Supplementary Information (SI) for Sustainable Food Technology. This journal is © The Royal Society of Chemistry 2024

## 1 Supplementary material

- 2 Table S1. Change in (A) reducing sugar content (g/100 g), (B) total phenolic content (mg GAE/100
- 3 g), and (C) DPPH antioxidant activity (mg TE/100 g) of CPH pulp-substituted mango jam during
- 4 storage. Notes: Mx\_y, where x is the substitution ratio (%) of CPH pulp and y is the amount of
- 5 commercial pectin in the formulation.
- 6 Table S2. Textural properties of CPH pulp-substituted mango jam after 1-week storage.
- 7 Table S3. Microbiological qualities of CPH pulp-substituted mango jam after 4-week storage.

9 Table S1. Change in (A) reducing sugar content (g/100 g), (B) total phenolic content (mg GAE/100

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Week	CPH pulp-substituted mango jam (Mx_y)*									
	M0_1.5	M25_1.5	M25_0	M50_1.5	M50_0					
	Total phenolic content (mg GAE/100 g)									
0	$31.91 \pm 1.96 aA$	$96.1 \pm 1.51 bA$	$112.15\pm4.27\text{cA}$	$125.28\pm3.09\text{dA}$	$117.44 \pm 3.26$ cA					
1	$24.4\pm0.85aB$	$61.93 \pm 2.58 bB$	$104.9 \pm 4.89 cA$	$115.32\pm2.39 dB$	$120.45\pm4.97 dB$					
2	$18.93 \pm 0.61 a C$	$65.33\pm2.71bB$	$91.9\pm3.03\text{cB}$	$108.45\pm2.25dC$	$105.09 \pm 2.19 dC$					
4	$18.39\pm0.25aC$	$66.15\pm1.03bB$	$87.72\pm3.91 \text{cB}$	$93.34\pm0.07\text{cD}$	$110.87 \pm 3.04 aAB$					
DPPH (mg TE/100 g)										
0	$57.76 \pm 2.42 a A$	$73.30 \pm 1.09 bA$	$79.71 \pm 1.66 cA$	$81.18\pm2.24 cdA$	$83.08\pm0.83\text{dA}$					
1	$45.07 \pm 1.35 aB$	$59.93 \pm 0.70 bB$	$73.23 \pm 1.95 \text{cB}$	$82.09 \pm 4.01 \text{dA}$	$80.91 \pm 1.93 \text{dA}$					
2	$16.39\pm0.38aC$	$28.15 \pm 1.39 bC$	$31.59 \pm 1.60 \text{cC}$	$22.69\pm0.72dB$	$22.72\pm0.23 dB$					
4	$21.13\pm0.54aD$	$32.87\pm0.98 bD$	$32.87 \pm 1.12 bC$	$22.77\pm0.74aB$	$25.03\pm0.91\text{cB}$					
Reducing sugar (g/100 g)										
0	$19.20\pm0.24aA$	$21.69\pm0.93 bA$	$27.18 \pm 0.26 \text{cA}$	$25.25\pm0.76\text{dA}$	$24.28\pm0.45\text{dA}$					
1	$45.24\pm2.11aB$	$27.18\pm0.27bB$	$65.56 \pm 1.27 \text{cB}$	$70.13\pm0.09 dB$	$63.25\pm0.07\text{cB}$					
2	$48.75\pm0.44aC$	$56.47 \pm 2.30 bC$	$57.86 \pm 0.37 bcC$	$50.50 \pm 1.59 aC$	$59.08 \pm 0.60 \text{cC}$					
4	$50.22 \pm 0.66 aC$	64.17 ± 3.78bD	$63.43 \pm 2.29 \text{bB}$	$60.39 \pm 3.43 \text{bD}$	$49.96 \pm 0.27 aD$					

Notes: Data are presented as mean  $\pm$  standard deviation of triplicates. In addition, for each quality attributes, values within the same rows with different lowercase letters and values within the same column with different uppercase letters represent significant difference (p < 0.05).

\*Mx\_y, where x is the substitution ratio (%) of CPH pulp and y is the amount of commercial pectin in the formulation.

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	M0_1.5	M25_1.5	M25_0	M50_1.5	M50_0			
Hardness (g)	$25.00\pm3.61a$	$32.33\pm0.58b$	$16.50\pm0.71\text{c}$	$29.67\pm0.58b$	$14.50\pm0.71\text{c}$			
Adhesiveness (mJ)	$0.15\pm0.07a$	$0.80\pm0.01b$	$0.85\pm0.07b$	$0.90\pm0.01b$	$1.25\pm0.07\text{c}$			
Springiness (mm)	$3.15\pm0.13a$	$3.48\pm0.10a$	$2.60\pm0.02a$	$3.84\pm0.23b$	$1.57\pm0.24b$			

CPH pulp-substituted mango jam (Mx y)\*

Notes: Data are presented as mean  $\pm$  standard deviation of triplicates. In addition, for each quality attributes, values within the same rows with different lowercase letters and values within the same column with different uppercase letters represent significant difference (p < 0.05).

\*Mx\_y, where x is the substitution ratio (%) of CPH pulp and y is the amount of commercial pectin in the formulation.

## 17 Table S3. Microbiological qualities of CPH pulp-substituted mango jam after 4-week storage.

Migrapiological attribute (CEU/g)	CPH-substituted mango jam (Mx_y)*					
Microbiological attribute (CFO/g)	M0_1.5	M25_1.5	M25_0	M50_1.5	M50_0	
Total plate count	n.d.	n.d.	101	n.d.	101	
E. coli	n.d.	n.d.	n.d.	n.d.	n.d.	
Coliforms	n.d.	n.d.	n.d.	n.d.	n.d.	
Total yeasts and molds	101	101	$2 \times 10^{1}$	101	n.d.	

ubstituted manage ison (Mr. 11)\*

Notes: n.d. – not detected.

\*Mx\_y, where x is the substitution ratio (%) of CPH pulp and y is the amount of commercial pectin in the formulation.

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