

#### Abstract:

Early picked 'Granny Smith' apples (*Malus domestica* Borkh.) were stored under air or CA (controlled atmosphere at 2 kPa O<sub>2</sub> and <1 kPa CO<sub>2</sub>) at 1°C. During the first week of storage, fruit was subjected to ethanol vapours in doses from 0 to 8 g/kg of fruit. Ethanol at 4 g/kg protected fruit against superficial scald in CA storage for at least 5.5 months, plus two weeks in cold air storage, plus a week at ambient temperature. Ethanol at 6 g/kg protected fruit in cold air storage for 3 months, plus a week at ambient temperature. Effects of ethanol vapours and CA on headspace ethylene levels are discussed. Ethanol vapours did not cause significant off-flavours in 'Granny Smith' apples (consumer panel, hedonic scale), or purpling of the skin of Red Delicious apples (visual assessment).