

Supplementary material for the article:

Pantelić, M.; Dabić Zagorac, D.; Natić, M.; Gašić, U.; Jović, S.; Vujović, D.; Popović Djordjević, J. Impact of Clonal Variability on Phenolics and Radical Scavenging Activity of Grapes and Wines: A Study on the Recently Developed Merlot and Cabernet Franc Clones (*Vitis Vinifera* L.). *PLoS ONE* **2016**, *11* (10). <https://doi.org/10.1371/journal.pone.0163823>

Supporting Information

Table A. Total phenolic content, total anthocyanin content, radical scavenging activity of Merlot and Cabernet Franc wines

	TPC (g GAE L ⁻¹)	TAC (mg mal 3-glu L ⁻¹)	RSA (mmol TE L ⁻¹)
Merlot standard	1.28±0.01 ^{b*}	28.54±0.12 ^{c*}	9.68±0.40 ^b
No 022	1.10±0.01 ^{d*}	24.31±0.87 ^{d*}	8.46±0.03 ^c
No 025	1.46±0.00 ^{a*}	40.51±0.22 ^{a*}	11.01±0.19 ^a
No 029	1.16±0.00 ^{c*}	35.58±0.00 ^{b*}	8.69±0.24 ^c
Cabernet Franc standard	1.12±0.00 ^b	86.66±0.14 ^b	7.58±0.03 ^b
No 02	1.11±0.01 ^b	62.71±0.23 ^d	7.15±0.15 ^b
No 010	1.41±0.02 ^a	210.31±1.01 ^a	11.02±1.01 ^a
No 012	1.58±0.01 ^a	74.33±0.15 ^c	10.61±0.48 ^a

*Vujović et al., 2015.

Table B. The chemical composition of Merlot and Cabernet Franc wines

	Ethyl alcohol (vol %)	Total extract (g L ⁻¹)	Total acids (g L ⁻¹)	Volatile acids (g L ⁻¹)	pH	Relative density 20/20
Merlot standard	12.41±0.08	26.80±0.08	7.23±0.06	0.67±0.04	3.47±0.04	0.9924±0.00
No 022	12.42±0.06	27.06±0.04	7.23±0.06	0.66±0.03	3.46±0.03	0.9928±0.00
No 025	12.46±0.07	26.80±0.07	7.24±0.06	0.68±0.03	3.47±0.03	0.9927±0.00
No 029	12.44±0.08	26.84±0.08	7.23±0.06	0.67±0.04	3.46±0.03	0.9926±0.00
Cabernet Franc standard	13.10±0.12	27.33±0.27	6.45±0.26	0.76±0.10	3.32±0.06	0.9921±0.00
No 02	13.04±0.16	27.34±0.17	6.36±0.18	0.67±0.08	3.12±0.06	0.9921±0.00
No 010	13.22±0.11	26.74±0.16	6.30±0.13	0.76±0.06	3.28±0.09	0.9921±0.00
No 012	13.08±0.20	26.76±0.20	6.44±0.09	0.64±0.07	3.09±0.05	0.9921±0.00

^aValues represent means of triplicate determinations ± standard deviation.

Table C. Polyphenolic content of Merlot and Cabernet Franc wines

mg L ⁻¹	Merlot wines				Cabernet Franc wines			
	Standard	No 022	No 025	No 029	Standard	No 02	No 010	No 012
<i>Hydroxybenzoic acids</i>								
Gallic acid	28.887	20.785	20.033	26.684	27.030	20.580	18.395	25.657
Protocatechuic acid	1.027	1.467	0.784	0.766	0.959	0.587	0.299	0.629
<i>p</i> -Hydroxybenzoic acid	0.215	0.403	0.552	0.111	0.106	0.132	nd	0.582
<i>Hydroxycinnamic acids</i>								
Chlorogenic acid	0.138	0.191	0.102	0.110	0.041	0.117	0.096	0.194
Caffeic acid	2.436	1.533	1.288	1.344	0.445	1.111	0.852	1.238
Ferulic acid	0.374	0.192	0.268	0.336	0.158	0.154	0.271	0.284
Rosmarinic acid	0.034	0.027	0.030	0.035	0.012	0.023	0.027	0.031
<i>p</i> -Coumaric acid	1.122	0.947	0.874	1.156	2.121	0.796	0.746	0.961
<i>Coumarins</i>								
Aesculin	0.068	0.066	0.096	0.074	0.030	0.056	0.059	0.066
<i>Flavan-3-ols</i>								
Epigallocatechin	0.198	0.157	0.163	0.282	0.219	0.150	0.424	0.377
Catechin	4.244	2.002	1.558	4.307	4.129	2.533	7.379	8.091
Epicatechin	1.377	0.583	1.570	1.593	1.606	0.489	2.337	1.232
Gallocatechin gallate	1.663	1.710	1.938	1.820	0.503	0.649	1.197	1.514
Catechin gallate	0.051	0.037	0.032	0.031	0.039	0.029	0.038	0.036
Epigallocatechin gallate	0.077	0.057	0.058	0.081	0.173	0.050	0.060	0.044
<i>Flavonols</i>								
Rutin	0.028	0.027	0.028	0.028	0.029	0.037	0.037	0.031
Morin	0.038	0.057	0.057	0.080	0.037	0.041	0.034	0.058
<i>Flavanons</i>								
Naringin	0.040	0.037	0.042	0.039	0.086	0.039	0.032	0.037
<i>Flavons</i>								
Apigenin	0.024	0.023	0.023	0.023	0.025	0.023	0.024	0.024
Luteolin	nd	0.040	0.040	0.040	nd	0.042	0.040	nd

Table D. Correlation coefficients obtained for the relationships between RSA and phenolic content (TPC and individual phenolic compounds)

	14 th of June	14 th of August	14 th of October	wine
TPC	0.830***	0.481	0.895*	0.897*
Gallic acid	0.524	-0.291	0.183	-0.218
Protocatechuic acid	0.168	0.356	-0.337	-0.370
<i>p</i> -Hydroxybenzoic acid	-0.492	0.257	0.260	0.409
Chlorogenic acid	-0.205	0.006	0.425	0.223
Caffeic acid	0.711***	0.178	0.213	0.195
Ferulic acid	0.838**	-0.142	0.313	0.600
Rosmarinic acid	0.061	-0.022	0.390	0.543
<i>p</i> -Coumaric acid	-0.284	-0.221	-0.630	-0.461
Aesculin	0.859**	-0.164	-0.448	0.587
Epigallocatechin	0.658	0.012	0.814***	0.554
Catechin	0.684	0.476	0.923*	0.453
Epicatechin	-0.270	0.545	0.857**	0.601
Gallocatechin gallate	0.539	-0.308	0.683	0.596
Catechin gallate	0.252	0.368	0.911*	0.199
Epigallocatechin gallate	0.685	-0.357	0.215	-0.448
Rutin	0.838**	-0.712	0.433	-0.013
Morin	0.758***	-0.031	0.406	0.042
Naringin	0.554	-0.499	/	-0.466
Apigenin	0.772***	-0.080	0.524	-0.085
Luteolin	/	/	/	-0.024

* $P \leq 0.005$; ** $P \leq 0.01$; *** $P \leq 0.05$.