

Table S1. Carotenoids contents ($\mu\text{g}\cdot\text{g}^{-1}$ FW) in tomato pericarp (*Solanum lycopersicum* L. cv. Grape) exposed to 1-methylcyclopropene (MCP) and both 1-methylcyclopropene and methyl jasmonate (MCP+ MeJA) treatments at 04, 10 and 21 days after harvest (DAH) detected by high performance liquid chromatography (HPLC).

Metabolite	04 DAH			10 DAH			21 DAH		
	CTRL	MCP	MCP + MeJA	CTRL	MCP	MeJA + MCP	CTRL	MCP	MCP + MeJA
Lycopene	15.4 \pm 0.43 ^g	0.52 \pm 0.01 ^h	0.63 \pm 0.01 ^h	487.1 \pm 4.10 ^c	61.1 \pm 0.59 ^f	81.9 \pm 0.19 ^e	653.6 \pm 0.82 ^b	234.8 \pm 0.66 ^d	712.5 \pm 0.35 ^a
β -carotene	3.87 \pm 0.02 ^d	2.57 \pm 0.02 ^g	2.72 \pm 0.01 ^f	5.32 \pm 0.10 ^c	2.68 \pm 0.07 ^{fg}	2.97 \pm 0.02 ^e	7.23 \pm 0.01 ^b	3.02 \pm 0.01 ^c	8.02 \pm 0.01 ^a
Lutein	2.43 \pm 0.02 ^g	2.07 \pm 0.01 ⁱ	2.31 \pm 0.01 ^h	3.27 \pm 0.06 ^c	2.56 \pm 0.04 ^f	2.88 \pm 0.03 ^d	3.93 \pm 0.05 ^b	2.75 \pm 0.04 ^e	4.67 \pm 0.03 ^a
Total	21.7 \pm 0.42 ^g	5.17 \pm 0.01 ^h	5.66 \pm 0.03 ^h	495.6 \pm 4.10 ^c	66.3 \pm 0.63 ^f	87.8 \pm 0.22 ^e	664.7 \pm 0.85 ^b	240.8 \pm 0.68 ^d	725.1 \pm 0.35 ^a

CTRL: Control fruits. Different superscript letters (a-h) indicate statistical significance ($P < 0.05$) at the same line (mean \pm standard deviation. $n = 4$).

Table S2. Tocopherols, phytol and phytosterols in tomato pericarp (*Solanum lycopersicum* L. cv. Grape) exposed to 1-methylcyclopropene (MCP) and both 1-methylcyclopropene and methyl jasmonate (MCP+ MeJA) treatments at 04, 10 and 21 days after harvest (DAH) detected by gas chromatography-mass spectrometry (GC-MS).

Metabolite	04 DAH			10 DAH			21 DAH		
	CTRL	MCP	MCP + MeJA	CTRL	MCP	MCP + MeJA	CTRL	MCP	MCP + MeJA
A) Tocopherols									
α -tocopherol	152,7 \pm 14,5 ^d	32,1 \pm 1,41 ^e	37,1 \pm 6,01 ^e	531,9 \pm 12,1 ^a	42,7 \pm 4,84 ^e	193,4 \pm 9,80 ^c	375,8 \pm 1,57 ^b	137,2 \pm 1,41 ^d	535,8 \pm 40,2 ^a
β -tocopherol	14,1 \pm 0,27 ^d	0,98 \pm 0,13 ^g	1,15 \pm 0,18 ^g	62,3 \pm 2,15 ^a	2,66 \pm 0,12 ^g	6,85 \pm 0,10 ^e	31,6 \pm 0,23 ^c	4,70 \pm 0,02 ^f	44,8 \pm 0,03 ^b
γ -tocopherol	11,6 \pm 0,49 ^d	1,91 \pm 0,15 ^g	2,03 \pm 0,05 ^g	14,6 \pm 0,38 ^c	2,71 \pm 0,09 ^g	8,71 \pm 0,16 ^e	18,9 \pm 0,72 ^b	3,71 \pm 0,12 ^f	22,7 \pm 0,79 ^a
Total	178,4 \pm 15,1 ^{cd}	34,9 \pm 0,86 ^e	40,3 \pm 0,99 ^e	608,9 \pm 14,6 ^a	48,11 \pm 4,77 ^e	208,9 \pm 6,07 ^c	426,4 \pm 1,45 ^b	145,6 \pm 1,67 ^e	603,2 \pm 39,8 ^a
B) Acyclic diterpenoids									
Phytol	21,3 \pm 2,25 ^a	10,9 \pm 0,21 ^b	19,5 \pm 1,05 ^a	9,54 \pm 0,18 ^{bc}	9,80 \pm 0,59 ^b	19,9 \pm 0,18 ^a	6,75 \pm 0,04 ^d	7,19 \pm 0,14 ^d	7,52 \pm 0,16 ^{cd}
C) Phytosterols									
β -sitosterol	113,2 \pm 7,14 ^f	21,9 \pm 0,61 ^h	29,7 \pm 0,89 ^h	410,2 \pm 10,9 ^b	79,5 \pm 4,59 ^g	151,9 \pm 2,45 ^e	282,7 \pm 1,32 ^d	171,1 \pm 16,5 ^c	487,6 \pm 15,3 ^a
Stigmasterol	227,3 \pm 10,5 ^f	50,9 \pm 1,04 ^d	60,5 \pm 1,38 ^e	344,1 \pm 8,75 ^e	49,6 \pm 1,76 ^b	68,9 \pm 0,19 ^a	400,8 \pm 1,71 ^d	164,5 \pm 4,68 ^c	535,6 \pm 10,6 ^{ab}
Stigmastadienol	18,2 \pm 0,26 ^d	2,10 \pm 0,13 ^h	6,47 \pm 0,21 ^f	27,8 \pm 0,68 ^c	5,62 \pm 0,11 ^g	7,31 \pm 10,18 ^e	34,2 \pm 0,16 ^b	7,03 \pm 0,13 ^{ef}	44,9 \pm 0,21 ^a
Total	358,7 \pm 14,3 ^e	74,9 \pm 1,63 ^h	96,7 \pm 2,14 ^h	782,0 \pm 20,2 ^b	134,8 \pm 6,05 ^g	228,2 \pm 2,39 ^f	717,6 \pm 2,80 ^c	542,7 \pm 19,9 ^d	1068,0 \pm 25,3 ^a

Values were presented as normalized area by n-tridecane (internal non-polar standard). CTRL: Control fruits. Different superscript letters (a-h) indicate statistical significance ($P < 0.05$) at the same line (mean \pm standard deviation, $n = 4$).