

**Table S1.** Main soil chemical-physical properties of each vineyard according to soil horizons.

Code	MU	G	Horizons	Depth cm	Sand (%)	Silt (%)	Clay (%)	Soil reaction pH	Organic carbon (%)	Calcium carbonate (%)
295	LM	E	Ap1	0-60	22.6	48.5	28.9	8.0	2.7	19.1
			Ap2	60-90	18.9	51.0	30.1	8.2	0.7	20.1
			BC	90-120	22.4	51.0	26.6	8.3	0.9	19.7
287	LM	E	Ap1	0-25	27.0	50.4	22.6	8.1	1.5	21.6
			Ap2	25-50	17.6	55.4	27.0	8.4	0.9	22.5
283	LM	SE	Ap1	0-25	19.0	55.3	25.7	8.0	1.4	17.1
			Ap2	25-45	13.4	59.8	26.8	8.2	0.9	19.1
			Bw	45-80	21.8	52.0	26.2	8.5	0.8	18.4
			Bwk	80-110	17.4	57.0	25.6	8.3	0.3	26.4
			BCK	110-150	18.9	49.8	31.3	8.4	0.0	22.6
292	LM	SE	Ap	0-40	28.8	44.8	26.4	8.1	1.4	20.5
			Bw	40-80	22.8	49.2	28.0	8.5	0.6	22.2
			BC	80-110	24.4	48.1	27.5	8.5	0.5	21.5
293	LM	SE	Ap	0-50	19.3	52.5	28.2	8.5	0.5	16.2
			AB	50-75	16.2	55.6	28.2	8.5	0.5	16.7
			Bw	75-105	17.6	51.3	31.1	8.5	0.7	18.1
			Cr	105-125	9.3	58.6	32.1	8.5	0.3	19.0
294	LM	SE	Ap1	0-30	29.5	48.2	22.3	8.6	0.5	24.7
			Ap2	30-55	24.8	52.6	22.6	8.6	0.4	27.3
			C	55-65	23.8	53.7	22.5	8.6	0.3	19.9
			2Cr	65-85	85.2	9.9	4.9	8.7	0.1	18.6
297	LM	SE	Ap1	0-15	16.1	56.0	27.9	8.3	1.2	19.4
			Ap2	15-45	10.0	57.0	33.0	8.4	1.0	19.5
			AB	45-70	11.2	58.7	30.1	8.4	0.7	19.8
			Bt/C	70-95	18.4	51.4	30.2	8.5	0.4	17.2
296	LM	SE	Ap	0-60	24.1	44.1	31.8	8.2	1.2	12.4
			AB	60-80	28.0	45.7	26.3	8.3	0.2	23.1
			Bt1	80-105	25.7	46.2	28.1	8.3	0.3	16.1
			Bt2	105-140	26.1	46.4	27.5	8.4	0.2	21.9
273	SB	SW	Ap1	0-20	29.3	45.3	25.4	8.5	0.6	21.2
			Ap2	20-75	30.1	46.5	23.4	8.5	0.7	21.6
			Bw1	75-110	26.2	47.1	26.7	8.5	0.5	21.8
			Bw2	110-130	28.8	45.0	26.2	8.3	0.3	23.7
289	SB	SW	Ap	0-25	18.7	56.5	24.8	8.5	0.4	26.5
			AC	25-50	19.4	56.5	24.1	8.5	0.6	26.7
			C1	50-75	18.4	56.1	25.5	8.5	0.7	25.8
			C2	75-100	27.5	49.7	22.8	8.5	0.4	24.7
291	SB	SW	Ap	0-30	36.5	40.5	23.0	8.5	0.8	28.1
			Bw	30-60	30.9	45.4	23.7	8.4	0.9	28.2
			BC	60-80	34.1	43.6	22.3	8.4	0.7	26.6
			C	80-120	34.3	42.9	22.8	8.4	0.7	27.6
274	SB	SW	Ap	0-25	20.9	54.6	24.5	8.1	0.7	17.4
			AC1	25-55	28.2	53.7	18.1	7.8	0.5	14.0

			AC2	55-75	18.0	56.9	25.1	8.0	0.5	16.8
			C	75-95	19.0	56.4	24.6	7.8	0.3	15.7
284	<b>B</b>	W	Ap1	0-25	28.6	50.9	20.5	8.3	0.8	22.4
			Ap2	25-40	37.8	44.8	17.4	8.5	0.4	21.5
			Bw	40-75	38.2	44.6	17.2	8.5	0.5	21.4
			BC	75-100	40.0	43.1	16.9	8.6	0.4	21.8
			C	100-125	35.6	44.5	19.9	8.5	0	25.1
285	<b>B</b>	W	Ap	0-25	25.2	51.5	23.3	8.2	1.8	14.6
			AC1	25-40	17.5	61.7	20.8	8.6	0.7	24.9
			AC2	40-75	16.8	59.9	23.3	8.5	0.8	25.2
286	<b>B</b>	W	Ap1	0-25	19.9	54.6	25.5	8.5	1.1	22.8
			Ap2	25-50	22.2	52.5	25.3	8.2	1.2	23.9
			C1	50-100	27.1	55.2	17.7	8.6	0.3	18.4
			C2	100-110	83.2	14.3	2.5	8.7	0.2	16.6
288	<b>B</b>	W	Ap1	0-20	19.5	51.9	28.6	8.3	0.7	24.7
			Ap2	20-40	18.3	58.4	23.3	8.5	0.2	43.8
			Bw	40-55	20.6	48.0	31.4	8.4	0.6	15.3
			BwC	55-90	20.6	49.0	30.4	8.4	0.6	18.7
290	<b>B</b>	W	Ap	0-30	19.8	51.8	28.4	8.4	0.5	27.4
			AC	30-50	17.7	55.0	27.3	8.5	0.3	28.4
			C	50-90	24.0	50.8	25.2	8.4	0.9	27.8