

**POSTHARVEST TREATMENTS USED TO REDUCE EXTERNAL CHILLING INJURY IN
'PINKERTON' AVOCADO (*Persea americana* Mill.).**

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The 'Pinkerton' avocado cultivar is highly susceptible to mesocarp discolouration, after storage, and this has seriously threatened its export from South Africa. However, recent studies found that reducing the shipping temperature from the standard commercial temperature of 5.5°C to 2°C for this cultivar reduced the severity of the disorder. Unfortunately storage at 2°C has increased the potential development of external chilling injury as fruit are often exposed to these low temperatures for 30 days. In order to market fruit of an overall high quality a solution to this problem was therefore urgently required. In addition it was hoped that the technology could be used on other avocado cultivars which are required to undergo certain phytosanitary treatments, such as cold sterilization, in order to enter certain markets. In this paper we looked at the use of low temperature preconditioning of fruit, prior to storage, while at the same time comparing the use of fruit wraps vs waxed or unwaxed fruit. Results of the study indicated that both the preconditioning period and preconditioning temperature have a significant effect on the success of the treatment in reducing external chilling development. The fruit coating/packaging was also found to have a significant effect on fruit quality with external chilling injury, fruit weight loss, firmness, and days taken to ripening all being significantly affected.