

Article

Supplementary Materials: Assessing Nutrient Dynamics in *Vitis vinifera* L. cv. Maturana Blanca: The Role of Training System and Irrigation Strategy

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Table S1. Statistical results of the General Linear Model (GLM) for leaf blade mineral composition.

	dF	DenDf	F-Value							
			N	P	K	Ca	Mg	Fe	Mn	Zn
Training System	1	8	3.7235	26.4059 ***	12.4340 **	0.1039	0.0041	16.4566 **	2.5765	7.2824 *
Irrigation	1	8	5.9590 *	2.8804	3.6642	1.1371	0.3001	1.9336	1.7893	1.8850
TS × I	1	8	2.2836	0.0022	1.3191	0.0678	0.3361	0.5928	0.0080	0.3788

Asterisks indicate significant differences at * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$. The abbreviations are as follows: N, nitrogen; P, phosphorus; K, potassium; Ca, calcium; Mg, magnesium; Fe, iron; Mn, manganese; Zn, zinc.

Table S2. Statistical results of the General Linear Model (GLM) for petiole mineral composition.

	dF	DenDf	F-Value							
			N	P	K	Ca	Mg	Fe	Mn	Zn
Training System	1	8	0.0002	7.8400 *	0.3637	3.3315	1.2061	16.4566 **	1.0667	31.5325 ***
Irrigation	1	8	47.5513 ***	23.6346 **	0.1255	7.6482 *	0.4755	1.9336	8.0667 *	1.0000
TS × I	1	8	0.00021	0.2736	0.6621	3.0356	1.9733	0.5928	2.0167	2.1361

Asterisks indicate significant differences at * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$. The abbreviations are as follows: N, nitrogen; P, phosphorus; K, potassium; Ca, calcium; Mg, magnesium; Fe, iron; Mn, manganese; Zn, zinc.

Table S3. Statistical results of the General Linear Model (GLM) for leaf water potential and leaf gas exchange measurements, at flowering, veraison, and ripening.

Phenology		dF	DenDf	F-Value					
				Ψ_{leaf}	A_N	g_s	WUE_i	E	WUE_{ins}
Flowering	Training System	1	19	0.0971	2.1050	2.1972	6.9666 *	1.1829	1.1829
	Irrigation	1	19	3.4951	2.6570	1.6205	0.0167	0.6187	0.6187
	TS × I	1	19	0.0000	5.1230 *	3.6093	0.0038	2.9245	2.9245
Veraison	Training System	1	20	0.9843	9.8593 **	14.3879 **	2.6737	0.1533	53.8428 ***
	Irrigation	1	20	258.3071 ***	57.7450 ***	115.8339 ***	89.2927 ***	31.0230 ***	33.0494 ***
	TS × I	1	20	0.9843	2.0608	5.3739 *	0.3378	0.0014	6.9463 *
Ripening	Training System	1	20	0.6684	12.8719 **	8.1308 **	9.1910 **	13.4372 **	10.3565 **
	Irrigation	1	20	86.8717 ***	72.9537 ***	89.8165 ***	9.9817 **	65.8000 ***	20.6670 ***
	TS × I	1	20	0.6684	1.3680	0.0810	20.2024 ***	0.7140	48.3023 ***

Asterisks indicate significant differences at * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$. The abbreviations are as follows: Ψ_{leaf} , leaf water potential; A_N , photosynthesis; g_s , stomatal conductance; WUE_i , intrinsic water use efficiency; E, transpiration rate; WUE_{ins} , instantaneous water use efficiency.



Table S4. Statistical results of the General Linear Model (GLM) for vegetative parameters.

	dF	DenDf	LA F-Value	DenDf	PSL	IL	PL F-Value	LS	LL	DenDf	PW	NS F-Value	PS	SID
Training System	1	20	10.2545 ***	68	32.1494 ***	15.3349 ***	27.0971 ***	23.6722 ***	27.6331 ***	8	0.1332	456.0357 ***	1147.2553 ***	59.219 ***
Irrigation	1	20	0.0325	68	0.1553	0.8475	1.9106	0.3478	0.0047	8	1.4534	0.8929	2.7444	0.047
TS × I	1	20	0.0023	68	0.0599	0.1420	0.0078	0.4082	0.1902	8	0.0646	0.0357	1.3921	1.767

Asterisks indicate significant differences at * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$. The abbreviations are as follows: L, leaf area; PSL, primary shoot length; IL, internode length; PL, primary leaves; LS, lateral shoots per vine; LL, lateral leaves; PW, pruning weight; NS, number of spurs per vine; PS, primary shoots per vine; SID, second internode diameter.

Table S5. Statistical results of the General Linear Model (GLM) for yield data and its components.

	dF	DenDf	F-Value							
			Y	CV	CS	CW	BW	BC	LA/Y	Y/PW
Training System	1	6	16.0688 **	224.3789 ***	11.9897 *	2.7378	1.5318	0.0015	8.0279 *	18.6453 **
Irrigation	1	6	9.3445 *	122.9977 ***	134.4740 ***	13.8986 **	3.4832	3.0317	13.8417 **	20.8953 **
TS × I	1	6	0.0642	33.8593 **	4.2778	0.3385	0.2412	0.1925	2.0197	0.4465

Asterisks indicate significant differences at * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$. The abbreviations are as follows: Y, yield; CV, clusters per vine; CS, clusters per shoot; CW, cluster weight; BW, berry weight; BC, berries per cluster; LA/Y, leaf area-to-yield ratio; Y/PW, yield-to-pruning weight.