

# Supplementary Materials: Effect of Pectin/Nanochitosan-Based Coatings and Storage Temperature on Shelf-life Extension of “Elephant” Mango (*Mangifera Indica L.*) Fruit

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## 1. Effect of coating on shelf life and some quality traits of mango fruits

**Table S1.** Effect of coating on the weight loss of mango fruits.

Storage time (day)	Weight loss (%)					
	0	3	6	9	12	15
Uncoated	0	6.9 <sup>e</sup> ± 0.8	16.4 <sup>e</sup> ± 1.2	21.8 <sup>e</sup> ± 1.3		
0.75%NaCS	0	5.6 <sup>d</sup> ± 0.3	8.9 <sup>d</sup> ± 0.4	12.9 <sup>d</sup> ± 0.5	16.5 <sup>e</sup> ± 0.7	
1%NaCS	0	4.5 <sup>c</sup> ± 0.2	7.2 <sup>c</sup> ± 0.3	10.2 <sup>c</sup> ± 0.4	13.8 <sup>d</sup> ± 0.5	
1.25%NaCS	0	3.3 <sup>a</sup> ± 0.2	6.0 <sup>b</sup> ± 0.3	9.0 <sup>b</sup> ± 0.4	12.8 <sup>c</sup> ± 0.5	15.8 <sup>b</sup> ± 0.8
1.5%P/NaCS	0	3.2 <sup>a</sup> ± 0.1	6.3 <sup>b</sup> ± 0.2	9.3 <sup>bc</sup> ± 0.5	12.2 <sup>c</sup> ± 0.6	
2%P/NaCS	0	2.2 <sup>a</sup> ± 0.2	4.1 <sup>a</sup> ± 0.1	7.1 <sup>a</sup> ± 0.3	9.6 <sup>b</sup> ± 0.4	12.5 <sup>a</sup> ± 0.9
2.5%P/NaCS	0	2.2 <sup>a</sup> ± 0.2	4.4 <sup>a</sup> ± 0.3	6.4 <sup>a</sup> ± 0.2	8.5 <sup>a</sup> ± 0.2	11.2 <sup>a</sup> ± 0.6

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ).

**Table S2.** Effect of coating on firmness of mango fruits.

Storage time (day)	Firmness (N)					
	0	3	6	9	12	15
Uncoated	31.2 <sup>aD</sup> ± 1.5	14.2 <sup>aC</sup> ± 1.3	4.4 <sup>aB</sup> ± 0.9	0.9 <sup>aA</sup> ± 0.2		
0.75%NaCS	30.4 <sup>aE</sup> ± 1.3	18.6 <sup>bD</sup> ± 1.2	10.6 <sup>bC</sup> ± 0.9	5.3 <sup>bB</sup> ± 0.4	0.5 <sup>aA</sup> ± 0.2	
1%NaCS	31.8 <sup>aE</sup> ± 1.5	20.6 <sup>bcD</sup> ± 1.4	14.5 <sup>cC</sup> ± 1.1	7.6 <sup>cB</sup> ± 0.9	1.4 <sup>aA</sup> ± 0.5	
1.25%NaCS	31.2 <sup>aF</sup> ± 1.6	23.1 <sup>dE</sup> ± 1.3	19.5 <sup>dD</sup> ± 1.2	15.3 <sup>dC</sup> ± 1.0	6.8 <sup>bB</sup> ± 0.8	3.5 <sup>bA</sup> ± 0.4
1.5%P/NaCS	30.4 <sup>aE</sup> ± 1.3	22.5 <sup>cdD</sup> ± 1.2	16.5 <sup>cC</sup> ± 1.3	6.4 <sup>bcB</sup> ± 0.9	1.3 <sup>aA</sup> ± 0.1	
2%P/NaCS	31.8 <sup>aF</sup> ± 1.5	23.6 <sup>deE</sup> ± 1.7	18.7 <sup>dD</sup> ± 1.1	15.4 <sup>dC</sup> ± 0.7	7.5 <sup>bB</sup> ± 0.4	0.9 <sup>aA</sup> ± 0.4
2.5%P/NaCS	31.2 <sup>aF</sup> ± 1.6	25.8 <sup>eE</sup> ± 1.1	23.1 <sup>eD</sup> ± 1.4	19.9 <sup>eC</sup> ± 0.9	10.9 <sup>cB</sup> ± 0.6	7.0 <sup>cA</sup> ± 0.4

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S3.** Effect of coating on color ( $L^*$ ) of mango fruits.

Storage time (day)	$L^*$ of mango peel					
	0	3	6	9	12	15
<b>Uncoated</b>	53.4 <sup>aB</sup> ± 3.1	54.8 <sup>aB</sup> ± 2.8	55.8 <sup>aA</sup> ± 4.1	72.1 <sup>eA</sup> ± 2.9		
0.75%NaCS	53.4 <sup>aB</sup> ± 3.3	53.9 <sup>aB</sup> ± 2.9	55.1 <sup>aAB</sup> ± 2.8	64.5 <sup>dAB</sup> ± 3.1	68.2 <sup>cA</sup> ± 3.1	
1%NaCS <sup>ns</sup>	53.4 <sup>aA</sup> ± 2.9	52.6 <sup>aA</sup> ± 2.6	54.8 <sup>aA</sup> ± 2.8	59.5 <sup>cA</sup> ± 3.1	62.8 <sup>dA</sup> ± 3.3	
1.25%NaCS	53.4 <sup>aAB</sup> ± 2.7	52.9 <sup>aA</sup> ± 2.9	53.5 <sup>aAB</sup> ± 3.1	57.4 <sup>bcAB</sup> ± 3.2	59.9 <sup>bcB</sup> ± 3.4	63.4 <sup>bA</sup> ± 2.9
1.5%P/NaCS	53.4 <sup>aA</sup> ± 3.1	54.1 <sup>aAB</sup> ± 2.3	55.0 <sup>aB</sup> ± 2.6	58.7 <sup>bcAB</sup> ± 2.8	62.1 <sup>cAB</sup> ± 2.3	
2%P/NaCS	53.4 <sup>aA</sup> ± 3.1	55.2 <sup>aAB</sup> ± 2.6	54.2 <sup>aAB</sup> ± 2.7	53.5 <sup>abBC</sup> ± 2.3	56.7 <sup>bC</sup> ± 2.6	59.1 <sup>bC</sup> ± 3.0
2.5%P/NaCS	53.4 <sup>aB</sup> ± 3.1	53.1 <sup>aB</sup> ± 2.5	51.5 <sup>aBC</sup> ± 2.6	50.4 <sup>aC</sup> ± 2.4	47.6 <sup>aB</sup> ± 2.1	36.4 <sup>aA</sup> ± 2.3

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S4.** Effect of coating on color ( $a^*$ ) of mango fruits.

Storage time (day)	$a^*$ of mango peel					
	0	3	6	9	12	15
<b>Uncoated</b>	-19.1 <sup>aA</sup> ± 3.1	-17.2 <sup>aA</sup> ± 2.8	-13.2 <sup>aA</sup> ± 4.1	2.3 <sup>aB</sup> ± 2.9		
0.75%NaCS	-19.1 <sup>aA</sup> ± 3.3	-17.5 <sup>aA</sup> ± 2.9	-14.1 <sup>aA</sup> ± 2.8	-5.2 <sup>bB</sup> ± 3.1	2.1 <sup>bcC</sup> ± 3.1	
1%NaCS	-19.1 <sup>aA</sup> ± 2.9	-18.1 <sup>aA</sup> ± 2.6	-15.1 <sup>aA</sup> ± 2.8	-6.3 <sup>bC</sup> ± 3.1	-0.1 <sup>bD</sup> ± 3.3	
1.25%NaCS	-19.1 <sup>aA</sup> ± 2.7	-18.2 <sup>aA</sup> ± 2.9	-15.9 <sup>aA</sup> ± 3.1	-7.4 <sup>bB</sup> ± 3.2	-0.8 <sup>bB</sup> ± 3.4	1.2 <sup>bB</sup> ± 2.9
1.5%P/NaCS	-19.1 <sup>aA</sup> ± 3.1	-18.0 <sup>aA</sup> ± 2.3	-14.9 <sup>aA</sup> ± 2.6	-7.9 <sup>bB</sup> ± 2.8	5.7 <sup>cC</sup> ± 2.3	
2%P/NaCS	-19.1 <sup>aA</sup> ± 3.1	-18.4 <sup>aA</sup> ± 2.6	-17.1 <sup>aA</sup> ± 2.7	-16.2 <sup>aA</sup> ± 2.3	-8.3 <sup>aB</sup> ± 2.6	-6.7 <sup>aB</sup> ± 3.0
2.5%P/NaCS	-19.1 <sup>aA</sup> ± 3.1	-16.6 <sup>aAB</sup> ± 2.5	-12.3 <sup>aB</sup> ± 2.6	-3.4 <sup>bC</sup> ± 2.4	0.4 <sup>bcCD</sup> ± 2.1	2.4 <sup>bD</sup> ± 2.3

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S5.** Effect of coating on color ( $b^*$ ) of mango fruits.

Storage time (day)	$b^*$ of mango peel					
	0	3	6	9	12	15
<b>Uncoated</b>	27.7 <sup>aA</sup> ± 3.1	39.7 <sup>cB</sup> ± 2.8	52.3 <sup>dC</sup> ± 4.1	33.3 <sup>aA</sup> ± 2.9		
0.75%NaCS	27.7 <sup>aA</sup> ± 3.3	35.2 <sup>bcB</sup> ± 2.9	53.4 <sup>dC</sup> ± 2.8	62.3 <sup>dD</sup> ± 3.1	51.3 <sup>abC</sup> ± 3.1	
1%NaCS	27.7 <sup>aA</sup> ± 2.9	32.2 <sup>abA</sup> ± 2.6	45.5 <sup>cB</sup> ± 2.8	52.3 <sup>cC</sup> ± 3.1	48.9 <sup>abBC</sup> ± 3.3	
1.25%NaCS	27.7 <sup>aA</sup> ± 2.7	31.2 <sup>abAB</sup> ± 2.9	39.5 <sup>bABC</sup> ± 3.1	47.2 <sup>bc</sup> ± 3.2	69.5 <sup>cD</sup> ± 18.8	45.6 <sup>bBC</sup> ± 2.9
1.5%P/NaCS	27.7 <sup>aA</sup> ± 3.1	29.1 <sup>aAB</sup> ± 2.3	32.5 <sup>aAB</sup> ± 2.6	34.1 <sup>aB</sup> ± 2.8	59.0 <sup>bcC</sup> ± 2.3	
2%P/NaCS	27.7 <sup>aA</sup> ± 3.1	28.8 <sup>aA</sup> ± 2.6	31.5 <sup>aAB</sup> ± 2.7	34.6 <sup>aB</sup> ± 2.4	46.4 <sup>abC</sup> ± 2.6	59.0 <sup>cD</sup> ± 3.0
2.5%P/NaCS	27.7 <sup>aB</sup> ± 3.1	30.5 <sup>abBC</sup> ± 2.5	35.0 <sup>abCD</sup> ± 2.6	35.2 <sup>aD</sup> ± 2.4	38.6 <sup>aD</sup> ± 2.1	13.3 <sup>aA</sup> ± 2.4

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S6.** Effect of coating on hue angle of mango fruits.

Storage time (day)	hue of mango peel					
	0	3	6	9	12	15
<b>Uncoated</b>	113.6 <sup>a</sup> ± 4.2	89.1 <sup>a</sup> ± 3.8	80.6 <sup>a</sup> ± 5.1	74.8 <sup>a</sup> ± 3.9		
0.75%NaCS	113.6 <sup>a</sup> ± 4.2	95.5 <sup>ab</sup> ± 3.9	87.2 <sup>ab</sup> ± 3.8	79.2 <sup>ab</sup> ± 4.1	63.4 <sup>a</sup> ± 4.1	
1%NaCS	113.6 <sup>a</sup> ± 4.2	101.5 <sup>bc</sup> ± 3.6	90.4 <sup>bc</sup> ± 3.9	79.9 <sup>ab</sup> ± 4.1	68.2 <sup>a</sup> ± 4.1	
1.25%NaCS	113.6 <sup>aD</sup> ± 4.2	108.6 <sup>dD</sup> ± 3.9	96.8 <sup>cC</sup> ± 4.1	85.6 <sup>bC</sup> ± 4.2	79.9 <sup>bAB</sup> ± 4.4	74.1 <sup>bA</sup> ± 3.9
1.5%P/NaCS	113.6 <sup>aD</sup> ± 4.2	105.3 <sup>cdC</sup> ± 4.3	93.6 <sup>bcb</sup> ± 3.6	88.6 <sup>cdb</sup> ± 3.8	79.2 <sup>bA</sup> ± 4.3	
2%P/NaCS	113.6 <sup>aC</sup> ± 4.2	110.4 <sup>dC</sup> ± 3.6	96.1 <sup>cB</sup> ± 3.8	94.0 <sup>dAB</sup> ± 4.3	90.9 <sup>cAB</sup> ± 3.6	86.7 <sup>cA</sup> ± 4.0
2.5%P/NaCS	113.6 <sup>aE</sup> ± 4.2	100.1 <sup>bcD</sup> ± 3.5	95.2 <sup>cD</sup> ± 3.6	80.3 <sup>abC</sup> ± 3.4	64.1 <sup>aB</sup> ± 4.1	56.8 <sup>aA</sup> ± 4.3

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S7.** Effect of coating on color ( $L^*$ ) of mango flesh.

Storage time (day)	$L^*$ of mango flesh					
	0	3	6	9	12	15
<b>Uncoated</b>	75.1 <sup>aB</sup> ± 3.5	77.0 <sup>aB</sup> ± 3.4	61.2 <sup>aA</sup> ± 2.8	59.9 <sup>aA</sup> ± 2.7		
0.75%NaCS	75.1 <sup>aB</sup> ± 3.5	76.8 <sup>aB</sup> ± 3.2	72.6 <sup>bAB</sup> ± 3.9	70.6 <sup>bAB</sup> ± 3.6	67.5 <sup>aA</sup> ± 3.5	
1%NaCS	76.8 <sup>A</sup> ± 3.4	76.2 <sup>aA</sup> ± 3.6	76.9 <sup>bca</sup> ± 3.8	80.6 <sup>cA</sup> ± 3.7	76.9 <sup>bA</sup> ± 4.0	
1.25%NaCS	76.8 <sup>aAB</sup> ± 3.4	75.6 <sup>aA</sup> ± 3.9	77.9 <sup>bcaB</sup> ± 3.8	80.3 <sup>cAB</sup> ± 4.0	83.6 <sup>bCB</sup> ± 3.8	75.9 <sup>bA</sup> ± 3.2
1.5%P/NaCS	75.1 <sup>aA</sup> ± 3.5	77.5 <sup>aAB</sup> ± 3.4	83.4 <sup>cB</sup> ± 4.1	81.9 <sup>cAB</sup> ± 3.8	78.4 <sup>bAB</sup> ± 3.4	
2%P/NaCS	75.1 <sup>aA</sup> ± 3.5	76.4 <sup>aAB</sup> ± 3.4	76.9 <sup>bcaB</sup> ± 3.7	83.3 <sup>cBC</sup> ± 4.1	85.6 <sup>cC</sup> ± 4.2	88.9 <sup>cC</sup> ± 3.8
2.5%P/NaCS	75.1 <sup>aB</sup> ± 3.5	76.1 <sup>aB</sup> ± 2.0	79.9 <sup>cBC</sup> ± 3.8	83.4 <sup>cC</sup> ± 4.2	76.5 <sup>bB</sup> ± 3.5	58.2 <sup>aA</sup> ± 2.4

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S8.** Effect of coating on color ( $a^*$ ) of mango flesh.

Storage time (day)	$a^*$ of mango flesh					
	0	3	6	9	12	15
<b>Uncoated</b>	-19.2 <sup>aA</sup> ± 3.5	-8.5 <sup>bB</sup> ± 3.4	5.5 <sup>cC</sup> ± 2.8	2.7 <sup>cC</sup> ± 2.7		
0.75%NaCS	-19.2 <sup>aA</sup> ± 3.5	-11.8 <sup>abB</sup> ± 3.2	-7.2 <sup>bBC</sup> ± 3.9	-4.4 <sup>bC</sup> ± 3.6	-1.9 <sup>bC</sup> ± 3.5	
1%NaCS	-19.2 <sup>aA</sup> ± 3.4	-12.1 <sup>abB</sup> ± 3.6	-10.3 <sup>abBC</sup> ± 3.8	-4.3 <sup>bCD</sup> ± 3.7	-2.1 <sup>bD</sup> ± 4.0	
1.25%NaCS	-19.2 <sup>aA</sup> ± 3.4	-14.2 <sup>abAB</sup> ± 3.9	-12.5 <sup>abAB</sup> ± 3.8	-8.9 <sup>abBC</sup> ± 4.0	-5.2 <sup>abC</sup> ± 3.8	-3.2 <sup>abC</sup> ± 3.2
1.5%P/NaCS	-19.2 <sup>aA</sup> ± 3.5	-12.8 <sup>abAB</sup> ± 3.4	-8.9 <sup>abB</sup> ± 4.1	-5.7 <sup>abB</sup> ± 3.8		
2%P/NaCS	-19.2 <sup>aA</sup> ± 3.5	-16.8 <sup>aAB</sup> ± 3.4	-14.9 <sup>aAB</sup> ± 3.7	-11.7 <sup>aBC</sup> ± 4.1	-10.8 <sup>aBC</sup> ± 4.2	-6.2 <sup>aC</sup> ± 3.8
2.5%P/NaCS	-19.2 <sup>aA</sup> ± 3.5	-15.7 <sup>aAB</sup> ± 2.0	-9.9 <sup>abBC</sup> ± 3.8	-6.6 <sup>abCD</sup> ± 4.2	-2.7 <sup>bDE</sup> ± 3.5	1.6 <sup>bE</sup> ± 2.4

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between samples in the same rows ( $p \leq 0.05$ ).

**Table S9.** Effect of coating on color ( $b^*$ ) of mango flesh.

Storage time (day)	<b><math>b^*</math> of mango flesh</b>					
	0	3	6	9	12	15
<b>Uncoated</b>	62.1 <sup>aC</sup> ± 3.5	58.6 <sup>aBC</sup> ± 3.4	53.7 <sup>aAB</sup> ± 2.8	48.3 <sup>aA</sup> ± 2.7		
0.75%NaCS	62.1 <sup>aD</sup> ± 3.5	59.0 <sup>aCD</sup> ± 3.2	54.0 <sup>aBC</sup> ± 3.9	49.1 <sup>aAB</sup> ± 3.6	43.5 <sup>bA</sup> ± 3.5	
1%NaCS	62.1 <sup>aC</sup> ± 3.4	59.1 <sup>aC</sup> ± 3.6	55.0 <sup>aBC</sup> ± 4.8	49.9 <sup>aAB</sup> ± 3.7	45.6 <sup>bA</sup> ± 4.0	
1.25%NaCS	62.1 <sup>aD</sup> ± 3.4	59.1 <sup>aCD</sup> ± 3.9	54.1 <sup>aBC</sup> ± 3.8	52.3 <sup>aBC</sup> ± 4.0	47.3 <sup>bA</sup> ± 3.8	40.3 <sup>aA</sup> ± 3.2
1.5%P/NaCS	62.1 <sup>aD</sup> ± 3.5	59.6 <sup>aCD</sup> ± 3.4	55.1 <sup>aBC</sup> ± 4.1	50.1 <sup>aB</sup> ± 3.8	30.7 <sup>aA</sup> ± 3.4	
2%P/NaCS <sup>ns</sup>	62.1 <sup>aA</sup> ± 3.5	62.9 <sup>aA</sup> ± 3.4	63.2 <sup>bA</sup> ± 3.7	64.1 <sup>bA</sup> ± 4.1	66.6 <sup>cA</sup> ± 4.2	69.0 <sup>bA</sup> ± 3.8
2.5%P/NaCS	62.1 <sup>aD</sup> ± 3.5	58.6 <sup>aCD</sup> ± 2.0	53.4 <sup>aC</sup> ± 3.8	45.9 <sup>aB</sup> ± 4.2	41.2 <sup>bAB</sup> ± 3.5	38.7 <sup>aA</sup> ± 2.4

Note: Different lowercase letters (a, b, c) indicate significant differences ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences ( $p \leq 0.05$ ).

**Table S10.** Effect of coating on hue angle of mango flesh.

Storage time (day)	<b>hue of mango flesh</b>					
	0*	3*	6*	9*	12	15
<b>Uncoated</b>	99.7 <sup>aB</sup> ± 4.8	95.8 <sup>aAB</sup> ± 4.4	93.2 <sup>aAB</sup> ± 3.9	90.1 <sup>aA</sup> ± 4.0		
0.75%NaCS <sup>ns</sup>	99.7 <sup>aA</sup> ± 4.8	96.1 <sup>aA</sup> ± 3.9	93.9 <sup>aA</sup> ± 4.1	91.5 <sup>aA</sup> ± 4.3	80.1 <sup>aA</sup> ± 4.2	
1%NaCS	99.7 <sup>aB</sup> ± 4.8	96.8 <sup>aB</sup> ± 4.6	94.6 <sup>aB</sup> ± 4.8	92.5 <sup>aB</sup> ± 4.7	83.6 <sup>abA</sup> ± 5.1	
1.25%NaCS	99.7 <sup>aC</sup> ± 4.8	97.5 <sup>aC</sup> ± 4.5	95.1 <sup>aBC</sup> ± 4.8	93.1 <sup>aBC</sup> ± 5.1	86.6 <sup>abcAB</sup> ± 4.8	80.5 <sup>aA</sup> ± 4.2
1.5%P/NaCS	99.7 <sup>aB</sup> ± 4.8	98.4 <sup>aAB</sup> ± 4.4	95.1 <sup>aAB</sup> ± 5.1	92.1 <sup>aAB</sup> ± 4.8	90.0 <sup>bcA</sup> ± 4.4	
2%P/NaCS <sup>ns</sup>	99.7 <sup>aA</sup> ± 4.8	98.5 <sup>aA</sup> ± 4.4	97.3 <sup>aA</sup> ± 4.7	96.1 <sup>aA</sup> ± 4.8	94.8 <sup>cA</sup> ± 5.0	93.2 <sup>bA</sup> ± 5.7
2.5%P/NaCS	99.7 <sup>aC</sup> ± 4.8	97.3 <sup>aC</sup> ± 3.0	95.0 <sup>aBC</sup> ± 4.2	93.0 <sup>aBC</sup> ± 4.8	87.5 <sup>abcB</sup> ± 4.5	75.7 <sup>aA</sup> ± 4.4

Note: Different lowercase letters (a, b, c) indicate significant differences ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences ( $p \leq 0.05$ ).

**Table S11.** Effect of coating on TSS of mango fruits.

Storage time (day)	TSS (%)					
	0	3	6	9	12	
<b>Uncoated</b>	4.7 <sup>aA</sup> ± 0.2	13.0 <sup>bB</sup> ± 0.6	17.1 <sup>cC</sup> ± 0.7	15.7 <sup>bD</sup> ± 0.6		
0.75%NaCS	4.7 <sup>aA</sup> ± 0.2	9.5 <sup>cB</sup> ± 0.6	16.5 <sup>cC</sup> ± 0.7	20.6 <sup>eD</sup> ± 0.9	19.4 <sup>bD</sup> ± 0.9	
1%NaCS	4.7 <sup>aA</sup> ± 0.2	9.1 <sup>cB</sup> ± 0.4	15.3 <sup>dD</sup> ± 0.6	18.9 <sup>dE</sup> ± 0.7	22.1 <sup>cF</sup> ± 0.9	20.4 <sup>bC</sup> ± 1.0
1.25%NaCS	4.7 <sup>aA</sup> ± 0.2	6.2 <sup>bB</sup> ± 0.3	12.3 <sup>cC</sup> ± 0.6	18.3 <sup>cdD</sup> ± 0.8	20.9 <sup>cE</sup> ± 0.9	19.5 <sup>bE</sup> ± 0.9
1.5%P/NaCS	4.7 <sup>aA</sup> ± 0.2	8.9 <sup>cB</sup> ± 0.3	14.2 <sup>dC</sup> ± 0.6	17.8 <sup>cdD</sup> ± 0.9	22.4 <sup>cE</sup> ± 1.0	
2%P/NaCS	4.7 <sup>aA</sup> ± 0.2	5.6 <sup>abA</sup> ± 0.2	10.2 <sup>bB</sup> ± 0.5	17.1 <sup>cC</sup> ± 0.6	18.2 <sup>bD</sup> ± 0.7	20.1 <sup>bE</sup> ± 0.9
2.5%P/NaCS	4.7 <sup>aA</sup> ± 0.2	4.9 <sup>aA</sup> ± 0.3	5.1 <sup>aA</sup> ± 0.5	6.8 <sup>aB</sup> ± 0.4	8.1 <sup>aC</sup> ± 0.5	10.9 <sup>aD</sup> ± 0.4

Note: Different lowercase letters (a, b, c) indicate significant differences ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences ( $p \leq 0.05$ ).

**Table S12.** Effect of coating on TA of mango fruits.

Storage time (day)	TA (%)					
	0	3	6	9	12	
<b>Uncoated</b>	0.85 <sup>aC</sup> ± 0.04	0.80 <sup>aC</sup> ± 0.04	0.65 <sup>aB</sup> ± 0.03	0.45 <sup>aA</sup> ± 0.02		
0.75%NaCS	0.85 <sup>aD</sup> ± 0.04	0.81 <sup>aD</sup> ± 0.04	0.68 <sup>abC</sup> ± 0.03	0.58 <sup>bB</sup> ± 0.02	0.49 <sup>aA</sup> ± 0.02	
1%NaCS	0.85 <sup>aD</sup> ± 0.04	0.82 <sup>aD</sup> ± 0.04	0.69 <sup>abC</sup> ± 0.03	0.60 <sup>bcB</sup> ± 0.03	0.55 <sup>cB</sup> ± 0.02	0.48 <sup>aA</sup> ± 0.03
1.25%NaCS	0.85 <sup>aD</sup> ± 0.04	0.83 <sup>aD</sup> ± 0.04	0.70 <sup>bC</sup> ± 0.03	0.61 <sup>bcB</sup> ± 0.02	0.58 <sup>bB</sup> ± 0.02	0.52 <sup>bA</sup> ± 0.03
1.5%P/NaCS	0.85 <sup>aD</sup> ± 0.04	0.83 <sup>aD</sup> ± 0.001	0.70 <sup>bC</sup> ± 0.002	0.62 <sup>bcB</sup> ± 0.001	0.52 <sup>dA</sup> ± 0.001	
2%P/NaCS	0.85 <sup>aC</sup> ± 0.04	0.83 <sup>aC</sup> ± 0.04	0.75 <sup>cB</sup> ± 0.03	0.70 <sup>dB</sup> ± 0.03	0.60 <sup>dA</sup> ± 0.03	0.56 <sup>cA</sup> ± 0.02
2.5%P/NaCS	0.85 <sup>aD</sup> ± 0.04	0.83 <sup>aCD</sup> ± 0.002	0.81 <sup>dC</sup> ± 0.001	0.77 <sup>ebB</sup> ± 0.002	0.74 <sup>ebB</sup> ± 0.001	0.70 <sup>dA</sup> ± 0.001

Note: Different lowercase letters (a, b, c) indicate significant differences ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences ( $p \leq 0.05$ ).

**Table S13.** Effect of coating on Vitamin C of mango fruits.

Storage time (day)	Vitamin C (g/100 g fruit)					
	0	3	6	9	12	
<b>Uncoated</b>	0.045 <sup>aD</sup> ± 0.002	0.040 <sup>aC</sup> ± 0.002	0.035 <sup>aB</sup> ± 0.001	0.020 <sup>aA</sup> ± 0.001		
0.75%NaCS	0.045 <sup>aE</sup> ± 0.002	0.041 <sup>abD</sup> ± 0.001	0.036 <sup>aC</sup> ± 0.002	0.028 <sup>bB</sup> ± 0.001	0.025 <sup>aA</sup> ± 0.002	
1%NaCS	0.045 <sup>aD</sup> ± 0.002	0.041 <sup>abD</sup> ± 0.001	0.036 <sup>aC</sup> ± 0.001	0.030 <sup>bcB</sup> ± 0.002	0.027 <sup>abAB</sup> ± 0.001	0.025 <sup>aA</sup> ± 0.001
1.25%NaCS	0.045 <sup>aD</sup> ± 0.002	0.042 <sup>abC</sup> ± 0.002	0.037 <sup>aB</sup> ± 0.001	0.032 <sup>cdA</sup> ± 0.002	0.031 <sup>abA</sup> ± 0.001	0.030 <sup>bA</sup> ± 0.002
1.5%P/NaCS	0.045 <sup>aE</sup> ± 0.002	0.041 <sup>abD</sup> ± 0.001	0.037 <sup>aC</sup> ± 0.002	0.033 <sup>dB</sup> ± 0.001	0.029 <sup>bcA</sup> ± 0.001	
2%P/NaCS	0.045 <sup>aC</sup> ± 0.002	0.043 <sup>bC</sup> ± 0.001	0.043 <sup>bC</sup> ± 0.002	0.040 <sup>ebB</sup> ± 0.002	0.038 <sup>dB</sup> ± 0.002	0.035 <sup>cA</sup> ± 0.002

<b>2.5%P/Na</b>	0.045 <sup>D</sup> ± 0.002	0.043 <sup>bCD</sup> ± 0.002	0.042 <sup>bCD</sup> ± 0.001	0.041 <sup>eBC</sup> ± 0.002	0.039 <sup>dB</sup> ± 0.001	0.036 <sup>cA</sup> ± 0.001
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Note: Different lowercase letters (a, b, c) indicate significant differences ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences ( $p \leq 0.05$ ).

## 2. Effects of storage temperature on shelf life and some quality traits of mango fruits

**Table S14.** Effect of storage temperature on weight loss of mango fruits.

Temper- ature (°C)	coating	Weight loss (%)								
		Storage time (days)								
0	3	6	9	12	15	18	21	24		
17	uncoat-	6.9 <sup>aB</sup> ± 0.8	5.4 <sup>bA</sup> ± 0.2	9.3 <sup>dC</sup> ± 0.4	15.8 <sup>dD</sup> ± 0.7	21.7 <sup>dE</sup> ± 0.9	26.7 <sup>cF</sup> ± 1.2			
	ing									
25	coating	6.9 <sup>aD</sup> ± 0.8	1.8 <sup>aA</sup> ± 1.8	3.4 <sup>aB</sup> ± 0.2	5.0 <sup>aC</sup> ± 0.3	6.5 <sup>aD</sup> ± 0.3	8.4 <sup>aE</sup> ± 0.4	10.4 <sup>F</sup> ± 0.5	12.8 <sup>G</sup> ± 0.6	14.3 <sup>H</sup> ± 0.6
	uncoat-	6.9 <sup>aA</sup> ± 0.8	6.9 <sup>cA</sup> ± 0.3	16.4 <sup>eB</sup> ± 0.8	21.8 <sup>eC</sup> ± 1.0					
32	ing									
	coating	6.9 <sup>aC</sup> ± 0.8	2.2 <sup>aA</sup> ± 0.1	5.2 <sup>bB</sup> ± 0.3	8.5 <sup>bD</sup> ± 0.4	11.2 <sup>bE</sup> ± 0.5	15.8 <sup>bF</sup> ± 0.7			
uncoat-	ing	6.9 <sup>aA</sup> ± 0.8	7.5 <sup>cA</sup> ± 0.3	18.1 <sup>fB</sup> ± 0.9	23.2 <sup>fC</sup> ± 0.9					
	coating									
32	uncoat-	6.9 <sup>aB</sup> ± 0.8	3.0 <sup>aA</sup> ± 0.1	7.7 <sup>cB</sup> ± 0.3	12.6 <sup>cC</sup> ± 0.6	17.0 <sup>cD</sup> ± 0.8				
	ing									

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S15.** Effect of storage temperature on firmness of mango fruits.

Temper- ature (°C)	coating	Firmness (N)								
		Storage time (days)								
0	3	6	9	12	15	18	21	24		
17	uncoat-	31.2 <sup>aF</sup> ± 1.5	23.4 <sup>cE</sup> ± 1.2	15.5 <sup>dD</sup> ± 0.8	7.2 <sup>bC</sup> ± 0.3	2.6 <sup>aB</sup> ± 0.2	0.9 <sup>aA</sup> ± 0.05			
	ing									
25	coating	31.8 <sup>al</sup> ± 1.5	27.6 <sup>dH</sup> ± 1.3	23.4 <sup>eG</sup> ± 1.2	19.9 <sup>cF</sup> ± 0.9	15.4 <sup>cE</sup> ± 0.7	10.3 <sup>cD</sup> ± 0.5	6.1 <sup>c</sup> ± 0.3	3.2 <sup>B</sup> ± 0.2	1.2 <sup>A</sup> ± 0.1
	uncoat-	31.2 <sup>aD</sup> ± 1.50	13.1 <sup>aC</sup> ± 0.6	8.4 <sup>bB</sup> ± 0.4	0.9 <sup>aA</sup> ± 0.01					
32	ing									
	coating	31.2 <sup>aF</sup> ± 1.5	25.8 <sup>dE</sup> ± 1.2	23.1 <sup>eD</sup> ± 1.2	19.9 <sup>cC</sup> ± 0.9	10.9 <sup>bB</sup> ± 0.5	4.0 <sup>bA</sup> ± 0.2			
uncoat-	ing	30.8 <sup>aD</sup> ± 1.5	12.6 <sup>aC</sup> ± 0.6	5.1 <sup>aB</sup> ± 0.2	0.2 <sup>aA</sup> ± 0.01					
	coating									
32	uncoat-	30.4 <sup>aE</sup> ± 1.5	20.5 <sup>bD</sup> ± 1.0	13.8 <sup>cC</sup> ± 0.6	6.6 <sup>bb</sup> ± 0.3	2.5 <sup>aA</sup> ± 0.1				
	ing									

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S16.** Effect of storage temperature on color ( $L^*$ ) of mango fruits.

Temper- ature (°C)	coat- ing	L* of mango fruits							
		Storage time (days)							
		0	3	6	9	12	15	18	21
17	un- coat- ing	53.4 <sup>aAB</sup> ± 55.4 <sup>abBC</sup> ± 2.1	57.2 <sup>abBC</sup> ± 1.9	59.3 <sup>bC</sup> ± 2.4	50.2 <sup>aB</sup> ± 2.3	43.4 <sup>aA</sup> ± 2.2	1.8		
	coat- ing	53.4 <sup>aA</sup> ± 2.1	53.4 <sup>aA</sup> ± 2.6	53.7 <sup>aA</sup> ± 2.5	53.9 <sup>aAB</sup> ± 2.4	54.2 <sup>abAB</sup> ± 2.3	54.8 <sup>bAB</sup> ± 2.5	56.2 <sup>AB</sup> ± 2.6	58.6 <sup>BC</sup> ± 2.9
25	un- coat- ing	53.4 <sup>aA</sup> ± 2.1	58.8 <sup>bAB</sup> ± 2.3	55.8 <sup>abB</sup> ± 2.4	72.1 <sup>cC</sup> ± 2.8				
	coat- ing	53.4 <sup>aA</sup> ± 2.1	55.2 <sup>abAB</sup> ± 2.6	54.2 <sup>abAB</sup> ± 2.5	53.5 <sup>aA</sup> ± 2.4	56.7 <sup>bcBC</sup> ± 2.6	59.1 <sup>bC</sup> ± 3.0		
32	un- coat- ing	53.4 <sup>aA</sup> ± 2.1	55.7 <sup>abAB</sup> ± 2.1	58.9 <sup>bB</sup> ± 2.6	68.8 <sup>cC</sup> ± 2.9				
	coat- ing	53.4 <sup>aAB</sup> ± 2.1	52.1 <sup>aA</sup> ± 2.4	54.6 <sup>abAB</sup> ± 2.1	57.5 <sup>abBC</sup> ± 2.3	59.8 <sup>cC</sup> ± 2.9			

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S17.** Effect of storage temperature on color ( $L^*$ ) of mango flesh.

Tempera- ture (°C)	coating	L* of mango flesh							
		Storage time (days)							
		0	3	6	9	12	15	18	21
17	uncoat- ing	75.1 <sup>aA</sup> ± 3.2	77.5 <sup>aAB</sup> ± 3.2	78.9 <sup>aAB</sup> ± 3.3	82.7 <sup>bB</sup> ± 3.1	82.7 <sup>aB</sup> ± 3.9	82.8 <sup>aB</sup> ± 2.5		
	coating	75.1 <sup>aA</sup> ± 3.2	75.9 <sup>aAB</sup> ± 3.6	77.1 <sup>aABC</sup> ± 3.6	78.4 <sup>abABC</sup> ± 3.5	81.1 <sup>aABCD</sup> ± 3.9	85.9 <sup>aD</sup> ± 3.8	83.1 <sup>cD</sup> ± 3.8	82.4 <sup>BCD</sup> ± 3.4
25	uncoat- ing	75.1 <sup>aA</sup> ± 3.2	77.0 <sup>aA</sup> ± 2.6	81.2 <sup>aA</sup> ± 3.1	79.9 <sup>abA</sup> ± 3.2				
	coating	75.1 <sup>aA</sup> ± 3.2	79.8 <sup>aAB</sup> ± 3.1	76.9 <sup>aA</sup> ± 3.5	83.3 <sup>bB</sup> ± 2.6	83.3 <sup>aB</sup> ± 3.4	83.3 <sup>aB</sup> ± 3.6		
32	uncoat- ing	75.1 <sup>aA</sup> ± 3.2	78.2 <sup>aA</sup> ± 3.2	80.4 <sup>aA</sup> ± 3.1	75.0 <sup>aA</sup> ± 2.8				
	coating	75.1 <sup>aA</sup> ± 3.2	76.6 <sup>aA</sup> ± 3.2	78.9 <sup>aAB</sup> ± 3.1	80.8 <sup>abAB</sup> ± 3.0	83.4 <sup>aB</sup> ± 2.8	83.4 <sup>aB</sup> ± 2.9		

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S18.** Effect of storage temperature on hue color of mango fruits.

Temper- ature (°C)	coating	Hue color of mango fruits								
		Storage time (days)								
		0	3	6	9	12	15	18	21	24
17	uncoat-	113.6 <sup>aD</sup> ± 108.2 <sup>bCD</sup> ± 103.9 <sup>cC</sup> ± 95.7 <sup>dB</sup> ± 85.6 <sup>abA</sup> ± 79.5 <sup>aA</sup> ±								
	ing	5.3	4.5	4.3	4.1	3.9	3.9			
	coating	113.6 <sup>aG</sup> ± 108.2 <sup>bFG</sup> ± 103.8 <sup>cEF</sup> ± 98.7 <sup>dDE</sup> ± 95.6 <sup>cCD</sup> ± 92.5 <sup>bCD</sup> ± 88.9 <sup>BC</sup> ± 84.5 <sup>AB</sup> ± 80.5 <sup>A</sup> ±								
25	uncoat-	113.6 <sup>aC</sup> ± 89.1 <sup>aB</sup> ± 86.1 <sup>bB</sup> ± 74.8 <sup>bA</sup> ±								
	ing	5.3	4.1	3.9	3.5					
	coating	113.6 <sup>aC</sup> ± 110.3 <sup>bC</sup> ± 96.1 <sup>cB</sup> ± 94.0 <sup>cdAB</sup> ± 90.9 <sup>cdAB</sup> ± 86.8 <sup>abA</sup> ±								
32	uncoat-	113.6 <sup>aD</sup> ± 89.2 <sup>aC</sup> ± 70.3 <sup>aB</sup> ± 52.1 <sup>aA</sup> ±								
	ing	5.3	3.6	2.9	3.6					
	coating	113.6 <sup>aC</sup> ± 106.9 <sup>bBC</sup> ± 98.8 <sup>cB</sup> ± 87.5 <sup>cA</sup> ± 81.5 <sup>aA</sup> ±								
		5.3	4.5	4.5	3.8	3.9				

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S19.** Effect of storage temperature on hue color of mango flesh.

Temper- ature (°C)	coating	Hue color of mango flesh								
		Storage time (days)								
		0	3	6	9	12	15	18	21	24
17	uncoat-	99.7 <sup>aB</sup> ± 97.2 <sup>abAB</sup> ± 94.2 <sup>bAB</sup> ± 92.8 <sup>bAB</sup> ± 90.0 <sup>aA</sup> ± 88.7 <sup>aA</sup> ±								
	ing	6.2	5.2	4.6	4.3	4.6	4.5			
	coating	99.7 <sup>aD</sup> ± 99.1 <sup>bCD</sup> ± 97.5 <sup>bBCD</sup> ± 96.2 <sup>bBCD</sup> ± 94.5 <sup>aABCD</sup> ± 93.2 <sup>aABCD</sup> ± 91.8 <sup>ABC</sup> ± 90.0 <sup>AB</sup> ± 88.4 <sup>A</sup> ±								
25	uncoat-	99.7 <sup>aB</sup> ± 96.7 <sup>abAB</sup> ± 93.2 <sup>bAB</sup> ± 90.1 <sup>bA</sup> ±								
	ing	6.2	4.2	4.1	3.8					
	coating	99.7 <sup>aA</sup> ± 98.5 <sup>bA</sup> ± 97.3 <sup>bA</sup> ± 96.0 <sup>bA</sup> ± 94.8 <sup>aA</sup> ± 92.2 <sup>aA</sup> ±								
32	uncoat-	99.7 <sup>aD</sup> ± 90.4 <sup>aC</sup> ± 80.4 <sup>aB</sup> ± 72.1 <sup>aA</sup> ±								
	ing	6.2	3.5	2.9	3.6					
	coating	99.7 <sup>aB</sup> ± 96.3 <sup>abAB</sup> ± 94.1 <sup>bAB</sup> ± 92.1 <sup>bAB</sup> ± 89.5 <sup>aA</sup> ±								
		6.2	3.8	3.8	4.1	3.9				

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S20.** Effect of storage temperature on the total microbial of mango fruits.

Tempera- ture (°C)	coating	log (CFU/g fruit)								
		Storage time (days)								
		0	3	6	9	12	15	18	21	24
17	uncoat-	1.2 <sup>aA</sup> ± 4.0 <sup>cB</sup> ± 6.3 <sup>cC</sup> ± 8.9 <sup>dD</sup> ± 10.9 <sup>dE</sup> ± 12.5 <sup>fF</sup> ±								
	ing	0.1	0.2	0.3	0.4	0.4	0.5			
	coating	1.2 <sup>aA</sup> ± 1.7 <sup>aB</sup> ± 1.9 <sup>aB</sup> ± 2.3 <sup>cC</sup> ± 2.7 <sup>aD</sup> ± 3.6 <sup>aE</sup> ± 4.0 <sup>F</sup> ± 0.2 4.7 <sup>G</sup> ± 5.0 <sup>H</sup> ±								
25	uncoat-	1.2 <sup>aA</sup> ± 5.2 <sup>dB</sup> ± 8.9 <sup>dC</sup> ± 12.3 <sup>dD</sup> ±								
	ing	0.1	0.3	0.4	0.4					
	coating	1.2 <sup>aA</sup> ± 2.7 <sup>bB</sup> ± 3.2 <sup>bC</sup> ± 4.7 <sup>bD</sup> ± 5.0 <sup>bE</sup> ± 5.3 <sup>bE</sup> ±								
		0.1	0.1	0.2	0.2	0.3	0.3			

32	uncoat-	1.2 <sup>aA</sup> ± 0.1	5.7 <sup>eB</sup> ± 0.3	10.0 <sup>eC</sup> ± 0.5	13.6 <sup>eD</sup> ± 0.6				
	coating	1.2 <sup>aA</sup> ± 0.1	2.4 <sup>bB</sup> ± 0.1	3.7 <sup>bC</sup> ± 0.2	4.8 <sup>bD</sup> ± 0.2	6.2 <sup>cE</sup> ± 0.3			

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature ( $^{\circ}\text{C}$ ) in the same rows ( $p \leq 0.05$ ).

**Table S21.** Effect of storage temperature on the count of yeast and mold of mango fruits.

		log (CFU/g fruit)							
Temper- ature ( $^{\circ}\text{C}$ )	coating	Storage time (days)							
		0	3	6	9	12	15	18	21
17	uncoat-	0.7 <sup>aA</sup> ± 0.1	1.6 <sup>bB</sup> ± 0.3	3.0 <sup>dC</sup> ± 0.2	4.9 <sup>dD</sup> ± 0.3	6.1 <sup>dE</sup> ± 0.4	7.4 <sup>cF</sup> ± 0.4		
	ing	0.1	0.3	0.2	0.3	0.4	0.4		
	coating	0.7 <sup>aA</sup> ± 0.1	0.8 <sup>aAB</sup> ± 0.1	1.0 <sup>aB</sup> ± 0.1	1.5 <sup>aC</sup> ± 0.1	1.9 <sup>aD</sup> ± 0.2	2.3 <sup>aE</sup> ± 0.1	2.8 <sup>f</sup> ± 0.1	3.1 <sup>G</sup> ± 0.2
25	uncoat-	0.7 <sup>aA</sup> ± 0.1	2.4 <sup>cB</sup> ± 0.1	5.9 <sup>cC</sup> ± 0.3	7.6 <sup>dD</sup> ± 0.6				
	ing	0.1	0.1	0.3	0.6				
	coating	0.7 <sup>aA</sup> ± 0.1	1.0 <sup>aB</sup> ± 0.1	1.9 <sup>bC</sup> ± 0.1	2.4 <sup>bD</sup> ± 0.1	2.8 <sup>bE</sup> ± 0.1	3.6 <sup>bF</sup> ± 0.2		
32	uncoat-	0.7 <sup>aA</sup> ± 0.1	3.9 <sup>dB</sup> ± 0.3	6.6 <sup>fC</sup> ± 0.4	8.6 <sup>fD</sup> ± 0.3				
	ing	0.1	0.3	0.4	0.3				
	coating	0.7 <sup>aA</sup> ± 0.1	1.9 <sup>bB</sup> ± 0.3	2.5 <sup>cC</sup> ± 0.3	3.9 <sup>cD</sup> ± 0.2	4.6 <sup>cE</sup> ± 0.2			

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature ( $^{\circ}\text{C}$ ) in the same rows ( $p \leq 0.05$ ).

**Table S22.** Effect of storage temperature on TSS of mango fruits.

		TSS							
Temper- ature ( $^{\circ}\text{C}$ )	coating	Storage time (days)							
		0	3	6	9	12	15	18	21
17	uncoat-	4.7 <sup>aA</sup> ± 0.2	6.4 <sup>bB</sup> ± 0.3	9.1 <sup>bC</sup> ± 0.4	12.4 <sup>bD</sup> ± 0.3	17.5 <sup>bE</sup> ± 0.6	16.4 <sup>bF</sup> ± 0.4		
	ing	0.2	0.3	0.4	0.3	0.6	0.4		
	coating	4.7 <sup>aA</sup> ± 0.2	5.1 <sup>aA</sup> ± 0.3	7.1 <sup>a</sup> ± 0.3	8.7 <sup>aC</sup> ± 0.6	10.3 <sup>aD</sup> ± 0.3	12.5 <sup>aE</sup> ± 0.3	15.6 <sup>H</sup> ± 0.4	17.9 <sup>G</sup> ± 0.5
25	uncoat-	4.7 <sup>aA</sup> ± 0.2	13.0 <sup>dB</sup> ± 0.5	17.1 <sup>dD</sup> ± 0.5	15.7 <sup>cC</sup> ± 0.4				
	ing	0.2	0.5	0.5	0.4				
	coating	4.7 <sup>aA</sup> ± 0.2	5.6 <sup>abB</sup> ± 0.2	10.2 <sup>cC</sup> ± 0.4	17.1 <sup>dD</sup> ± 0.5	18.2 <sup>bE</sup> ± 0.7	20.1 <sup>cF</sup> ± 0.7		
32	uncoat-	4.7 <sup>aA</sup> ± 0.2	17.0 <sup>eB</sup> ± 0.8	19.5 <sup>eC</sup> ± 0.7	17.5 <sup>dB</sup> ± 0.7				
	ing	0.2	0.8	0.7	0.7				
	coating	4.7 <sup>aA</sup> ± 0.2	7.2 <sup>cB</sup> ± 0.4	10.4 <sup>cC</sup> ± 0.4	14.8 <sup>cD</sup> ± 0.5	20.1 <sup>cE</sup> ± 0.7			

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature ( $^{\circ}\text{C}$ ) in the same rows ( $p \leq 0.05$ ).

**Table S23.** Effect of storage temperature on TA of mango fruits.

Temper- ature (°C)	coating	Storage time (days)								
		0	3	6	9	12	15	18	21	24
17	uncoat- ing	0.85 <sup>aD</sup> ± 0.04	0.83 <sup>bD</sup> ± 0.04	0.70 <sup>cC</sup> ± 0.03	0.54 <sup>cB</sup> ± 0.02	0.50 <sup>aB</sup> ± 0.03	0.42 <sup>aA</sup> ± 0.02			
	coating	0.85 <sup>aG</sup> ± 0.04	0.84 <sup>bG</sup> ± 0.04	0.80 <sup>eFG</sup> ± 0.03	0.76 <sup>eEF</sup> ± 0.03	0.71 <sup>cDE</sup> ± 0.03	0.68 <sup>cCD</sup> ± 0.03	0.65 <sup>BC</sup> ± 0.03	0.61 <sup>AB</sup> ± 0.03	0.58 <sup>A</sup> ± 0.02
25	uncoat- ing	0.85 <sup>aC</sup> ± 0.04	0.80 <sup>bC</sup> ± 0.04	0.65 <sup>bB</sup> ± 0.03	0.45 <sup>bA</sup> ± 0.02					
	coating	0.85 <sup>aD</sup> ± 0.04	0.83 <sup>bD</sup> ± 0.03	0.75 <sup>dC</sup> ± 0.03	0.70 <sup>dB</sup> ± 0.03	0.60 <sup>bA</sup> ± 0.02	0.56 <sup>bA</sup> ± 0.03			
32	uncoat- ing	0.85 <sup>aD</sup> ± 0.04	0.63 <sup>cC</sup> ± 0.02	0.49 <sup>aB</sup> ± 0.02	0.38 <sup>aA</sup> ± 0.02					
	coating	0.85 <sup>aC</sup> ± 0.04	0.80 <sup>bC</sup> ± 0.03	0.72 <sup>cdB</sup> ± 0.03	0.67 <sup>dB</sup> ± 0.03	0.52 <sup>aA</sup> ± 0.02				

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).

**Table S24.** Effect of storage temperature on vitamin C of mango fruits.

Temper- ature (°C)	coat- ing	vitamin C							
		Storage time (days)							
17	un- coating	0.045 <sup>aE</sup> ± 0.002	0.043 <sup>cE</sup> ± 0.002	0.039 <sup>cD</sup> ± 0.002	0.030 <sup>cC</sup> ± 0.001	0.018 <sup>aB</sup> ± 0.001	0.011 <sup>aA</sup> ± 0.001		
	coating	0.045 <sup>aF</sup> ± 0.002	0.044 <sup>cF</sup> ± 0.001	0.044 <sup>dF</sup> ± 0.003	0.042 <sup>dEF</sup> ± 0.003	0.040 <sup>cDE</sup> ± 0.003	0.037 <sup>bCD</sup> ± 0.002	0.035 <sup>BC</sup> ± 0.002	0.033 <sup>AB</sup> ± 0.002
25	un- coating	0.045 <sup>aD</sup> ± 0.002	0.040 <sup>bC</sup> ± 0.002	0.035 <sup>bB</sup> ± 0.001	0.020 <sup>bA</sup> ± 0.001				
	coating	0.045 <sup>aD</sup> ± 0.002	0.043 <sup>cCD</sup> ± 0.001	0.043 <sup>dCD</sup> ± 0.002	0.040 <sup>dBC</sup> ± 0.002	0.038 <sup>cAB</sup> ± 0.002	0.035 <sup>bA</sup> ± 0.002		
32	un- coating	0.045 <sup>aD</sup> ± 0.002	0.032 <sup>aC</sup> ± 0.001	0.015 <sup>aB</sup> ± 0.001	0.008 <sup>aA</sup> ± 0.002				
	coating	0.045 <sup>aC</sup> ± 0.002	0.040 <sup>bC</sup> ± 0.002	0.037 <sup>bcC</sup> ± 0.002	0.033 <sup>cA</sup> ± 0.002	0.030 <sup>bA</sup> ± 0.002			

Note: Different lowercase letters (a, b, c) indicate significant differences between storage time (day) in the same columns ( $p \leq 0.05$ ). Different uppercase letters (A, B, C) indicate significant differences between temperature (°C) in the same rows ( $p \leq 0.05$ ).