

Abstract:

Postharvest softening is a major factor limiting the shipping, storage and shelf life of plums. 1-MCP has been identified as a possible solution, but results have been variable. In this trial, three plum cultivars, 'Vanier', 'Italian' and 'Verity', were harvested at 5 successive maturities and treated with 1-MCP. 1-MCP was applied as the commercial product EthylBloc® at room temperature for 6 hrs at a rate of 2g/m³ prior to cold storage. After 30 days storage at 1°C, fruit were evaluated for firmness, colour, pH, soluble solids and amount of decay. Results were most pronounced for the cultivar 'Vanier'. Both softening and colour change were significantly reduced in 1-MCP treated fruit from all harvest dates. 'Verity' fruit exhibited a less pronounced reduction in softening, no effect on colour change and increased soluble solids as a result of 1-MCP treatment. 1-MCP had no effect on any of the quality parameters when applied to 'Italian' plums. These results vary significantly from observations in previous years.