Supplementary material Table S1: Individual sugars, organic acids and phenolics in blueberry fruit from different maturity stages.

	Equivalents measure (where different)	Immature	Light purple	Darker purple	Fully ripe	Sign.
Sugars (mg/g FW)						
Sucrose		5.13 ± 0.77 c	5.86 ± 0.40 c	9.78 ± 0.72 b	10.99 ± 0.73 a	***
Glucose		22.75 ± 2.21 d	43.96 ± 1.89 c	50.35 ± 2.07 b	64.20 ± 1.36 a	***
Fructose		4.81 ± 0.60 d	41.80 ± 1.91 c	49.86 ± 2.02 b	66.96 ± 2.57 a	***
Total sugars		32.68 ± 3.35 d	91.63 ± 3.77 c	110.0 ± 4.59 b	142.16 ± 3.11 a	***
Organic acids (mg/g FW)						
Citric acid		38.16 ± 1.26 a	29.21 ± 1.44 b	26.91 ± 1.05 c	17.25 ± 0.86 d	***
Tartaric acid		1.08 ± 0.14 a	0.66 ± 0.02 b	0.68 ± 0.11 c	0.85 ± 0.07 b	***
Malic acid		7.11 ± 0.94 a	4.16 ± 0.51 b	2.35 ± 0.52 c	1.29 ± 0.13 d	***
Shikimic acid		0.018 ± 0.004	0.017 ± 0.004	0.026 ± 0.008	0.019 ± 0.005	NS
Total organic acids		46.36 ± 2.27 a	34.04 ± 1.42 b	29.96 ± 1.42 c	19.41 ± 0.94 d	***
Phenolics (mg/100 g FW)						
Phenolic acids						
Ellagic acid derivative		1.42 ± 0.10 c	2.14 ± 0.29 c	23.50 ± 1.88 b	61.93 ± 3.60 a	***
Caffeic acid derivative 1		0.02 ± 0.00 c	0.03 ± 0.00 c	0.19 ± 0.02 b	0.63 ± 0.06 a	***
Caffeic acid derivative 2		2.03 ± 0.11 c	1.97 ± 0.24 c	3.96 ± 0.60 b	13.59 ± 1.09 a	***
4-Caffeoylquinic acid		2.73 ± 0.37 ab	2.32 ± 0.31 b	2.87 ± 0.23 ab	3.08 ± 0.46 a	***
5-Caffeoylquinic acid		162.8 ± 6.79 a	103.4 ± 6.61 c	116.1 ± 9.74 b	95.34 ± 6.14 c	***
Caffeoylquinic acid dimer	Chlorogenic acid	0.57 ± 0.07 c	0.39 ± 0.04 d	0.76 ± 0.04 b	0.86 ± 0.01 a	***
5-Feruloylquinic acid	Ferulic acid	0.05 ± 0.01 d	0.20 ± 0.11 c	0.64 ± 0.07 b	0.85 ± 0.13 a	***
Ferulic acid derivative		3.84 ± 0.43 a	4.16 ± 0.38 a	3.01 ± 0.09 b	3.99 ± 0.42 a	***
Total phenolic acids		173.5 ± 7.40 a	114.6 ± 7.04 c	151.1 ± 8.59 b	180.3 ± 11.15 a	***

Flavan-3-ols						
Procyanidin B1		9.40 ± 0.75 c	10.22 ± 2.02 c	20.62 ± 1.70 b	29.76 ± 1.67 a	***
Procyanidin B2	Procyanidin B1	12.04 ± 1.87 c	11.32 ± 0.35 c	15.27 ± 0.58 b	24.53 ± 1.54 a	***
Catechin		5.83 ± 0.31 c	4.70 ± 0.88 c	7.53 ± 0.69 b	14.03 ± 1.02 a	***
Epicatechin		2.76 ± 0.55	2.42 ± 0.24	3.06 ± 0.23	3.04 ± 0.66	NS
Total flavan-3-ols		30.03 ± 2.79 c	28.65 ± 3.21 c	46.48 ± 2.86 b	71.37 ± 4.26 a	***
Flavonols						
Myricetin-3-*O*-pentoside	Myricetin-3-*O*-rhamnoside	0.57 ± 0.08 b	0.55 ± 0.04 b	0.79 ± 0.13 a	0.53 ± 0.11 b	**
Myricetin-3-*O*-hexoside	Myricetin-3-*O*-rhamnoside	0.15 ± 0.03 c	0.15 ± 0.03 c	0.35 ± 0.09 b	0.97 ± 0.05 a	***
Myricetin-rhamno-hexoside	Myricetin-3-*O*-rhamnoside	0.14 ± 0.01 c	0.39 ± 0.09 b	0.95 ± 0.07 a	1.11 ± 0.18 a	***
Laricitrin-3-*O*-glucoside	Kaempferol-3-*O*-glucoside	0.74 ± 0.09 c	1.25 ± 0.20 b	1.66 ± 0.15 a	0.87 ± 0.17 c	***
Quercetin-3-*O*-rutinoside		3.72 ± 0.46 a	2.89 ± 0.39 b	4.01 ± 0.34 a	2.87 ± 0.32 b	***
Quercetin-3-*O*-galactoside		5.16 ± 0.24 c	8.69 ± 1.30 b	11.52 ± 1.06 a	6.08 ± 1.16 c	***
Quercetin-3-*O*-glucoside		4.74 ± 0.49 bc	5.07 ± 0.65 b	6.72 ± 0.61 a	4.05 ± 0.70 c	***
Quercetin-3-*O*-glucuronide		1.63 ± 0.21 c	2.52 ± 0.36 b	3.43 ± 0.59 a	1.90 ± 0.36 bc	***
Quercetin-3-*O*-arabinopyranoside		1.46 ± 0.12 a	0.93 ± 0.15 b	1.37 ± 0.17 a	1.11 ± 0.14 b	***
Quercetin-3-*O*-arabinofuranoside		0.17 ± 0.01 d	0.27 ± 0.04 c	0.43 ± 0.04 b	0.49 ± 0.02 a	***
Kaempferol-3-*O*-rutinoside	Kaempferol-3-*O*-glucoside	0.63 ± 0.06 b	0.53 ± 0.06 b	0.79 ± 0.11 a	0.54 ± 0.05 b	**
Isorhamnetin-3-*O*-galactoside	Isorhamnetin-3-*O*-glucoside	0.06 ± 0.01 c	0.08 ± 0.01 c	0.56 ± 0.04 b	1.96 ± 0.17 a	***
Isorhamnetin-3-*O*-rutinoside	Isorhamnetin-3-*O*-glucoside	6.82 ± 0.40 c	11.56 ± 1.34 b	14.94 ± 1.80 a	7.85 ± 0.42 c	***
Syringetin-3-*O*-glucoside	Myricetin-3-*O*-rhamnoside	0.05 ± 0.01 d	0.09 ± 0.01 c	0.13 ± 0.02 b	0.15 ± 0.01 a	***
Total flavonols		26.06 ± 1.49 c	34.97 ± 4.23 b	47.65 ± 4.44 a	30.48 ± 3.60 bc	***
Anthocyanins						
Delphinidin-3-*O*-galactoside	Delphinidin-3-*O*-glucoside	0.00 ± 0.00 c	0.02 ± 0.00 c	0.87 ± 0.15 b	2.34 ± 0.33 a	***
Delphinidin-3-*O*-glucoside		0.00 ± 0.00 c	2.72 ± 0.34 c	27.91 ± 1.81 b	79.58 ± 7.07 a	***
Delphinidin-3-*O*-arabinoside	Delphinidin-3-*O*-glucoside	0.00 ± 0.00 c	1.76 ± 0.23 c	10.87 ± 1.23 b	21.10 ± 2.72 a	***

Cyanidin-3-*O*-galactoside		0.00 ± 0.00 d	1.88 ± 0.14 c	9.22 ± 0.87 b	18.31 ± 0.90 a	***
Cyanidin-3-*O*-arabinoside	Cyanidin-3-*O*-glucoside	0.00 ± 0.00 d	0.46 ± 0.07 c	1.79 ± 0.21 b	2.66 ± 0.10 a	***
Petunidin-3-*O*-galactoside		0.00 ± 0.00 c	0.90 ± 0.15 c	10.88 ± 1.32 b	46.71 ± 2.78 a	***
Petunidin-3-*O*-arabinoside		0.00 ± 0.00 c	0.28 ± 0.03 c	2.47 ± 0.65 b	13.44 ± 1.62 a	***
Peonidin-3-*O*-galactoside	Peonidin-3-*O*-glucoside	0.00 ± 0.00 c	0.09 ± 0.01 c	0.81 ± 0.15 b	4.42 ± 0.45 a	***
Peonidin-pentose	Peonidin-3-*O*-glucoside	0.00 ± 0.00 d	0.07 ± 0.01 c	0.67 ± 0.05 b	2.91 ± 0.03 a	***
Malvidin-3-*O*-hexoside	Malvidin-3-*O*-glucoside	0.00 ± 0.00 c	3.94 ± 0.89 c	99.83 ± 9.66 b	667.0 ± 36.7 a	***
Malvidin-3-*O*-arabinoside	Malvidin-3-*O*-glucoside	0.00 ± 0.00 c	0.56 ± 0.10 c	9.37 ± 0.77 b	60.47 ± 4.63 a	***
Malvidin-3-*O*-xyloside	Malvidin-3-*O*-glucoside	0.00 ± 0.00 c	0.86 ± 0.13 c	26.62 ± 1.87 b	210.0 ± 18.21 a	***
Total anthocyanins		0.00 ± 0.00 c	13.55 ± 1.34 c	201.3 ± 15.32 b	1129 ± 23.90 a	***
Total phenolics		229.6 ± 10.11 c	191.79 ± 11.96 d	446.5 ± 21.70 b	1411 ± 32.11 a	***

Data are means ± standard errors of 4 replicates. Data with different letters between maturity stages are significantly different (Duncan test; $\alpha < 0.05$).

**, $p < 0.01$; ***, $p < 0.001$; NS, not significant.