AUSTRALIA (●●●)

SPECIFICATIONS (What you have to know)	**DISTRICTS, COMMUNES AND VINEYARDS** **Cross State:** South Eastern Australia, Big Rivers Zone (Murray-Darling, Swan Hill) **South Australia (5):** Barossa Zone (Barossa Valley, Eden Valley), Fleurieu Zone (Langhorne Creek, McLaren Vale), Limestone Coast Zone (Coonawarra, Padthaway), Lower Murray Zone (Riverland), Mount Lofty Ranges Zone (Adelaide Hills, Clare Valley) **New South Wales (4):** Big Rivers Zone (Riverina), Central Ranges Zone (Cowra, Mudgee, Orange), Hunter Valley Zone (Hunter), Southern New South Wales Zone (Canberra District) **Western Australia (2):** Greater Perth Zone (Swan District and Swan Valley), South West Australia (Great Southern, Margaret River) **Victoria (4):** Central Victoria (Goulburn Valley, Heathcote), North East Victoria (Rutherglen), Port Philip Zone (Geelong, Mornington Peninsula, Yarra Valley), Western Victoria **Tasmania** **KEY LIGHT WINES** Red Barossa Shiraz Coonawarra Cabernet Sauvignon Margaret River Cabernet Sauvignon Yarra Valley or Tasmania Pinot Noir Inexpensive high volume brand Mid-priced varietal or mid-range blend Premium range varietal or premium range blend White Oaked Chardonnay Unoaked Chardonnay Clare Valley or Eden Valley Riesling Hunter Valley Semillon **KEY FACTORS** **Grape varieties**: Shiraz, Cab Sv, Merlot, Pinot Noir, Ruby Cabernet, Grenache, Chardonnay, Sémillon, Colombard, Sv blc, Riesling, Verdelho **Climate**: Climate change, drought **Viticulture**: Quarantine, irrigation, water stress, partial rootzone drying, regulated deficit irrigation, dryland viticulture, mechanical pruning, minimal pruning, mechanical harvesting, cut cane **Vinification**: Refrigeration **Soils**: Limestone, Terra Rossa **Wine styles**: Special late harvested, stickie **Trends**: Australian influence, flying winemakers, lifestyle winery, wine shows **Classification**: Geographical Indications **Research**: Australian Wine Research Institute, CSIRO, Roseworthy, Charles Sturt University **Producers/Brands**: Evans Len, Busby James, Constellation Brands, Pernod-Ricard, Penfolds, Jacob's Creek, Yellow Tail
VIDEO PLAYLIST	https://www.youtube.com/playlist?list=PLCx_IQt-zSFOv50M0sK5mLjSEoyEB8mJO
HISTORY	- 1791: importation of vine cuttings from Cape of Good Hope to Sydney - 1820-40: commercial viticulture established in New South Wales, Tasmania, Western Australia, Victoria and finally South Australia. All from Vitis vinifera plantings (i.e. no native vines) brought from Europe by immigrants - 1870-1930: South Australia, thanks to the irrigation along the Murray River, booming for fortified & alcoholic reds in other regions overtakes Victoria and New South Wales to make ¾ of the country's wine production. Exports of fortified wines and alcoholic reds to the UK & Europe. - 1950s: introduction of stainless steel cold fermentation (whites), red wine demand booming - 1970s: introduction of wine cask, rise of boutique wineries, white demand booming - Since mid-1980s: export boom & vineyard overhaul w rapid rise of premium international varieties e.g. Chardonnay, Merlot, etc. at the expense of non-premium & multipurpose varieties e.g. Trebbiano.
CLIMATE & WEATHER	2 major influences > great diversity from hot & dry to very cool - Ocean from west and south > Cooler, maritime climates along the coasts: WA, South Australia, Victoria, Tasmania - Tropics in East > Queensland & NSW VERY HOT > 23°C Swan Valley, Riverland, MIA HOT 21-22.9°C Hunter Valley, Clare Valley, Barossa Valley, Rutherglen WARM 19-20.9°C // Bordeaux: Margaret River, Coonawarra, Yara Valley, Adelaide Hills COOL 17-18.9°C // Reims: Ballarat (Victoria), Tamar Valley (Tasmania)
SOILS & TOPOGRAPHY	- Various soils w research undertaken to measure impact of soil on wine - Coonawarra: terra rossa i.e. chocolate-brown sandy loam surface w limestone bedrock
VITICULTURE	Extreme mechanization (harvest, pruning) > Most vineyards wire trained > cheaper viticultural costs // US & Eutrope At the forefront of trellising and canopy management, irrigation techniques. Low vine densities No phylloxera ever except Victoria Top grafting not as protection against phylloxera but to change vine variety quickly & virus protection Harvest between February & April, May in cooler regions Key hazards: climate change (searing sunshine, severe frosts), drought, fires 80% of grapes on average are bought in, long distance from vineyard to winery

GRAPE VARIETIES	Reds (58% of plantings) **1. Syrah/Shiraz (30% of production - 40 000 ha)** First introduced to Australia in 1830s Grown by 4 out of 5 wineries, 47% of planted red grapes Needs heat but relatively productive & disease resistant Loses aroma & acidity when yields increase Hi proportion of anthocyanins (i.e. dark colour) -> responds well to oak maturation when grapes really ripe. Best in Mc Laren Vale & Barossa w rich, ripe, robust reds 80-150yr old bush trained ungrafted vines in New South Wales, Victoria and South Australia **2. Cabernet Sauvignon (18%)** Progeny of Cab Franc & Sauv Blc Believed to have emerged as a spontaneous crossing in the Bordeaux vineyards in the 18th Small-sized berries w concentrated phenolics Ageing potential and affinity for oak Deep coloured, tannic full-bodied wines w blackcurrant aromas Does best in cool climate Coonawarra and Margaret River but also in warmer areas e.g. Clare valley, Barossa, Mc Laren vale. **3. Merlot (6%)** Early flowering (-> coloure risk), prone to rot Responds better to damp, cool soils that retain moisture. Dry summers in well drained soils can lead to under-ripeness Higher yielding in moderate climates Merlot Plantings x10 since late 80s. Mainly blended with Cabernet **4. Pinot Noir (3%)** Difficult grape to grow: thin-skinned, small berries prone to rot and mildew. Uninteresting if overcropped. Lower tannin & anthocyanins make it a very delicate grape to vinify Most of it is picked early for sparkling wine production Best in cooler areas i.e. around Melbourne, Tasmania & Adelaide Hills **5. Grenache (1%)** Mostly likely to originate from Northern Spain Strong wood canopy & resistance to wind make it suited for dry, warm & windy climates Buds early but requires a long growing season to fully ripen (often the last grape after Cab Sauv to be picked) Vigorous vines i.e. hi yields that prefers hot dry soils The wines are light-coloured (thin skins), hi in alcohol, low in tannins w relatively light flavours of raspberries, strawberries Older vines/lower yields produce darker, more tannic wines (e.g. in Barossa and Mc Laren Vale) w darker fruit & more complex flavours Vinified as varietal or blended with Shiraz/Mourvedre **6. Mataro aka Mourvedre (1%)** Buds & ripens late (-> warm climate) Thrives in south facing slopes with shallow, water-retaining clay soils Dark, full bodied wines w hi acidity, hi tannins, med+ to hi alcohol w a fruity(bramble fruits) & meaty aromas that develop into leather, mushroom & spicy aromas with age Mostly blended with Shiraz and Grenache **7. Cabernet Franc (<1%)** Mostly blended into Bordeaux blends **8.Ruby Cabernet**: non premium workhorse crossing used for colour Whites (42% of plantings) **1. Chardonnay (16%)** Hardy adaptable grape Barrel fermentation and lees stirring add complexity Hi quality potential in cool sites Best regions are Margaret River, Adelaide Hills, Hunter valley and around Melbourne Highly popular in the 80s – now most removed variety Still 42% of all white plantings **2. Sauvignon blanc (5%)** Green-skinned grape from Bdx Buds early and ripens early Vigorous vine (-> use of low vigour rootstock + canopy management) Grassy, green fruits, elderflower w fresh acidity **3. Sémillon (4%)** Mostly planted for blending Best Hunter valley wines are light bodied bone dry w racy acidity, low alcohol and mineral, lemon flavours that mellow into toasty, honeyed flavours after 5yrs+ Most of the crop grown in Riverina for sweet wine or bulk production. More herbaceous style (// Sauvignon Blanc) in Western Australia. Used for sweet Sémillon **4. Riesling (3%)** Makes Australia's finest white wines: aromas of citrus fruit developing into toast, honey & petrol w age Unoaked & usually dry/off-dry Best examples from Eden and Clare valley **Others: Thomson Seedless, Muscat Gordo Blanco, Colombard.**
WINEMAKING	Very modern winemaking equipment & techniques, very hygienic, to avoid any deviance Aims: maximum preservation of varietal fruit flavour + soft and supple structure **1. <u>Whites</u>**: anaerobic winemaking Use of SO2 + night harvest to preserve picked fruit from oxidation Use of cultured yeast dominate

	Tartaric acid usually added during fermentation, chaptalisation forbidden but enrichment possible Cool fermentation 12-14°C + invert vessels & gas + MLF usually avoided to preserve aromatics Oak treatment frequent for Chardonnay (chips, staves in tank, barrel fermentation & ageing) **2. Reds** Usually fermented at 22-28°C in stainless steel (Pinot Noir in open top fermenters) Pumping over and rotofermenting to achieve tannins & colour required Limited post-fermentation maceration to preserve fruit (≠Europe/US) MLF straight after fermentation for more stable wine French oak for premium wines (i.e. Pinot Noir & Cabernet Sauvignon), American oak for Shiraz. Oak chips and inner staves for cheaper wines Micro oxygenation standard at all quality levels Reverse osmosis to concentrate must in cooler zones & vintages Gentle filtration via centrifuges followed by diatomaceous earth filtration to avoid stripping too much flavour Use of SO2 □ because appearance of brettanomyces and random oxidation recently **21st century trends:** Less alcohol, less new oak, whole bunch fermentation for Shiraz, move to screwcap (90%) to avoid cork taint & random oxydation **Australian Wine Research institute:** Wine research organisation owned and led by the Australian wine industry; south-east of Adelaide Created in 1955 it researches wine composition, quality and sensory characteristics, industry devt & support and coordinating oenological activities and information Examples: management of wine and oxygen at different stages or identification & control of mouthfeel components in wine
WINE LAWS	Legal framework for regions and labelling since 1994 with 3 levels: - **Zone**: area without any specific qualification e.g. Southeastern Australia super zone 95% of vineyards - **Region**: single land parcel w min 5 vineyards of min 5ha owned by 5 different landowners w min 500t of grapes/yr - **Sub-region**: region w homogeneity in grape growing attributes ≠ appellation system as does not specify grapes, methods or wine styles **85% labelling rule**: 85% of vintage, 85% of region and 85% of varietal stated
KEY REGIONS & CHARACTERISTICS	***COURSE TASTING NOTES***: *Generic SE Australia Chardonnay - Medium lemon green colour. Clean medium intense nose of stone fruit (ripe yellow peach, nectarine), citrus (lime, lemon), floral (verbena, jasmine), tropical fruit (mango, ananas), oak (vanilla), butter. Palate is dry, medium + acidity, medium + alcohol, medium + bodied. Oily texture.* ***COURSE TASTING NOTES***: *Generic SE Shiraz -Yellow Tail: Medium ruby colour. Clean medium + intense nose of black fruit (blackberry, black cherry), red fruit (cooked strawberry, pomegranate), dried fruit (dried figs), spice (liquorice, cinnamon), herbal (mint, camphor), oak (vanilla). Off dry palate (8-10g/l res sugar), medium acidity, medium - ripe tannins, medium + alcohol, medium + bodied, medium finish. Good, juicy, easy-drinking wine, vibrant fruit / "in your face", not suitable for ageing.* **1.WESTERN AUSTRALIA** (2% of production) ○ Largest state in size, 3% of total production but 30% of awards; high quality wine area w h prices ○ Most of the vineyards concentrated in the south-western corner around Perth. ○ Key zones west to east: **Greater Perth zone** North & south of Perth along the coast on the west and the Darling range 50km inland > ***Swan valley region*** Very hot climate w dry summer; one of the hottest climate in Australia Historic region: where first Western Australian vines were planted in 19th by T. Waters & S. Roe Dominated by Houghton (part of Hardy's) but has significantly lost importance since 80s **South West Australia zone** **> *Margaret River region* – 5,500ha** (● 50% ● 50%) Maritime climate with dry, warm summers (only 200mm in growing season) and wet winters (1160mm) // dry vintage in Bordeaux Small creeks and gentle valleys w gravelly or gritty sandy loam soils Viticultural hazards: strong winds in Spring (flowering disruption) and salt in water > irrigation essential Low intervention grape growing and winemaking Top quality Bordeaux blends and Cabernet; elegant Chardonnay & herbaceous Sémillon blends

Key producers: Foster's Devil's Lair (1.8m btls), LVMH's Cape Mentelle (1.4m btls), Vasse Felix (1m btls), Leeuwin Estate, Giaconda of Beechworth

***COURSE TASTING NOTES**: Margaret River Chardonnay - Pale gold colour. Clean medium + intense nose citrus (lemon, lime, grapefruit), floral (acacia, verbena), herbaceous (cut grass), wet stone, tropical (melon, passion fruit), oak (vanilla), cream, butter, nutty. Dry palate, medium + acidity, medium + alcohol, medium + bodied, long finish. Premium. Outstanding. Similar in style to a Puligny Montrachet.*

***COURSE TASTING NOTES**: Margaret River Cabernet Sauvignon - Deep purple colour. Clean nose. Medium + intense nose of black fruit (blackberry, bramble, black olives, blueberry), red fruit (raspberry), spice (cinnamon, clove, pepper), oak (vanilla, smoke), dried fruit (dried figs), herbal (mint, eucalyptus), dark cocoa. Dry palate, medium + acidity, medium + ripe tannins, high alcohol, medium + bodied, medium + finish. Very good wine.*

> ***Great Southern region***
150km east of Margaret river
Cool climate; more continental inland
Widely spread and young vineyard area (> experimentation)
Full bodied Cabernet Sauvignon, peppery Rhone-like Shiraz and pure fruit Riesling
Key sub regions: ***Frankland river*** and ***Mount Baker***
> ***Pemberton region***
Directly east of the Great Southern region, along the coast & inland. Very large area in size.
Cool climate, relatively high rainfall and varied soils
Good Pinot Noir & Chardonnay; fine Verdelho on warmer sites.

2. SOUTH AUSTRALIA - 73,000ha - 49% of production
Phylloxera-free area thanks to strict quarantine on vineyard material and machinery from out of state

Lower Murray zone - 25% of production
> ***Riverland region** - 22,000ha*
Largest wine producing region in Australia
Hot continental climate w low rainfall and little risk disease. Viticulture only possible thanks to irrigation from river Murray.
Extensive and modern viticulture for fruity bulk wine made from Chardonnay and most red grapes
Home to Accolade wines; most big producers source grapes from here

Barossa zone - 13 800 ha (● 84% ● 16%)
Original heartland of South Australia's wine industry, history dating back to 1840s
Home to the then biggest South Australian: Seppelt – 50% of the South Australia's crush
Diversity of soils, climate and topography
Some of the world's oldest grapevines
> ***Barossa valley region***
One of the eldest wine regions in Australia, eldest Mataro, Grenache, Shiraz in the world
Hot continental climate, low altitude, rainfall 160 mm in growing season > irrigation
Limestone and ironstone soils
Shiraz most planted (including very old bush vines) + Grenache, Cab Sauv, Mataro + Mediterranean varieties.
Winemaking: Mix of authenticity & experimentation. Cold maceration, post fermentation maceration, whole bunch fermentation, short maceration, acidification, reverse osmosis (to reduce alcohol), exogenous yeasts, american oak ageing.
Classic Barossa Shiraz is full bodied, soft & spicy w leather aromas developing w age.
Dominated by large wineries e.g. Penfold's, Yalumba, Peter Lehman (7.8m btls), Wolf Blass

***COURSE TASTING NOTES**: Barossa Valley Shiraz 2013 - Deep ruby colour. Clean medium + intense nose of black fruit (black olives, black cherry), red fruit (raspberry), herbal (mint, eucalyptus), floral (peony), herbaceous (bell pepper), spice (black pepper, nutmeg, clove, juniper), oak (vanilla, toast, charred oak), evolution (smoke, tobacco, coffee). Dry palate, medium acidity, medium + ripe tannins. High alcohol (15% abv), full bodied, long finish. Very good wine, has potential for further ageing.*

> ***Eden valley region***
Moderate mediterranean climate, rainfall 280 mm, low-medium (380–550m) altitude
Best known for high quality, medium bodied, dry or off-dry, hi acidity Rieslings w lime & lemon flavours that develop into honey, petrol & toast w age.
Predominance of small wineries e.g. Henschke (founded in 1868; ½m btls)

***COURSE TASTING NOTES**: Eden Valley Riesling - Pale lemon green colour. Nose is clean, medium intense notes of citrus (ripe lemon), floral (verbena, acacia), tropical fruit (mango, ananas, melon, passion fruit), wet stones, green apple, pear. Palate is dry, high acidity, medium alcohol, medium bodied. Long finish. Very good quality.*

Fleurieu Peninsula zone

Relatively small zone covering the peninsula south of Adelaide & facing Kangaroo island.

> ***Mc Laren Vale region*** (● 90% ● 10%)

Small region on the coast
Vines first planted in 1838 by Thomas Hardy who started exporting bulk wine to the UK
Mediterranean climate with dry warm summer w maritime influence
Very diverse soils & geology = very different styles of wines
Highest number of certified organic and biodynamic vineyards in Australia, small wineries
Key grapes are Shiraz (60% of plantings), Cabernet Sauvignon, Chardonnay, old-vine Grenache planted in 1800
Full bodied, soft & juicy reds from family-run & boutique wineries e.g. D'Arenberg (3.2m btls), Wirra Wirra.
Australia's oldest vineyard (1838) = Chateau Reynella (Accolade)

> ***Langhorne creek region***

Warm region east of Mc Laren vale, on the other side of the Mount Lofty range (i.e. sheltered)
Produces earthy full bodied Shiraz & Cabernet Sauvignon.

Mount Lofty Ranges zone

Large area directly north of Adelaide

> ***Clare Valley region***

Small region 150km north of Adelaide
One of the eldest wine regions
Moderate continental climate w dry summer (> irrigation) & high diurnal range (vineyards up 400-500m)
Most of the 630mm rainfall in the winter.
Various types of soils
Riesling is the key grape w austere whites
40 wineries including Tim Adams, Jim Barry, Grosset.
Represents 2% grape crush, 7% of awards
1983 Ash Wednesday: 5,000ha of vines destroyed by bush fire.

> ***Adelaide hills region***

Located east of Adelaide, along the Mount Lofty range surrounded by Mc Laren Vale, Barossa, Eden valley. Cool climate region despite warm growing season
Specialises in elegant Chardonnay with hi acidity and nectarine & lemon flavours. Sauv Blc too.
Also produces base for sparkling wine production, Cabernet Sauvignon, Shiraz & Sémillon
Producers include Shaw & Smith, Petaluma

Limestone coast zone

- Zone south of the Lower Murray zone; 400km south-east of Adelaide; bordering w Victoria
- Moderately cool climate influenced by ocean currents.

> ***Coonawarra* - 5800 ha** (● 92% ● 8%)

Maritime climate (// Bordeaux but drier growing season), rainfall 260mm in growing season
Key viticultural hazards: possible under-ripeness, spring frost, rain
1st region in Australia to have its own terroir = red terra rossa over limestone
Top quality Cabernet Sauvignon (>50% plantings) with great ageing potential + Shiraz (cooler climate / more elegant style) + Merlot. Whites: Chardonnay, Riesling, Sv blc ok with limestone
Big companies e.g. Foster's Wynns (900ha/3.6m btls) & smaller wineries e.g. Balnaves of Coonawarra

***COURSE TASTING NOTES**: Premium Coonawarra Cabernet Sauvignon: pale deep ruby colour. Clean nose. Pronounced aromas of flower (violet, peony), black fruit (blueberry), red fruit (strawberry, cranberry, red cherry), spice (clove, nutmeg, cardamom), vanilla, coffee, mint. Dry palate, high acidity, high fine grained tannins, high alcohol, full-bodied. Outstanding quality.*

> ***Padthaway region***

Thin strip of land north of Coonawarra w warmer climate
Chardonnay & Shiraz dominate w richer fruit flavours.

3. VICTORIA (20% of production)

3rd most important wine state
600+ producers, mainly small boutique wineries
Viticulture key to local industry
First vines planted in 1850s but expansion crushed by Phylloxera (Geelong in 1875)
Split in two by the Great Dividing range: north of it warm & dry; south (coast) wet and cool
Shiraz & Chardonnay dominate overall but signature wines across the 21 designated regions:

North-west Victoria zone – 177,000ha /33% of production
Eastern continuation of Lower Murray zone along the Murray river.
> ***Murray Darling region***
Large irrigated estates dominate this flatland. Large quantities of healthy fruit for bulk wine production.

Western Victoria
Large area south of North-west Victoria; west of Melbourne
> ***Grampians region***
Located at the end of the Great Dividing range; limestone-rich soils
Recognised for excellent sparkling wines (incl. Shiraz) along with powerful, tannic still Shiraz
Key producers include Mount Langhi (1.2m btls; Billi Billi Shiraz)
> ***Pyrenees region***
East of the Grampians; 120km northwest from Melbourne; rolling hills
Full bodied reds (Shiraz & Cabernet) and fine Chardonnays. Dalwhinnie, small top producer

Central Victoria zone
Directly east of the North-West & Western Victoria; produces strong reds
> ***Bendigo region***
100km north of Melborne; historically part of Heathcote
Red wine country with extravagant Shiraz and Cabernet wines.
> ***Heathcote region***
Temperate climate; 500 million years old Cambrian soils
Produces some deep coloured, hi alcohol, ripe but velvety Shiraz
> ***Goulburn valley region***
Directly east/north-east of Bendigo; divided by Goulburn river
Eldest continuously producing Victorian wine region
Main grapes from Rhone along with Cabernet Sauvignon, Chardonnay and Riesling
Shiraz and Cabernet have rustic, chocolate, dusty, red berries and baked earth aromas.
Key producers: Tahbilk (founded in 1860, renowned for Marsanne & old Shiraz vines); Mitchelton wines

North-east Victoria zone
> ***Rutherglen region***
Small area north of the Victoria state bordering with the Big Rivers zone
Continental climate w warm summers and moderate evenings; low rainfall & spring frost.
Famous for liqueur muscats, tokays and some red production
> ***King valley***
South of Rutherglen; mountainous terrain w high altitude
Cool climate sites w various experimental grape varieties e.g. Sangiovese, Graciano, Mondeuse
Lower warmer altitude sites w Chardonnay & Shiraz

Port Philip zone
Zone encircles Melbourne and Port Philip bay; south of the zone on the coast.
> ***Yarra valley*** (● 66% ● 33%)
1st vineyards in 1830s
Cool continental climate with maritime influence, cooler // Bordeaux but warmer // Burgundy
500mm rainfall in growing season
Most vineyards 50-470m w soils varying from sandy or clay loam to red volcanic soils
Primary known for Chardonnay (34% of plantings) and Pinot Noir (35%); Syrah/Shiraz (7%), Cabernet Sauvignon (6%) in warmer sites.
Sparkling wine industry recently invested in the area e.g. Domaine Chandon Australia.
Chardonnays are elegant w crisp acidity, citrus flavours flavours;
Pinot Noir full bodied & fruity (but not jammy) w cherry and earthy flavours.

***COURSE TASTING NOTES**: Yara Valley Pinot Noir 2012 - Pale garnet colour. Clean medium intense nose with 3ary notes of mushroom, leather, cured meat, savoury, cedar, tobacco, dried cranberry, nutmeg. Dry palate, medium + acidity, medium – soft / integrated tannins, medium + alcohol, medium bodied, medium finish. Very god, no further ageing potential.*

> ***Mornington Peninsula – 920ha*** (● 60% ● 40%)
1st plantings in 1886
Maritime climate w 350mm rainfall during growing season
No vineyard site further than 7km from the ocean.
Various soil structures; 25-250m high
Minimum intervention winemaking: wild yeasts, whole-bunch fermentation, alternative fermentation/maturation vessels, larger format oak barrels
Pinot Noir (46% of plantings), Chardonnay (26%), Viognier, Pinot Gris
%? (18%) made from boutique wineries e.g. Kooyong

> ***Geelong***
South-west of Melbourne; facing Mornington Peninsula; barren w windy climate
Shiraz from warm inland Anakie are and Pinot Noir & Chardonnay from Bellarine Peninsula.
Riesling & Viognier grown here too. Home to Bannockburn gamey & complex Pinot Noirs.

4. TASMANIA - 1,250ha
Cool climate // Champagne state enjoying positive effects from global warming
350 mm rainfall during growing season
Majority of vineyards located around Launceston in the north and Hobart in the south

Wine growing: Risks of wind, rain, frost, drought & pests
Windbreaks, Drip irrigation, Netting, Leaf removal
Chardonnay (23% of plantings), Pinot Noir (48%), Riesling and Sauvignon blanc represent nearly 90% of production
Winemaking: Winemakers fighting to get an exception on the Australian ban on chaptalization
40% made into sparkling
Wines usually have high acidity, good balance of flavours and ageing potential. Alsace varieties too.
Key producers: Pipers Brook (founded in 74 by Andrew Pirie, 1.2m btls/yr) or Josef Chromy

5. NEW SOUTH WALES – 44,000ha – 43% of production
2nd largest wine state & first winemaking region in Australia w vines planted in 1788

Big Rivers zone
- Water for irrigation from Murrumbidgee & Murray rivers.
- Mainly inexpensive varietal table wine.
> ***Murray Darling region***
> ***Riverina region - 23,000ha*** = 15% of total Australia's grape production
Hot & dry region; direct continuation eastwards of Murray Darling region
Mainly table wines made from Shiraz/Chardonnay but also some quality Botrytised Sémillon
Key producers include Casella wines, De Bortoli, Riverina estate and Mc Williams wines (country's #8 biggest producer) trying to move quality up to reach more premium price brackets

Hunter valley region - 4,200ha (● 53% ● 47%)
- Sémillon = 31% of plantings, Chardonnay, Shiraz
- Low altitude
- Subtropical climate with heat+humidity (rainfall 500mm), afternoon cloud covers and substantial rainfall during the growing season and at harvest (> grey rot)
- First major plantings in 1825 by James Busby; Hunter Valley wines got international acclaim w several awards in the 1855 Paris Exhibition. At the start of the 1960s Sémillon and the 1990s Chardonnay boom.
> ***Lower Hunter Valley***
Along the Hunter river, around Pokolbin; Soils predominantly volcanic basalt.
Soft, earthy Shiraz & Sémillon w low alcohol, hi acidity and flavours of honey and toast
Key producers include Tyrell's and Brokenwood wines
Tyrrell's HVD vineyard = one of the eldest Chardonnay vineyards in the world.
> ***Upper Hunter Valley***
Drier irrigated region further inland. Produces butter-rich Chardonnay & soft Sémillon + Cab Sauv.

***COURSE TASTING NOTES**: Hunter Valley Sémillon - Pale lemon colour. Clean nose, medium + intense aromas of citrus (lemon, lime), floral (verbena, honeysuckle), herbaceous (cut grass), mineral (wet stone), tropical (pineapple), nutty, almond, honey, wax. Palate is dry, high acidity, medium + alcohol. Medium bodied with medium + finish. Unique style recognizable by medium – alcohol, high acidity and very limey.*

Central Ranges zone
On the slopes of the Western ranges inland 100km from Sydney; north to south the 3 regions are:
> ***Murrumbigdee Irrigation Area***
Large irrigated agricultural area. 410mm rainfall
Shiraz, Sémillon, Muscat, Chardonnay
Home of Casella
> ***Mudgee region***
Aboriginal term for 'nest in hill'; continuous winemaking since 1858
Peach-Melon Chardonnays & full bodied chocolatey Cabernet Sauvignon along with Shiraz
> ***Orange region***
In the foothills of Mount Canobolas; high and cool vineyards
Elegant Chardonnays & Cabernet Sauvignon
> ***Cowra region***
Warm and dry region west of Sydney that produces rich peach-flavoured Chardonnays

Southern New South Wales zone

> ***Hilltops region***
New plantings at very high altitude of various reds, Chardonnay & Sémillon.
> ***Canberra district***
High altitude vineyards.
Up and coming region following Hardy's investment in a 2,000ton winery in the area in 1997
Delicate, floral Rieslings and elegant peppery Shiraz as well as opulent Pinot noir.
Famous Clonakilla Shiraz/Viognier

PRODUCTION & BUSINESS

In a nutshell: Export-driven industry making waves and fruit-driven wines, all over the world
Wine regions: 65, Wineries: 2468, Grapegrowers: 6251
• 13m hl of wine produced, ● 52% ● 48%
• Vineyard area = 135 000 ha = slightly less than Bordeaux and Burgundy combined
• Local market = 40% but local consumption decreasing and 40% domestic tax on wine
• Exports = 60% of the production with
> Australia main import in the UK with 20% of imports
> More than half of Australian exports <$2.50 and 90% <$5
• Shiraz + Cab SV + Chardonnay = 60% of production
• > 50% production by 5 major companies: Treasury (Penfolds, Wolf Blass, Wynns, Rosemount, Yellowglen, Lindemans), Accolade (Hardys, Houghton, Banrock Station, Bay of Fires), Pernod Ricard (Jacob's Creek, Wyndham Estate, St Hugo), Australian Vintage (McGuigan, Nepenthe, Tempus Two), and Casella (yellow tail)

Strengths	**Weaknesses**
(+) Market-led industry with adaptable vineyards (top-grafted vines) and wineries (+) Competitive and recognisable quality brands all over the world (i.e. critical mass) (+) Variety labelled wines and demystified marketing (+) Flexible GI system / South eastern super zone -> simpler for producers (+) Great quality potential from a lot of different zones (+) Access to international expertise (flying winemakers)	(-) Lack of understanding of terroir (-) Too technical, use of additives (-) Confusing GI system for consumers with no guarantee on production methods etc. (-) Relative low quality image: in 2014, sending six times as much wine in bulk to the UK as it was in bottle (-) Small & static market -> reliance on exports of cheap bulk wines with limited margin (-) Impression that the Australian wine scene is dominated by a handful of big companies

Opportunities	**Threats**
[O] Cool climate areas: Tasmania, Yara Valley, Adelaide Hills [O] New promising zones such as Canberra District, Heathcote for Shiraz… [O] Chinese market [O] New tagline: "Australian Wine: made our way" instead of copying French standards [O] Shortage of cheap wine (bulk) > resultant repositioning [O] 65 wine regions, 100+ grape varieties [O] Not behold by tradition [O] Wine Australia $50m package to promote wine tourism & exports	[T] Climate change (instability, severe frosts, **droughts** & bush fires > smoke taint) [T] Profitability (high production costs x low prices) [T] EU new wine laws on table wines [T] Overproduction / Global demand [T] Exports stagnation in volume and drop in value after 90's boom [T] Oversaturated local market

Key companies

○ **Treasury Wine estates**
- #1 Australian producer in value ($1.7BN IN REVENUES)
- Part of Foster's group until 2011 when the brewing and wine division of the company were split
- Purchased Diageo WINE DVISION in 2015
- Owns & manages 13,000ha sales of 35m cases worldwide
- Key brands include:
i. ***Wolf Blass***: Created in 66 by German immigrant Wolfgang Blass
ii. ***Penfolds***: Founded in 1884 by English physician Christopher Penfold
Penfolds Grange
Australia's most famous wine
Inspired after a visit to Bordeaux
1st vintage in 1951 with Shiraz grapes from Adelaïde Hills
Initially called "Penfolds Grange Hermitage" then banned by EU
Now vineyards in Adelaide, Barossa & Eden valleys, Mc Laren Vale & Coonwarra
Blend of Shiraz + small amount of Cab sv
Ageing 18 - 20 months in oak, wine not released until five years after the vintage
Production 100 000 bts/year, Price 650€/btl
Style: full bodied, ripe, rich sweet fruit & hi rounded tannins
iii. ***Lindeman's***: founded in 1843 by Henry Lindeman who planted vines in the Hunter valley.
Famous **Bin65 Chardonnay** praised by Parker in the Wine Advocate.
Also owns Rosemount Estate (Mc Laren Vale), Matua (New Zealand), Beringer + Stag's Leap + Sterling vineyards (Napa), Blossom Hill (Central Coast California)

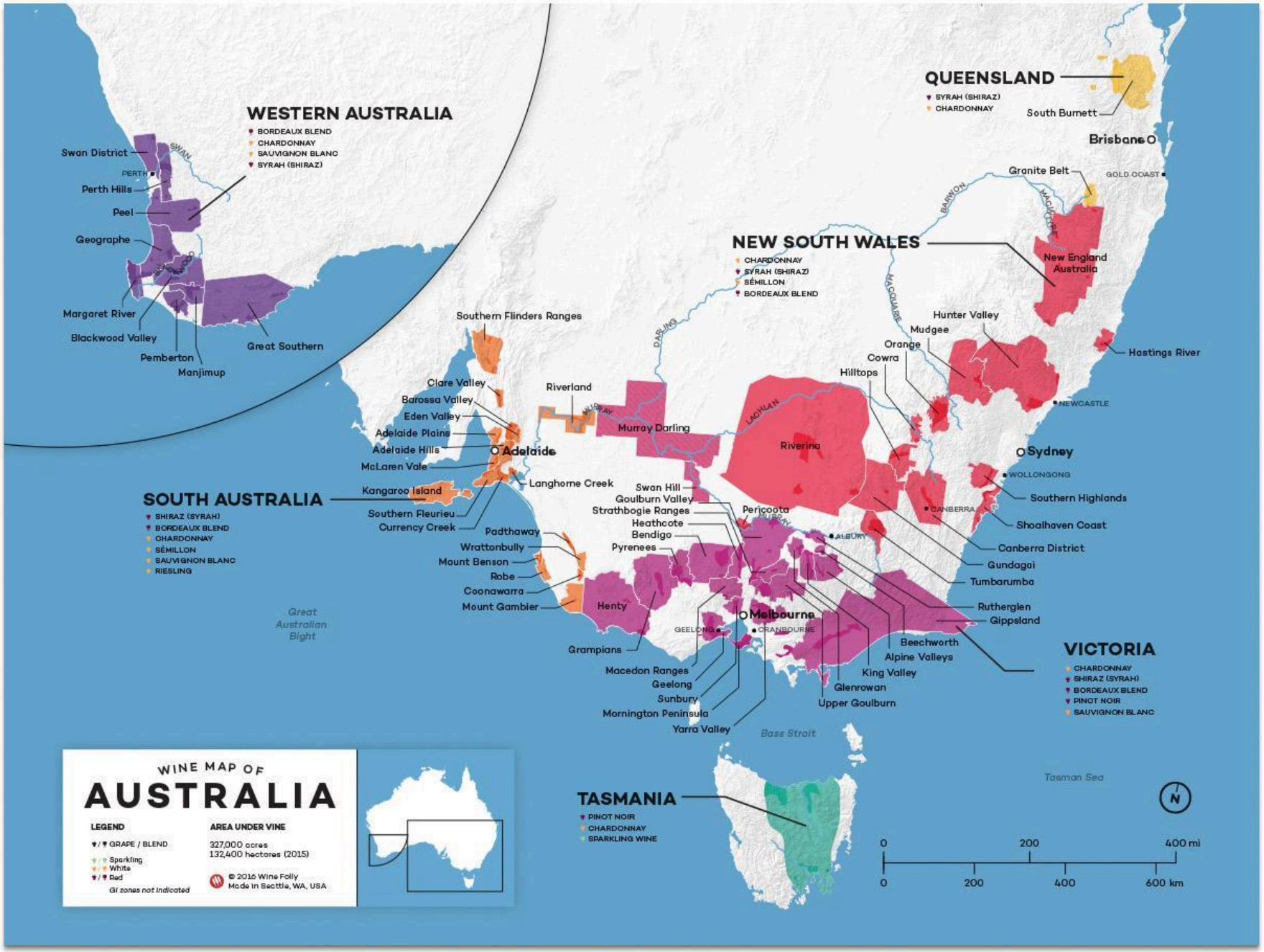
○ **Accolade wines** (ex Constellation Wines Australia)

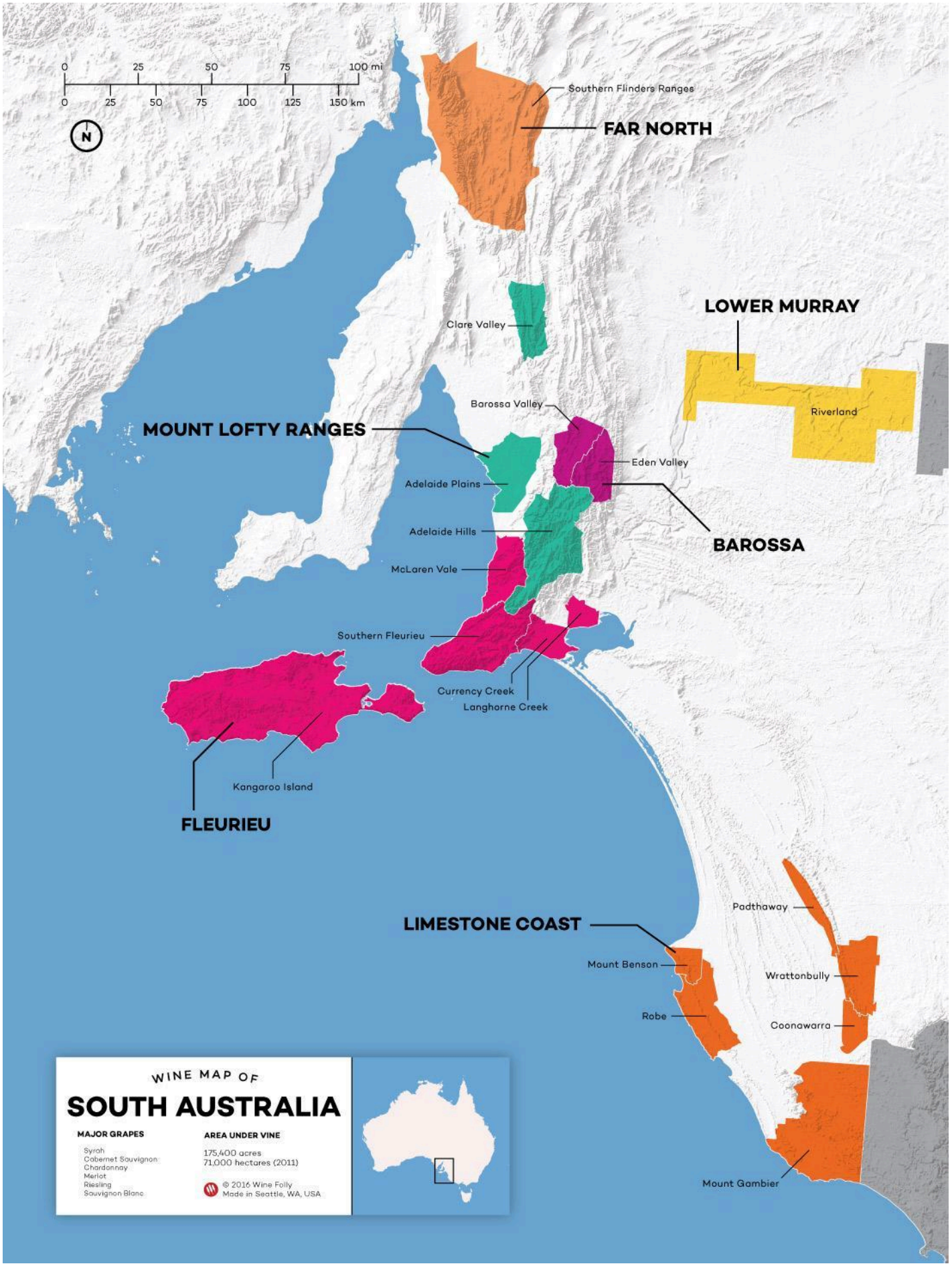
	- #1 Australian producer in volume - Production 25m cases/yr - Ships most wine in bulk - UK's major wine bottler and packager of wine in boxes (facility near Bristol) - Key brands: Banrock Station, Hardy's, Arras (sparkligs), Waipara Hills (New Zealand), Kumala (South Africa) ○ **Pernod Ricard Winemaker** (ex Orlando wines) - Key brands: Jacob's Creek, Campo Viejo (Spain), Kenwood Vineyards (US), Brancott Estate (New Zealand), Graffigna (Argentina) **Jacob's Creek**: Founded in 1847 by Bavarian immigrant Johann Gramp when he set up vines in the Jacob's creek in Barossa. Now exported to over 60 countries. Production: 100 million bottles. Noticeable wine: **Steingarten Riesling**. ○ **Australian vintage** - 90 m $ revenues ○ **Casella wines** World's largest family owned wine company Almost 10% of Australia's total grape crush in 2011 = Casella Yellow Tail created in 2001 and was the #1 imported wine in the US by 2003, sales x 30 in 3 years Most grapes sourced from Riverina Casellas now exporting 12.5 million cases to more than 50 countries ○ **McGuigan Simeon** Plc led by Brian Mc Guigan; ambitious & dynamic company **First families of wine**: Henschke (Eden Valley 1868), Tyrell's (Hunter Valley 1858), Yalumba, Tahbilk, d'Arenberg, Campbells (Rutherglen), Howard Park (Margaret River), Taylors (Clare Valley), Jim Barry (Clare Valley), Mc William's, Brown Brothers **Noticeable wines**: Penfolds Grange (see above) Hill of Grace (Henschke): 100% pre-phylloxera ungrafted Shiraz, Eden Valley. Dry-farmed, biodynamic, 4 ha single vineyard bottling since 1958,16 hl/ha, 18 months in oak (mostly French), >800€/btl, iconic wine sold on allocation. Giaconda Chardonnay: Beechworth, Victoria, 100% single vineyard Chardonnay, 2 years ageing in French oak, 12€/btl Grosset Watervale Riesling: Clare Valley, organic, unfiltered, hand harvest, low yields 25€/btl Tyrells Semillon: Hunter Valley, hand and machine picked, fermentation in stainless steel, ageing on lees Jim Barry's 'Armagh' Shiraz (Clare Valley) Petaluma's Tiers Chardonnay (Piccadilly Valley/ Adelaide Hills) Leeuwin Estate (Margaret River) Art Series Chardonnay Wynns Coonawarra Estate Black Label Cabernet Sauvignon

Zones	Regions	Sub-regions	Key producers	Main varieties	Key hazards
SOUTH AUSTRALIA (49%)					
Adelaide Super Zone (includes Mount Lofty Ranges, Fleurieu and Barossa)					
Barossa	Barossa Valley			Full-bodied Shiraz (61%), Cab Sv, Grenache, Mataro, Riesling, Sémillon - Old vines	Drought
	Eden Valley	High Eden	Henschke	Shiraz, Cab sv, Chardonnay, dry/off-dry Riesling	Autumn rain
Fleurieu	Currency Creek				
	Kangaroo Island				
	Langhorne Creek		Main source for Jacob's Creek	Cab sv, Shiraz, Verdelho	None
	McLaren Vale			Chardonnay, Sv bc, Shiraz, Cab sv, Grenache	Drought
	Southern Fleurieu				
Limestone Coast	Coonawarra			Cab sv, Shiraz, Merlot	Spring frost, poor fruit set
	Mount Benson				
	Padthaway			Chardonnay, Riesling, Shiraz, Cab sv	Spring frost
	Robe				
	Wrattonbully				
Lower Murray	Riverland			Chardonnay, Mourvèdre, Grenache, Shiraz, Cab sv	Spring frost
Mount Lofty Ranges	Adelaide Hills	Lenswood		Sv blc, Chardonnay, Riesling, Cab sv, Pinot Noir, Shiraz, alternative varieties	Poor fruit set
	Adelaide Plains	Piccadilly Valley			
	Clare Valley	Watervale, Polish Hill River Valley	Killikanoon	Shiraz, Cab sv, Riesling	Frost, drought
VICTORIA (20%)					
Central Victoria	Bendigo				
	Goulburn Valley	Nagambie Lakes		Full-bodied Shiraz & Cabernet, Marsanne, Roussanne (eldest in the world 1927), Viognier, age-worthy Rieslings.	
	Heathcote		Jasper Hill	some of Australia's most interesting Shiraz	Drought, frost
	Strathbogie Ranges				
	Upper Goulburn				
North-East Victoria	Alpine Valleys				
	Beechworth				
	Glenrowan				
	King Valley				
	Rutherglen			Muscat	Spring frost

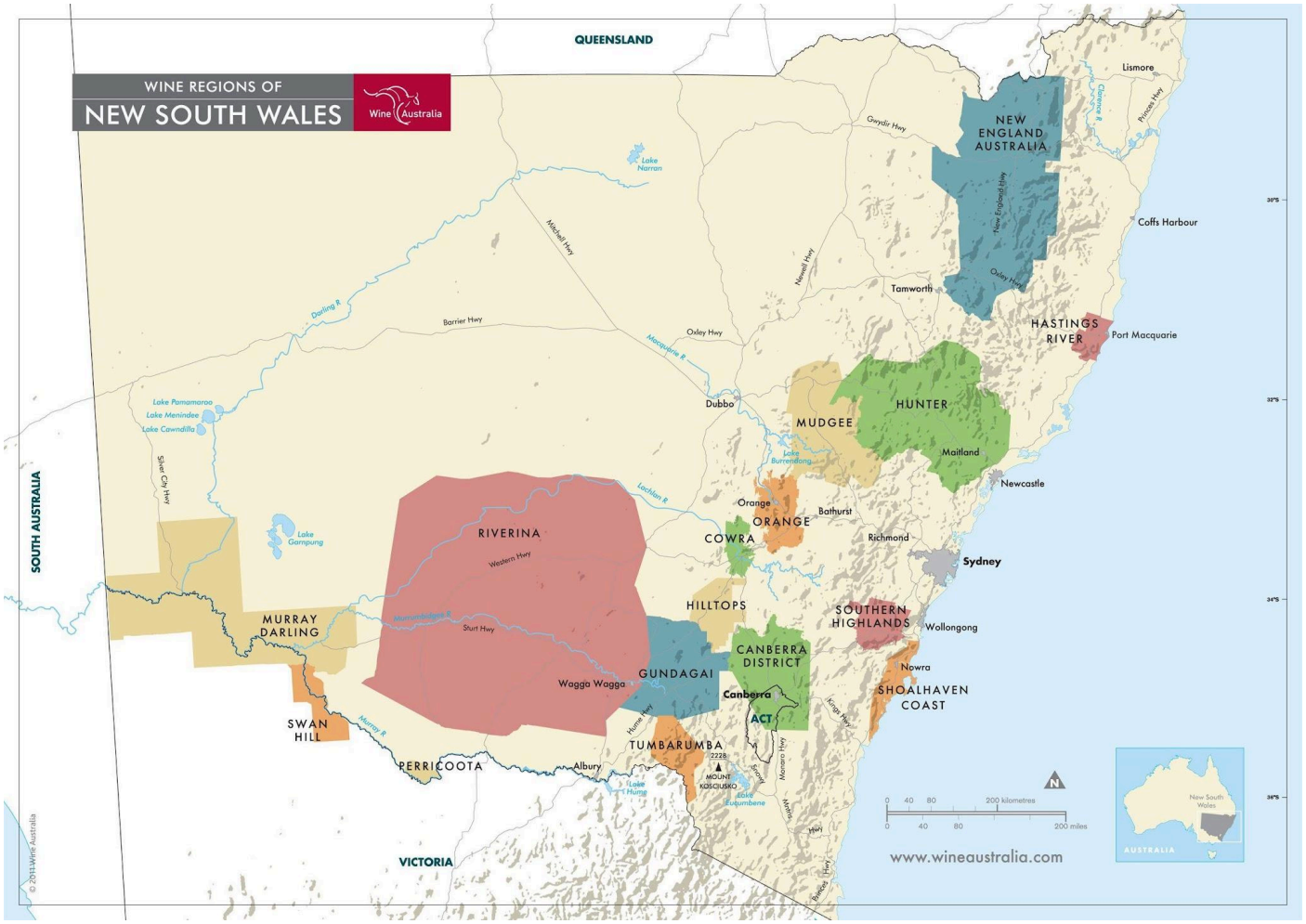
North-West Victoria	Murray-Darling			Chardonnay, Shiraz, Cab sv	Hail
	Swan Hill			Chardonnay, Shiraz, Cab sv	Hail
Port Philip	Geelong			Chardonnay, Pinot Noir, Shiraz, Cabernet Sauvignon	Drought
	Macedon Ranges				
	Mornington Peninsula			Pinot Noir, Chardonnay, Pinot Gris	Autumn rain, birds
	Sunbury				
	Yarra Valley		De Bortoli, Domaine Chandon	Chardonnay, Pinot Noir, Shiraz, Cabernet Sauvignon, sparklings	Birds, mildew
Western Victoria	Grampians	Great Western		Shiraz	
	Henty			Riesling, Chardonnay, Pinot Noir, Gewürztraminer	
	Pyrenees			Chardonnay	
NEW SOUTH WALES					
Big Rivers	Murray-Darling			Chardonnay, Shiraz, Cab sv	Hail
	Perricoota				
	Riverina			Chardonnay, Sémillon	None
	Swan Hill				
Central Ranges	Cowra			Chardonnay, Sauvignon Blanc and Verdelho	Spring frost
	Mudgee			Chardonnay, Shiraz, Cab sv	Drought
	Orange			Chardonnay, Sauvignon Blanc, Shiraz, Cabernet Sauvignon	Spring frost birds
Hunter Valley	Hunter	Broke Fordwich	Rosemount, Tyrrells	Semillon, Chardonnay, Shiraz, Verdelho	Vintage rain mildew
Southern New South Wales	Canberra District			Chardonnay, Pinot Noir, Riesling	Spring frost, drought
WESTERN AUSTRALIA					
Greater Perth	Peel				
	Perth Hills				
	Swan District	Swan Valley	Houghton (HWB)	full bodied whites: Chenin Blanc, Verdelho and Chardonnay	Excessive heat
South Western Australia	Blackwood Valley				
	Geographe				
	Great Southern	Albany			
		Denmark			
		Frankland River			
		Mount Barker			
		Porongurup			
	Manjumup				
	Margaret River		Cullen, Leeuwin Estate, Cape Mentelle	Semillon Sauvignon Blanc blends, Chardonnay, Cab sv	Silvereye birds
	Pemberton				

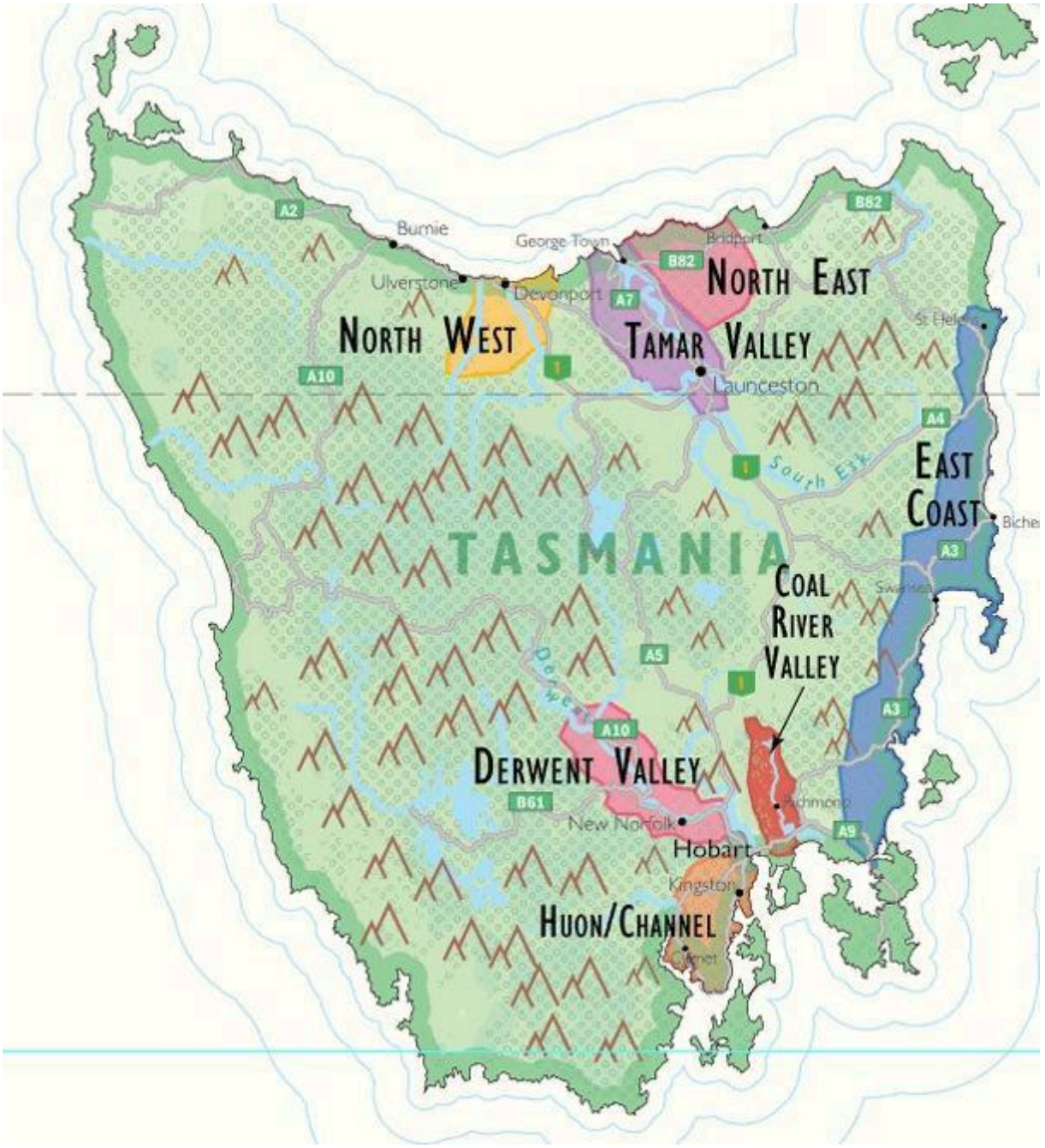
Tasmania	Unofficial regions: Tamar River, Pipers Brook, Derwent Valley, Huon Valley, Coal River Valley, Richmond, Bicheno		Pinot Noir, Chardonnay, Sauvignon blanc	Spring frost


WESTERN AUSTRALIA
BORDEAUX BLEND
CHARDONNAY
SAUVIGNON BLANC
SYRAH (SHIRAZ)
Swan District
Perth Hills
Peel
Geographe
Margaret River
Blackwood Valley
Pemberton
Manjimup
Great Southern
PERTH
SWAN
QUEENSLAND
SYRAH (SHIRAZ)
CHARDONNAY
South Burnett
Brisbane
Granite Belt
GOLD COAST
NEW SOUTH WALES
CHARDONNAY
SYRAH (SHIRAZ)
SÉMILLON
BORDEAUX BLEND
New England Australia
Hunter Valley
Mudgee
Orange
Cowra
Hilltops
Hastings River
NEWCASTLE
Sydney
WOLLONGONG
Southern Highlands
Shoalhaven Coast
CANBERRA
Canberra District
Gundagai
Tumbarumba
Rutherglen
Gippsland
Beechworth
Alpine Valleys
King Valley
Glenrowan
Upper Goulburn
Southern Flinders Ranges
Clare Valley
Barossa Valley
Eden Valley
Adelaide Plains
Adelaide Hills
McLaren Vale
Adelaide
Langhorne Creek
Kangaroo Island
Southern Fleurieu
Currency Creek
Riverland
Murray Darling
Riverina
Swan Hill
Goulburn Valley
Strathbogie Ranges
Heathcote
Bendigo
Pyrenees
Pericoota
ALBURY
Padthaway
Wrattonbully
Mount Benson
Robe
Coonawarra
Mount Gambier
Henty
Grampians
Macedon Ranges
Geelong
Sunbury
Mornington Peninsula
Yarra Valley
Melbourne
GEELONG
CRANBOURNE
SOUTH AUSTRALIA
SHIRAZ (SYRAH)
BORDEAUX BLEND
CHARDONNAY
SÉMILLON
SAUVIGNON BLANC
RIESLING
VICTORIA
CHARDONNAY
SHIRAZ (SYRAH)
BORDEAUX BLEND
PINOT NOIR
SAUVIGNON BLANC
TASMANIA
PINOT NOIR
CHARDONNAY
SPARKLING WINE
Great Australian Bight
Bass Strait
Tasman Sea
DARLING
MURRAY
LACHLAN
MACQUARIE
BARWON
WINE MAP OF
AUSTRALIA
LEGEND
GRAPE / BLEND
Sparkling
White
Red
GI zones not indicated
AREA UNDER VINE
327,000 acres
132,400 hectares (2015)
© 2016 Wine Folly
Made in Seattle, WA, USA
N
0
200
400 mi
0
200
400
600 km


0 25 50 75 100 mi
0 25 50 75 100 125 150 km
N
Southern Flinders Ranges
FAR NORTH
Clare Valley
LOWER MURRAY
Riverland
Barossa Valley
MOUNT LOFTY RANGES
Eden Valley
Adelaide Plains
BAROSSA
Adelaide Hills
McLaren Vale
Southern Fleurieu
Currency Creek
Langhorne Creek
Kangaroo Island
FLEURIEU
Padthaway
LIMESTONE COAST
Mount Benson
Wrattonbully
Robe
Coonawarra
Mount Gambier
WINE MAP OF
SOUTH AUSTRALIA
MAJOR GRAPES
Syrah
Cabernet Sauvignon
Chardonnay
Merlot
Riesling
Sauvignon Blanc
AREA UNDER VINE
175,400 acres
71,000 hectares (2011)
© 2016 Wine Folly
Made in Seattle, WA, USA


WINE FOLLY
VICTORIA
AUSTRALIA
Central Victoria
North Eastern Victoria
Others
Port Phillip
Swan Hill
Glenrowan
Rutherglen
Goulburn Valley
Beechworth
King Valley
Alpine Valleys
Bendigo
Pyrenees
Heathcote
Strathbogie Ranges
Grampians
Macedon
Upper Goulburn Valley
Henty
Sunbury
Yarra Valley
Geelong
Mornington Peninsula
Gippsland


WINE REGIONS OF
NEW SOUTH WALES
Wine Australia
QUEENSLAND
SOUTH AUSTRALIA
VICTORIA
NEW ENGLAND AUSTRALIA
Lismore
Coffs Harbour
Tamworth
HASTINGS RIVER
Port Macquarie
HUNTER
MUDGEE
Maitland
Newcastle
Dubbo
Orange
Bathurst
ORANGE
COWRA
Richmond
Sydney
RIVERINA
HILLTOPS
SOUTHERN HIGHLANDS
Wollongong
CANBERRA DISTRICT
Canberra
ACT
GUNDAGAI
Wagga Wagga
Nowra
SHOALHAVEN COAST
MURRAY DARLING
SWAN HILL
PERRICOOTA
Albury
TUMBARUMBA
2228
MOUNT KOSCIUSKO
Lake Eucumbene
Lake Hume
Lake Narran
Lake Pamamaroo
Lake Menindee
Lake Cawndilla
Lake Garnpung
Lake Burrendong
Darling R
Barrier Hwy
Mitchell Hwy
Newell Hwy
Oxley Hwy
Macquarie R
Silver City Hwy
Lachlan R
Western Hwy
Murrumbidgee R
Sturt Hwy
Murray R
Hume Hwy
Kings Hwy
Monaro Hwy
Snowy Mtns Hwy
Princes Hwy
Clarence R
Gwydir Hwy
New England Hwy
Oxley Hwy
30°S
32°S
34°S
36°S
0 40 80 200 kilometres
0 40 80 200 miles
www.wineaustralia.com
New South Wales
AUSTRALIA
© 2011 Wine Australia


TASMANIA
NORTH WEST
NORTH EAST
TAMAR VALLEY
EAST COAST
COAL RIVER VALLEY
DERWENT VALLEY
HUON/CHANNEL
Burnie
Ulverstone
Devonport
George Town
Launceston
New Norfolk
Hobart
Kingston
A2
A10
B82
A7
A4
A3
A5
B61
A9