

Meeting mango market expectations in NT and Cambodia

Maddison Clonan, Crawford Fund awardee and Research Horticulturalist, Plant Industry Development, NT Department of Primary Industries and Resources



Background

- Masters student in 2017 – Charles Sturt University, Master of Sustainable Agriculture
- Crawford Fund International Agricultural Student Award
- HORT/2012/003 *Building a resilient mango industry in Cambodia and Australia through improved production and supply chain practices*



Conducting fruit quality assessments with CARDI staff in Phnom Penh, Cambodia

Project aims

- Identify key contributors to fruit quality decline in Australian and Cambodian mangoes
- Develop harvest and post-harvest handling procedures to improve fruit quality in Australian and Cambodian mangoes
- Further our understanding of local and export mango markets and production systems in Cambodia
- Contribute to the development of export opportunities for Cambodian mangoes



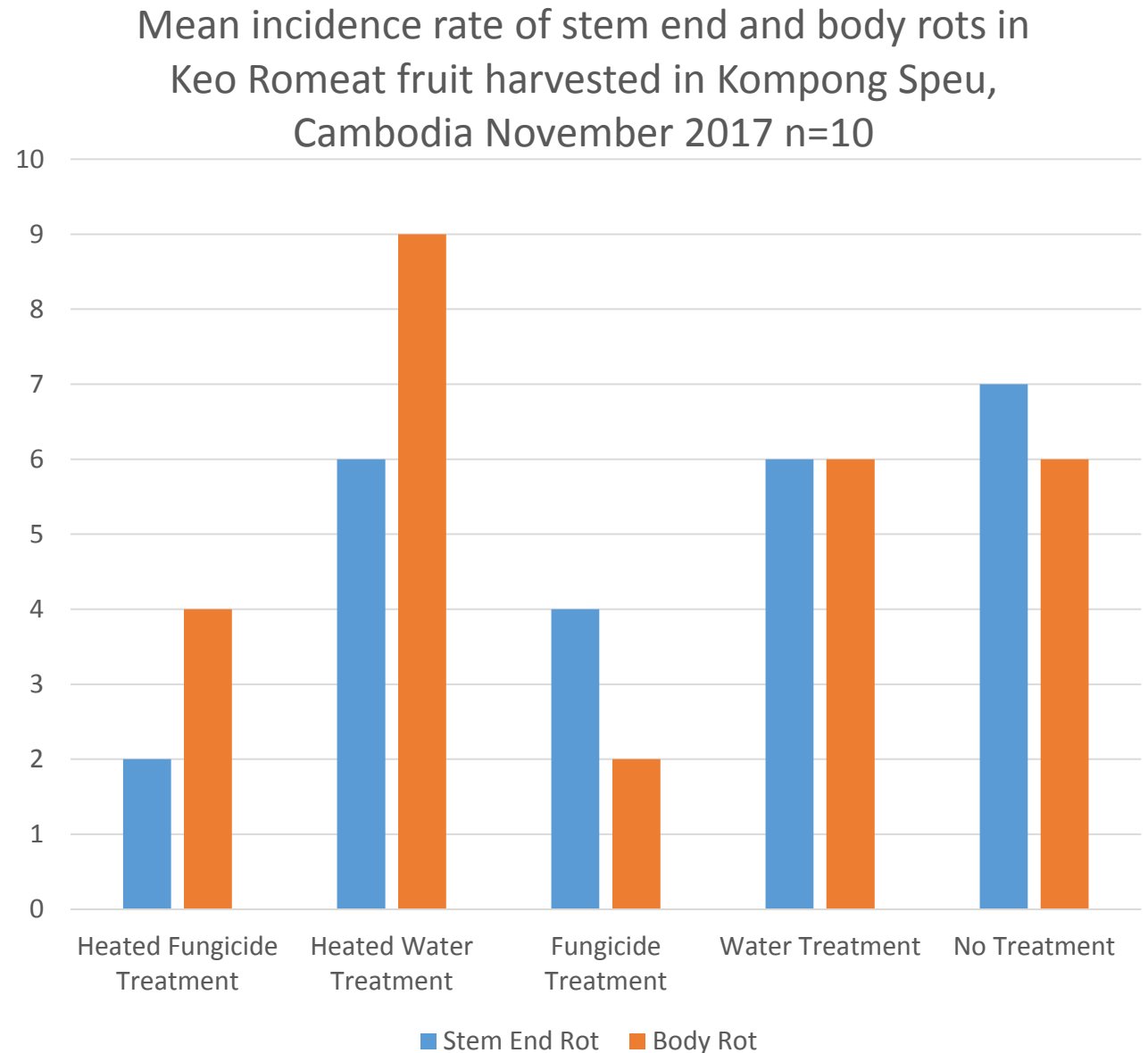
Keo Romeat mangoes harvesting 2017
Kompong Speu, Cambodia

Project Methodology

- 2 trials: Nov 2017 and April 2018
- 1st trial Simulated harvest, store and ripen
- 2nd trial Simulated harvest, VHT, export and ripen
- Fruit assessments when ripe were used to determine % marketability of fruit
- Farm tours (formed partnerships, gathered knowledge on Cambodian production,
- Involved industry (studied cold chains, packaging, packing and treatment)

Project Results

- Key issues that impact fruit quality are fruit rots
- First trial identified 2 treatments for reducing rot incidence rate
- Second trial will identify areas of the export supply chain that may have impacted fruit quality.



Key Impacts in Cambodia

- Capacity building of Cambodian organisations, researchers and students to conduct scientific research.
- Further understanding of key issues affecting the capacity of Cambodian mango industry to export.
- Development of harvest and post-harvest practices that maintain fruit quality during the export process, hence ensuring marketability of Keo Romeat mangoes at destination.
- Facilitation of collaborative partnerships between local and international private enterprise, scientists and government staff.



Demonstrating fruit harvesting practices that may reduce fruit blemish development to Cambodian mango pickers

Benefits to the NT

- Marketing of Australian technology and development of Australian business opportunities in Cambodia.
- Improved understanding of the occurrence and prevention of post-harvest mango disorders relevant in Cambodia, is directly aligned to issues effecting NT mango production.
- Unique flowering manipulation practices employed in Cambodia have potential to influence the development of greater flowering control measures in the NT.
- Developing our understanding of mango export routes is directly relevant to Australian mango export systems.



International companies at Australian owned fruit treatment facility, inspecting Keo Romeat fruit before treatment

Personal and Professional Development

- Developed capacity to conduct scientific agricultural research overseas and in Australia.
- Scientific skills and experience gained in Cambodia is directly transferable to my role in the NT mango industry at DPIR.
- Development of professional relationships with a variety of Australian and Cambodian stakeholders that will further enable my professional development and research capacity in the future.
- Individual skill development in the areas of communication across cultures, leadership, capacity building. Strengthened knowledge of crop management, pest control, and harvest practices, as well as the identification of drivers and inhibitors of change and familiarity with value chain networks.
- Employment within the NT mango industry.



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Entire ACIAR team at final project meeting in Phnom Penh, Cambodia