

BOOK REVIEWS

Colour Atlas of Postharvest Quality of Fruits and Vegetables. By M.C. do N. Nunes. Oxford: Blackwell Publishing (2008), pp. 463, £110.00. ISBN 978-0-8138-1752-1. doi:10.1017/S0014479708007114

This is an important and valuable addition to the literature on postharvest management of fruits and vegetables. At the core is a detailed photographic record of the effects on visual quality over time of storage under different temperature regimes for a wide range of fruits and vegetables. It is a valuable practical tool for anyone involved in the commercial fresh produce supply chain at any point from harvest to point of sale, as well as students and research scientists working in this field. Its breadth of coverage is particularly impressive and a major attribute.

Thirty-five different fruit and vegetable products taken from eight major groups are covered: subtropical and tropical fruits; pome and stone fruits; soft fruits and berries; Cucurbitaceae; solanaceous and other fruit vegetables; legumes and brassicas; stem leaf and other vegetables; and alliums. For each product, an overview is given of key quality characteristics, followed by a summary of optimum postharvest handling conditions, and a brief review of temperature effects on quality. The time and temperature effects on the visual quality of the selected variety are then summarized, followed by the detailed photographic plates. The photographic record is painstaking, and presents clearly and simply the quality problems that arise and the interactions over time spans and temperature regimes relevant to the commercial chain. Photographs of internal sections are also given where relevant.

The photographic record works least well for the black and nearly black fruit – blackberries, blackcurrants, and blueberries. The index for words beginning h to k is missing, but this is not a serious issue in such a book.

Steve Caiger

Dispersal in Plants – A Population Perspective. by R. Cousens, C. Dytham and R. Law. Oxford: Oxford University Press (2008), pp. 221, £34.95 (paperback) ISBN 978-0-19-929912-6; £70.00 (hardback), ISBN 978-0-19-929911-9. doi:10.1017/S0014479708007126

This book is highly recommended for plant and weed ecologists interested in plant population dynamics. The text commences logically with the dispersal of individual propagules, followed by dispersal from entire plants and finally the impacts of dispersal on population dynamics of species and evolution. Mathematical models of dispersal from the perspective of the population are explained clearly, but the non-mathematically inclined will find much of value. Chapters 1 and 5 are ‘must reads’. Topics where predictive models are well developed are discussed and those where more research is needed are highlighted. Of particular value is the distinction between dispersal viewed by density (seeds landing per m²) and frequency distribution of distances travelled by seeds. Clear guidance is provided on avoiding statistical pitfalls and on practical methodology, e.g. the consequences of the absence of replication in many dispersal studies.

The book is not, however, a complete account of dispersal so that plant anatomy and adaptations are not covered comprehensively. Impacts of dispersal on seed viability and of seed dormancy on temporal dispersal are scarcely mentioned, so that the ‘success’ of dispersal remains an open question. Another significant omission is the potential long distance dispersal of seeds which remain suspended in the air for several hours, e.g. glyphosate-resistant *Conyza canadensis*. The eighth chapter is an unconvincing climax, describing selection pressures, many of which imply dispersal should be selected against! By contrast, the spatial dynamics model based on two competing species (chapter 7) superbly illustrates the population dynamics of dispersal.

Alistair J Murdoch