

BROWN

FAMILY WINE GROUP

Managing Vine Balance & Optimising Yield

Brett McClen



Agenda

- What we do
- Why vine balance matters
- How we assess vine balance





What we do

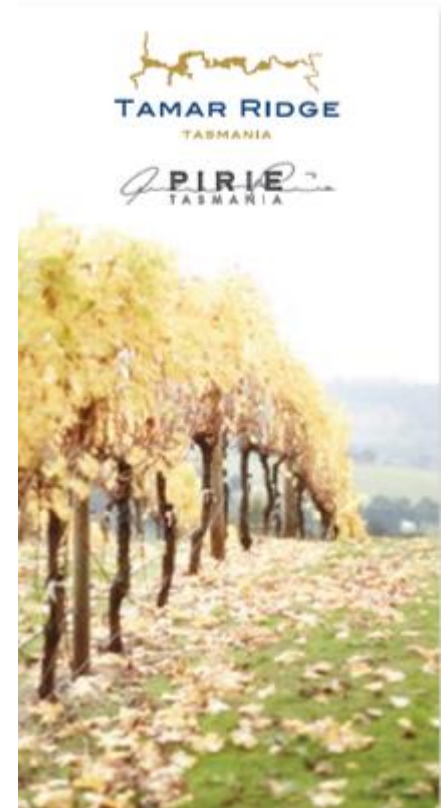
Pinot Noir - Vineyards

BROWN
FAMILY WINE GROUP



What we do

- 320 Ha in Tas – 160 Ha is Pinot Noir
- Majority is table wine
- Devils Corner Pinot – currently 620,000 units per annum
- MAT growth +7%

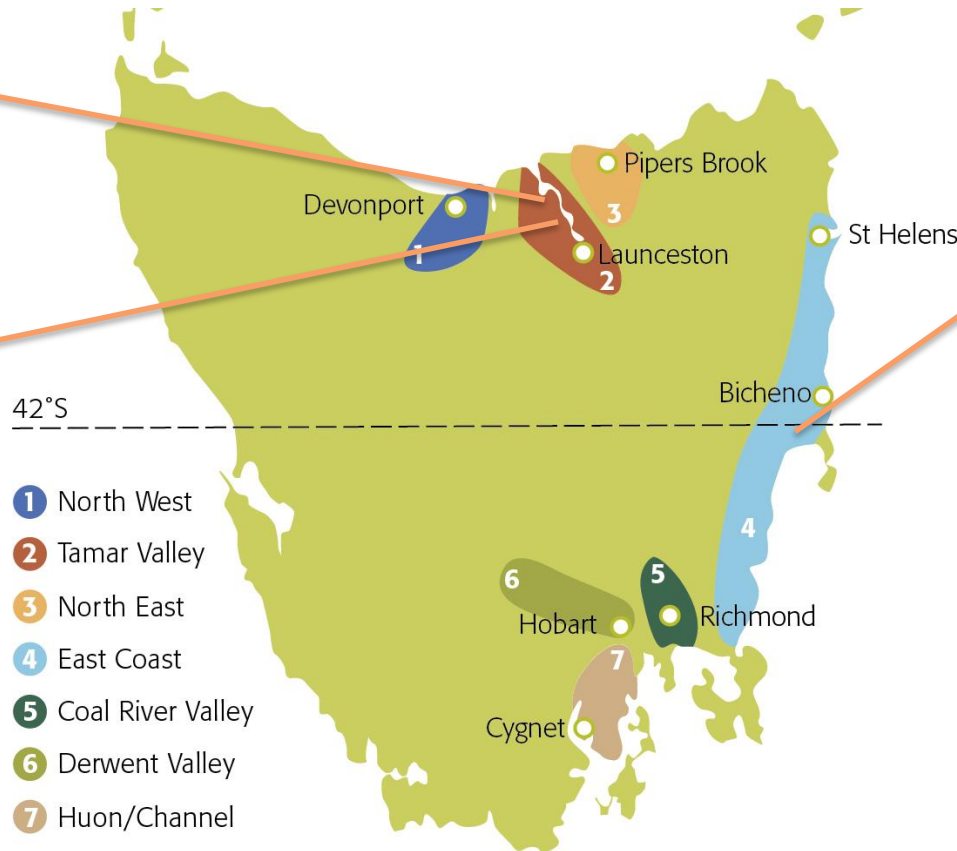
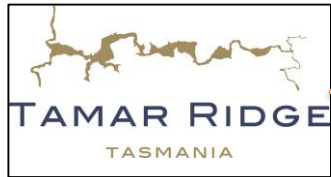


Yarra Valley

- Innocent Bystander
- 200K units of Pinot Noir 750ml
- All fruit purchased externally



Tasmania



What we do

- Planting density ranges from 2424 to 3788 vines/Ha
- Vineyard age ranges from 1995 to 2015
- 5 year average PIN yield = 7.5 t/ha
- BUT – varies widely
- Typically range from 2 kg/vine to 4 kg/vine
- Average opex = \$15,800 / Ha \approx Average \$2,100 / tonne

What we do

Clones

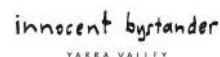
Clone	% of Area
115	37%
MV6	15%
D4V2 ("Pommard")	13%
114	8%
D5V12	6%
Abel	6%
D2V5	4%
777	4%
G5V15	4%
Other	3%
	100%

Training Systems

- All VSP
- 2, 3 & 4 cane
- Spur
- Arched-cane
- Scott-Henry (v. high vigour)
- 75% cane pruned
- 25% spur

What we do

- COGS is a big factor
- Fruit cost highly yield driven
- Quality requirement
- Yield stability is a significant focus





Wh

BROWN
WINE GROUP











Why does vine “balance” matter

BROWN
FAMILY WINE GROUP



Why Vine Balance Matters

- *“balance is achieved when vegetative vigour and fruit load are in equilibrium and consistent with high fruit quality”*
(Gladstones 1992)
- Predominate goal is to optimise quality at an economic yield
- With Pinot Noir in cool climate, vine balance is critical for yield **and** quality

Why Vine Balance Matters

- Yield
 - If try to exceed biological capacity of vine, it will erode vine strength.
 - If vigour is repeatedly compromised by yield, its a long road to restore balance
 - Decreases future yield and quality

Why Vine Balance Matters

- Quality
 - *“as long as grapes have been grown....the best wines come from those vineyards where vegetative growth and yield are in balance”, (Dry et. al. 2004)*
 - if vigour has been eroded by overcropping, unlikely to optimise quality
 - If vigour is excessive relative to yield, not always great
 - **Vine balance is absolutely central to everything we are trying to do in Pinot Noir**



How we measure vine balance

BROWN
FAMILY WINE GROUP



How we measure vine balance

- Not very scientifically
- ~~Y/P, LA/Y, PW/mtr~~
- Useful indicators, but highly specific to clone, site, wine style
- But - suspect Y/P ratio closer to 3 is more realistic for cool climate PIN

How we measure vine balance

Agricultural approach

- Visually assess vines **after leaf fall**, prior to pruning
- Look “healthy” canes – colour, length, thickness

How we measure vine balance



How we measure vine balance

Agricultural approach

- Visually assess vines **after leaf fall**, prior to pruning
- Look “healthy” canes – colour, length, thickness
- Trimmed? Or have shoots just petered out. Are there any laterals nears the end?

How we measure vine balance



- just at the tips! Not in the fruit zone

How we measure vine balance

Agricultural approach

- Visually assess vines **after leaf fall**, prior to pruning
- Look “healthy” canes – colour, length, thickness
- Trimmed? Are there any laterals nears the end? Or have shoots just petered out
- What’s bud burst like?









How we measure vine balance

Excessive buds

- blind budding
- overcrowding at ends of canes
- removal of old canes becomes expensive
- quality of replacement canes deteriorates
- yields become more erratic

How we measure vine balance

What's the repeatability of the system like?

- does it provide your target yield?
- does it provide your target quality?
- are you able to prune the same way each season?
- can be a good indicator of “balance”



SUMMARY

BROWN
FAMILY WINE GROUP



- Difficult to achieve sustainable yield and quality without vine balance
- Look at the vines after leaf fall
 - bud break
 - shoot length
 - shoot vigour
 - shoot distribution
 - fruit distribution
- What's the repeatability of the system like?

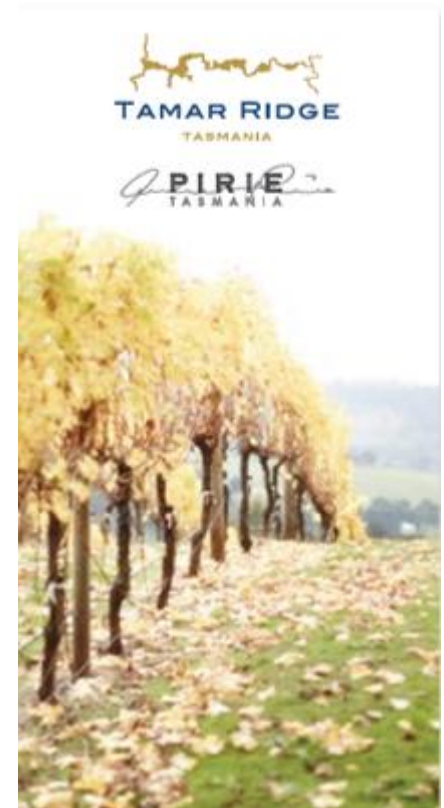
SUMMARY

- Vine balance is critical in Pinot Noir
- The vine will tell you



Acknowledgements

- Ben Pietsch
- Ben Fleer





Thank-you

