

Title Interactive effects of 1-MCP and temperature on 'Elberta' peach quality.
Authors Fan, X., Argenta, L. and Mattheis, J. P.
Citation HortScience Vol: 37 (2002); 134-138

Abstract

'Elberta' peaches (*Prunus persica* L.) harvested 6 days apart were treated with 0.5 mL.L⁻¹ 1-MCP for 4 hours at 20 deg C then stored at 0, 5, 10 or 20 deg C. Fruit were ripened at 20 deg C for 3 days after 1, 3, and 6 weeks of storage at 0, 5, and 10 deg C. Treatment with 1-MCP delayed the onset of climacteric ethylene production and reduced respiration in fruit held at 20 deg C. 1-MCP-treated fruit were firmer than untreated controls after storage at 0 or 5 deg C. 1-MCP-treated fruit also had higher titratable acidity (TA) after 1 week of storage at 0 or 5 deg C, but TA was lower compared to controls after 3 or 6 weeks of storage. Fruit stored at 5 deg C had more severe internal browning, lower extractable juice and TA than fruit stored at either 0 or 10 deg C, however, 1-MCP treated fruit had more severe internal browning than untreated fruit after 3 and 6 weeks of storage at 5 deg C. Fruit from harvest 1 treated with 1-MCP and stored at 0 deg C for 6 weeks failed to soften after removal from storage. Chemical name used: 1-methylcyclopropene (1-MCP).