

Title Temperature and ethylene: two useful tools to be used in combination with SmartFreshSM (1-mcp) for delivering optimal quality pears

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Abstract

SmartFreshSM (1-MCP) has demonstrated its efficacy when used for pear storage, but with the potential issue, on some cultivars or with early harvests, of delaying the softening of fruit during shelf life. Two useful tools to deliver quality pears overcoming this issue of hard fruit are herewith presented, namely temperature management during storage (which implies also lower energy input) and application of low doses of ethylene together with 1-MCP. Results are presented from trials in European countries and South Africa. Preliminary positive results have been obtained when increasing the storage temperature from -0.5 up to 1.5°C on ‘Abbé Fétel’, ‘Conference’ and ‘Blanquilla’ cultivars, and using commercial doses of 1-MCP applied in the ratio of 1:0.5 to 1:2 with ethylene on ‘Conference’ and ‘Packham’s Triumph’ cultivars. Both tools delivered fruit which softened according to market requirements, while keeping the expected high quality including the reduction of superficial scald and bruising, whenever present.