

Abstract:

1-Methylcyclopropene (1-MCP) was applied to 'Macoun' and 'Cortland' apples from two harvest dates to determine effectiveness for prolonging storage-life. 1-MCP slowed softening of 'Macoun' fruit from the 1st harvest (starch index <4), but not in fruit from the 2nd harvest (starch index >4) in both years of testing. 1-MCP increased the occurrence of core-line browning with the 2nd harvest, but not with the 1st harvest. In 2001, internal ethylene after storage was not affected by 1-MCP. In 2000, MCP had no effect on 'Cortland' fruit firmness from the 1st harvest (starch index of 3.8), but slightly delayed softening in fruit from the 2nd harvest (starch index of 5.7). Internal ethylene of 'Cortland' from the 1st harvest was not affected by 1-MCP, but was reduced by 1-MCP with the 2nd harvest. In 2001, 1-MCP did not affect firmness or internal ethylene. Superficial scald of 'Cortland' in 2001 was reduced by 1-MCP in fruit from the 2nd harvest (starch index of 1.3), but not with the 1st harvest (starch index of 3.3).