Supplementary Materials: Unraveling the Modulation of Controlled Salinity Stress on Morphometric Traits, Mineral Profile, and Bioactive Metabolome Equilibrium in Hydroponic Basil

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Table S1: LC/MS/MS characteristics of phenolic compounds identified and quantified in the basil extracts.

Compound	$[M-H]^-$ m/z	Fragments $[M-H]^-$ m/z
Caffeic acid	179	135
Caffeil-tartaricacid	311	179
Chicoric acid	472	309; 291; 179
p-Coumaric acid	163	119; 113
Ferulic acid	193	134; 178; 149
Quercetin-rutinoside acid	609	301
Rosmarinic acid	359	197; 179; 161

Table S2: One-way ANOVA table of the morphometric traits. The unit of measurement of each variable is reported in brackets.

Variable		Sum of squares	df	F	Sign.
Plant Height	Between groups	13.451	2	6.896	0.028
(cm)	Within groups	5.852	6		
	Total	19.302	8		
Leaf Number	Between groups	8.025	2	0.985	0.427
(no.)	Within groups	24.444	6		
	Total	32.469	8		
Leaf Area	Between groups	46854.007	2	21.677	0.002
(cm^2)	Within groups	6484.502	6		
	Total	53338.509	8		
Fresh Yield	Between groups	53.756	2	14.333	0.005
(g)	Within groups	11.251	6		
	Total	65.007	8		
Shoot biomass	Between groups	4.086	2	15.151	0.005
(g)	Within groups	0.809	6		
	Total	4.895	8		
Shoot Dry Weight	Between groups	0.318	2	9.098	0.015
(g)	Within groups	0.105	6		
	Total	0.423	8		
Root to Shoot Ratio	Between groups	0.006	2	13.298	0.006
	Within groups	0.001	6		
	Total	0.007	8		
Leaf Dry Matter	Between groups	0.579	2	22.060	0.002
(%)	Within groups	0.079	6		
	Total	0.658	8		

Leaf Dry Weight (g)	Between groups	0.193	2	7.857	0.021
	Within groups	0.074	6		
	Total	0.267	8		
Root Dry Weight (g)	Between groups	0.001	2	2.811	0.138
	Within groups	0.002	6		
	Total	0.003	8		
Stem Dry Weight (g)	Between groups	0.020	2	3.514	0.098
	Within groups	0.017	6		
	Total	0.037	8		

Table S3: One-way ANOVA table of the SPAD index and color parameters.

Variable		Sum of squares	df	F	Sign.
SPAD	Between groups	0.650	2	0.253	0.785
	Within groups	7.715	6		
	Total	8.365	8		
L*	Between groups	7.010	2	19.507	0.002
	Within groups	1.078	6		
	Total	8.088	8		
a*	Between groups	0.894	2	27.742	0.001
	Within groups	0.097	6		
	Total	0.991	8		
b*	Between groups	3.047	2	4.690	0.059
	Within groups	1.949	6		
	Total	4.996	8		

Table S4: One-way ANOVA table of the mineral content in basil leaves.The unit of measurement of each variable is reported in brackets.

Variable		Sum of squares	df	F	Sign.
Nitrate	Between groups	1982790.666	2	15.655	0.004
(mg kg^{-1} fw)	Within groups	379977.013	6		
	Total	2362767.679	8		
P	Between groups	105.625	2	6.448	0.032
(mg g^{-1} dw)	Within groups	49.146	6		
	Total	154.771	8		
K	Between groups	414.326	2	8.451	0.018
(mg g^{-1} dw)	Within groups	147.088	6		
	Total	561.414	8		
Ca	Between groups	49.967	2	16.698	0.004
(mg g^{-1} dw)	Within groups	8.977	6		
	Total	58.945	8		
Mg	Between groups	4.683	2	7.968	0.020
(mg g^{-1} dw)	Within groups	1.763	6		
	Total	6.446	8		
Na	Between groups	248.201	2	102.444	0.000
(mg g^{-1} dw)	Within groups	7.268	6		
	Total	255.470	8		

Table S5: One-way ANOVA table of the antioxidant activity and polyphenols. The unit of measurement of each variable is reported in brackets.

Variable		Sum of squares	df	F	Sign.
HAA	Between groups	728.315	2	61.949	0.000
(mmol asc. ac. eq. kg^{-1} dw)	Within groups	35.270	6		
	Total	763.585	8		
Total polyphenols	Between groups	330723.258	2	22.024	0.002
(mg 100 g^{-1} dw)	Within groups	45049.543	6		
	Total	375772.801	8		
Caffeoyltartaric acid	Between groups	1.607	2	1.067	0.401
(mg 100 g^{-1} dw)	Within groups	4.518	6		
	Total	6.125	8		
Caffeic acid	Between groups	29.859	2	3.448	0.101
(mg 100 g^{-1} dw)	Within groups	25.981	6		
	Total	55.840	8		
p-Coumaric acid	Between groups	38.345	2	37.982	0.000
(mg 100 g^{-1} dw)	Within groups	3.029	6		
	Total	41.374	8		
Ferulic acid	Between groups	58406.084	2	30.270	0.001
(mg 100 g^{-1} dw)	Within groups	5788.571	6		
	Total	64194.656	8		
Chicoric acid	Between groups	7836.817	2	10.235	0.012
(mg 100 g^{-1} dw)	Within groups	2297.123	6		
	Total	10133.939	8		
Quercetin Rutinoside acid	Between groups	6104.151	2	40.247	0.000
(mg 100 g^{-1} dw)	Within groups	455.000	6		
	Total	6559.151	8		
Rosmarinic acid	Between groups	122622.023	2	11.116	0.010
(mg 100 g^{-1} dw)	Within groups	33093.531	6		
	Total	155715.554	8		