

Title Extending shelf-life of partially ripened 'd'Anjou' pears by 1-methylcyclopropene treatment
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Abstract

'd'Anjou' pears (*Pyrus communis* L.) were pre-conditioned with 100 $\mu\text{L L}^{-1}$ (ppm) ethylene at 20°C for 0 (un-conditioned), 1, 2, 3, and 4 day(s) after being stored in regular atmosphere (RA) for 2 and 4 months or in controlled atmosphere (CA) (2 kPa O₂ + 1 kPa CO₂) for 8 months at -1°C. Both un-conditioned and ethylene pre-conditioned fruit were then subjected to either 1.0 $\mu\text{L L}^{-1}$ (ppm) 1-methylcyclopropene (MCP) or air (no MCP; control) at 20°C for 24 hours. Regardless of storage condition and length, MCP-treated fruit softened much slower than control fruit if the fruit had been pre-conditioned with 100 ppm ethylene for 3 d or shorter at 20°C. We have demonstrated that 1 ppm MCP treatment of partially ripened 'd'Anjou' pears extends the shelf life for as long as 14 days in the retail markets.