

Supplementary Material

The Influence of 1-Methylcyclopropene on the Quality Parameters of Idared Apples after 8 Weeks of Storage Simulating Long-Distance Transportation

Kazimierz Tomala ¹, Dominika Guzek ^{2,*}, Dominika Głowska ³, Maria Małachowska ¹, Tomasz Krupa ¹ and Krystyna Gutkowska ²

Supplementary Table 1. The observed values of ethylene production [$\mu\text{L}\cdot\text{kg}^{-1}\cdot\text{h}^{-1}$] for Idared apples after 8 weeks of simulated transportation, for the sub-groups subjected to various postharvest treatments, storage duration and duration of distribution.

Type of Treatment		Days of Simulated Distribution			
		0	5	10	15
0 Weeks of Storage					
Control	Mean±SD	9.37±2.225	15.12±3.739 ^a	15.73±3.450 ^a	-
	Median	9.73 ^a	16.45	17.48	
	(25th-75th)	(8.185-10.749)	(14.362-16.988)	(14.362-17.586)	
1-MCP alone	Mean±SD	4.64±5.450	4.47±4.164 ^b	8.79±7.785 ^{ab}	-
	Median	0.74 ^{ab*}	4.65	11.16	
	(25th-75th)	(0.737-10.096)	(0.397-6.974)	(0.538-15.438)	
1-MCP with MAP	Mean±SD	0.51±0.087	0.50±0.110 ^b	0.52±0.175 ^b	-
	Median	0.56 ^b	0.44	0.45	
	(25th-75th)	(0.440-0.563)	(0.435-0.549)	(0.394-0.647)	
<i>p</i> -Value		0.0162	<0.0001	0.0014	-
10 Weeks of Storage					
Control	Mean±SD	6.85±1.201 ^a	13.88±6.523 ^a	14.90±4.415 ^a	12.85±4.761 ^a
	Median	6.89 ^a	12.56	14.44	10.33
	(25th-75th)	(5.968-7.982)	(12.465-12.747)	(12.788-16.324)	(10.203-15.355)
1-MCP alone	Mean±SD	0.08±0.027 ^{b*}	0.19±0.139 ^b	0.66±0.287 ^b	3.45±2.971 ^b
	Median	0.07 ^{b*}	0.13	0.56	3.69
	(25th-75th)	(0.065-0.078)	(0.078-0.308)	(0.512-0.680)	(0.524-5.696)
1-MCP with MAP	Mean±SD	0.24±0.196 ^{ab}	0.43±0.024 ^b	6.12±5.220 ^b	10.21±3.109 ^a
	Median	0.13 ^{ab}	0.43	3.75	10.97
	(25th-75th)	(0.128-0.342)	(0.422-0.434)	(3.264-8.831)	(7.874-11.071)
<i>p</i> -Value		0.0031	0.0001	0.0004	0.0049
20 Weeks of Storage					
Control	Mean±SD	9.50±2.044 ^a	16.14±2.298 ^a	19.65±4.620 ^a	15.98±2.875 ^a
	Median	10.14	16.00	19.71	15.77
	(25th-75th)	(7.976-11.058)	(15.643-17.143)	(16.350-23.020)	(13.992-18.847)
1-MCP alone	Mean±SD	1.01±0.907 ^b	4.46±3.224 ^b	10.13±6.358 ^b	13.44±6.124 ^a
	Median	0.67	4.19	11.26	15.07
	(25th-75th)	(0.416-1.053)	(3.010-6.483)	(7.683-13.181)	(13.156-15.834)
1-MCP with MAP	Mean±SD	0.65±0.251 ^b	2.85±2.109 ^b	11.90±3.815 ^{ab}	13.97±3.682 ^a
	Median	0.53	2.39	12.44	15.82
	(25th-75th)	(0.483-0.681)	(1.420-3.407)	(8.607-14.683)	(11.190-15.983)
<i>p</i> -Value		<0.0001	<0.0001	0.0258	0.6460

* distribution different than normal (verified by Shapiro–Wilk test— $p \leq 0.05$); 1-MCP—Methylcyclopropene; MAP—Modified Atmosphere Packaging; differing superscript letters indicate significance of differences between compared values within various treatments storage duration and duration of distribution.