

THE USE OF CONTROLLED ATMOSPHERES FOR LONG TERM STORAGE OF 'HASS' AVOCADO

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Controlled atmosphere (CA) involves the utilization of elevated levels of carbon dioxide (CO₂) and/or reduced levels of oxygen (O₂) to prolong the postharvest life of various horticultural commodities. The most successful example of the use of CA for extension of storage life is undoubtedly apples. The potential for CA storage of avocados was first reported in the early 1940s. Commercial adoption of CA, however, has not taken place until recently. In-transit CA storage is currently being tested for Australian 'Hass' and South African 'Fuerte' avocados on shipments to the European market. A number of factors govern the success for failure of CA storage including the O₂/CO₂ concentrations, temperature, ethylene contamination and the speed of CA establishment after harvest. The project objectives for the 1989-90 season will evaluate the potential of CA for California 'Hass' avocados. During this year we will be evaluating the effect of high CO₂ (20-25%), ethylene and fruit maturity on quality of CA stored avocados. The first harvest of these was made in February 1990. Evaluation of fruit from this harvest will not be completed until early April.