



Supplementary

Improving phenolic total content and monoterpene in *Mentha x piperita* by using salicylic acid or methyl jasmonate combined with rhizobacteria inoculation

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Supplementary Table S1. Effects of inoculation with PGPR strains and of the external application of SA on TPC, PAL activity, pulegone and menthol content of *M. x piperita* plants. Values are mean \pm standard error (SE).

Treatments	TPC ($\mu\text{g/g fw}$)	PAL activity ($\mu\text{g Trans-Cinnamic Acid/Min} \times \text{mg Protein}$)	Pulegone ($\mu\text{g/g fw}$)	Menthol ($\mu\text{g/g fw}$)
Control	209.84 \pm 13.20	4.62 \pm 0.30	3.74 \pm 0.16	0.20 \pm 0.02
G	333.51 \pm 32.84	13.84 \pm 2.21	13.90 \pm 0.71	1.29 \pm 0.10
S	329.62 \pm 27.73	16.84 \pm 2.38	10.75 \pm 0.83	1.22 \pm 0.10
W	347.98 \pm 22.38	11.30 \pm 2.30	9.71 \pm 0.42	0.99 \pm 0.28
Control SA	254.03 \pm 24.95	4.63 \pm 0.30	4.27 \pm 0.27	0.19 \pm 0.02
1 mM SA	451.60 \pm 29.96	51.79 \pm 5.89	10.78 \pm 1.44	1.36 \pm 0.13
2 mM SA	443.06 \pm 48.55	58.38 \pm 3.92	8.12 \pm 1.23	1.48 \pm 0.21
1 mM G	458.13 \pm 15.21	61.49 \pm 10.61	11.11 \pm 1.82	1.63 \pm 0.15
1 mM S	419.43 \pm 8.98	58.13 \pm 9.22	12.05 \pm 1.51	1.40 \pm 0.20
1 mM W	446.32 \pm 14.42	81.63 \pm 13.16	10.90 \pm 1.56	1.54 \pm 0.26
2 mM G	672.22 \pm 7.84	121.36 \pm 15.99	6.56 \pm 0.82	1.81 \pm 0.10
2 mM S	461.65 \pm 39.77	99.88 \pm 10.54	8.63 \pm 1.52	1.70 \pm 0.55
2 mM W	397.95 \pm 16.33	69.96 \pm 26.38	9.36 \pm 1.45	1.75 \pm 0.41

Supplementary Table S2. Effects of inoculation with PGPR strains and of the external application of MeJA on TPC, PAL activity, pulegone and menthol content of *M. x piperita* plants. Values are mean \pm standard error (SE).

Treatments	TPC ($\mu\text{g/g fw}$)	PAL activity ($\mu\text{g trans-cinnamic acid min-1 mg-1 protein}$)	Pulegone ($\mu\text{g/g fw}$)	Menthol ($\mu\text{g/g fw}$)
Control MeJA	192.43 \pm 16.52	4.60 \pm 0.28	3.99 \pm 0.28	0.23 \pm 0.07
1mM	320.21 \pm 13.05	90.54 \pm 10.07	10.53 \pm 0.99	0.75 \pm 0.18
2mM	440.41 \pm 22.72	142.70 \pm 25.97	8.94 \pm 1.11	0.69 \pm 0.15
4mM	473.42 \pm 53.64	280.98 \pm 25.22	16.61 \pm 1.91	1.56 \pm 0.14
1mM + G	321.30 \pm 11.24	139.44 \pm 14.54	5.85 \pm 0.40	0.42 \pm 0.06
1mM + S	304.73 \pm 12.06	134.93 \pm 5.75	9.67 \pm 0.53	0.47 \pm 0.17
1mM + W	316.45 \pm 24.25	115.45 \pm 22.93	9.27 \pm 0.89	0.78 \pm 0.11
2mM + G	401.43 \pm 18.72	192.39 \pm 13.98	22.55 \pm 2.06	1.76 \pm 0.32
2mM + S	379.10 \pm 16.73	176.66 \pm 37.48	30.12 \pm 1.32	2.31 \pm 0.37
2mM + W	392.65 \pm 49.40	165.60 \pm 40.41	35.89 \pm 1.18	2.36 \pm 0.47
4mM + G	613.11 \pm 25.30	301.73 \pm 61.09	9.71 \pm 0.82	0.61 \pm 0.13
4mM + S	563.22 \pm 17.49	282.95 \pm 39.37	8.06 \pm 0.43	0.58 \pm 0.09
4mM + W	481.25 \pm 21.30	276.18 \pm 25.45	10.30 \pm 0.88	0.76 \pm 0.02