INFLUENCE OF TEMPERATURE ON THE STORAGE QUALITY OF SOME LOCAL AVOCADO (Persea americana Mill) VARIETIES IN TAIWAN

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Avocado originated in Central America and southern Mexico. The United States, Chile, Mexico, South Africa, New Zealand, and Israel are major avocado-producing countries. Researches on avocado are very limited in Taiwan. The purpose of this research is to determine the effect of storage temperatures on the quality of the local produced avocados. Three varieties of avocado in Taiwan area were stored at 1°C, 3°C, 10°C, 17°C and 20°C. Characteristics such as skin colour, flesh colour, firmness, chilling injuries, and rot during storage were studied. Changes in quality were also analyzed at ambient temperature after low temperature storage. Regarding 'Chanan' and 'Ching-Jin 2' avocados, they were fully ripened 3 days after harvest, and decay of the fruits started as of day 6 at ambient temperature storage. No chilling injury symptoms were observed during storage at 1°C after 30 days; however, 3 days after fruits were moved to ambient temperature, serious chilling injuries occurred and ripening could not be completed. The optimum storage period for 'Chanan' avocado at 1°C is 21 days and 14 days for 'Ching-Jin 2' avocado. 'CAES 3' showed poor storage ability at low temperature compared to the other varieties.