

Table S3 Effect of different leaf canopy thickness on monomeric anthocyanins in ‘Merlot’ grapes (mg·L⁻¹)

NO.	Name of the compounds	2023				2024			
		M40	M60	M80	M100	M40	M60	M80	M100
1	Delphindin-3- <i>O</i> -glucoside	8.50±	11.28±	6.45±	10.43±	14.29±	13.66±	10.14±	10.51±
		0.45b	0.82a	0.19c	0.26a	2.46a	0.14ab	0.50b	1.43ab
2	Cyanidin-3- <i>O</i> -glucoside	2.60±	2.09±	1.48±	2.54±	5.12±	0.00±	5.18±	5.76±
		0.15a	0.42ab	0.50b	0.20a	0.24b	0.00c	0.06b	0.02ab
3	Petunidin-3- <i>O</i> -glucoside	9.22±	13.20±	10.67±	12.08±	11.35±	11.97±	11.24±	8.84±
		2.15b	1.35a	0.44ab	0.61ab	1.16	5.24	0.12	1.05
4	Peonidin-3- <i>O</i> -glucoside	12.42±	9.37±	7.40±	13.92±	9.13±	11.36±	6.91±	8.53±
		1.24ab	1.64bc	0.48c	1.15a	0.03b	0.64a	0.36c	1.34bc
5	Malvidin-3- <i>O</i> -glucoside	76.21±	103.84±	86.41±	87.63±	82.11±	108.42±	101.66±	98.03±
		1.18c	0.13a	2.72b	3.17b	1.63c	1.67a	1.80b	0.62b
	Monosaccharides kinds	5	5	5	5	5	5	5	5
	Monosaccharides subtotal	108.95±	139.78±	112.41±	126.61±	122.00±	145.42±	135.12±	131.67±
		2.68b	1.88a	4.32b	5.40ab	5.03c	2.79a	2.73b	3.22bc
	Monosaccharides proportion (%)	51.64	52.61	47.08	54.79	50.52	48.78	47.21	49.43
6	Delphindin-3- <i>O</i> -acetylglucoside	3.84±	4.66±	2.83±	5.04±	13.35±	19.02±	7.23±	12.59±
		0.78ab	0.67ab	0.08b	0.87a	0.34b	2.24a	0.59c	0.96b
7	Cyanidin-3- <i>O</i> -acetylglucoside	1.00±	0.90±	2.31±	0.86±	0.00±	9.14±	0.00±	0.00±
		0.05b	0.01b	0.10a	0.16b	0.00b	2.03a	0.00b	0.00b

Table S3 (continued)

NO.	Name of the compounds	2023				2024			
		M40	M60	M80	M100	M40	M60	M80	M100
8	Petunidin-3- <i>O</i> -acetylglucoside	5.08±	7.36±	5.37±	6.02±	7.51±	5.29±	6.90±	6.71±
		0.51b	0.92a	0.81ab	0.56ab	0.87a	7.48b	0.06b	0.42b
9	Malvidin-3- <i>O</i> -acetylglucoside	55.21±	80.64±	62.82±	55.71±	63.59±	92.76±	67.15±	77.07±
		0.67c	1.76a	3.89b	2.85bc	2.42c	2.42a	1.92c	3.91b
	Acetylation kinds	4	4	4	4	4	4	4	4
	Acetylation subtotal	65.12±	93.55±	73.34±	67.63±	84.45±	126.21±	81.28±	96.36±
		2.00b	3.36a	3.10b	4.43b	1.90b	10.11a	1.39b	2.53b
	Acetylation proportion (%)	30.86	35.20	30.74	29.25	34.98	42.31	28.40	36.19
10	Petunidin-3- <i>O</i> -(6- <i>O</i> -caffeoyl) glucoside	7.05±	6.12±	6.01±	6.58±	6.66±	7.59±	6.48±	6.60±
		0.29a	0.52a	0.40a	0.31a	0.07	0.17	0.04	0.37
11	Peonidin-3- <i>O</i> -(6- <i>O</i> -caffeoyl) glucoside	2.42±	2.90±	5.26±	2.95±	0.00±	0.00±	0.00±	0.00±
		0.23c	0.15bc	0.06a	0.22b	0.00	0.00	0.00	0.00
12	Malvidin-3- <i>O</i> -(6- <i>O</i> -caffeoyl) glucoside	1.66±	1.62±	0.00±	0.00±	0.00±	0.00±	0.00±	0.00±
		0.04a	0.20a	0.00b	0.00b	0.00	0.00	0.00	0.00
	Coffee acylation kinds	3	3	3	3	3	3	3	3
	Coffee acylation subtotal	11.12±	10.64±	11.27±	9.53±	6.66±	7.59±	6.48±	6.60±
		0.02a	0.87ab	0.34a	0.54b	0.07b	0.17a	0.04b	0.37b
	Coffee acylation proportion (%)	5.27	4.00	4.72	4.12	2.76	2.55	2.26	2.48

Table S3 (continued)

NO.	Name of the compounds	2023				2024			
		M40	M60	M80	M100	M40	M60	M80	M100
13	Delphindin-3- <i>O</i> -(6- <i>O</i> -coumaroyl)	0.68±	0.90±	0.94±	0.96±	0.00±	0.00±	0.00±	0.00±
	glucoside (<i>cis</i> isomer)	0.05b	0.01a	0.05a	0.08a	0.00	0.00	0.00	0.00
14	Peonidin-3- <i>O</i> -(6- <i>O</i> -coumaroyl)	1.21±	1.02±	1.47±	0.52±	0.00±	0.00±	7.52±	0.00±
	glucoside (<i>cis</i> isomer)	0.01b	0.10b	0.09a	0.06c	0.00b	0.00b	0.54a	0.00b
15	Malvidin-3- <i>O</i> -(6- <i>O</i> -coumaroyl)	0.00±	0.00±	0.00±	0.00±	5.57±	7.52±	7.99±	0.00±
	glucoside (<i>cis</i> isomer)	0.00	0.00	0.00	0.00	0.16b	0.02ab	0.79a	0.00ab
16	Peonidin-3- <i>O</i> -(6- <i>O</i> coumarovl)	4.27±	3.06±	3.39±	3.42±	5.57±	0.00±	5.38±	5.10±
	glucoside (<i>trans</i> isomer)	0.19a	0.33b	0.01b	0.16b	0.35a	0.00b	0.02a	0.13a
17	Malvidin-3- <i>O</i> -(6- <i>O</i> -coumaroyl)	19.63±	16.79±	35.91±	19.92±	17.20±	16.63±	42.41±	20.16±
	glucoside (<i>trans</i> isomer)	0.03b	1.80b	3.52a	2.33b	0.10c	0.76c	1.29a	1.04b
	Conjugation with vanillin kinds	5	5	5	5	5	5	5	5
	Conjugation with vanillin subtotal	25.79±	21.77±	41.71±	27.41±	28.35±	24.15±	63.31±	31.73±
		0.25b	1.37b	3.55a	2.79b	0.41b	0.73c	1.06a	2.29b
	Conjugation with vanillin proportion (%)	12.23	8.19	17.46	11.84	11.74	8.10	22.12	11.91
	Total kinds	17	17	17	17	17	17	17	17
	Total	210.99±	265.75±	238.73±	231.19±	241.45±	298.08±	286.19±	266.36±
		4.41c	3.72a	5.12b	13.16bc	3.48c	5.98a	5.21a	3.35b

a, b, c, and d indicate significant differences at $P < 0.05$.