



Department of
Primary Industries and
Regional Development

Protect
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Demonstrating the influence of clonal selection on Cabernet Sauvignon performance & quality

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Project objectives

- Key objective to understand the characteristics of these different clones across multiple vintages, focusing on field performance and wine qualities
 - Creating a long-term research asset
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Trial design



Clones and selections

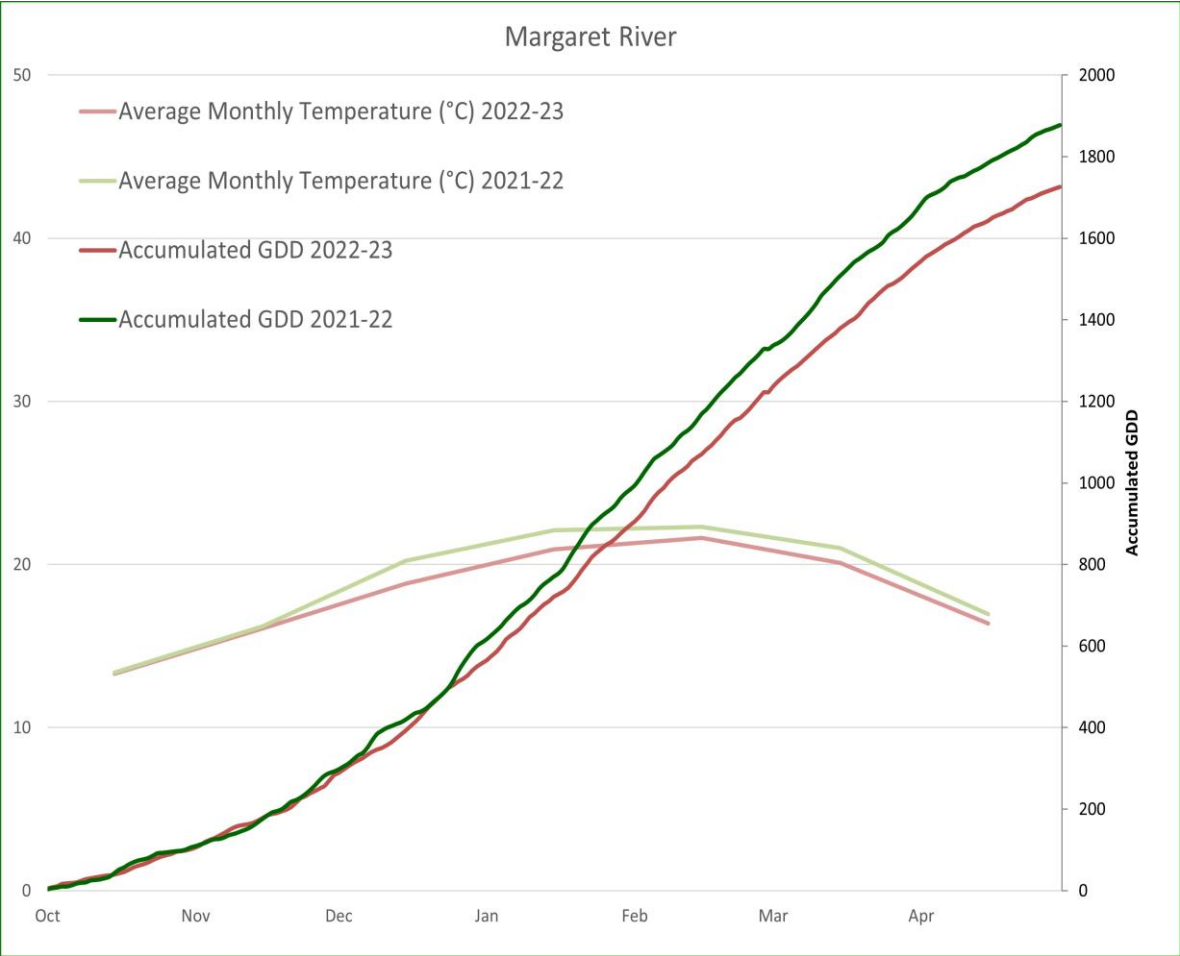
Western Australian	Australian	International
Roche 5-2	SA125	191 (Bordeaux)
Roche 5-7	SA126	337 (Bordeaux)
Roche 9-7	CW44	G9V3 (California)
Roche 20-4	LC10	
HPW selection (M)	LC84	
HPW selection (N)		

Further information on clones <https://www.agric.wa.gov.au/wine-grapes/review-five-wine-grape-variety-clones-western-australia>

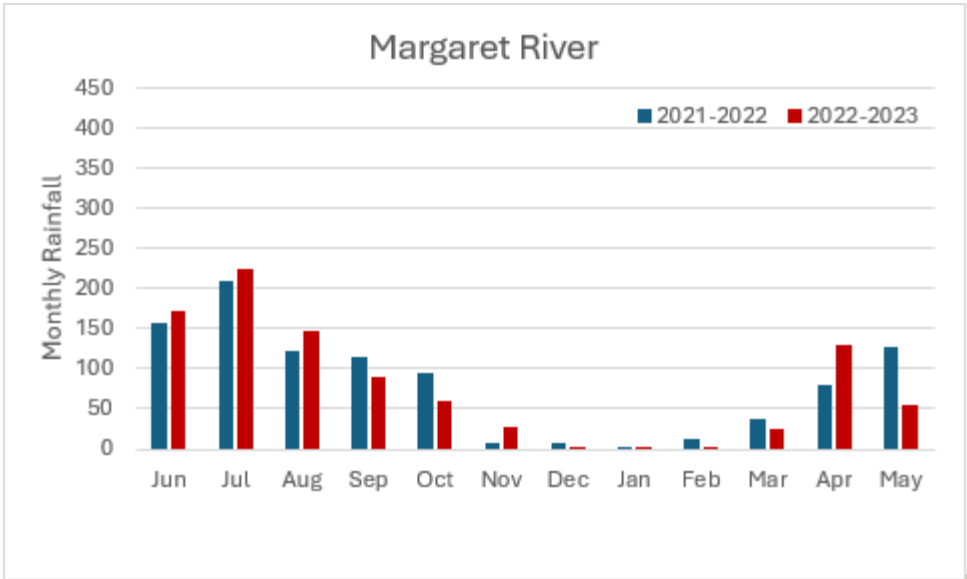
Field & winemaking activities



Climatic comparisons



	2021-22	2022-23
Rainfall (Jun – May)	976	934
GDD	1877	1726
MJT	22.1°C	20.9°C



Phenological observations

Clone	Budburst	Flowering	Veraison	Harvest
Roche 5-2	2-Oct	27-Nov	30-Jan	27-Mar
Roche 5-7	30-Sep	24-Nov	30-Jan	21-Mar
Roche 9-7	2-Oct	26-Nov	31-Jan	27-Mar
Roche 20-4	29-Sep	25-Nov	31-Jan	21-Mar
191	2-Oct	25-Nov	29-Jan	25-Mar
337	4-Oct	27-Nov	31-Jan	25-Mar
SA125	2-Oct	27-Nov	31-Jan	25-Mar
SA126	4-Oct	27-Nov	30-Jan	27-Mar
CW44	30-Sep	25-Nov	31-Jan	27-Mar
LC10	28-Sep	24-Nov	30-Jan	25-Mar
LC84	29-Sep	24-Nov	30-Jan	27-Mar
G9V3	29-Sep	25-Nov	30-Jan	27-Mar

Viticultural observations

Clone	Yield/vine (kg)	Bunch Weight (g)	Bunches/vine	Berry weight (g)	Pruning weight (kg)	Yield/pruning weight ratio
Roche 5-2	7.2	175.4	40.9	1.4	1.23	5.93
Roche 5-7	5.0	146.9	35.3	1.1	0.77	6.67
Roche 9-7	5.2	152.9	34.6	1.4	0.94	5.59
Roche 20-4	4.5	147.4	30.5	1.1	0.78	6.16
191	5.3	155.3	34.4	1.4	1.07	4.96
337	5.8	158.3	36.6	1.4	1.02	5.88
SA125	7.3	193.4	37.5	1.4	1.53	4.77
SA126	5.0	169.9	29.7	1.4	1.03	5.07
CW44	5.1	158.9	31.8	1.3	0.95	5.37
LC10	4.2	131.4	32.1	1.2	0.67	6.44
LC84	5.6	170.1	33.1	1.4	1.28	4.39
G9V3	5.3	162.0	33.4	1.3	0.92	6.07

Tasting

- 4 brackets of wines
 - 2023 wines first 2 brackets, followed by 2022
 - Tasting sheets provided for notes
 - Utilise the QR codes for sharing observations
 - Categorise the wines by selecting the dominant spectrum of aroma and flavour i.e. herbal, red fruit, dark fruit or savoury
 - Only one descriptor can be selected per criteria
 - The ID of the wines will be revealed after each bracket
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Clonal tasting (2023 – bracket 1)

Wine - clone	Yield/vine (kg)	Bunch Weight (g)	Bunches / vine	Harvest date	pH	TA (g/L)	Alc (%)
A – Roche 5-2	9.4	204.8	46	14 April	3.49	6.2	13.3
B - Roche 5-7	6.4	190.6	36	11 April	3.51	6.2	14.3
C - Roche 9-7	7.2	190.0	38	14 April	3.54	6.5	13.9
D - Roche 20-4	5.8	170.3	34	11 April	3.56	6.0	14.4
E - 191	7.0	194.1	36	14 April	3.50	6.6	14.0
F - 337	7.3	175.8	42	14 April	3.49	6.5	13.8

Clonal tasting (2023 – bracket 2)

Wine - clone	Yield/vine (kg)	Bunch Weight (g)	Bunches / vine	Harvest date	pH	TA (g/L)	Alc (%)
G – SA125	8.8	225.8	39	14 April	3.50	6.4	13.4
H - SA126	6.5	203.5	32	14 April	3.54	6.4	13.7
I - CW44	6.7	177.2	38	14 April	3.53	6.4	14.2
J – LC10	5.8	160.0	36	14 April	3.53	6.4	13.9
K – LC84	7.7	217.1	35	14 April	3.48	6.4	14.0
L – G9V3	6.7	201.7	33	14 April	3.50	6.2	14.2

Clonal tasting (2022 – bracket 3)

Wine - clone	Yield/vine (kg)	Bunch Weight (g)	Bunches / vine	Harvest date	pH	TA (g/L)	Alc (%)
1 – G9V3	5.11	120.4	42	7 April	3.54	6.4	14.5
2 – Roche 5-7	4.87	106.9	46	1 April	3.48	6.5	13.9
3 – LC84	5.04	129.1	39	7 April	3.53	6.6	14.7
4 – Roche 9-7	5.02	114.1	44	7 April	3.51	6.6	13.9
5 - 337	5.79	136.0	43	7 April	3.54	6.4	14.2
6 – SA126	4.26	131.1	33	7 April	3.47	6.9	13.9

Clonal tasting (2022 – bracket 4)

Wine - clone	Yield/vine (kg)	Bunch Weight (g)	Bunches / vine	Harvest date	pH	TA (g/L)	Alc (%)
7 – SA125	7.99	186.9	43	7 April	3.52	6.3	13.5
8 – Roch 20-4	3.77	111.6	34	1 April	3.52	6.3	14.6
9 – LC10	3.54	99.8	35	7 April	3.47	6.7	14.4
10 – 191	5.07	116.8	43	7 April	3.53	6.6	14.8
11 – Roche 5-2	7.06	151.8	47	7 April	3.50	6.4	13.4

Acknowledgments

- Yu-Yi Liao, DPIRD technical officer
- Burch Family Wines
- WAVIA
- ARM Nursery

Wine Australia



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Extraordinary Regions

Thank you

dpird.wa.gov.au



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