

Title Innovation in cold storage technologies
Author J.H. Ekman, J.B. Golding and W.B. McGlasson
Citation Stewart Postharvest Review, Volume 1, Number 3, October 2005, pp. 1-14(14)
Keyword new technology; storage; commercialisation; innovation; horticulture

Abstract

Purpose of review: This review describes a number of the storage technologies which have been proposed or commercially applied over the last 5–7 years. These include modifying the storage environment, adding to the storage atmosphere and improving the effectiveness of storage conditions so as to better maintain product quality or improve energy efficiency. While the review is not necessarily comprehensive, we have attempted to focus on areas where particular innovation has occurred.

Limitations: Relatively little published information is available on new storage techniques which are undergoing significant commercial growth. Examples include thermofogging during storage, modified atmosphere shipping and energy saving technologies. Conversely, a number of comparatively well-researched areas appear to have had less commercial application.

Directions for future research: There is a clear need for more research and development in many of the areas identified in this review. Commercialisation has moved ahead of scientific evaluation in some fields. Future research needs to focus on how postharvest science can add value to horticultural industries, particularly in the practical application of new technologies. This requires a good understanding of not only the products and their responses, but also risks, benefits and the ‘human element’ in application of new technology.