

Table S1. Temperature and rainfall conditions during vintages 2019 and 2020.

	April	May	June	July	August	September
Vintage 2019						
Mean maximum temperature (°C)	23.20	28.60	33.50	35.00	31.40	27.70
Mean minimum temperature (°C)	10.99	15.62	21.62	23.73	21.99	17.14
Mean temperature (°C)	16.35	21.88	27.08	28.85	26.16	21.55
Mean relative humidity	49.50	32.40	37.80	44.50	54.10	52.40
Sum rainfall (mm)	40.60	3.20	75.20	35.00	66.30	111.90
Mean sunshine hours (h)	8.53	8.81	9.07	9.68	9.72	9.12
Vintage 2020						
Mean maximum temperature (°C)	22.74	29.66	32.26	31.92	30.45	27.42
Mean minimum temperature (°C)	8.55	15.99	20.75	21.88	22.10	16.80
Mean temperature (°C)	15.37	22.61	26.01	26.38	25.48	21.52
Mean relative humidity	39.04	40.64	47.68	58.20	68.39	56.38
Sum rainfall (mm)	30.80	62.70	55.40	77.70	183.70	10.80
Mean sunshine hours (h)	10.39	10.24	10.27	10.57	11.07	10.13

Table S2. Physicochemical parameters in the berries of six *Vitis vinifera* L. cultivars at harvest.

Vintages	Varieties	TSS (Brix) <sup>a</sup>	TA (g/L) <sup>b</sup>	pH
2019	Chardonnay	19.29±0.11 d	5.84±0.05 a	4.16±0.01 c
	Sauvignon Blanc	19.94±0.36 c	5.47±0.14 b	4.29±0.02 a
	Cabernet Sauvignon	22.90±0.10 b	5.23±0.02 c	4.30±0.00 a
	Cabernet Franc	22.71±0.22 b	4.57±0.10 e	4.31±0.01 a
	Cabernet Gernischt	19.22±0.09 d	4.94±0.03 d	4.24±0.01 b
	Marselan	23.65±0.42 a	5.16±0.05 c	4.14±0.01 c
2020	Chardonnay	18.93±0.51 d	5.74±0.30 b	3.84±0.01 c
	Sauvignon Blanc	18.87±0.32 d	6.30±0.09 a	3.70±0.02 d
	Cabernet Sauvignon	21.07±0.60 b	4.02±0.04 d	4.01±0.00 b
	Cabernet Franc	22.53±0.29 a	5.61±0.34 b	4.15±0.04 a
	Cabernet Gernischt	19.97±0.06 c	4.92±0.17 c	4.20±0.03 a
	Marselan	22.47±0.25 a	5.64±0.21 b	3.97±0.03 b













Table S9. Primer used in real-time PCR

Gene	Sense	Antisense
VvActin	GCATCCCTCAGCACCTTCCAGCAG	CCACCTCAACACATCTCCATGTCAACC
VvLOXA	GCAAATCAAAGGGACAACGCTGTATG	TGCTTCCACTGCGGCTTCC
VvHPL	AAGTACACCGGCGACATTCGAG	AGCTCTTACCCTGGCGTGTTG
VvADH1	TCCGTTCCTCAGAGATCAACAA	ACTCTCTCATCTCAAGATATTCTATGG
VvADH2	ATTCCAGTCGGCATAAGTGT	TTGCAACTGCATAGACATTGTT
VvAAT	TTAATTCAGGTGAcCCGATT	TCTCCATACACATGCCATTAG

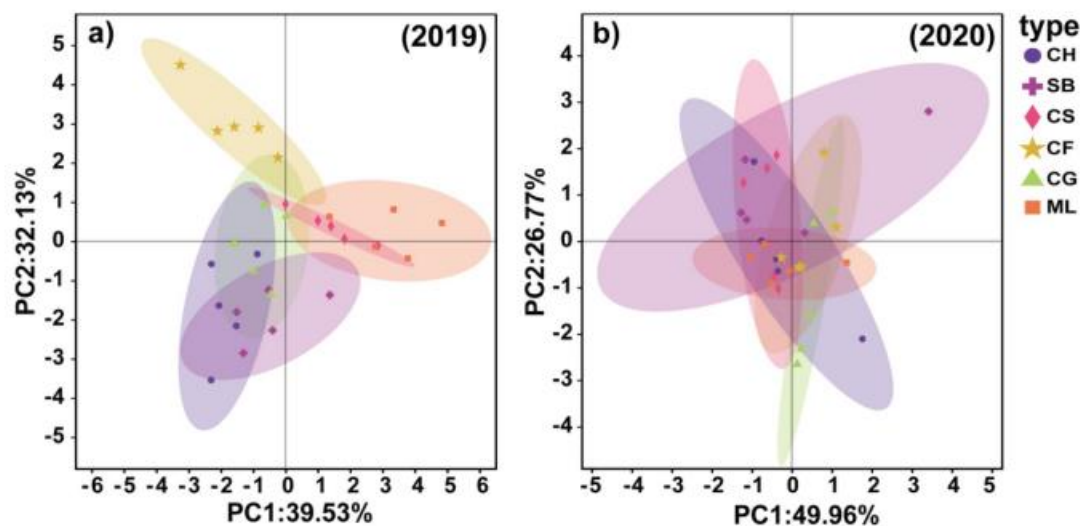


Fig. S1. Principal component analysis biplot illustrating the pattern of green leaf volatiles

(GLVs) at different stages of the berry maturation in vintage 2019 (a) and vintage 2020 (b).

Legend: ●-Chardonnay, + -Sauvignon Blanc, ◆-Cabernet Sauvignon, ★-Cabernet Franc,

▲-Cabernet Gernischt, ■-Marselan.