Researchers to test a new non-destructive device on Australian stone fruit

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In a strategic move set to enhance Australian stone fruit quality in domestic and export markets, a research collaboration between Fruitful Insights, Summerfruit Australia Limited (SAL), and Horticulture Innovation Australia (HIA) will evaluate and validate a non-destructive fluorescencereflectance spectrometer developed by Rubens Technologies for rapid measurement of fruit maturity and quality.



Photo: Rubens Technologies.

This exciting new project 'Determining harvest maturity for peaches and nectarines' (SF23005) will enable growers to reliably measure harvest maturity with the Rubens sensor, and time harvests to maximise fruit quality, storage life and export potential. Researchers at Fruitful Insights will correlate the Rubens sensor with stone fruit maturity and quality at harvest, and develop prediction models over the next three seasons for up to 50 peach and nectarine cultivars. The effect of growing region and/or season on prediction of stone fruit maturity will also be determined for several cultivars, whilst the influence of harvest maturity on the outturn quality of commercially-exported stone fruit will be assessed in key export markets, to verify the accuracy and reliability of the sensor. SAL's export manager, **Charlotte Brunt**, suggests that, "Determining fruit physiological maturity at harvest will be key to improving fruit eating quality and storage potential in both domestic and export markets."

The ability to accurately measure fruit maturity and quality in a non-destructive way will empower growers to make better marketing decisions, and improve eating quality for all consumers, whilst reducing the risk of storage disorders during export, such as those destinations with sea freight durations greater than three weeks. Ultimately this project aims to enhance Australia's reputation in global markets for high quality stone fruit, and thus increase the sustainability and profitability of the Australian stone fruit industry.

The Australian stone fruit industry is an important component of the country's horticultural economy. Outgoing Summerfruit CEO, **Trevor Ranford** explains, "This is a great project for all of industry and is long overdue, and will help to further improve the consistency and taste of our delicious fruit, and will boost our competitiveness in international markets now and into the future. With major export markets in Asia, Europe, and the Middle East, the demand for high-quality fruit is on the rise".

Daniel Pelliccia, Founder and CEO of Rubens Technologies is looking forward to the insights gained from this project. "Having access to multiple cultivars across their full harvest maturity range will further strengthen and improve the robustness of the models we are developing, so this project is a win-win for all.



Developing a sampling protocol that growers can easily follow at harvest time will also be an important part for the effective utilisation of these sensors in the orchards".

The partnership between Fruitful Insights, SAL, and HIA, is a unique opportunity for the Australian Summerfruit industry to invest in research, development, and the adoption of new technologies to increase the competitiveness of Australian horticulture on the world stage.

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Alternatively, please visit <u>www.fruitfulinsights.com.au</u> or scan the QR code.

Summerfruit Australia is the recognised Peak Industry Body and industry voice for growers of Nectarines, Peaches, Plums and Apricots. This project has been funded by Hort Innovation, using the Summerfruit research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

