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Spatiotemporal changes in the accumulation of sugar and potassium within individual 'Sauvignon Blanc' (*Vitis vinifera* L.) berries

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Supplementary Table 1

Distribution of grape berries per berry diameter (C1 to C4) within a sampling date (S1 to S7)

Sampling date [†]	Diameter category	Berry diameter (mm)	Estimated berry volume (mm ³) [‡]	# berries/category
S1	C1	< 9.5	< 449	3
	C2	9.5-10.5	449-606	10
	C3	10.5-11.5	606-796	18
	C4	> 11.5	> 796	17
S2	C1	< 10.5	< 606	11
	C2	10.5-11.5	606-796	18
	C3	11.5-12.5	796-1020	14
	C4	> 12.5	> 1020	5
S3	C1	< 10.5	< 606	5
	C2	10.5-11.5	606-796	13
	C3	11.5-12.5	796-1020	18
	C4	> 12.5	> 1020	12
S4	C1	< 11.5	< 796	12
	C2	11.5-12.5	796-1020	19
	C3	12.5-13.5	1020-1290	13
	C4	> 13.5	> 1290	4
S5	C1	< 11.5	< 796	5
	C2	11.5-12.5	796-1020	19
	C3	12.5-13.5	1020-1290	15
	C4	> 13.5	> 1290	9
S6	C1	< 11.5	< 796	7
	C2	11.5-12.5	796-1020	16
	C3	12.5-13.5	1020-1290	18
	C4	> 13.5	> 1290	7
S7	C1	< 11.5	< 796	11
	C2	11.5-12.5	796-1020	17
	C3	12.5-13.5	1020-1290	17
	C4	> 13.5	> 1290	3

[†] Sampling dates were weekly from January 1st, 2014 until February 12, 2014.

[‡] Berry volume was calculated from the mean diameter of the berry, assuming the berry is a perfect sphere.

Supplementary Table 2

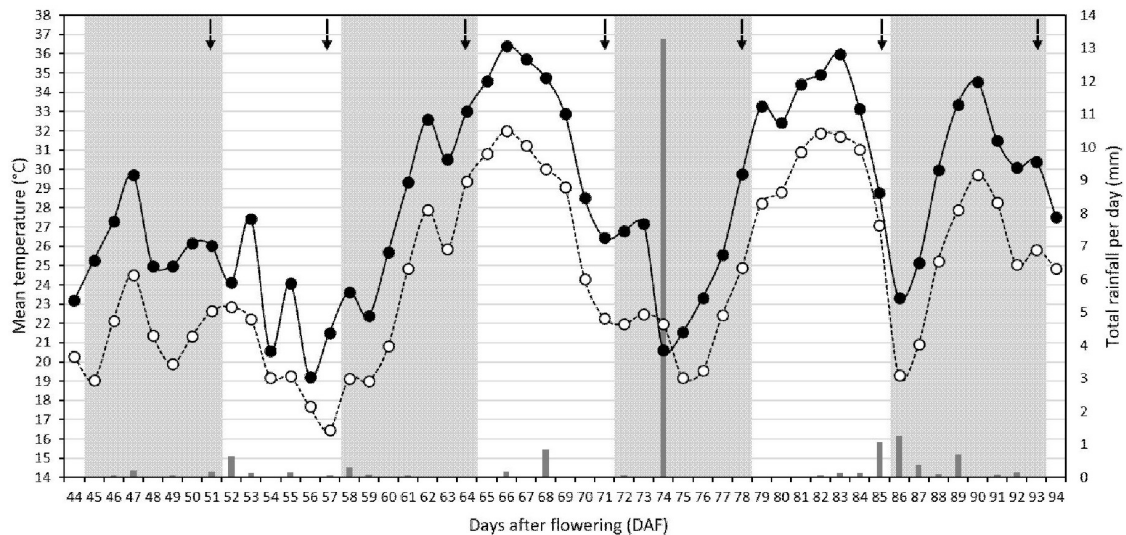
Contribution of seeds, skin and pulp to total berry fresh mass (FM) per sampling date (S1 to S7). Values are the means per sampling date \pm SE and indicate the percentage contribution per berry compartment

Sampling date [†]	n	Berry FM (mg) [‡]	Seed mass % of berry FM [‡]	Skin mass % of berry FM [‡]	Pulp mass % of berry FM [‡]
S1	46	706 \pm 33 d	11.7 \pm 0.4 a	16.6 \pm 1.1 a	71.7 \pm 1.0 d
S2	46	781 \pm 29 d	11.1 \pm 0.4 a	13.0 \pm 0.3 cd	75.9 \pm 0.4 c
S3	46	918 \pm 32 c	8.3 \pm 0.3 b	11.7 \pm 0.2 d	80.1 \pm 0.3 b
S4	45	1036 \pm 39 b	6.7 \pm 0.3 c	14.2 \pm 0.5 bc	79.1 \pm 0.7 b
S5	48	1118 \pm 34 ab	5.3 \pm 0.2 d	12.8 \pm 0.2 d	82.0 \pm 0.3 a
S6	47	1158 \pm 37 a	5.2 \pm 0.2 d	14.3 \pm 0.3 bc	80.5 \pm 0.4 ab
S7	46	1119 \pm 32 ab	5.8 \pm 0.2 d	15.3 \pm 0.3 ab	78.9 \pm 0.4 b

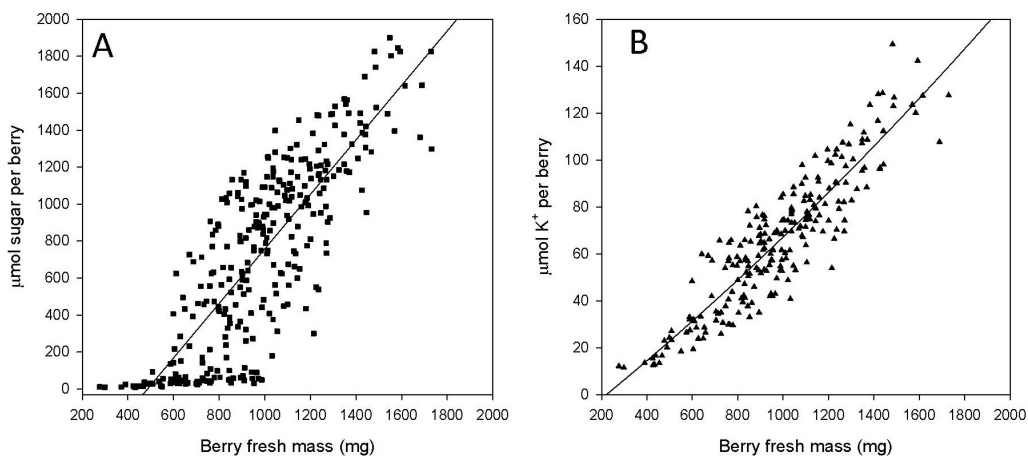
Values with different letters within berry compartments are significantly different between sampling dates ($p < 0.05$) as determined by Fisher Least Square Difference analysis of variance.

[†] Sampling occurred weekly from January 1st to February 12, 2014 with véraison estimated to have been January 7, 2014.

[‡] Calculated from the berry FM (sum of the mass of the compartments).



Supplementary Fig. 1: Daily mean day (6:00 am to 8:00 pm indicated in closed circles) and night (8:30 pm to 5:30 am indicated in hollow circles) temperatures from 44 to 94 days after flowering (DAF). The daily rainfall is shown as columns and indicated on the secondary axis. The seven weekly sampling dates (January 1st to February 12, 2014) are indicated with arrows and the estimated date of véraison was 57 DAF (January 7, 2014).



Supplementary Fig. 2: Relationships between (A) the sugar content (■; $n = 321$; $r = 0.81$) and (B) potassium (K^+) content (▲; $n = 230$; $r = 0.89$) and the berry fresh mass (FM). Data points represent individual berries. Correlation coefficients were calculated through Pearson bivariate correlation analyses.