

SESSION 1

DIRECTIONS IN TROPICAL FRUIT RESEARCH AND DEVELOPMENT

TROPICAL FRUIT RESEARCH, DEVELOPMENT, AND EXTENSION IN AUSTRALIA

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ABSTRACT

Commercially grown tropical fruits in Australia are classified under the established or the emerging industries. The former industries include avocado, banana, lychee, mango, passionfruit, and papaya. The research, development, and extension (RD&E) of the established industries is primarily supported through levy collected by the industry representative organizations and leveraged by Hort Innovation and purposive Cooperative Research Centres (CRCs). The emerging tropical fruit industries include dragon fruit, durian, jackfruit, longan, mangosteen, and rambutan. RD&E investment in emerging industries is largely supported by AgriFutures Australia through the Emerging Industries Program. The Australian Government represented by the Department of Agriculture, Water and the Environment and the Australian Centre for International Agricultural Research, the State/Territory Governments of the Northern Territory, Queensland and Western Australia, and universities also contribute in certain areas of RD&E in both the established and the emerging industries. Among the key value chain elements, which make Australian tropical fruit industries profitable, are research-driven advanced and climate-smart production systems; diversification; application of evolving technologies for crop and varietal screening, yield forecasting, and quality prediction; postharvest handling systems including cool chain infrastructure; and market intelligence. This paper presents one example each of the recent RD&E projects in established and emerging industries. The RD&E outputs suggest that direct alignment of horticulture with greater value from land and water use, strict biosecurity measures, clean and green image of Australian fresh produce in the domestic and the international markets, seasonal advantage, high rate of technology adoption, and increasing interest of investors will continue to expand production and trade of Australian tropical fruit and contribute to the economic, social and environmental sustainability of the country in particular, and more broadly in the region.

Keywords: Engagement, farm productivity, innovation, productivity, sustainability, tropical fruit.