

Additional file 7. Carotenoids and chlorophyll concentrations present in the grapevine organs investigated in this study. Carotenoids and chlorophylls were analysed by HPLC. Individual carotenoids and chlorophylls were identified by comparison to authentic standards and quantified by normalisation to an internal standard (β -apo-carotenal) and quantified by external standard curve as described in Lashbrooke et al. (2010).

	CAROTENOID AND CHLOROPHYLL CONCENTRATIONS (ng.g ⁻¹ FW) IN GRAPEVINE ORGANS									
	LEAF		FLOWER		BERRY DEVELOPMENTAL STAGES					
					Green		Véraison		Ripe	
CHLOROPHYLLS	Average	± SD (n=3)	Average	± SD (n=3)	Average	± SD (n=3)	Average	± SD (n=3)	Average	± SD (n=3)
Chlorophyll a	868480.5	34780.5	288955.6	7169.3	69748.7	2735.3	18402.6	291.5	16380.2	900.5
Chlorophyll b	289905.3	14114.9	119338.4	3130.3	32254.1	1267.4	10615.1	445.3	9907.3	737.1
Total Chlorophylls	1158385.8	48895.3	408294.0	10299.7	102002.9	4002.6	29017.7	736.8	26287.6	1637.6
CAROTENOIDS										
Lutein	97120.7	5702.0	37838.4	931.3	8058.8	399.8	1965.1	79.2	1889.8	95.8
Lutein 5,6 epoxide	0.0	0.0	1627.1	27.7	1331.8	82.1	595.9	14.1	568.3	11.6
β -carotene	62687.3	1358.0	15401.1	792.0	4228.5	111.6	1015.0	58.6	910.8	34.5
Zeaxanthin	97120.7	4701.7	8855.7	197.5	8058.8	0.0	1965.1	231.8	1889.8	298.5
Antheraxanthin	55470.2	4299.9	8396.3	119.3	739.0	53.4	598.5	181.5	540.6	58.7
Violaxanthin	67682.9	4320.8	9355.7	227.6	2857.8	163.7	570.2	60.3	460.9	34.3
Neoxanthin	36191.9	1162.7	13116.1	357.3	3454.5	285.3	828.2	13.2	842.1	57.4
Unknown xanthophyll 1	4957.8	1049.3	983.6	503.3	296.7	40.6	58.2	100.8	193.4	25.5
Unknown xanthophyll 2	0.0	0.0	0.0	0.0	0.0	0.0	37.9	65.6	121.8	85.1
Total Carotenoids	421231.6	22594.4	95574.0	3156.0	29025.9	1136.5	7634.1	805.2	7417.6	701.4
Total Xanthophylls	353586.5	20187.1	79189.3	1860.6	24500.7	984.4	6523.0	580.1	6191.6	556.2