SUPPLEMENTARY MATERIAL

Salicylic acid applied via irrigation enhances young *Carica papaya* L. plants performance under water deficit

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Table S1. Pearson correlation coefficients between variables for treatment 1.

	Substrate moisture	Leaf fresh weight	Leaf dry weight	Stem thickness	gs	Ch a	Ch b	Ch t	Car	Proline
Substrate moisture	1	-0.344	-0.313	-0.651*	-0.014	-0.395	-0.380	-0.391	-0.436	0.017
Leaf fresh weight		1	0.631*	0.525	-0.080	-0.195	-0.147	-0.179	0.013	0.042
Leaf dry weight			1	0.771**	-0.707*	0.301	0.405	0.338	0.602	0.174
Stem thickness				1	-0.628	0.772*	0.800*	0.785*	0.872**	-0.094
gs					1	-0.658	-0.658	-0.659	-0.617	-0.422
Ch a						1	0.984***	0.998***	0.910**	-0.119
Ch b							1	0.993***	0.960***	-0.054
Ch t								1	0.930***	-0.096
Car									1	0.177
Proline										1

Pearson correlation coefficients between studied continuous variables at the end of the experiment (DAT 44) for treatment 1 (control), asterisks denote significant correlations at $P < 0.05$ (*), $P < 0.01$ (**) or $P < 0.001$ (***). Legend: gs, stomatal conductance; Ch: chlrophyll; Car: carotenoids.

Table S2. Pearson correlation coefficients between variables for treatment 2.

	Substrate moisture	Leaf fresh weight	Leaf dry weight	Stem thickness	gs	Ch a	Ch b	Ch t	Car	Proline
Substrate moisture	1	0.168	0.063	0.387	-0.043	0.238	0.259	0.246	0.633	0.734*
Leaf fresh weight		1	0.584*	0.239	-0.303	-0.341	-0.321	-0.337	-0.005	0.107
Leaf dry weight			1	0.474	-0.231	-0.458	-0.425	-0.450	-0.250	-0.189
Stem thickness				1	-0.849	0.838	0.812	0.832	0.405	-0.399
gs					1	-0.194	-0.083	-0.158	0.320	0.925*
Ch a						1	0.995***	1.000***	0.587	-0.030
Ch b							1	0.997***	0.647	0.003
Ch t								1	0.605	-0.018
Car									1	0.531
Proline										1

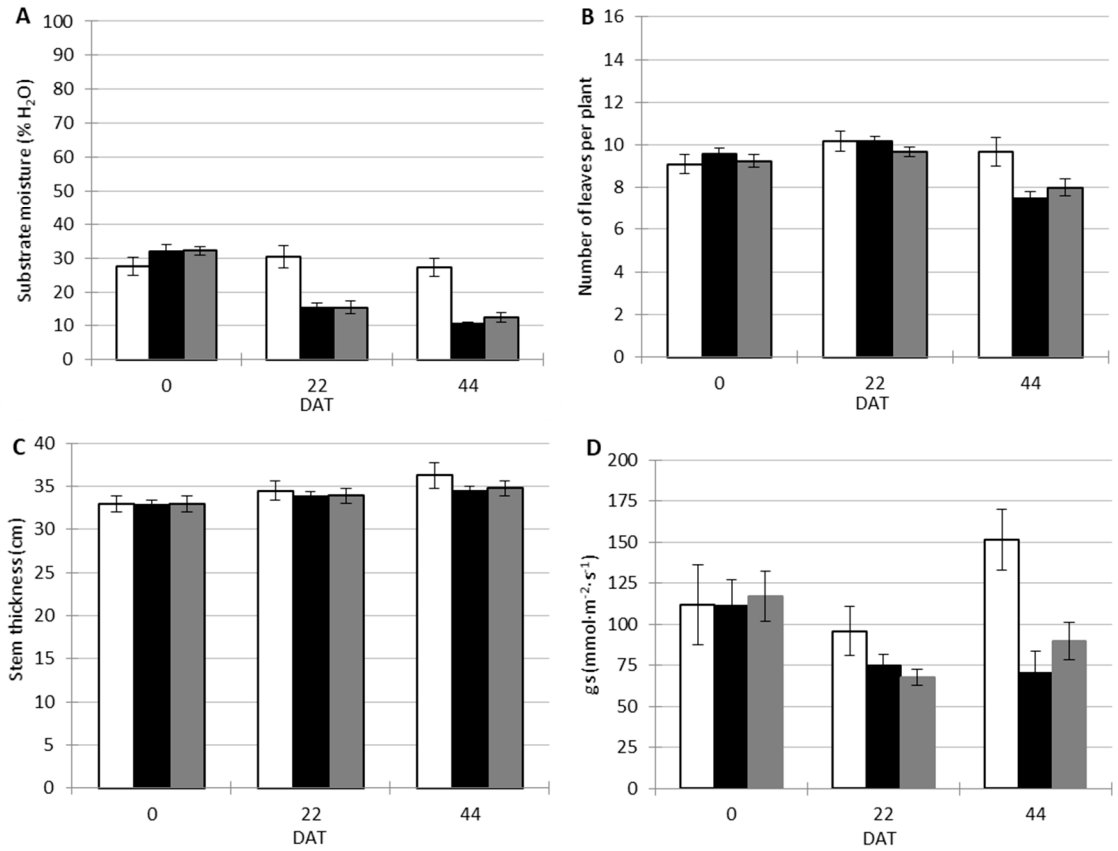
Pearson correlation coefficients between studied continuous variables at the end of the experiment (DAT 44) for treatment 2 (water stress), asterisks denote significant correlations at $P < 0.05$ (*), $P < 0.01$ (**) or $P < 0.001$ (***). Legend: gs, stomatal conductance; Ch: chlrophyll; Car: carotenoids.

Table S3. Pearson correlation coefficients between variables for treatment 3.

	Substrate moisture	Leaf fresh weight	Leaf dry weight	Stem thickness	gs	Ch a	Ch b	Ch t	Car	Proline
Substrate moisture	1	0.307	0.486	0.271	0.434	-0.159	0.128	-0.063	0.042	-0.799*
Leaf fresh weight		1	0.847**	0.950**	-0.568	-0.125	0.442	0.076	0.361	0.141
Leaf dry weight			1	0.691	-0.025	-0.248	0.331	-0.051	0.248	-0.082
Stem thickness				1	-0.546	0.532	0.007	0.239	0.974	0.799
gs					1	0.007	-0.090	-0.021	-0.366	-0.652
Ch a						1	0.704*	0.965***	0.697*	0.356
Ch b							1	0.866**	0.759*	0.208
Ch t								1	0.771*	0.321
Car									1	0.482
Proline										1

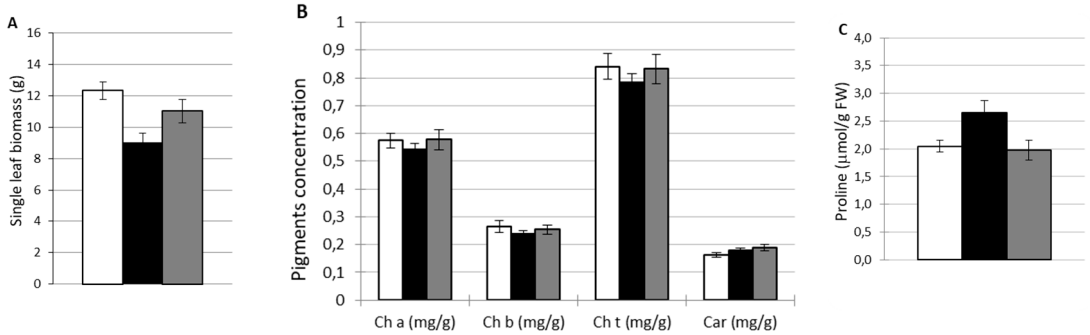
Pearson correlation coefficients between studied continuous variables at the end of the experiment (DAT 44) for treatment 3 (water stress plus salicylic acid), asterisks denote significant correlations at $P < 0.05$ (*), $P < 0.01$ (**) or $P < 0.001$ (***). Legend: gs, stomatal conductance; Ch: chlrophyll; Car: carotenoids.

Figure S1. Evolution of data recorded in season 2022.



Measurements at 0, 22 and 44 DAT of (A) water content in the soil substrate, (B) Functional leaf number per plant, (C) plant stem thickness, and (D) stomatal conductance (gs). Data are means ± standard errors based on measurements of substrates (six from each block, n = 18 per treatment) of those plants subjected to regular watering (□), water stress (■), and water stress plus SA (■) for 44 days. DAT = days after treatment.

Figure S2. Final measurements from season 2022.



Measurements at the end of the experimental period of (A) single leaf fresh biomass, (B) foliar photosynthetic pigments content, and (C) foliar proline content. Data are means ± standard errors based on measurements of substrates (six from each block, n = 18 per treatment) of those plants subjected to regular watering (□), water stress (■), and water stress plus SA (■) for 44 days. DAT = days after treatment.