for drier styles arguably started here
- Austria
 - Niederösterreich/lower Austria: north Weinviertel DAC: 100% Gruner, **Reserve**: min 13% abv, allow some oak aging and/or botrytis for richness and complexity but still dry
 - around Danube - **Wachau**, Kremstal, Kamptal, Traisental, Wagram
 - Wachau: north bank of Danube, steep slopes, south facing, stony terraces, gneiss and loess, low rainfall, some years humidity from Danube causes botrytis - may not be desired for dry wine
 - Kremstal: warm Pannonian plain, warmer than Wachau - Zweigelt
 - Kamptal: less humid than Kremstal so botrytis rare Warm breezes from Pannonian plain & cooling air from Bohemian Massif; Brundlmayer, Hirsch
 - Burgenland around humid Neusiedlersee: The Austrian town of Rust near the Neusiedlersee is known for its Ausbruch (the Austrian equivalent of Aszú) dessert wines from Chardonnay, Muskateller, Sauvignon Blanc and Welschriesling. Furmint was once more dominant here, reflecting the historical link between Rust and Tokaj, and is now making a minor comeback. Pink dessert wines have even been made from Pinot Noir.
- Hungary - aszu (sweet from shrivelled and botrytis-affected grapes): Rivers Tisza and Bodrog (floods regularly creating shallow marshes and water meadows -> moist air -> morning fogs in autumn, ideal for botrytis; warm sunny afternoon control the development of botrytis, and limit grey rot) meet in the town of Tokaj
 - Late Harvest: lower % of botrytized grapes than for Aszu, little or no oak
 - Eszencia: from tiny vol of free run juice from Aszu grapes 450g/L
 - Szamorodni - Polish "as it comes" - this traditional style is made from whole bunches with varying amounts of healthy and botrytized grapes
 - dry (szaraz): aged under flor much thinner than Sherry for ~ 10 years without topping up -> protected from excessive oxidation -> nutty and green apple flavors | **similar to Vin Jaune (Jura)** [Savignin fermented to dryness, aged in barrels with headspace with a thin flor "le voile" yeast unmoved for >6 years then used to make oxidative Savignin or blend with Chard, cellar location and condition crucial to flor dev]/**Vinsanto (santorini)** [51%Assyrtiko, 2weeks in sun, 2yrs oak aging in large casks not topped to encourage oxidation, 200-300g/L RS]
 - sweet (edes): more common, 45g/L most 90-110g/L, 6 months oak aging, 500ml Tokaji bottle, bests are just as Aszu but fresher
- Veneto - Amarone - appassimento
- Umbria - sufficient dry autumns that allow picking for late harvested and botrytised styles
 - Orvieto DOC: 60% Trebbiano Toscano and/or Grechetto, dry, off-dry, and sweet wines labelled as muffa nobile or vendemmia tardiva
- Southwest France
 - Monbazillac AOC: sweet whites only, late harvest or botrytis, between **River Dordogne** and one of its tributaries + funnelling of moist air creates humidity, burnt off by sun in late summer early fall -> condition for noble rot, must hand pick in a number of passes through vineyard, >= 80% of principal varieties Sauvignon Blanc, Sauvignon Gris, Sémillon and Muscadellemax yield 30 hL/ha, Fermentation in barrel with new oak much less common than in Sauternes
- Australia
 - Griffith in Riverina of New South Wales: long reputed for excellent luscious botrytised Semillon as though hot dry summers greater rainfall/humidity in autumn, morning mists, warm/sunny afternoons, ideal for noble rot
- New York state
 - Vignoles: quality hybrid
- Washington state Riesling for botrytised/ice wine
- South Africa - premium Chenin Blanc - small amount of Botrytis might be allowed, none for high vol Chenin
 - District: Elgin - southeast close to Cape Town, inland plateau 400m much cooler than other parts of SA due to alt, cloud cover, ocean influence, high rainfall allows for botrytis-affected sweet wine production; SB, Chard, Riesling, PN, Merlot, Shiraz more fragrant fresher style cf inland; Paul Cluver, Richard Kershaw Wines

DRY CLIMATE: NO NOBLE ROT eg Central Otago

Grapes prone to botrytis - soft skin, closed bunch

- Merlot
- Semillon
- Pinot Noir
- Pinot Gris, Gewurztraminer
- Melon de Bourgogne/Muscadet
- Chenin Blanc (also millerandage)
- Grolleau Noir
- Sauv Blanc
- Syrah
- Marsanne
- Tannat
- Trousseau
- Furmint
- Marzemino, best ripest from Trentino DOC subzone Ziresi due to full sun exposure and calcareous/clay and basalt
- Moscato Rosa
- Garganega
- **Corvina**
- Sangiovese
- Verdicchio
- Aglianico - late ripening, prone
- Nerello Mascalese
- Viura/Macabeo/Macabeu: late budding/ripening
- **Welschriesling** mainly in Steiermark usu made into fresh neutral unoaked dry wines of ok to good quality, planting in decline bc decrease in consumption of simple dry style; large planting in Burgenland around humid Neusiedlersee; thin skin: affected by noble rot, for sweet wines BA or TBA
- Zweigelt/Blaufrankisch - resistant to frost or rot
- Vignoles: quality hybrid in NYS, high acid, used for off-dry wines, along with Traminette

Grapes RESISTANT to botrytis

- Piediroso - thick skin, open bunches, **resistant**
- Montepulciano - **resistant, resistant to downy mildew but not powdery**
- Fiano - late ripening, thick skin, **resistant**, but prone to 2 mildews
- Refosco - late ripening, **resistant** to botrytis
- Riesling - **resistant??** In Germany section its susceptible
- Petit/Gros Manseng - **resistant**