Title Potassium permanganates and short term hypobaric enhances shelf-life of kiwifruits

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Citation Abstracts Book, 6th International Postharvest symposium, 8-12 April 2009, Antalya, Turkey. 256 pages.

Keyword Kiwifruits; potassium permanganates; hypobaric

Abstract

Kiwifruits are climacteric fruit and therefore regarded as dependent of ethylene for ripening. Kiwifruits are highly susceptible to the ethylene even at very low levels after short periods of storage. The effectiveness of potassium permanganates and short period of hypobaric (LP) treatment, alone or in combination, to increase shelf-life of kiwifruits was studied. Mature and ripe of kiwifruits cv. "Hayward" treated under hypobaric atmospheric of 200 mm Hg for 6 h and held in High Density Polyethylene Plastic bags (40 µm thickness) containing 0 (control), 3, 6 and 12 g potassium permanganate per bag (per kg of fruits) and stored at room temperatures of 20°C for four weeks. Fruits treated by potassium permanganates significantly extended shelf-life of the fruit after 4 weeks storing at 20°C. Also, fruits treated by ethylene absorbance were firmer, with higher in vitamin C and soluble solid content, compared to control non-treated fruits. Pre-treatment of kiwifruit by 6 h under hypobaric conditions in combination with potassium permanganates was more marked after 4 weeks .