



# Margaret River Chardonnay



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# Chardonnay – Captain Versatile

- Produced everywhere
- Big differences in styles
- Wine Australia (ABS 2015) Chardonnay – 341,000 ton.
- Quality spectrum – as wide as imaginable
- Burgundy winery (2ha) sold for A\$12.2M in 2012
- MR – 810 hectares, 5,500 tons (ABS 2012)

# Outline – MR Chardonnay

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- Then and now – moving with the times
- The vineyard – soils and clones
- Seasons – cultural inputs

# Then and Now: Style



# Then and Now: At a Glance

- Long time champion of the region
- Increasing demand for high quality chardonnay fruit
- The last 10 years have seen a change in wine style
- Less buttery etc.... to fresh, more balanced wines – elegance over palate weight
- Fruit mostly used for oaked styles – decrease in unoaked demand

# Then and Now

- Fruit specifications have adapted to the change in wine styles and climate
- Pre 2000: Higher Be, generally lower acids, higher yields – March harvest
- Now 2016: Lower Be, higher acids, moderation of yields – February harvest (sometimes late January!)
- At the extreme 50–60 days difference in harvest dates

# Then and Now

Harvest and Maturity Data: North MR Chardonnay

Year	Yield (t/ha)	Baume	TA (g/L)	pH	Harvest Date
Pre 2000	10.1	14.0	5.6	3.50	Mid-March
2004	9.8	13.2	6.68	3.42	9-March
2016	6.9	12.1	8.8	3.27	15-February

Source: AHA Historical Record and Database



# Then and Now



- ↑ in \$/t – we have created a greater value of MR Chardonnay
- Especially in comparison to SBS blends, ↓ \$/ton



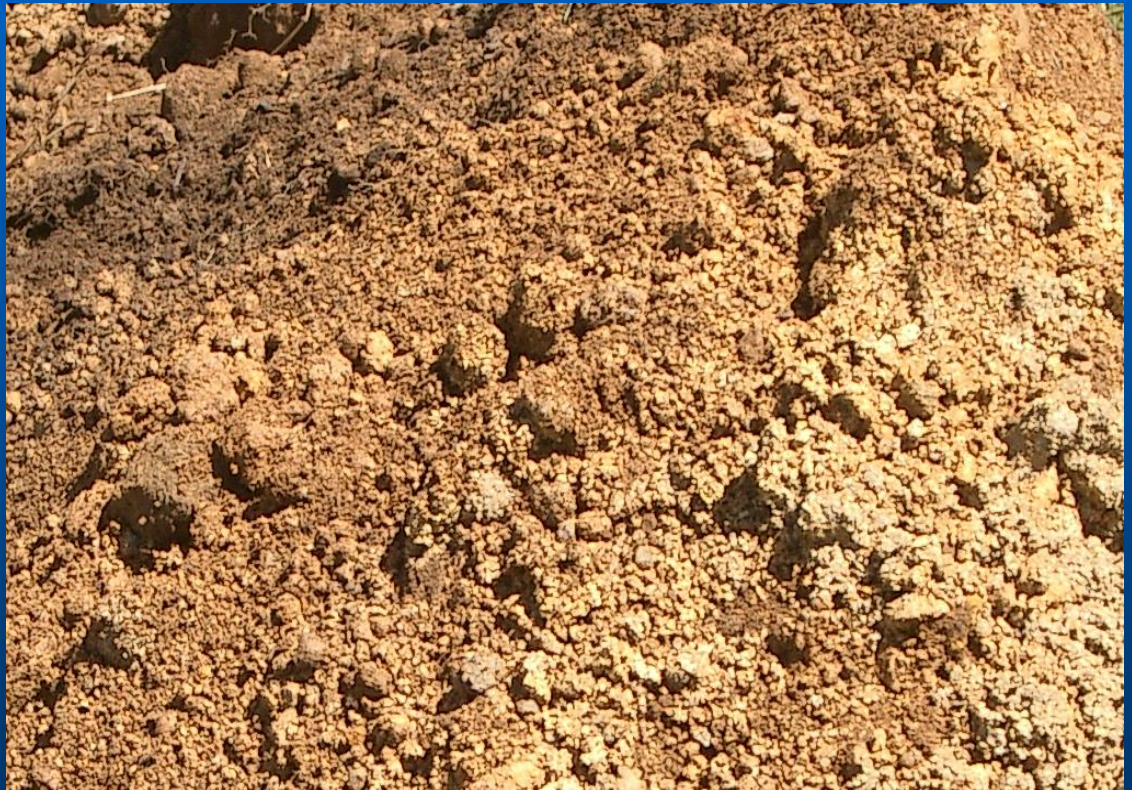
# Row Orientation and Aspect

- Performs on both N–S and E–W row orientations
- Some preference for N–S
- Aspect depends on style preference; producers favour south aspect (in general cooler sites)
- One of the most consistent high end producers prefers fruit from N–W aspects – more generous flavours /palate weight



# Margaret River – Soils

- Well regarded blocks across the region have very variable soils.
- I asked a range of vignerons for preference; no real trend





# Margaret River – Soil

## Soil Characteristics

"Gravelly sandy loams to clay loams. Clay content increasing down the profile graduating to granite"

"Mungite in warmer areas and loamy gravel to grey sandy shales in cooler areas – need some vigour to be good"

"Free draining sandy clay loams with moderate gravel content and light to medium clay at depth"

"Gravelly loam, lean to higher potential. ...loams, but not high potential loams"

"Less fertile sandy loam with fractured granite seems a feature of the best chard vineyards"

"...pretty versatile/forgiving when it comes to soils (and other terroir aspects). It can perform on just about anything and go ok if managed well, from sandy loams to heavier soils and still make good wine, just different contexts"

# MR – Soil



Horizon	Depth (cm)	Description
A1	0–10	Damp, loose, dark brown sandy loam
A2	10 – 45	Moist, very firm, light orange clay loam, 20% gravel
B1	45 – 75	Moist, very firm, pale yellow with orange mottles, medium clay, 30% gravel
C	75–120	Moist, very firm, light grey with orange mottles, heavy clay, 50% gravel

# MR – Soils



Horizon	Depth (cm)	Description
A1	0-10	Moist, dark brown sandy loam, 5% gravel
A2	10-70	Moist, light yellow sandy clay loam
B1	70-100	Moist, pale yellow light clay



# Clones – Gingin

- Gingin - significant influence on character of our wines
- The positive influence of Gingin extends throughout WA wine regions
- Every vigneron rated as number 1 clone
- Imported by Houghtons in 1957 - also known as “Mendoza”
- True origin unclear





# Clones – Gingin



Through the late 60's and early 70's new material (varieties) were coming from CSIRO - bulked up in Swan Valley research

Early chardonnay clone in Swan Valley was not recommended due to poor cropping - new material introduced 1976??

Valencia vineyard established in Gingin - site of first Houghtons Cab selection  
2 rows of Chardonnay established adjacent – evolution of Gingin clone

# Clones – Gingin

Leeuwin Estate- Block 20 Chardonnay



# Clones – Gingin

- Low yielding - hen and chicken - small bunches
- Degree of hen and chicken seasonally variable
- Higher acidity than other clones
- Can ripen quickly - intense fruit and supple textures
- Difficult to pick by machine
- Performs well in WA - anecdotally problematic in poor springs and cooler climates

# Clones – The Marriage

- The most common in WA are Gingin, Davis and Dijon clones
- Davis clones are valued for their productive capability – 3 & 5
- Gingin valued highly for iconic production - works for both the old and new styles - timing & cultivation
- Growing momentum for the use of Dijon 95, 96, 76, and 277 especially in conjunction with Gingin
- Preference of Dijon clone varies between producers
- One producer suggested the blend of Gingin, 95 and 277 - perfect mix - natural balance



# Clones – The Marriage



# Clones – The Marriage

- The experimentation of blending Dijon clones with Gingin is improving the agility of our Chardonnays by offering seasonal and style adaptability
- Many producer's top shelf wines are still 100% Gingin
- Constant evaluation in the knowledge and understanding of where clones are performing best, both in site and seasonally
- Assessment benchmarks will constantly be moving as market demands evolve



# Winter – Pruning



- Bud dissections
- Pruning style
- Dormancy management in maritime conditions

# Mechanisation

- Klimas are now widely used in Margaret River to assist cane pruning
- Driving change in pruning style, through affordability





# Spring

Gingin Willyabrup Chardonnay



- Budburst in late August
- Coincides with late winter and spring storms

# Spring – Management Techniques

Activity	Vineyard Practice
Shoot positioning	Majority - vertical shoot positioning (VSP)
Shoot thinning	<ul style="list-style-type: none"><li>• Common in spur - seldom practiced in cane pruning (maybe only around crown)</li><li>• Well practised in southern MR</li><li>• Intensity of shoot removal based off disease, canopy density, fruitfulness, vine vigour...</li><li>• Correction of vine balance</li><li>• Create desired solarisation level - variable for site/style/producer</li></ul>

# Spring – Management Techniques

Activity	Vineyard Practice
Leaf plucking	<ul style="list-style-type: none"><li>• Seldom practiced and if done only lightly on cooler sides of canopy (south and east)</li><li>• More in southern MR vineyards - cooler, wetter sites, heavier soils</li><li>• Best results are when the middle leaves are removed as opposed to the outside layer</li><li>• Encourage fruit balance and discourage disease</li><li>• More common on spur pruned vines (canopy density)</li><li>• The ideal is a dappled light on fruit - sunburn!</li><li>• Best carried out Early - Mid December (EL29-30)</li></ul>

# Spring – Inputs and Protections

## **Nutrition**

- Site dependent to find the right balance
- Concentrate on suitable N level for keeping fresh, but constrained enough to avoid disease and rank vigour
- Other macro and micros at adequate standards based off petiole data - timed to EL stage

## **Crop protection**

- Very varied depending on production values and budgets
- Powdery is difficult to contain without a robust program
- Rots and botrytis can be challenging in wetter seasons
- Organic and conventional (combinations common)



# Summer – Then





# Summer – Now



## What's important:

- Fresh canopy - well hydrated
- Canopy functional but not active
- No basal leaf defoliation
- 1-2 maximum leaf layers
- Dappled light to bunches
- Minimise sunburn - phenolics
- Balanced acids

# Summer – Irrigation

Activity	Pre 2000	Post 2000
<b>Water management</b>	<ul style="list-style-type: none"><li>• Springs generally wet and only low inputs required</li><li>• Input applied in late spring and summer to support canopy through to veraison</li><li>• Reduced input in last few weeks prior to vintage to concentrate flavour...</li><li>• Many vineyards dryland</li></ul>	<ul style="list-style-type: none"><li>• Trend of drier springs and input required earlier in the season.</li><li>• Continued into summer. The aim to keep canopy fresh and vibrant– leaf cover of fruit</li><li>• Keep fresh right up to vintage and ensure acid and vibrancy</li></ul>

# Summer – Harvest

Activity	Pre 2000	Post 2000
Harvest timing	<ul style="list-style-type: none"><li>• March</li><li>• Higher Be–lower total acids</li><li>• Riper more fruit with more phenolic development around skins</li></ul>	<ul style="list-style-type: none"><li>• February</li><li>• Lower Be – higher total acids</li><li>• Leaner flavours, less skin development</li></ul>
Harvest techniques	<ul style="list-style-type: none"><li>• Old blocks and top end lots of hand picking – trellis set up etc...</li><li>• Unoaked style and mid–tier products predominantly machine</li></ul>	<ul style="list-style-type: none"><li>• Smaller parcels, lots of hand picking.</li><li>• Selective harvesting trialed to find price point sweet spot. MR style more affordable</li></ul>

# The Magic

- “...seabreeze, cane pruning and modest crops...”
- “shaded fruit with flavor intensity and minimal herbaceous green apple tobacco notes – no overripe characters”.
- “Elegance and refinement of Mount Barker and Porongurup chardonnay. Richness and complexity of Southern Margaret River chardonnay..”
- “Balance, cool nights, not much exposure, not fussed with high or low crop loads, some freshness but not growing. Moderate but not high N....”

# The Magic

- “...Personality – fresh flavor coming from vines that can offer powerful fruit at moderate sugars (which we are targeting for wild ferments...). ...indigenous yeast which may originate in the vineyard is a significant aspect of augmenting the personality of modern Chardonnay styles...”.
- “The hands off winemaking style and letting the wines express themselves through wild fermentation also contributes to the magic...”
- “Magic thing – timing. From when it’s pruned, wire lifted, trimmed and ultimately harvested. When we get the timing right, the ‘magic’ will take care of itself”



# Synergy of Site, Soil and Soul



# Thank you

