

## Supplementary materials

**Table S1.** Evolution of  $a_w$  and pH in fresh peeled bamboo sprouts packaged in MAP and VACUUM packaging systems.

Storage time (days)	MAP 1	MAP 2	VACUUM	Sign.
	$a_w$	$a_w$	$a_w$	
0	0.996±0.002 <sup>aA</sup>	0.996±0.002 <sup>aA</sup>	0.994±0.002 <sup>aA</sup>	ns
7	0.978±0.001 <sup>bcA</sup>	0.968±0.001 <sup>bcAB</sup>	0.966±0.001 <sup>bcB</sup>	**
14	0.971±0.001 <sup>aA</sup>	0.961±0.001 <sup>bA</sup>	0.958±0.001 <sup>cB</sup>	**
21	0.966±0.001 <sup>bAB</sup>	0.956±0.001 <sup>bB</sup>	0.952±0.001 <sup>bC</sup>	**
28	0.957±0.00 <sup>cB</sup>	0.950±0.00 <sup>cC</sup>	0.948±0.00 <sup>cA</sup>	**
Sign.	**	**	**	
	pH	pH	pH	
0	6.36±0.06 <sup>bA</sup>	6.36±0.06 <sup>bA</sup>	6.12±0.06 <sup>bB</sup>	*
7	5.56±0.06 <sup>bA</sup>	5.46±0.06 <sup>bB</sup>	5.26±0.06 <sup>bC</sup>	**
14	5.63±0.06 <sup>abA</sup>	5.53±0.06 <sup>abB</sup>	5.13±0.06 <sup>abC</sup>	**
21	5.68±0.04 <sup>aA</sup>	5.38±0.04 <sup>aB</sup>	5.08±0.04 <sup>aC</sup>	**
28	5.70±0.02 <sup>aA</sup>	5.40±0.02 <sup>aC</sup>	5.22±0.02 <sup>aC</sup>	**
Sign.	**	**	**	

MAP: modified atmosphere packaging. MAP1: 2%O<sub>2</sub>, 5%CO<sub>2</sub>, 93%N<sub>2</sub>; MAP2: 3% O<sub>2</sub>, 7% CO<sub>2</sub>, 90 % N<sub>2</sub>. Data are reported as mean ± standard deviation (n = 3). Differences were evaluated by one-way analysis of variance (ANOVA) test completed with a multicomparison Tukey's test. Means in the same column with different capital letters differ significantly (Sign.) (\*\* $p < 0.01$ ), means in the same row with different uppercase differ significantly (\*\* $p < 0.01$ , \* $p < 0.05$ ); ns: not significant.



**Table S2.** CIELab parameters in bamboo sprouts (upper and basal sections) packaged in MAP and VACUUM packaging systems.

Apical section				
a*	MAP1	MAP2	VACUUM	Sign.
T0	3.63±0.71 <sup>aA</sup>	3.63±0.71 <sup>aA</sup>	0.59±0.71 <sup>aB</sup>	**
T7	0.16±0.48 <sup>bB</sup>	0.14±0.48 <sup>bA</sup>	0.57±0.48 <sup>bB</sup>	**
T14	0.11±0.37 <sup>b</sup>	0.10±0.37 <sup>b</sup>	0.58±0.37 <sup>b</sup>	**
T21	0.10±1.00 <sup>bB</sup>	-1.08±1.00 <sup>cB</sup>	0.60±1.00 <sup>cA</sup>	**
T28	0.29±0.22 <sup>bB</sup>	0.25±0.20 <sup>bB</sup>	0.58±0.20 <sup>bA</sup>	**
Sign.	**	**	**	
b*	MAP1	MAP2	VACUUM	Sign.
T0	19.07±0.97 <sup>aA</sup>	19.07±0.97 <sup>aA</sup>	1.97±0.97 <sup>aB</sup>	**
T7	5.82±2.03 <sup>cA</sup>	5.45±2.03 <sup>cB</sup>	1.95±2.03 <sup>cC</sup>	**
T14	5.20±1.56 <sup>cA</sup>	5.00±1.56 <sup>cA</sup>	1.95±1.56 <sup>cB</sup>	**
T21	8.76±3.37 <sup>bA</sup>	8.50±3.27 <sup>bB</sup>	1.97±3.27 <sup>bC</sup>	**
T28	7.21±3.67 <sup>bcA</sup>	7.00±3.67 <sup>bcA</sup>	1.96±3.67 <sup>bcB</sup>	**
Sign.	**	**	**	
Basal section				
a*	MAP1	MAP2	VACUUM	Sign.
0	3.88±0.60 <sup>aA</sup>	3.88±0.60 <sup>aA</sup>	0.58±0.60 <sup>aB</sup>	**
7	0.12±0.14 <sup>bB</sup>	0.11±0.14 <sup>bB</sup>	0.59±0.14 <sup>bA</sup>	**
14	-1.00±0.40 <sup>cC</sup>	-1.00±0.40 <sup>cA</sup>	0.58±0.40 <sup>cB</sup>	**
21	0.02±0.92 <sup>bB</sup>	0.02±0.92 <sup>bB</sup>	0.61±0.92 <sup>bA</sup>	**
28	-0.03±1.09 <sup>bB</sup>	-0.03±1.09 <sup>bB</sup>	0.57±1.09 <sup>bA</sup>	**
Sign.	**	**	**	
b*	MAP1	MAP2	VACUUM	Sign.
0	19.59±1.06 <sup>aA</sup>	19.59±1.06 <sup>aA</sup>	1.96±1.06 <sup>aB</sup>	**
7	4.30±0.82 <sup>cA</sup>	4.30±0.82 <sup>cB</sup>	1.95±0.82 <sup>cB</sup>	**
14	15.53±3.00 <sup>aA</sup>	14.53±3.00 <sup>aA</sup>	1.94±3.00 <sup>aB</sup>	**
21	9.30±5.40 <sup>bA</sup>	9.12±5.40 <sup>bB</sup>	1.96±5.40 <sup>bC</sup>	**
28	6.78±3.47 <sup>bcA</sup>	6.66±3.47 <sup>bcA</sup>	1.94±3.47 <sup>bcB</sup>	**
Sign.	**	**	**	

MAP: modified atmosphere packaging. MAP1: 2%O<sub>2</sub>, 5%CO<sub>2</sub>, 93%N<sub>2</sub>; MAP2: 3% O<sub>2</sub>, 7% CO<sub>2</sub>, 90 % N<sub>2</sub>. Data are reported as mean ± standard deviation (n = 3). Differences were evaluated by one-way analysis of variance (ANOVA) test completed with a multicomparison Tukey's test. Means in the same column with different capital letters differ significantly (Sign.) (\*\**p* < 0.01), means in the same row with different uppercase differ significantly (\*\**p* < 0.01).



**Table S3.** Evolution of  $\Delta E^*ab$  parameter during bamboo sprouts storage packaged in MAP and VACUUM packaging systems.

$\Delta E^*ab$	MAP1	MAP2	VACUUM	Sign.
0	0.76±0.02 <sup>eB</sup>	0.76±0.03 <sup>eB</sup>	9.9±0.87 <sup>bA</sup>	**
7	10.9±1.88 <sup>bC</sup>	13.88±2.08 <sup>aA</sup>	11.05±1.56 <sup>aB</sup>	**
14	11.06±2.02 <sup>aA</sup>	10±1.76 <sup>bB</sup>	6.48±0.87 <sup>dC</sup>	**
21	2.65±0.06 <sup>dC</sup>	3.31±0.08 <sup>dB</sup>	6.93±0.98 <sup>cA</sup>	**
28	5.62±0.77 <sup>cC</sup>	6.61±0.65 <sup>cB</sup>	6.93±0.34 <sup>cA</sup>	**
Sign.	**	**	**	

MAP: modified atmosphere packaging. MAP1: 2%O<sub>2</sub>, 5%CO<sub>2</sub>, 93%N<sub>2</sub>; MAP2: 3% O<sub>2</sub>, 7% CO<sub>2</sub>, 90 % N<sub>2</sub>. Data are reported as mean ± standard deviation (n = 3). Differences were evaluated by one-way analysis of variance (ANOVA) test completed with a multicomparison Tukey's test. Means in the same column with different capital letters differ significantly (Sign.) (\*\**p* < 0.01), means in the same row with different uppercase differ significantly (\*\**p* < 0.01).



**Table S4.** Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	52.170	74.529	74.529	47.264	67.521	67.521
2	17.830	25.471	100.000	22.736	32.479	100.000

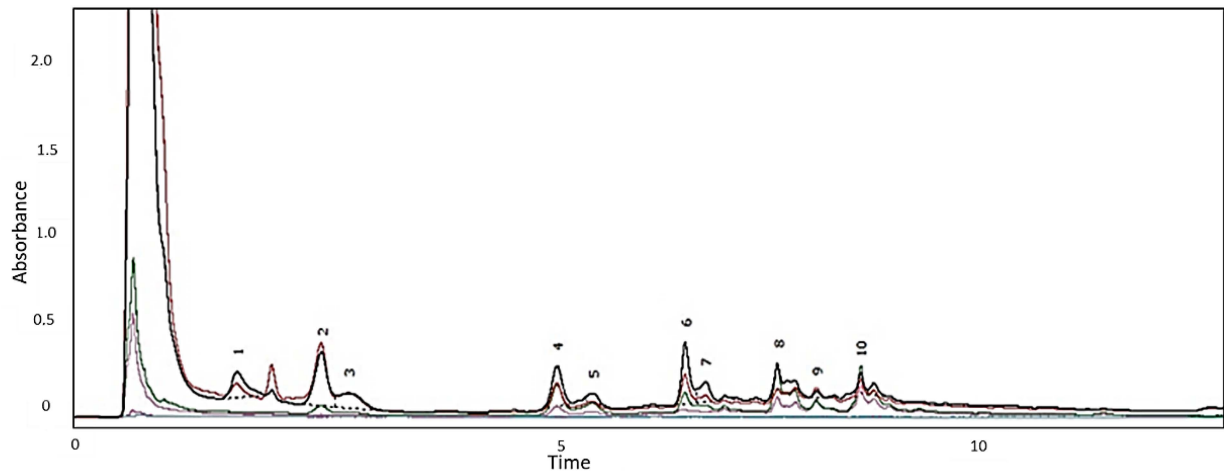


Figure S1. Chromatographic profile of fresh bamboo sprouts: 1 gallic acid; 2 protocatehic; 3 chlorogenic acid; 4 caffeic 5 ferulic 6 isorientin; 7 orientin; 8 isovitexin, 9 p acid; 10 rutin coumaric acid