



Translating tissue culture in avocado cultivars

A visit to Chile to demonstrate clonal propagation protocols is just the start of a growing agricultural pipeline for The University of Queensland's world-leading tissue culture team.

[Dr Chris O'Brien](#) from UQ's Queensland Alliance for Agriculture and Food Innovation visited [Grupo Hijuelas](#) to teach the techniques for four avocado rootstocks licensed to the South American company.

Dr O'Brien said the technology pioneered by Professor Neena Mitter's laboratory would have a huge impact in the country, where avocado is a staple fruit.

"These avocado rootstocks will be a game changer for Grupo Hijuelas," Dr O'Brien said.

"Tissue culture will allow them to rapidly develop clonal rootstocks which are suited for Latin American growing conditions.

"When you drive past Chilean avocado orchards, you notice the different heights of the trees due to the variable seed stock – in the future, because of our technology, those orchards will be uniform.

"Some of the rootstocks such as Velvick are tolerant to the plant pathogen Phytophthora, which is a big problem over there, while other rootstocks will solve problems with soil salinity."

Dr O'Brien said the visit was just the start of what is likely to be an extended relationship between UQ and Grupo Hijuelas.

"To see a big company like this translating our research was great," he said.

"It was quite satisfying and rewarding after years working to establish the protocols in the laboratory.

"This is just the beginning of our collaboration with the company, which is keen to work on other things, like developing a protocol for other avocado rootstock and breeding trees of the futures."

The tissue culture technology was developed from research funded by The University of Queensland, Department of Primary Industries, Anderson Horticulture, Jasper Farms, and Millwood Holdings, and licensed by UniQuest, UQ's commercialisation company.

The Queensland Alliance for Agriculture and Food Innovation is a research institute at The University of Queensland established with and supported by the Department of Primary Industries.

Images are available via [Dropbox](#).

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