Electronic Supplementary Material (ESI) for Food & Function.

Table S1. Chemical and physicochemical characterization of orange by-products and citrus pectin.

Parameter	FOR*	DOR*	OL*	AF*	CP
Dry matter (DM) (g/100 g)	88.53±0.05c	87.01±0.01b	31.02±0.09a	88.10±0.06c	99.49±0.04d
Fat (g/100 g DM)	0.90±0.00b	1.24±0.00c	0.11±0.00a	1.73±0.00d	n.d.
Protein (g/100 g DM)	5.89±0.08b	6.31±0.01b	6.00±0.05b	6.13±0.04b	0.97±0.01a
Total carbohydrates (g/100 g DM)	79.84±0.07c	74.22±0.02b	20.67±0.03a	75.34±0.06b	98.35±0.03d
Reducing carbohydrates (g/100 g DM)	3.91±0.03b	4.86±0.01c	7.03±0.05d	8.21±0.04e	1.79±0.01a
TDF (g/100 g DM)	46.07±0.02b	67.42±0.00d	2.00±0.03a	57.69±0.09c	96.58±0.12e
IDF (g/100 g DM)	22.60±0.02b	62.48±0.00d	0.25±0.00a	45.22±0.01c	n.d.
SDF (g/100 g DM)	23.47±0.04d	4.94±0.00b	1.75±0.02a	12.46±0.10c	96.58±0.12e
Main minerals (g/100 g DM)	1.72b	4.66d	4.08c	4.44cd	0.15a
Total phenols (mg GAE/100 g)	211.9±0.36e	145.5±0.47d	115.6±0.52c	90.2±0.73b	0.1±0.01a
AC DPPH (mM of trolox/100 g)	23.3±0.50c	22.4±0.40b	21.6±0.30a	21.0±0.40a	n.d.
2-FM-Lys Furosine (mg/100 g of protein)	9.0±0.14a	182.1±2.35c	19.5±0.35b	455.1±3.07d	827.4±8.60e

Results are expressed in dry matter (DM). FOR: fresh orange residue, DOR: dry orange residue, OL: orange liqueur, AF: animal feed, CP: citrus pectin. TDF: Total dietary fiber, IDF: Insoluble dietary fiber, SDF: soluble dietary fiber, AC: antioxidant capacity. n.d.: not detected. Means with different letters a-d, denote significant difference ($P < 0.05$) in the same file.

*Data according to Pacheco et al.[27]

Table S2. Monosaccharides derived from polysaccharides present in orange by-products (g kg^{-1} DM) and citrus pectin analyzed by GC-FID after TFA hydrolysis and subsequent TMS-oxime formation.

Monosaccharide	FOR*	DOR*	OL*	AF*	CP
Xylose	38.7±0.16c	43.3±0.41	5.2±0.05a	43.5±0.42d	25.14±0.18b
Arabinose	48.9±0.43d	51.5±0.22d	6.8±0.06b	1.7±0.02a	31.82±0.14c
Rhamnose	23.3±0.17b	27.2±0.13b	5.9±0.03a	24.2±0.19b	45.17±0.50c
Galactose	79.7±0.41b	62.5±0.27a	280.8±1.35d	83.4±0.74b	110.96±0.95c
Mannose	51.7±0.41c	59.0±0.24d	33.7±0.18b	52.2±0.48c	2.95±0.02a
Glucose	194.3±0.59d	68.7±0.29b	173.4±0.93c	161.3±0.91c	9.82±0.09a
Galacturonic acid	160.7±0.90d	85.8±0.17b	7.9±0.07a	101.8±0.75c	755.14±5.41e

Results are expressed in dry matter (DM). FOR: fresh orange residue. DOR: dry orange residue. OL: orange liqueur. AF: animal feed. CP: citrus pectin. Means with different letters a-d denote significant difference ($P < 0.05$) in the same file.

* Data according to Pacheco et al.[27]

Reference of electronic supplementary information (ESI):

27. M. T. Pacheco, F. J. Moreno and M. Villamiel, Chemical and physicochemical characterization of orange by-products derived from industry.

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