

## Professor Rainer Hofmann

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# Harnessing the diversity in plants for a changing world

**ABSTRACT:** Biodiversity is the key factor in ecosystem resilience. Understanding and utilising biological diversity is a powerful tool to bolster crop performance in our changing world. By drawing inspiration from nature's playbook, we can utilise genetic variation within and between plant species to tackle the challenge of meeting food security under increasingly stressful environmental conditions.

This seminar will showcase plant-based climate-smart agriculture applications from New Zealand and the Pacific region, where such approaches are now becoming the norm after decades of degradation of fragile agroecosystems. The presentation will focus on sustainable plant-based innovation that synthesises intraspecific and interspecific plant diversity with optimal resource use to strengthen these systems against the mounting challenges posed by climate change.

See also:

<https://www.aciar.gov.au/project/crop-2020-185>

<https://www.aciar.gov.au/project/clim-2020-186>

<https://youtu.be/LI4RNCumkk>



## Professor Rainer Hofmann

came to NZ from Vienna in 1993, is Professor of Plant Biology at Lincoln University, where he studies plant-environment interactions. His work particularly focuses on pasture plants, including the development of clover germplasm for improved water-use and nutrient-use efficiency for future pastures under a changing climate. He also studies horticultural crops, especially the grapevine, to help increase crop quality characteristics and environmental sustainability.

Rainer enjoys teaching plant biology at undergraduate and postgraduate levels and his teaching practice was recognised by an Ako Aotearoa Award for Sustained Excellence in Tertiary Teaching (New Zealand's highest tertiary teaching award). He has developed strong agricultural research links in the Pacific Islands region with tertiary and development partners.

