

Supplementary Table S1: Summary data for the absolute quantitative analysis of sixteen organic acids in tamarillo peel and pulp by derivatisation with methyl chloroformate and GC-MS.

compound	CAS	mz	RT	linear range (mg L <sup>-1</sup> )	<i>r</i> <sup>2</sup>	recovery
malonic acid	141-82-2	101	10.365	0 - 800	0.991	0.83
succinic acid	110-15-6	116	12.114	0 - 800	0.997	0.98
lactic acid	10326-41-7	131	12.265	0 - 50	0.992	0.53
fumaric acid	110-17-8	144	12.286	0 - 800	0.999	0.88
benzoic acid	65-85-0	106	12.645	0 - 200	0.991	0.77
itaconic acid	97-65-4	127	13.201	0 - 800	0.997	2.62
2-hydroxybutyric acid	5094-24-6	117	13.449	0 - 800	0.997	0.72
malic acid	97-67-6	103	14.326	0 - 800	0.999	0.87
para-toluic acid	99-94-5	119	14.506	0 - 800	0.999	1.02
adipic acid	124-04-9	144	15.325	0 - 200	0.992	0.77
trans-cinnamic acid	140-10-3	163	17.124	0 - 800	0.996	0.83
cis-aconitic acid	585-84-2	185	18.142	0 - 800	0.991	1.11
citric acid	77-92-9	153	18.931	0 - 800	0.999	1.57
3-hydroxybenzoic acid	99-06-9	210	19.684	0 - 800	0.992	0.85
vanillic acid	121-34-6	209	22.024	0 - 800	0.991	0.89
syringic acid	530-57-4	239	24.132	0 - 800	0.992	0.87



Supplementary Table S3: Raw data for organic acid content in four replicate samples of two tissues types from three tamarillo cultivars. Values in µg/gDW.

sample	adipic	malic	syringic	vanillic	succinic	fumaric	lactic	cinnamic	benzoic	citric	malonic	aconitic	toluic	hydroxybutyric	itaconic	hydroxybenzoic
Amber peel 1	0.00095093	10.416	0.0030757	0.004	0.074	0.004688	0.097	0.00031	0.000000	48.161	0.385	4.983	0.744	0.298	50.153	0.009
Amber peel 2	0.00074418	9.703	0.0008424	0.002	0.062	0.003685	0.080	0.00012	0.000000	45.635	0.300	4.841	0.737	0.323	39.533	0.007
Amber peel 3	0.00073055	10.200	0.0013790	0.003	0.074	0.004273	0.097	0.00019	0.000000	48.383	0.340	5.605	0.775	0.434	42.084	0.007
Amber peel 4	0.00076546	10.306	0.0016336	0.003	0.070	0.004905	0.099	0.00020	0.000000	50.324	0.338	6.519	0.987	0.270	54.783	0.007
Amber pulp 1	0.00013738	13.254	0.0012622	0.006	0.215	0.009536	0.061	0.00031	0.000136	69.982	0.294	12.169	2.066	0.670	110.617	0.010
Amber pulp 2		14.175	0.0014022	0.006	0.228	0.011501	0.060	0.00030	0.000155	73.095	0.286	12.663	1.982	0.153	98.323	0.011
Amber pulp 3		14.939	0.0005492	0.005	0.239	0.010645	0.063	0.00036	0.000124	72.730	0.305	12.358	1.850	0.727	102.068	0.011
Amber pulp 4	0.00002645	12.807	0.0004162	0.005	0.208	0.011641	0.054	0.00025		68.231	0.265	12.043	1.189	0.564	91.400	0.010
Mulligan peel 1	0.00149605	4.904	0.0069832	0.004	0.125	0.003657	0.143	0.00025		41.768	0.495	4.408	1.093	0.308	39.946	0.031
Mulligan peel 2	0.00137054	4.736	0.0091193	0.005	0.124	0.003146	0.137	0.00034	0.000105	40.908	0.494	4.018	1.515	0.437	33.716	0.036
Mulligan peel 3	0.00139717	4.705	0.0086945	0.005	0.124	0.003961	0.131	0.00024		40.089	0.465	4.025	1.151	0.330	31.857	0.032
Mulligan peel 4	0.00122275	4.371	0.0075969	0.004	0.123	0.003169	0.140	0.00021		37.573	0.480	3.966	1.312	0.312	30.831	0.037
Mulligan pulp 1	0.00015758	13.911	0.0020933	0.011	0.246	0.010639	0.077	0.00053	0.000346	89.677	0.245	14.327	2.699	0.765	132.017	0.085
Mulligan pulp 2	0.00007151	10.638	0.0014045	0.009	0.190	0.010039	0.058	0.00030	0.000153	69.837	0.175	11.635	2.143	0.606	80.271	0.064
Mulligan pulp 3	0.00004265	12.400	0.0022058	0.011	0.229	0.009902	0.075	0.00044	0.000266	85.970	0.217	15.069	3.182	0.885	114.809	0.086
Mulligan pulp 4	0.00020366	12.839	0.0019672	0.012	0.255	0.011680	0.075	0.00047	0.000082	79.389	0.236	14.522	2.695	0.918	105.172	0.097
Laird large peel 1	0.00052584	7.688	0.0014637	0.003	0.083	0.009229	0.109	0.00010	0.000124	75.450	0.294	12.338	1.125	0.690	114.056	0.015
Laird large peel 2	0.00046967	5.342	0.0013052	0.002	0.063	0.006124	0.086		0.000037	56.886	0.238	9.552	0.690	0.485	75.534	0.012
Laird large peel 3	0.00089326	7.317	0.0009284	0.002	0.084	0.007750	0.110	0.00008	0.000096	76.613	0.276	12.742	1.273	0.723	88.494	0.015
Laird large peel 4	0.00036318	5.092	0.0005663	0.002	0.056	0.005489	0.075	0.00007	0.000272	60.353	0.184	9.126	0.731	0.468	71.052	0.008
Laird large pulp 1	0.00000000	8.427	0.0004170	0.010	0.157	0.023112	0.041	0.00000	0.000152	83.160	0.127	15.156	0.743	1.638	110.146	0.094
Laird large pulp 2	0.00000000	5.677		0.006	0.099	0.016643	0.027	0.00000	0.000307	58.880	0.079	9.740	1.163	1.066	63.019	0.056
Laird large pulp 3	0.00000000	5.084		0.005	0.098	0.017210	0.025	0.00000	0.000443	58.969	0.072	8.940	0.902	1.003	57.308	0.044
Laird large pulp 4	0.00000000	6.376		0.006	0.112		0.031	0.00000	0.000333	71.269	0.091	11.534	0.705	1.223	81.621	0.055