

Supplementary Materials to the Article:

# Bioactive Compounds, Sugars and Sensory Attributes of Organic and Conventionally Produced Courgette (*Cucurbita pepo*)

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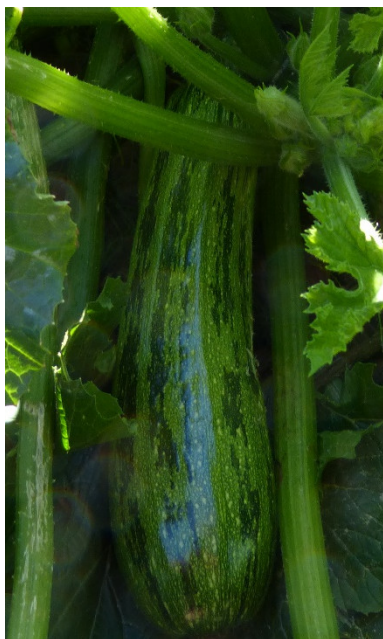
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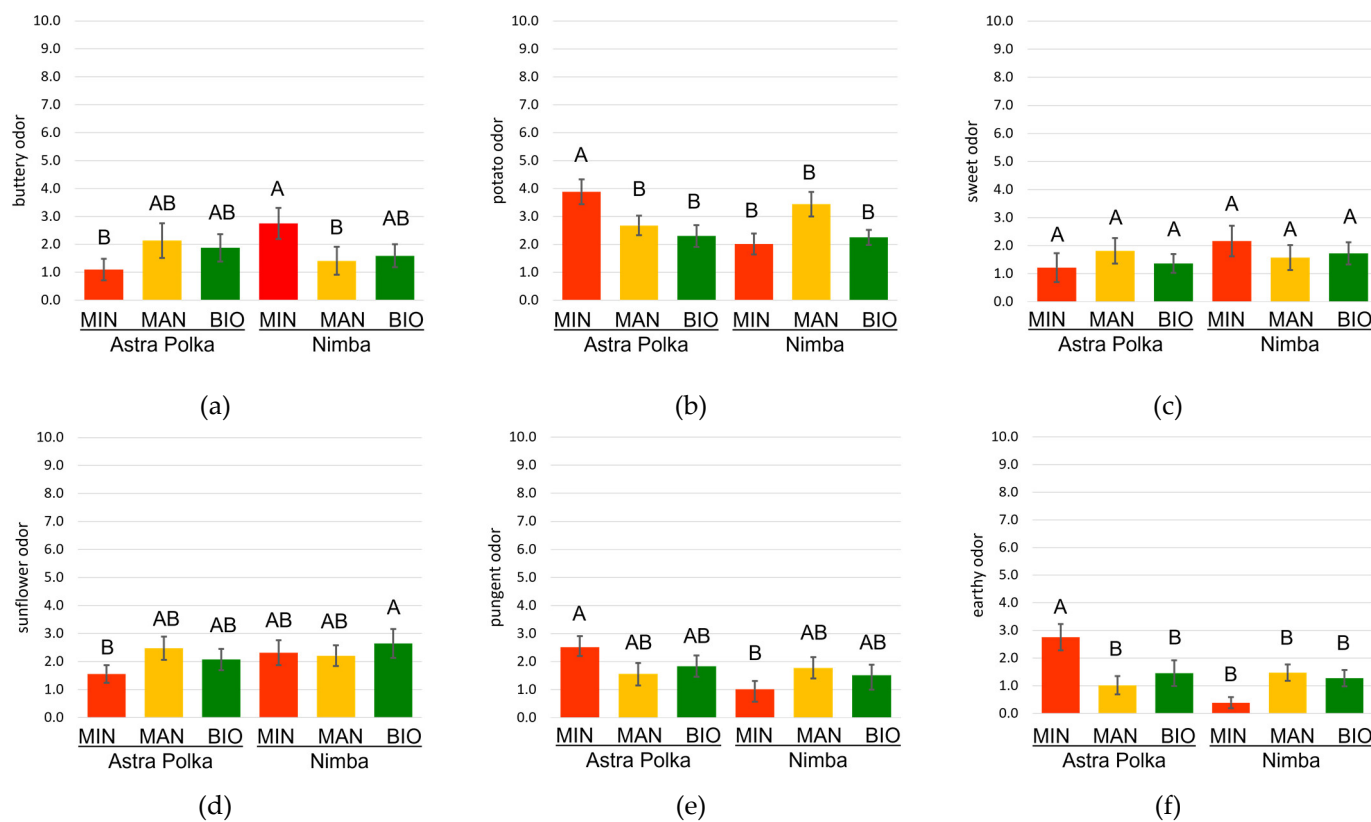


(a)

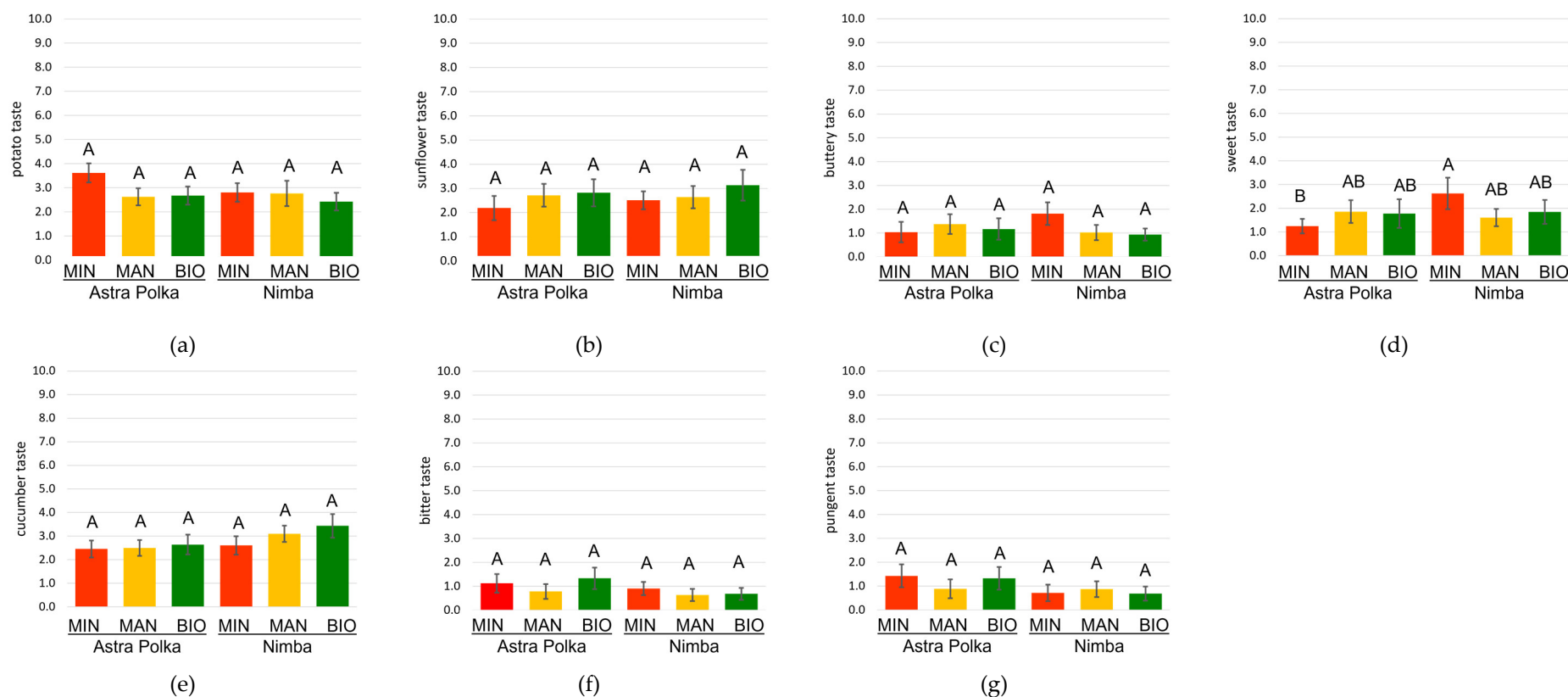


(b)

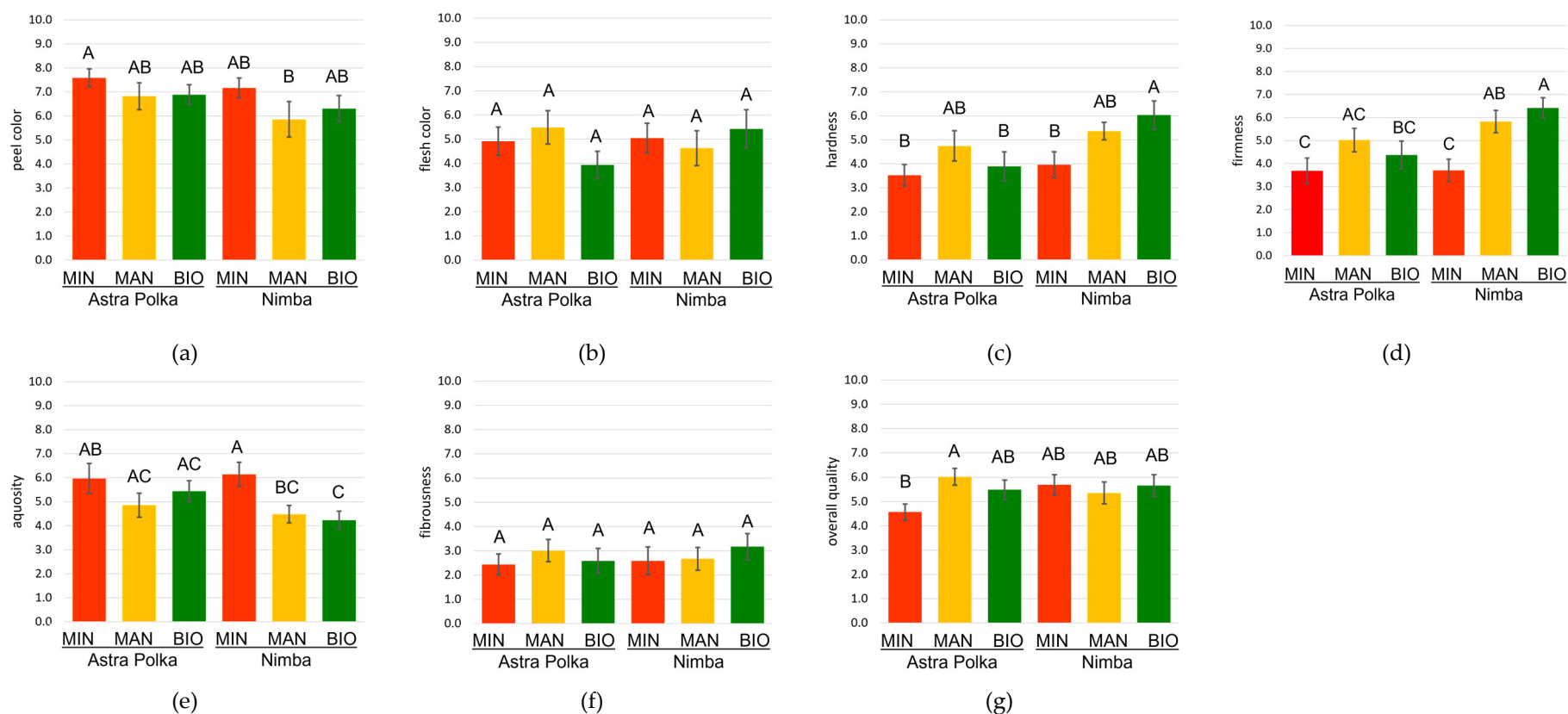
**Figure S1.** Courgette fruits of two cultivar: (a) Nimba and (b) Astra Polka.



**Figure S2.** Odor attributes of the courgette fruits of Astra Polka and Nimba cultivars grown in the horticultural system based on commercial organic fertilizer (BIO), manure (MAN) or mineral fertilizer (MIN): (a) buttery odor, (b) potato odor, (c) sweet odor, (d) sunflower odor, (e) pungent odor and (f) earthy odor. Data are presented as means and standard errors. Within each figure, bars marked with the same capital letters are not significantly different at the 5% level of probability (Tukey's test between all cultivar-fertilization groups together).



**Figure S3.** Taste attributes of the courgette fruits of Astra Polka and Nimba cultivars grown in the horticultural system based on commercial organic fertilizer (BIO), manure (MAN) or mineral fertilizer (MIN): (a) potato taste, (b) sunflower taste, (c) buttery taste, (d) sweet taste, (e) cucumber taste, (f) bitter taste and (g) pungent taste. Data are presented as means and standard errors. Within each figure, bars marked with the same capital letters are not significantly different at the 5% level of probability (Tukey's test between all cultivar-fertilization groups together).



**Figure S4.** Texture and appearance attributes and overall quality assessment of the courgette fruits of Astra Polka and Nimba cultivars grown in the horticultural system based on commercial organic fertilizer (BIO), manure (MAN) or mineral fertilizer (MIN): (a) peel color, (b) flesh color, (c) hardness, (d) firmness, (e) aqueosity, (f) fibrousness and (g) overall quality. Data are presented as means and standard errors. Within each figure, bars marked with the same capital letters are not significantly different at the 5% level of probability (Tukey's test between all cultivar-fertilization group together).

**Table S1.** The retention time of the metabolic features, the ratio of the atomic mass to the number of elementary ion charges ( $m/z$ ) and statistical parameters:  $t$ -value (coefficient indicating the direction of differences in the  $m/z$  values),  $p$ -value (the significance of differences in the  $m/z$  values), fold change (the ratio of the  $m/z$  values of a given metabolic feature) in fruits representing different cultivars and grown in different horticultural systems.

Retention time	$m/z$	$t$ -value	$p$ -value	Fold change
Compared samples: Nimba to Astra Polka				
1.67	188.0706	4.571	0.0006	3.53
36.59	542.3132	-3.762	0.0018	0.41
39.90	599.4278	-4.950	0.0005	0.31
40.85	306.2764	6.456	0.0000	4.52
40.85	284.2944	4.955	0.0003	2.64
43.43	567.4170	-4.215	0.0009	0.48
45.25	774.5569	-5.646	0.0002	0.17
45.25	653.4697	-3.776	0.0017	0.41
45.26	756.5466	-4.879	0.0009	0.12
48.13	754.5295	4.770	0.0003	2.31
Compared samples: conventional (mineral fertilizer) to organic (commercial organic fertilizer)				
29.07	359.2393	7.426	0.0004	5.46
38.62	353.2624	11.102	0.0000	8.70
39.32	573.4843	7.130	0.0004	7.12
43.71	693.4462	15.653	0.0000	16.32
44.90	393.2744	38.584	0.0000	243.30
51.39	693.4370	7.362	0.0001	3.60
51.83	668.6488	-5.532	0.0003	0.58
52.40	931.5735	-4.938	0.0007	0.54
53.33	575.4946	8.164	0.0000	5.45
53.56	791.6271	5.664	0.0006	5.36
Compared samples: conventional (mineral fertilizer) to organic (manure)				
23.43	349.1980	7.987	0.0002	23.62
29.07	359.2393	7.872	0.0004	6.51
36.97	353.2662	-9.542	0.0002	0.00
39.33	393.2399	-6.019	0.0002	0.18
41.82	551.4982	-10.052	0.0001	0.03
43.71	693.4462	15.833	0.0000	13.81
45.14	445.3641	-5.321	0.0004	0.56
46.37	714.5465	-5.389	0.0005	0.55
51.38	721.4680	-10.602	0.0001	0.05
51.39	693.4370	7.292	0.0002	3.28
Compared samples: organic (manure) to organic (commercial organic fertilizer)				
36.96	376.2514	5.333	0.0006	3.30
36.97	353.2662	6.243	0.0003	3.78
36.99	391.2155	6.233	0.0004	2.86
39.33	393.2399	5.239	0.0004	5.17
40.04	433.2291	5.420	0.0003	4.23
41.82	551.4982	8.002	0.0000	10.47
50.38	672.4640	4.668	0.0009	2.44
51.38	721.4680	4.835	0.0009	3.61
52.42	899.5592	-4.746	0.0013	0.35
53.79	837.6452	4.546	0.0011	2.01