

Title Improving knowledge and practices in mango supply chains
Author Ledger, S. N., Campbell, T. P., Holmes, R. J., Kernot, I. I. and Hofman, P. J.
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Abstract

Major quality deterioration during handling in mango supply chains has resulted in a loss of confidence in the product. A "technology development" extension model was used by the Better Mangoes project team to improve knowledge and practices by supply chain members. This involved working with specific supply chains to identify where and why quality loss was occurring, and using the knowledge gained to transfer information to the rest of the mango industry. Evaluation has shown that both project participants and non-participants have improved their knowledge and changed practices as a result of the information generated. A total of 93 consignments were monitored over 3 seasons for temperature and fruit quality, from receiving at the packing shed to dispatch from the wholesale market. Fruit temperature varied considerably with many loads fluctuating from high to low temperatures. To assess fruit quality, a measure called the saleable life index (SLI) was developed. The SLI is the time from when the average skin colour in a sample of fruit reaches 60% yellow to when 10% of the fruits show signs of rots. Retailers want a SLI of at least 7 days to deliver fruits to the consumer in peak condition with minimal losses. During the 2001/02 season, only 29% of the Kensington Pride loads monitored had a SLI of 7 days or more. By monitoring quality at different points along the supply chain, it was found that the SLI was reduced by high ripening temperatures, mixed ripening, delays during handling, poor disease control in the orchard and ineffective postharvest fungicide treatment. Two alternative handling systems were found to deliver mangoes to retailers with sufficient saleable life. Both involve controlled ripening with ethylene and careful control of fruit temperature. Good communication between supply chain members is essential to ensure that the systems work.