Table S1. MRM transition and optimized parameters for pesticides analyzed by LC-MS/MS.

A. Positive ESI

Compound	DP (v)	EP (v)	CE (v)	CXP (v)	Q1 (g/mol)	Q2 (g/mol)	Retention Time (min)	LOQ (µg/kg)	LOD (µg/kg)
(Internal Standard) Bifenthrin D6	37.99	10	27.1	12	312.8	163.9	10.51	0.1	0.03
(Internal Standard) Triphenylphosphat	37.7	10	27.1	12	312.8	163.7	8.41	0.1	0.03
Acetamiprid	36.55	10	27.1	12	313.0	162.7	4.01	0.08	0.02
Boscalid	86	10	29	28	343	307	6.5	5	1.5
Chloranthraniliprole	51	10	27	18	484	452.9	6.5	0.14	0.04
Cyflumetofen	41	10	31	20	466.02	173	8.5	0.1	0.03
Cymoxanil	16	10	13	10	199.2	127.8	4	0.06	0.02
Diafenthiuron	86	10	27	10	385.3	329.0	9.00	0.1	0.03
Difenoconazol	81	10	35	18	406.0	250.9	8.50	0.34	0.1
Emamectin B1	26	10	121	12	886.2	82.1	9.30	4	1.2
Propamocarb	16	10	25	6	189.4	101.9	0.00	6	1.8
Pyraclostrobin	66	10	17	10	388.2	194.1	8.30	0.3	0.09
Tetraconazol	81	10	43	10	372.2	158.9	7.70	0.9	0.3
Thiamethoxam	36	10	17	18	292.2	211.1	2.00	0.05	0.02
Thiocyclam	51	10	23	8	182.0	136.7	4.70	2	0.6

B. Negative ESI

Compound	DP (v)	EP (v)	CE (v)	CXP (v)	Q1 (g/mol)	Q2 (g/mol)	Retention Time (min)	LOQ (µg/kg)	LOD (µg/kg)
CAP (Internal Standard)	-65.0	-10.0	-24.0	-11.0	321.0	152.1	3.50	0.1	0.03
(Internal Standard) Diuron D6	-135.0	-10.0	-26.0	-13.0	236.9	185.8	3.80	0.1	0.03
Novaluron	-55.0	-10.0	-18.0	-21.0	490.9	471.0	4.20	0.15	0.05

Table S2. MRM transition and optimized parameters for the pesticides analyzed by GC-MS/MS with positive EI ionization.

Compound	Precursor Ion (g/mol)	Product Ion (g/mol)	Dwell time (msec)	Collision Energy (v)	Retention time (min)	LOQ (µg/kg)	LOD (µg/kg)
Chlorthalonil	265.9	231	10	15	14.79	14	4.2
Chlorfenapyr	247	227	10	15	25.27	10	3

Table S3. Linear regression F-test of peel to pulp pesticide amount ratio vs time[a] and an unpaired two-way student t-test for comparing between two linear regressions.

	Slope Coefficients[b]	R^{2c}	Critical *F value*[d]	P-value[e]	Unpaired two-way t-test[f]
Boscalid					
sweet cherry tomatoes	-0.027	0.013	0.027	0.88	p > 0.05, NS[g]
salty cherry tomatoes	0.16	0.82	9.39	0.09	
Chloranthraniliprole					
sweet cherry tomatoes	-0.045	0.93	23.9	0.039*	p > 0.05, NS
salty cherry tomatoes	-0.11	0.91	19.6	0.047*	
Cyflumethofen					
sweet cherry tomatoes	-149.8	0.98	192.8	0.005*	p > 0.05, NS
salty cherry tomatoes	-218.3	0.98	137.01	0.007*	
Cymoxanil					
sweet cherry tomatoes	0.035	0.51	2.14	0.28	p > 0.05, NS
salty cherry tomatoes	0.025	0.46	1.73	0.31	
Difenconazole					
sweet cherry tomatoes	0.2	0.15	0.34	0.61	p > 0.05, NS
salty cherry tomatoes	0.03	0.006	0.01	0.91	
Novaluron					
sweet cherry tomatoes	0.56	0.97	70.8	0.01	p > 0.05, NS
salty cherry tomatoes	1.76	0.76	6.4	0.12	
Pyraclostrobin					
sweet cherry tomatoes	7.5	0.94	35.8	0.027*	p > 0.05, NS
salty cherry tomatoes	10.6	0.91	20.3	0.045*	
Tetraconazole					
sweet cherry tomatoes	-0.13	0.95	44.5	0.022*	p > 0.05, NS
salty cherry tomatoes	-0.08	0.92	25.4	0.037*	

[a]The null hypothesis states, that the linear slope of peel/pulp pesticide amount ratio vs. time equals zero. The F-test enables to determine, whether the slope is significantly different form zero. For calculated p value > 0.05, the linear slope was statistically defined as zero.
[b]Linear slope
[c]R^2, coefficient of determination.
[d]F statistics, test statistic for testing the statistical significance of the model.
[e]P-value; when the calculated p value is above the significance level of 0.05, then the null hypothesis is accepted as true, hence, the linear slope equals to zero.
[f]Unpaired two-way t-test for determining whether the slopes and intercepts of fresh vs. salty cherry tomato linear regressions are identical. For calculated p value > 0.05, the linear regressions are considered identical.
[g]NS, non-significant.
[*]Indicates significant deviation from zero slope.