

Supplementary Table S1. Mean squares from the combined analysis of variance for net photosynthetic rate, transpiration rate, transpiration efficiency, and tuber fresh weight of six Jerusalem artichoke genotypes under three water levels in 2017/18 and 2018/19.

Source of Variation	DF	P _n	Tr	TE	Tuber FW
Year (Y)	1	4.4** (0.1) ¹	0.8** (0.2)	3.6** (3.7)	13573.0** (1.9)
Rep. within year	6	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	1070.0 (0.9)
Water level (W)	2	2627.4** (79.1)	155.7** (73.3)	6.4** (38.1)	282174.0** (78.1)
Y × W	2	0.4** (0.0)	0.0* (0.0)	0.1** (0.2)	6616.0** (1.8)
Pooled error (a)	12	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	303.0 (0.5)
Variety (V)	5	111.7** (12.3)	10.6** (13.9)	7.3** (42.2)	8960.0** (6.2)
Y × V	5	0.1** (0.0)	0.0** (0.0)	0.1** (0.6)	2030** (1.4)
W × V	10	81.8** (8.4)	5.9** (12.5)	4.1** (13.4)	1654.0** (2.3)
Y × W × V	10	0.3** (0.1)	0.0** (0.0)	0.1** (1.1)	1996.0** (2.8)
Pooled error (b)	90	0.0 (0.0)	0.0 (0.1)	0.0 (0.6)	331.0 (4.1)
Total	143				
CV (%) (a)		0.3	1.4	1.9	12.6
CV (%) (b)		0.3	1.2	1.6	13.2

Abbreviations: CV, coefficient of variation; DF, degree of freedom; FW, fresh weight; P_n, net photosynthetic rate; TE, transpiration efficiency; Tr, transpiration rate. ¹ number within the parentheses is the proportion of sum squares to the total sum of squares are presented unit in percent (%).*, ** significant and highly significant differences at $p \leq 0.05$ and ≤ 0.01 probability levels, respectively.