

SUPPLEMENTARY MATERIALS

Article

Taste compounds and polyphenolic profile of tomato varieties cultivated with beneficial microorganisms: a chemical investigation on nutritional properties and sensory qualities

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Figure S1. ¹H NMR (CD₃OD, 600 MHz) of Naringenin calchone.

Figure S2. ¹H, ¹H COSY NMR (CD₃OD, 600 MHz) of Naringenin calchone.

Figure S3. ¹H, ¹³C-HSQC NMR (CD₃OD, 600 MHz) of Naringenin calchone.

Figure S4. ¹H, ¹³C-HMBC NMR (CD₃OD, 600 MHz) of Naringenin calchone.

Figure S5. Calibration curves for glutamic acid and aspartic acid.

Figure S6. Calibration curves for 5'-AMP and 5'-GMP.

Figure S7. ESI-MS/MS spectra of isomer ions at *m/z* 515.1178 putatively identified as dicaffeoyl-quinic acids I-IV.

Figure S8. ESI-MS/MS spectrum of the ion at *m/z* 677.1498 putatively identified as tricaffeoyl-quinic acid.

Figure S9. ESI-MS/MS spectra of isomer ions at *m/z* 341.0868 putatively identified as caffeic acid hexosides I-III.

Table S1. Tomato sample weights and yields of methanolic extracts.

Table S2. NMR signal assignments for Naringenin calchone.

Figure S1. ^1H NMR (CD_3OD , 600 MHz) of Naringenin calchone

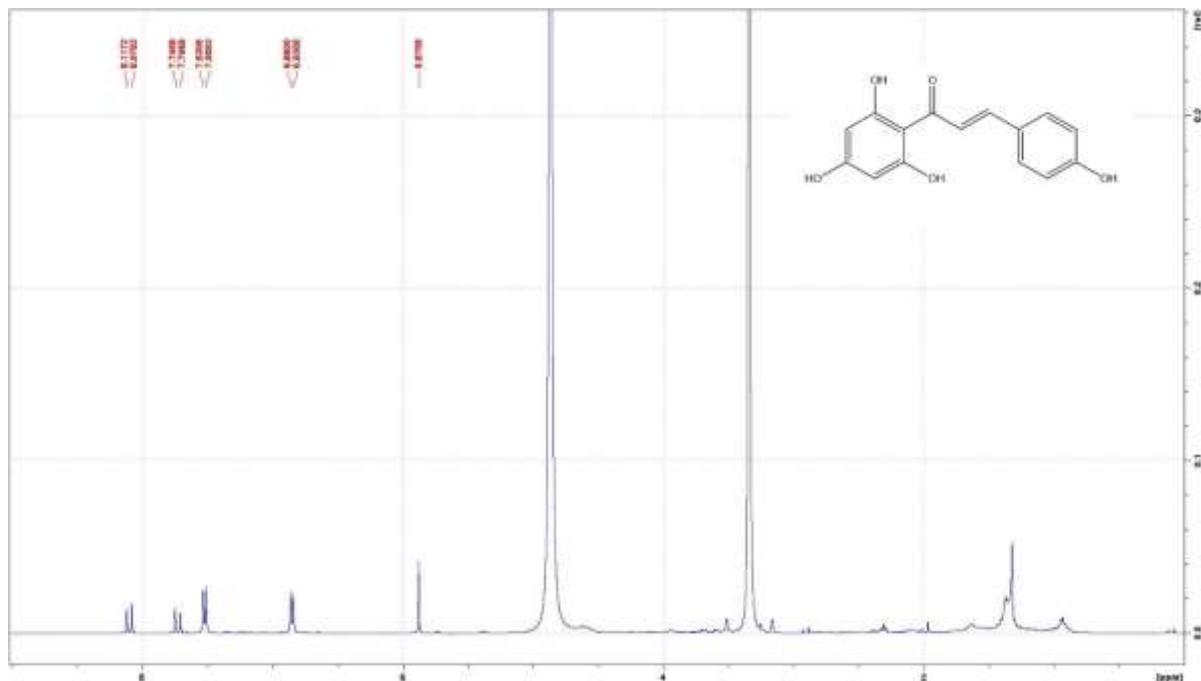


Figure S2. ^1H , ^1H COSY NMR (CD_3OD , 600 MHz) of Naringenin calchone.

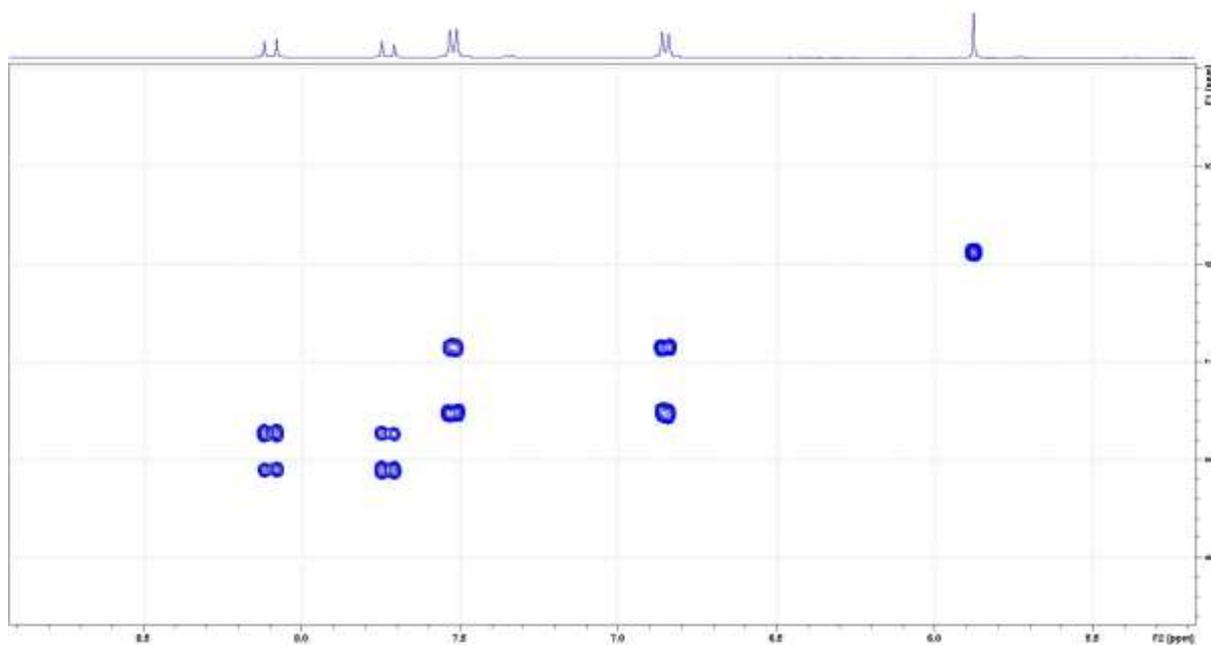


Figure S3. ^1H , ^{13}C -HSQC NMR (CD_3OD , 600 MHz) of Naringenin calchone.



Figure S4. ^1H , ^{13}C -HMBC NMR (CD_3OD , 600 MHz) of Naringenin calchone

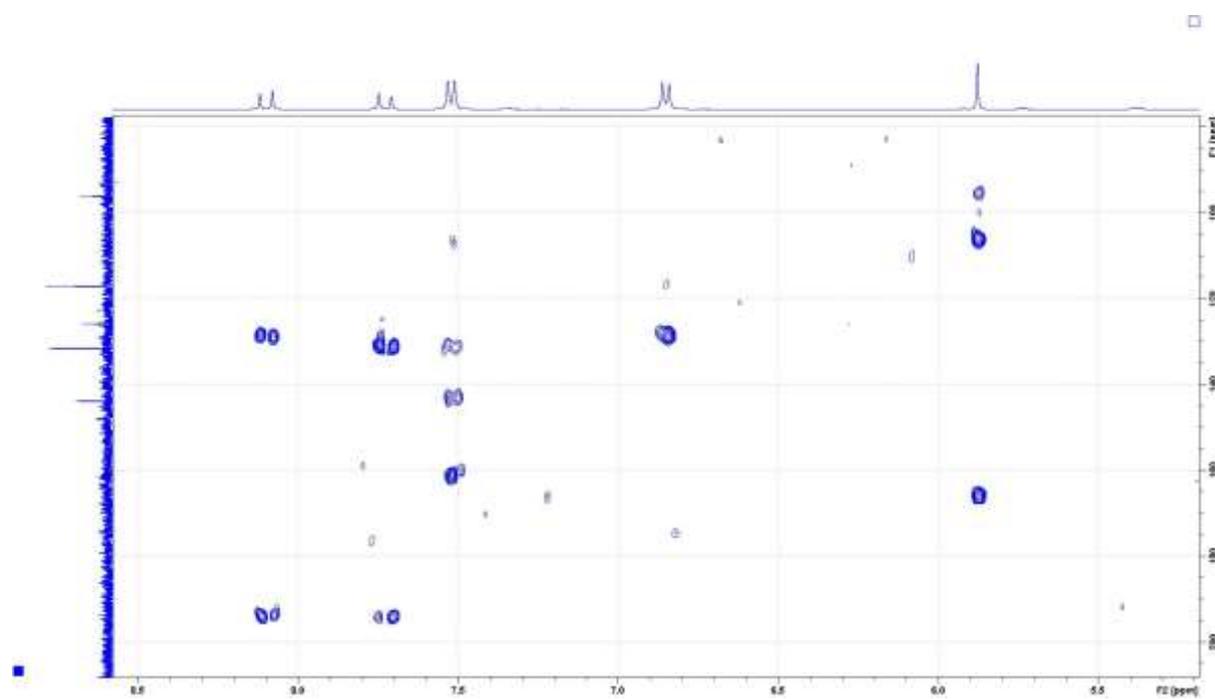


Figure S5. Calibration curves for the quantitative determination of glutamic acid and aspartic acid.

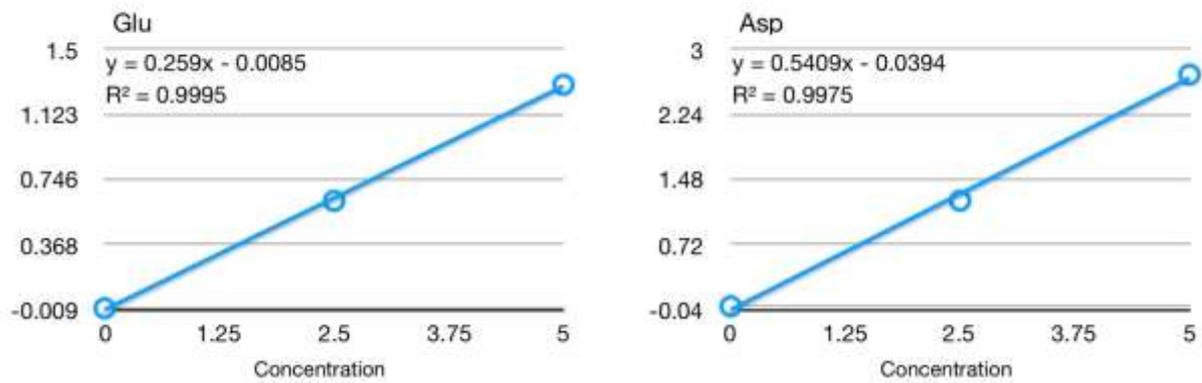


Figure S6. Calibration curves for the quantitative determination of 5'-AMP and 5'-GMP.

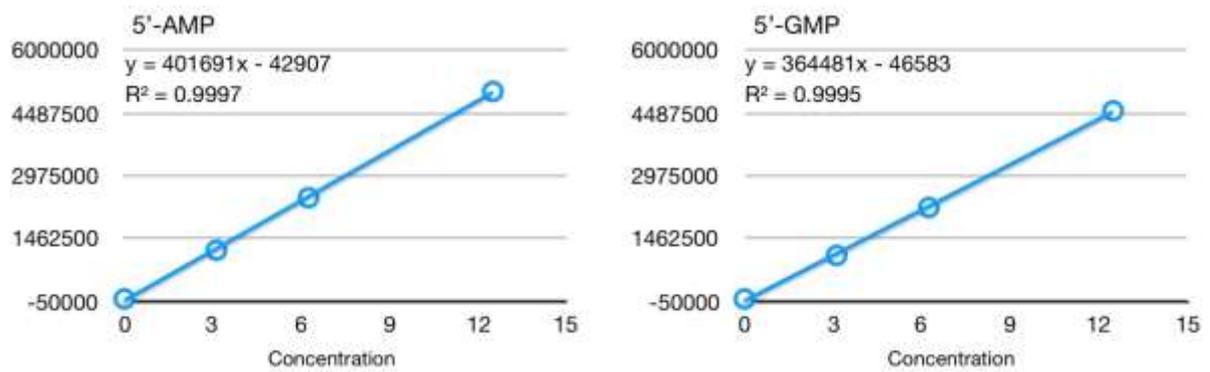


Figure S7. ESI-MS/MS spectra of isomer ions at m/z 515.1178 putatively identified as dicaffeoyl-quinic acids I-IV.

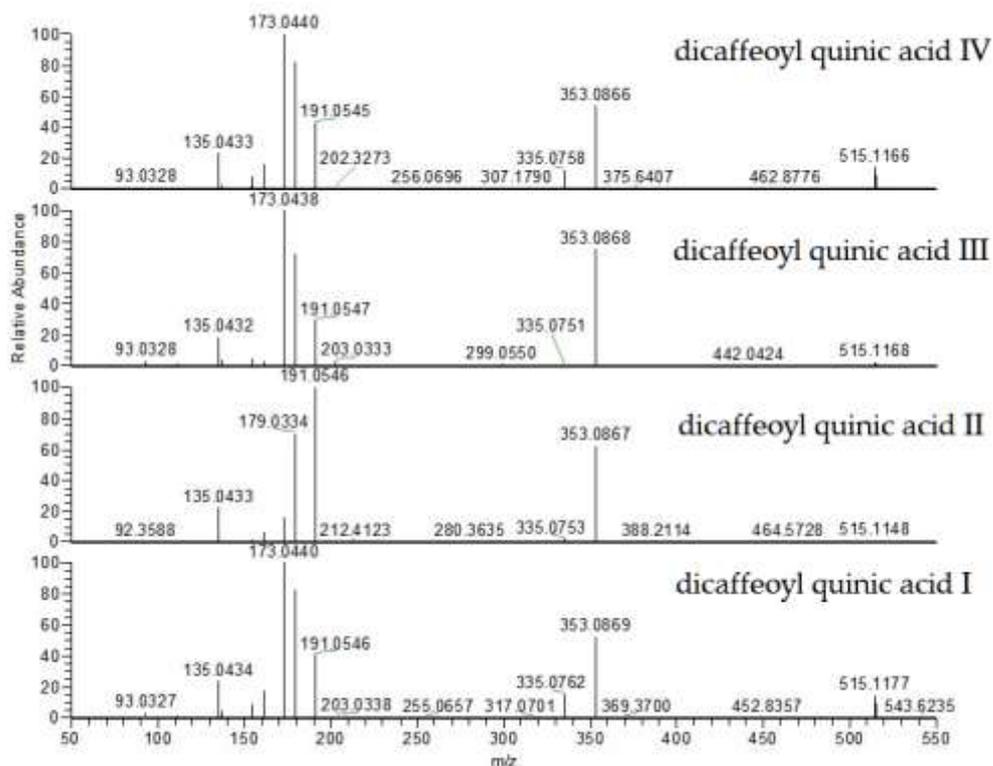


Figure S8. ESI-MS/MS spectrum of the ion at m/z 677.1498 putatively identified as tricaffeoyl-quinic acid.

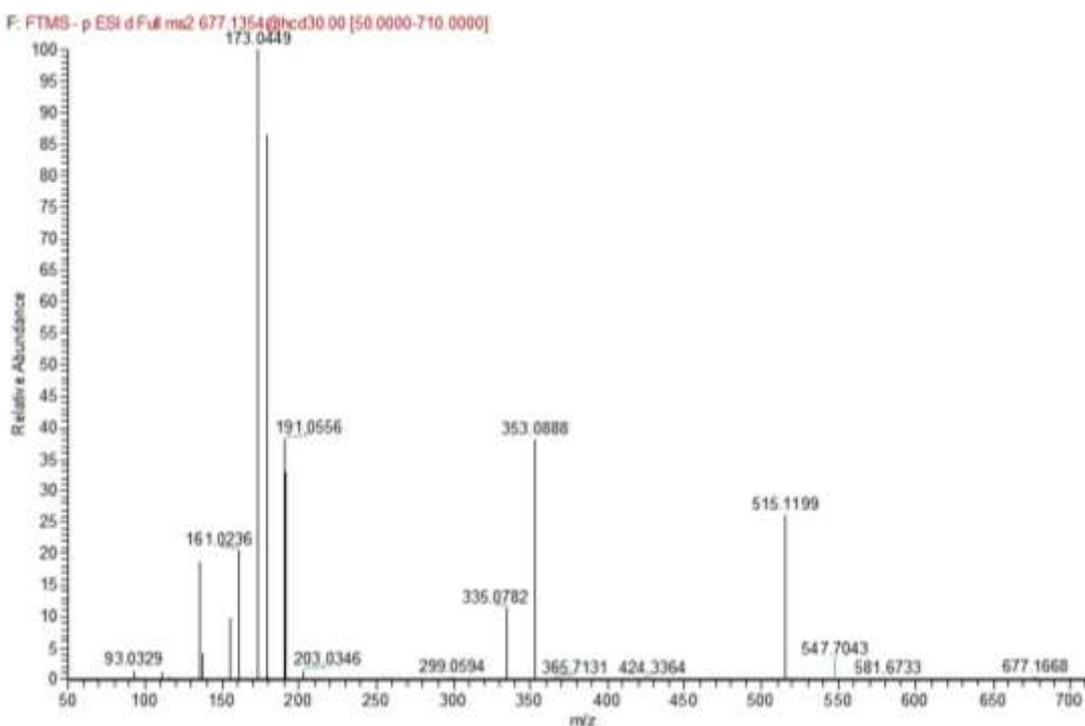


Figure S9. ESI-MS/MS spectra of isomer ions at m/z 341.0868 putatively identified as caffeic acid hexosides I-III.

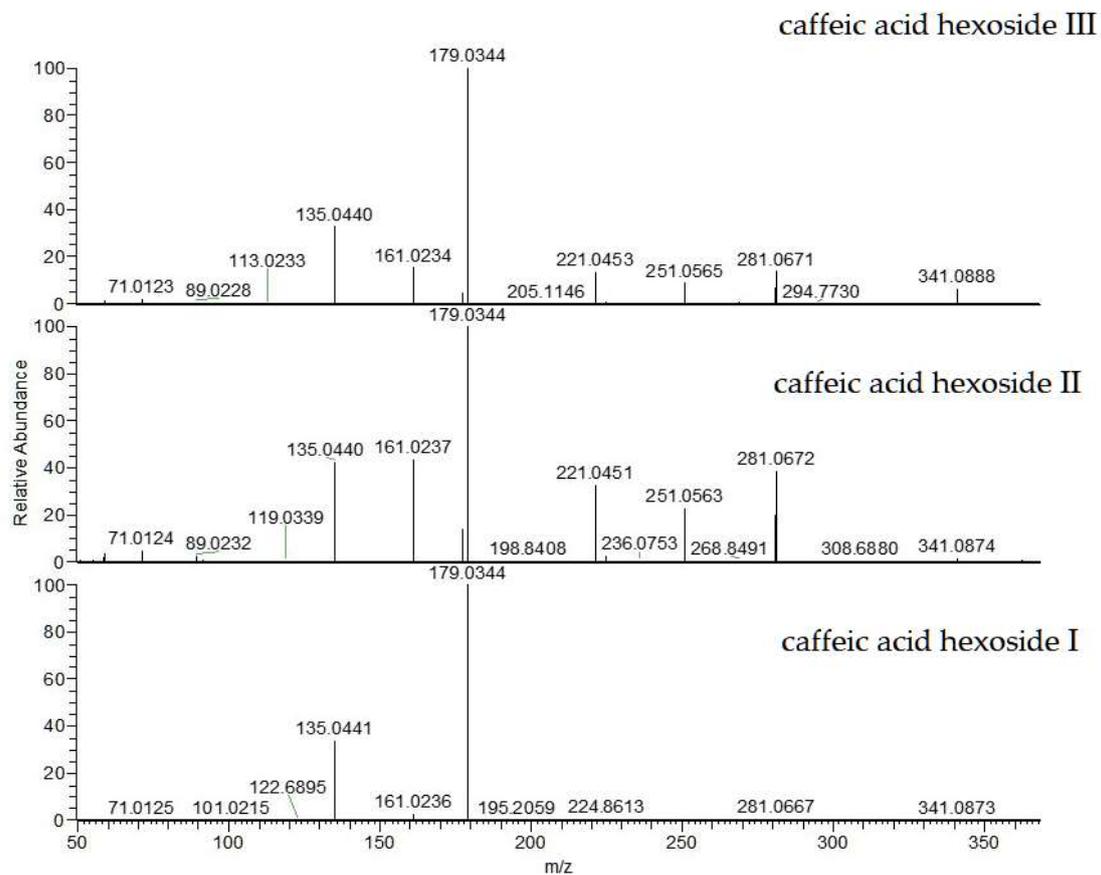
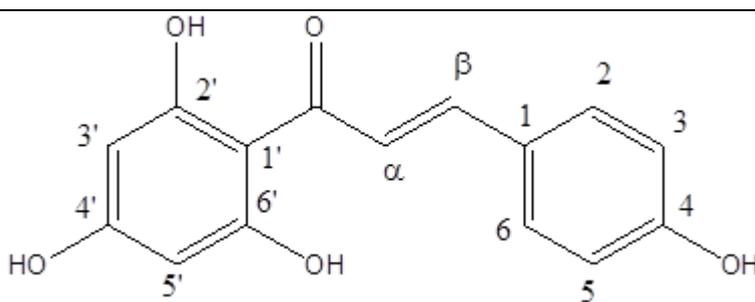


Table S1. Tomato sample weights and yields of methanolic extracts.

Samples	Tomato weight (g)	Methanolic extract (mg)
SMC3	100	750.5
SMC3 + EM	182	813.2
CO	128	640.5
CO + EM	120	609.4
BW	140	471.5
BW + EM	100	253.3

Table S2. NMR signal assignments for Naringenin calchone.

Position	¹ H, δ, m (J, Hz)	¹³ C, ppm
1	-	128.3
2, 6	7.52 d (8.6)	131.4
3, 5	6.85, d (8.6)	116.7
4	-	160.8
α	8.10, d (15.6)	125.7
β	7.73, d (15.6)	144.0



1'	-	106.1
2', 4', 6'	-	165.8
3', 5'	5.88, s	95.7
CO	-	193.6