Title The effect of harpin treatment on storage of cherry tomato cv. ´Naomi´

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Abstract

The objective of this work was to study the effects of Harpin, a bio-activator, and modified atmosphere packaging (MAP) on storage life and quality of cherry tomato (*Lycopersicon esculentum* Mill. cv. 'Naomi'). Tomatoes grown in greenhouse were treated three times with Harpin. Fruits harvested at light red stage were stored in plastic film materials with different O_2 and CO_2 permeabilities and stored at 5-6°C and 90±5% RH. Changes in the quality parameters were observed during the storage period at 7 day-intervals. Spoilage and maturity was accelerated in normal atmosphere (NA). Disorders were reduced with Harpin and low O_2 and high CO_2 during cold storage. Harpin combined with MAP produced better results than MAP alone. Therefore, Harpin and MAP treatments in combination proved effective in delaying ripening and maintaining fruit quality during storage. Harpin slowed the changes leading to quality loss in fruits for, 28 days of storage. Harpin treatment and 50 µm polyethylene (PE) packaging produced the best result.