

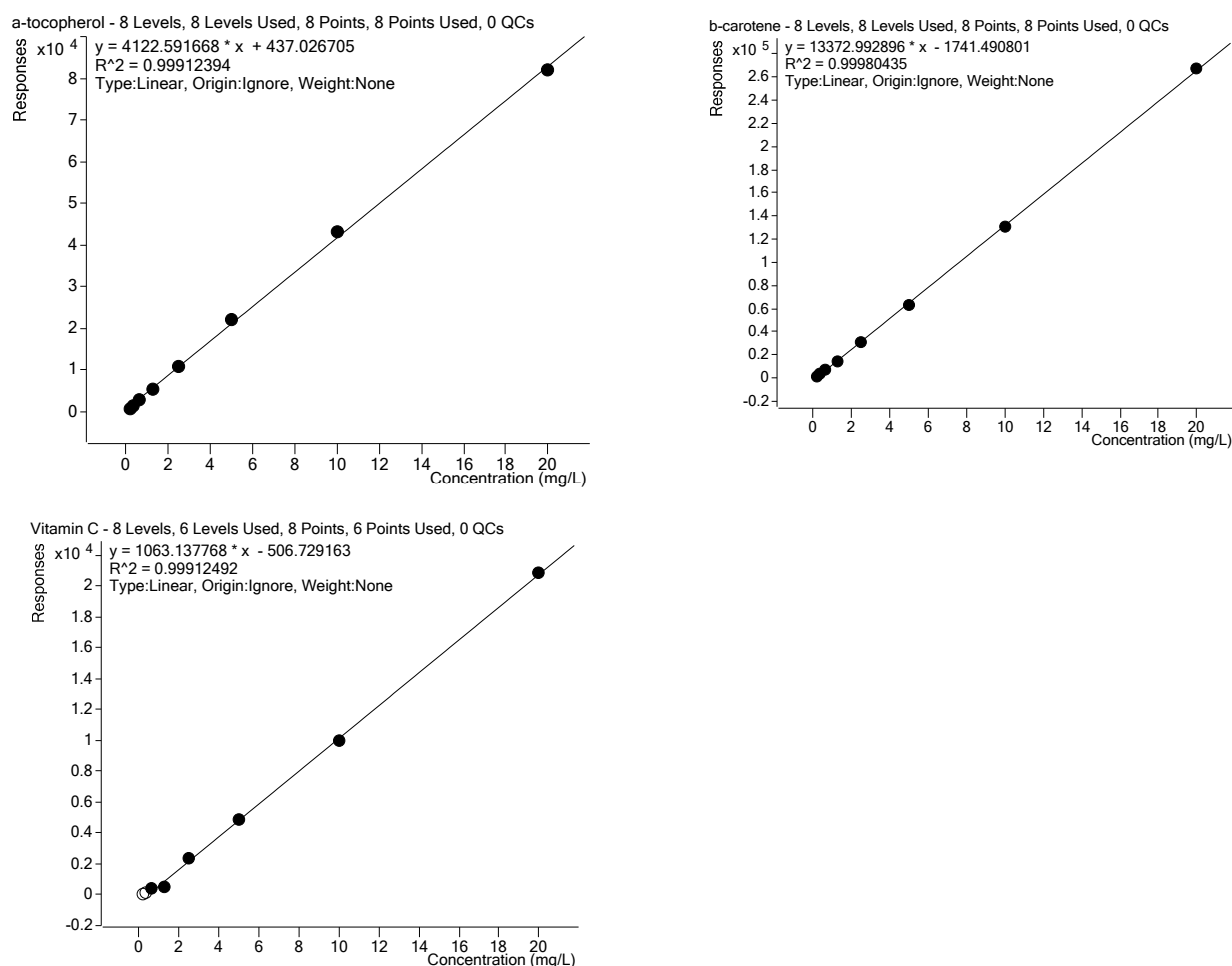


Figure S1. Standard curves of α -tocopherol, β -carotene and ascorbic acid detected in tamarillo using Agilent Chemstation Software (Agilent Technologies, Australia) for LC-MS/MS

Table S1. Pigment compounds and their relative percentage contents (%) identified in the pulp and peel of three tamarillo cultivars. The results are presented as mean $\pm$ SD and listed in the order of

bioactive groups, then retention time (RT). Alphabets indicate statistical difference ($P < 0.05$) across each row.

Pigments	RT (min)	<i>m/z</i>	Relative percentage contents (%)					
			Amber peel	Amber pulp	Laird's Large peel	Laird's Large pulp	Mulligan peel	Mulligan pulp
<i>Provitamin A carotenoids</i>								
β-Carotene	22.7	536.4	17.68 ± 4.08 ^a	45.62 ± 10.45 ^b	22.72 ± 4.02 ^a	47.23 ± 7.71 ^b	21.32 ± 4.38 ^a	49.79 ± 9.64 ^b
β-Cryptoxanthin	20.3	522.4	18.73 ± 2.85 ^a	13.61 ± 2.76 ^a	16.36 ± 4.29 ^a	16.62 ± 5.29 ^a	31.82 ± 3.3 ^b	14.02 ± 1.88 ^a
<i>Xanthophyll carotenoids</i>								
Astaxanthin	6.4	596.4	1.75 ± 0.89 ^a	0.07 ± 0.06 ^b	0.96 ± 0.58 ^{ac}	0.03 ± 0.05 ^b	0.49 ± 0.18 ^{bc}	0.18 ± 0.16 ^{bc}
Violaxanthin	9.7	600.4	3.01 ± 0.96 ^a	1.18 ± 0.56 ^a	6.79 ± 3.6 ^b	1.2 ± 0.65 ^a	6.25 ± 1.65 ^b	1.24 ± 1.01 ^a
Diadinoxanthin	11.4	583.4	1.06 ± 0.39 ^{ab}	0.62 ± 0.08 ^{ab}	1.66 ± 1.4 ^a	0.36 ± 0.22 ^b	1.44 ± 0.54 ^a	0.65 ± 0.11 ^{ab}
Antheraxanthin	11.4	584.4	11.8 ± 1.1 ^{ab}	4.95 ± 1.12 ^c	13.78 ± 5.22 ^a	5.41 ± 1.04 ^{cd}	10.31 ± 4.69 ^{abd}	6.67 ± 1.21 ^{bcd}
Dinoxanthin	12.5	642.4	0.02 ± 0.02 ^a	0.04 ± 0.03 ^a	0.03 ± 0.03 ^a	0.04 ± 0.03 ^a	0.03 ± 0.03 ^a	0.15 ± 0.13 ^b
Lutein	12.9	568.4	10.49 ± 0.74 ^a	9.76 ± 5.07 ^a	13.63 ± 6.64 ^a	8.41 ± 2.45 ^a	12.85 ± 4.55 ^a	12.58 ± 3.96 ^a
Flavoxanthin A	12.9	584.4	1.45 ± 0.64 ^{ab}	1.07 ± 0.53 ^{ab}	0.75 ± 0.57 ^a	2.36 ± 1.22 ^b	1.18 ± 0.79 ^{ab}	1.82 ± 0.23 ^{ab}
Diatoxanthin	13.0	566.4	0.27 ± 0.16 ^a	0.08 ± 0.06 ^{ab}	n.d	n.d	n.d	0.04 ± 0.04 ^b
Zeaxanthin	13.0	568.4	25.11 ± 2.11 ^a	13.47 ± 5.1 ^{bc}	16.43 ± 8.73 ^b	7.87 ± 2.02 ^c	8.63 ± 1.18 ^{bc}	12.62 ± 3.97 ^{bc}
Siphonaxanthin	17.1	600.4	1.1 ± 1 ^{ab}	0.45 ± 0.07 ^{ab}	1.64 ± 1.27 ^a	0.24 ± 0.2 ^b	0.81 ± 0.79 ^{ab}	0.11 ± 0.07 ^b
Caricaxanthin	18.2	522.4	n.d	0.05 ± 0.04 ^a	0.11 ± 0.1 ^a	n.d	n.d	n.d
Flavoxanthin B	19.0	598.4	0.46 ± 0.06 ^{ab}	0.55 ± 0.31 ^{ab}	0.45 ± 0.28 ^{ab}	1.32 ± 1.28 ^{bc}	2.03 ± 0.36 ^c	0.16 ± 0.13 ^a
Fucoxanthin	21.1	658.4	n.d	0.03 ± 0.03 ^a	n.d	0.05 ± 0.04 ^a	n.d	n.d
<i>Chlorophyll pigments</i>								
Chlorophyll A	23.3	892.5	n.d	0.26 ± 0.16 ^a	0.08 ± 0.06 ^b	0.08 ± 0.07 ^b	0.13 ± 0.11 ^{ab}	0.05 ± 0.01 ^b
Chlorophyll C1	18.5	610.2	0.84 ± 0.8 ^a	1.15 ± 0.65 ^a	4.5 ± 1.88 ^b	2.1 ± 1.83 ^a	2.62 ± 1 ^{ab}	1.46 ± 1.18 ^a
Chlorophyll C2	8.1	608.2	4.49 ± 0.12 ^a	0.11 ± 0.06 ^b	0.11 ± 0.08 ^b	0.08 ± 0.07 ^b	0.1 ± 0.06 ^b	0.06 ± 0.05 ^b
Chlorophyll C3	8.0	652.2	1.74 ± 0.87 ^a	0.05 ± 0.04 ^b	0.02 ± 0.01 ^b	0.12 ± 0.09 ^b	n.d	0.04 ± 0.02 ^b
Chlorophyll D	21.6	894.5	n.d	n.d	n.d	n.d	n.d	n.d
Phaeophytin	23.8	896.8	n.d	1.01 ± 0.44 ^a	n.d	6.46 ± 1.74 ^b	n.d	4.21 ± 2.88 ^{ab}

n.d: not detected