Supplementary Information

Relative impact of oenological tannins in model solutions and red wine according to phenolic, antioxidant, and sensory traits

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Table S1. Pearson's correlation (*r*) of the OETs investigated parameters in model solution (water or model wine) and wine.

	TPIm	BSm	FCm	MTCm	ABTSm	DPPHm	FRAPm	CUPRACm	A230m	BSAm	BITm	ASTm	*ABTS APm*	*DPPH APm*	*FRAP APm*	*CUPRAC APm*	TPIw	TAw	MON%w	SPP%w	LPP%w	DPPHw	FRAPw	BITTw
BSm	-0.171																							
FCm	**0.792 *****	0.253																						
MTCm	**0.972 *****	-0.143	**0.842 *****																					
ABTSm	**0.917 *****	-0.136	**0.768 *****	**0.867 *****																				
DPPHm	**0.954 *****	-0.259	**0.698 ****	**0.897 *****	**0.977 *****																			
FRAPm	0.432	0.093	0.429	0.317	**0.703 ****	**0.604 ***																		
CUPRACm	**0.925 *****	-0.020	**0.891 *****	**0.921 *****	**0.966 *****	**0.927 *****	**0.612 ****																	
A230m	0.286	**0.678 ****	**0.744 *****	0.312	0.385	0.225	**0.501 ***	**0.516 ***																
BSAm	**0.955 *****	-0.264	**0.698 ****	**0.918 *****	**0.934 *****	**0.967 *****	**0.550 ***	**0.905 *****	0.217															
BITTm	**0.499 ***	0.151	**0.722 ****	**0.612 ****	0.431	0.386	0.096	**0.597 ***	0.472	0.398														
ASTm	0.304	0.379	0.682**	0.386	0.266	0.172	0.124	0.434	**0.645 ****	0.188	**0.674 ****													
ABTS APm	0.188	-0.468	-0.242	0.033	0.417	0.443	**0.564***	0.190	-0.340	0.353	-0.388	**-0.531 ***												
DPPH APm	0.509 **	**-0.539 ****	0.039	0.367	**0.660 ****	**0.714 ****	**0.606 ****	0.462	0.226	**0.639 ****	-0.176	-0.385	**0.930 *****											
FRAP APm	-0.305	-0.188	**-0.545 ***	-0.469	-0.040	-0.054	**0.515 ***	-0.248	-0.279	-0.116	**-0.581 ***	**-0.553 ***	**0.799 *****	**0.581 ****										
CUPRAC APm	0.362	-0.440	0.001	0.254	**0.596 ***	**0.595 ***	**0.654 ****	0.433	-0.163	**0.536 ***	-0.125	-0.331	**0.924 *****	**0.914 *****	**0.645 ****									
TPIw	**0.915 *****	-0.219	**0.788 *****	**0.902 *****	**0.852 *****	**0.874 *****	**0.487 ***	**0.877 *****	0.352	**0.898 *****	0.418	0.321	0.123	0.446	-0.276	0.32								
TAw	-0.176	0.069	-0.257	-0.173	-0.038	-0.057	0.049	-0.139	-0.204	-0.115	-0.131	-0.119	0.329	0.191	0.300	0.225	-0.338							
MON%w	0.067	0.037	0.232	0.161	-0.152	-0.124	-0.404	0.024	0.145	-0.019	0.313	0.212	**-0.630 ****	**-0.493 ***	**-0.618 ****	-0.473	0.164	**-0.816 *****						
SPP%w	0.064	0.312	0.183	0.080	0.228	0.141	0.298	0.180	0.249	0.059	0.028	0.138	0.152	0.095	0.095	0.106	-0.030	**0.747 *****	**-0.757 *****					
LPP%w	-0.179	-0.425	**- 0.571***	-0.342	-0.035	0.022	0.266	-0.250	**- 0.517 ***	-0.041	**-0.514 ***	**-0.489 ***	**0.785 *****	**0.641 ****	**0.833 *****	**0.598 ***	-0.216	0.366	**-0.635 ****	-0.216				
DPPHw	**0.821 *****	-0.289	**0.633 ****	**0.771 *****	**0.869 *****	**0.870 *****	**0.613 ****	**0.833 *****	0.248	**0.854 *****	0.240	0.116	0.413	**0.646 ****	0.008	**0.580 ***	**0.899 *****	-0.173	-0.010	0.087	0.051			
FRAPw	**0.564 ***	-0.094	**0.524 ***	**0.488 ***	**0.748 *****	**0.680 ****	**0.719 ****	**0.711 ****	0.418	**0.620 ****	0.193	0.037	0.471	**0.583 ***	0.201	**0.634 ****	**0.611 ****	-0.179	-0.042	-0.030	0.101	**0.787 *****		
BITTw	-0.276	-0.095	-0.388	-0.310	-0.177	-0.184	0.092	-0.247	-0.165	-0.164	-0.046	-0.232	0.291	0.138	0.436	0.266	-0.410	**0.496 ***	-0.355	0.140	0.377	-0.367	-0.128	
ASTw	0.145	-0.074	0.252	0.153	0.174	0.160	0.314	0.214	0.251	0.209	-0.062	0.096	-0.061	0.054	0.010	0.055	0.433	**-0.673 ****	0.396	-0.362	-0.177	0.334	0.244	-0.458

TPI = Total phenolic index, BS = Bate-Smith method, FC = Folin-Ciocalteu method, MTC = Methylcellulose method, AST = sensory analysis intensity of astringency, BITT = sensory analysis intensity of bitterness, TA = Total anthocyanins; MON, SPP, and LPP = percentage of monomeric forms, percentage of small polymeric pigments, and percentage of long polymeric pigments for Adams-Harbertson method, respectively.
ABTSap, DPPHap, FRAPap, CUPRACap, where ap = antioxidant potency, calculated as antioxidant capacity of each test / total phenolic content (as FC, g/L gallic acid)) *1000.
Letter “m” represents parameters evaluated on formulate dissolved in model wine (for chemical analysis) or water (for sensory analysis), and letter “w” represents parameters evaluated on wine after one-month storage from formulate addition (0.4 g/L).

Table S2. Aroma relative frequencies (>15%) of OETs under evaluation in water at 0.4 g/L and in wine without addition (control) and added with 0.4 g/L of OETs.

Samples		Aromas (Frequency > 15%) in water								Aromas (Frequency > 15%) in wine						
		Orange	*Caramel*	*Mushroom*	*Wood*	*Licorice*	*Pepper*	*Balsamic*	*Vanilla*	*Orange*	*Caramel*	*Mushroom*	*Wood*	*Licorice*	*Pepper*	*Vanilla*
Control																
Proc/prod	Sd1				26.7			26.7		20.0					20.0	20.0
	Sd2				16.7						20.0		20.0			
	Sk1	17.6			17.6						20.0		26.7			20.0
Average		**17.6**			**20.3**			**26.7**					**15.6**		**6.7**	**13.3**
Prof/pror	Q1		23.5		29.4						20.0		26.7			20.0
	Q2		16.7		22.2								22.2			22.2
	Ac												20.0			
Average			**20.1**		**25.8**						**6.7**		**23.0**			**14.1**
Hydro	Et1											20.0	20.0	20.0	20.0	60.0
	Et2				50.0		16.7	33.3					33.3	20.0		20.0
	Gt				16.7			27.8			22.2		66.7			
Average					**33.35**		**5.6**	**20.4**				**6.7**	**40.0**	**13.3**	**6.7**	**26.7**
Mix	Mx1		27.8		33.3				16.7		22.2	22.2	22.2			
	Mx2		22.2		33.3	16.7				20.0			40.0		20.0	
	Mx3		26.7		46.7	20.0				20.0	20.0		20.0	20.0	20.0	
	Mx4		27.8		55.6	33.3							26.7			
	Mx5				20.0						22.2	22.2				
	Mx6		17.6		29.4						20.0		26.7			20.0
	Mx7		13.3							20.0					20.0	
	Mx8		29.4	17.6	29.4								33.0			
Average			**20.6**	**2.2**	**31.0**	**8.8**			**2.1**	**7.5**	**10.6**	**5.6**	**21.1**	**2.5**	**7.5**	**2.5**

Groups: Proc/prod, Prof/pror, Hydro, and Mix corresponding to OETs procyanidins/prodelphinidins, profisetinidins/prorobinetinidins, hydrolysable, and mix group, respectively.