

KEYNOTE PRESENTATIONS

SMART TECHNOLOGIES AND INNOVATIONS IN THE MANGO INDUSTRY

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It is said that we 'overestimate change coming in the short term, but underestimate change coming in the long term', but it is also true that we underestimate change that has occurred. This presentation reviews changes that have occurred in technology applied to the packhouse in the last decades, and explore its adoption into in-orchard applications, with focus given to the mango industry and to measurement of fruit quality attributes. Examples will be drawn from the work of our research group, addressing use of field temperature sensors and portable near infrared spectroscopy in estimation of optimum harvest timing, and use of RGB-D cameras and machine vision in forecast of crop load, in context fruit number and size. Disparities between the scientific literature base and commercial application will be highlighted, as will the potential for use of other non-invasive sensor technologies and the further use of these technologies in the development of automated harvesting.

Keywords: Australia, packhouse technologies, mango, field temperature sensors, NIR spectroscopy, machine vision