

SUPPLEMENTARY MATERIALS FOR: Regulated deficit irrigation during vegetative growth enhances crop water productivity in chickpea (*Cicer arietinum* L.)

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Table S1. Analysis of variance of eight productivity, yield, quality, and growth variables of chickpeas across deficit irrigation treatments during two consecutive years of experiments (2020 and 2021) in Todos Santos, Baja California Sur, Mexico.

Source of variation	DF	Grain yield and quality		Plant growth				Productivity	
		GY	Cal	H	PDW	PP	GP	HI	CWP
Y	1	109951.92 ^{ns}	182.31**	0.0961**	195.79**	3.95 ^{ns}	2.72 ^{ns}	0.0663**	0.89**
B (Y)	6	85214.48 ^{ns}	11.19 ^{ns}	0.0005 ^{ns}	17.68**	6.53**	10.40**	0.0035 ^{ns}	0.07*
T	7	202004.16**	37.30**	0.0028**	17.65**	9.27**	15.74**	0.0086**	0.10**
Y*T	7	29914.49 ^{ns}	12.06 ^{ns}	0.0016**	3.96 ^{ns}	2.49 ^{ns}	4.48 ^{ns}	0.0033 ^{ns}	0.03 ^{ns}
Error	42	38453.76	11.45	0.0004	3.80	1.53	2.75	0.0019	0.03
Media		903.33	47.79	0.40	13.18	7.96	9.18	0.44	0.78
CV (%)		21.70	7.08	5.21	14.79	15.53	18.07	9.84	22.44

GY= grain yield, Cal= grain caliber, H= plant height, PDW = plant dry weight, PP = pods per plant, GP= grain per plant, HI= harvest index, CWP= crop water productivity. Y= year, B= block, T= treatments. DF=Degrees of freedom. CV= coefficient of variation. ^{ns}= non significant ($p \geq 0.05$), Bold with * = $p < 0.05$, ** = $p < 0.01$. Values in each column inside every variable represent mean squared error.

Table S2. Differences in grain yield and quality, plant growth and crop water productivity of chickpeas between two consecutive years of deficit irrigation experiments (2020, 2021) in Todos Santos, Baja California Sur, Mexico.

Year	Grain yield and quality*		Plant growth*				Productivity*	
	GY	Cal	H	PDW	PP	GP	HI	CWP
2020	861.8 ± 260.7a	49.4 ± 4.4a	0.44 ± 0.03a	11.4 ± 2.8b	7.7 ± 2.0a	8.9 ± 2.6a	0.47 ± 0.06a	0.90 ± 0.2a
2021	944.7 ± 230.1a	46.1 ± 3.0b	0.37 ± 0.02b	14.9 ± 2.3a	8.2 ± 1.4a	9.3 ± 1.7a	0.41 ± 0.03b	0.66 ± 0.1b

GY= grain yield, Cal= grain caliber, H= plant height, PDW= plant dry weight, PP= pods per plant, GP= grain per plant, HI= harvest index, CWP= crop water productivity. Y= year, B= block, T= treatments.
 *Mean ± SD. ^{ab} Different letter between years, in the same column, indicates statistically significant ($p \leq 0.05$, LSD).