

SUPPLEMENTARY

Table S1. Effect of SA foliar spraying on chosen pepper plant parameters depending on acid concentration (mean \pm SD)

Parameters	Concentration of salicylic acid				
	0 SA	1 mmol	2 mmol	5 mmol	10 mmol
Plant height (cm)	28.67 \pm 0.47a*	25.00 \pm 0.00b	20.67 \pm 0.47c	17.67 \pm 0.47d	12.00 \pm 0.00e
Shoot diameter (mm)	8.00 \pm 0.00d	14.67 \pm 0.94a	12.00 \pm 0.00b	10.00 \pm 0.00c	8.00 \pm 0.00d
Number of leaves (No.)	25.33 \pm 0.47a	23.33 \pm 0.47b	19.67 \pm 0.47e	16.67 \pm 0.47d	10.67 \pm 0.47e
Plant weight (g)	60.00 \pm 0.00bc	80.00 \pm 0.01ab	90.00 \pm 0.01a	60.00 \pm 0.01bc	40.00 \pm 0.00d
SPAD value	50.59 \pm 5.00ab	56.14 \pm 5.00a	47.32 \pm 4.3b	48.97 \pm 3.03b	35.90 \pm 2.07c

* Means with different lowercase letters in the same row indicate a statistically significant difference according to the Tukey test ($p \leq 0.05$).

Table S2. Effect of SA root-applied on chosen pepper plant parameters depending on acid concentration (average of two terms \pm SD).

Parameters	Concentration of salicylic acid				
	0 SA	100 ppm	150 ppm	500 ppm	1000 ppm
Plant height (cm)	28.67 \pm 0.47a*	29.33 \pm 0.47a	25.67 \pm 0.47b	20.67 \pm 0.47c	15.33 \pm 0.47d
Shoot diameter (mm)	8.00 \pm 0.00a	9.67 \pm 0.00a	5.67 \pm 0.00b	5.33 \pm 0.00b	1.67 \pm 0.00c
Number of leaves (No.)	25.33 \pm 0.47a	20.33 \pm 0.47b	15.00 \pm 0.00c	11.00 \pm 0.00d	6.00 \pm 0.00e
Plant weight (g)	60.00 \pm 0.001a	50.00 \pm 0.003a	30.00 \pm 0.00b	30.00 \pm 0.002b	0.00 \pm 0.000c
SPAD value	49.86 \pm 4.80a	44.46 \pm 5.00b	39.89 \pm 2.58c	30.59 \pm 2.59d	12.29 \pm 2.74e

*Means with different lowercase letters in the same row indicate a statistically significant difference according to the Tukey test ($p \leq 0.05$).

Table S3. Effect of solution with different EC and SA treatment in hydroponic cultivation on height and number of leaves (average of two terms \pm SD).

Plant parameters	Measurement dates	Combinations			
		Low EC	Low EC+SA-f	High EC	High EC SA-f+SA-r
Plant height (cm)	0 DAT	35.00 \pm 1.22a*	35.25 \pm 1.30a	35.75 \pm 0.87a	33.50 \pm 1.09a
	7 DAT	44.75 \pm 1.09a	45.25 \pm 1.30a	47.50 \pm 2.60a	44.50 \pm 1.12a
	14 DAT	62.50 \pm 1.80a	63.00 \pm 1.41a	60.50 \pm 1.12a	61.50 \pm 3.20a
	21 DAT	75.00 \pm 2.45a	73.00 \pm 1.00ab	71.25 \pm 1.48ab	68.25 \pm 3.35b
	28 DAT	93.25 \pm 1.09a	91.25 \pm 2.77a	83.75 \pm 2.69b	81.50 \pm 4.15b
Number of leaves	0 DAT	12.00 \pm 0.70a	11.75 \pm 0.83a	11.50 \pm 0.50a	11.50 \pm 1.12a
	7 DAT	13.00 \pm 1.22a	13.00 \pm 0.71a	13.50 \pm 0.50a	13.50 \pm 0.87a
	14 DAT	16.50 \pm 0.50a	16.50 \pm 0.50a	16.75 \pm 0.83a	16.75 \pm 0.43a
	21 DAT	18.00 \pm 1.23a	18.00 \pm 1.23a	17.25 \pm 0.50a	17.50 \pm 0.83a
	28 DAT	19.25 \pm 0.83a	18.00 \pm 0.71ab	17.50 \pm 0.43b	16.75 \pm 0.50b

*Means with different lowercase letters in the same row indicate a statistically significant difference according to the Tukey test ($p \leq 0.05$).

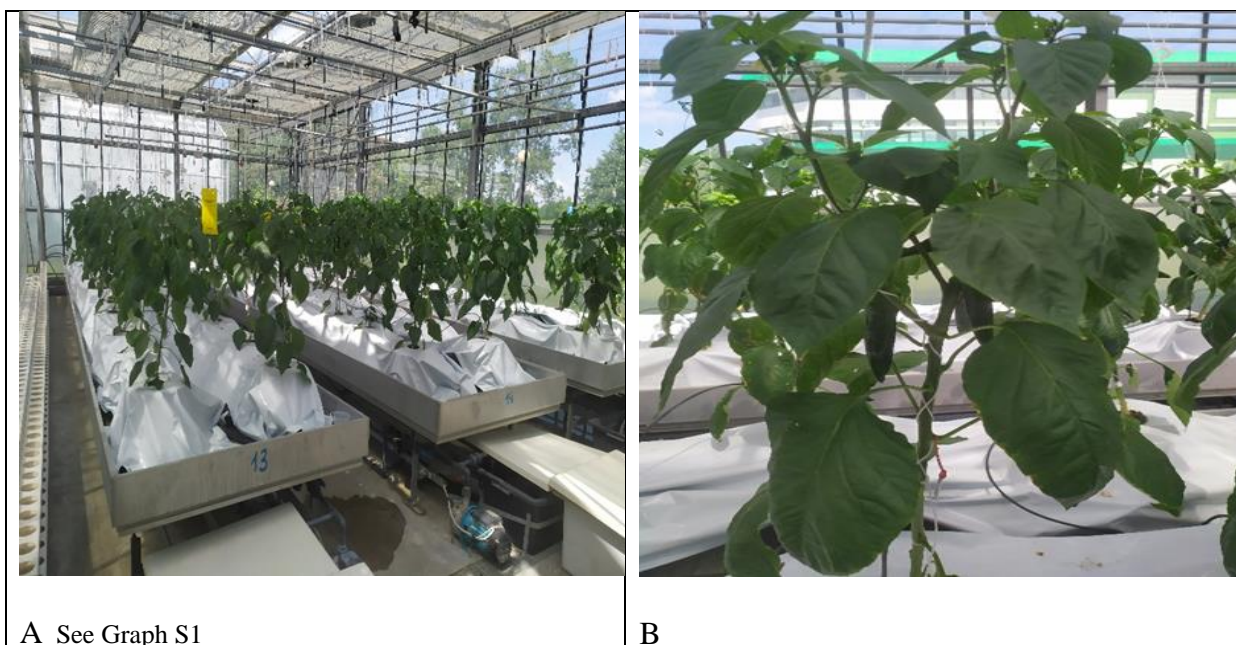
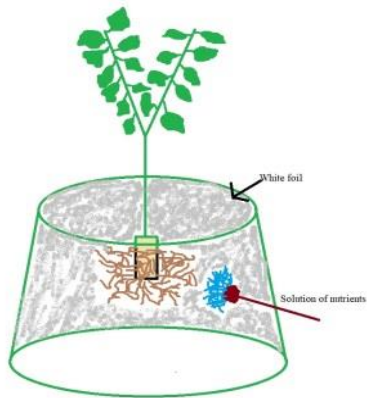


Photo S1. (A) Cultivation of peppers in an aeroponic system where upside-down containers with nozzles for spraying nutrient solution (one for each plant) onto the roots were covered with black and white film and a container for nutrient solution was installed at the beginning of each bed which was automatically pumped into the nozzles and fed to the plants (B) A sweet pepper plant cut into two fruiting shoots.



Growing chamber with growing beds

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Combination

(1)	(2)	(3)	(4)
Low EC	Low EC+SA-f	Hight EC	Hight EC+SA- f+SA-r

Legend:

O	Pepper plant
O	Selected test plant

Graph S1. Diagram of the conduct of the experiment. Four growing beds, one individual aeroponic system for each combination (20 plants each). Randomly selected test plants for physiological and biochemical measurements are marked (See Photo S1)