

Title The combined effects of 1-methylcyclopropane and modified atmosphere packaging on fruit quality of Fuyu persimmon fruit during storage

Author Kenan Kaynaş, Mustafa Sakaldaş, F. Cem Kuzucu and Erhan Uyar

Citation Abstracts, 10th International Controlled & Modified Atmosphere Research Conference, 4-7 April 2009, Antalya, Turkey. 80 pages.

Keyword Modified atmosphere packaging; 1-methylcyclopropane; quality

Abstract

In this research, the effects of modified atmosphere packaging (MAP), 1-methylcyclopropane (1-MCP) treatments furthermore the combination of MAP and 1-MCP on quality of Fuyu persimmon fruits during storage period were studied. Modified atmosphere packaging was based on low density polyethylene (LDPE); 1-MCP (SmartfreshTM) treatments were 625 and 1250 ppb for 24 hours at 18°C-20°C. Treated and untreated control fruits were stored at 0°C-1°C and 85-90% RH for 40, 80 and 120 days. In addition, after each storage period fruits were kept at 18°C-22°C for 3 days as shelf life. The quality parameters evaluated were; weight loss, fruit firmness, soluble solids rate, skin color, flesh color. Furthermore biochemical properties as titratable acidity, total sugar, invert sugar and tannin contents were determined.

Postharvest 1-MCP (SmartfreshTM) treatments and modified atmosphere packaging affected some quality and biochemical properties of “Fuyu” persimmon fruits. Thus the combination of 1-MCP and MAP based on LDPE was found the most effective as keeping the quality.