

POSTHARVEST SOLUTIONS FOR MAJOR FRUITS IN THE DEVELOPING HUMID TROPICS – THE PLANT & FOOD RESEARCH EXPERIENCE

Guinevere I. Ortiz¹, Allan B. Woolf¹, Nguyen Van Phong², Nguyen Khanh Ngoc¹, Nguyen Van Tung², Nguyen Duy Duc⁴, San Tram Anh⁴, Nguyen Trong Minh Khiem⁴, Phu Cao Ngoc³, Manh Hung Phung³, Karmun Chooi¹, Vu Thi Phuong Thanh¹, Stephanie Montgomery¹, Suzie M. Newman¹

¹The New Zealand Institute for Plant & Food Research, Auckland, New Zealand

²Southern Horticultural Research Institute, My Tho, VietNam

³Northern Mountainous Agriculture and Forestry Science Institute

⁴Sub-Institute for Agricultural Engineering and Post-harvest Technology, Ho Chi Minh, Viet Nam

The developing tropics face unique challenges in ensuring the quality and shelf life of major fruits due mainly to inadequate infrastructure, poor transportation, and limited access to technology. This presentation will explore practical postharvest solutions aimed at extending the shelf life and enhancing the quality of major fruits in these regions drawing on our experiences at Plant & Food Research and our ongoing international development efforts in Southeast Asia, Africa and the Pacific around postharvest management and value chain.

We will delve into the importance of proper handling, storage, and packaging techniques to minimize damage and maintain quality as well as practical solutions for complex problems. Cold chain management strategies will be discussed as a critical component in preserving the quality of fruits by controlling temperature throughout the supply chain, especially in tropical climates. The presentation will highlight our work on dragon fruit and passionfruit in Viet Nam, and avocado in Kenya.

The New Zealand Institute for Plant and Food Research (PFR) is a New Zealand government-owned Crown Research Institute (CRI). Its long history of undertaking professional scientific research to aid agriculture and horticulture in New Zealand dates to the early 1900s. One of the key aspects of PFR's work is its international development efforts, where it collaborates with organizations and partners around the world to address agricultural challenges and improve food security.