

MATURITY AND HEAT PRETREATMENT INFLUENCE ON STORAGE QUALITY AT LOW TEMPERATURE OF SOME LOCAL VARIETIES OF AVOCADO *Persea americana* Mill IN TAIWAN

S. Jeng Jung

Professor of Department of Horticulture, National I-Lan University, Taiwan, R.O.C.

The purpose of this research is to determine the quality changes of avocado fruits of local varieties during low temperature storage. Two local varieties with three maturity levels were selected to analyze the relation between maturity and storage quality under low temperature condition. Quality changes were studied by analyzing the skin colour, flesh colour, firmness, chilling injury, and rotting characteristics. Samples with high maturity showed better storage quality for both varieties. At 1 °C, 'zhangan' avocado can be stored for 21 days and 'qing jing er hao' for 14 days with fruit retaining full ripening ability at room temperature. Pretreatments at 38 °C in water for 5, 15, 30, and 60 minutes were conducted to decrease the low temperature injury of avocado during 1 °C storage. Thirty-minute immersion resulted in better quality of avocado after 28 days of low temperature storage. Only pretreatment for 6 hours below 38 °C warm air is recommended for reducing chilling injury of avocado during 1 °C storage.