



**Me aro ki te Reo o te Kaimahi – Kia Kōkihi Hangarau Hou:  
Listening to Workers Voices when Developing New  
Orchard Technologies**

**James Henare Research Centre**

# Our Approach to Robotics

- Engagement with Communities (Blueberry, Kūmara, Māori Potato)
- Onboarding our research team
- Challenge traditional thinking
- Inclusive of diverse perspectives
- Create rich learning environments
- Capability and capacity building



## Sharing Kono Kaimahi Ideas

- 3 members of the JHRC travelled to Kono to interview 16 Kono staff members in May 2021
- Kono welcomed us with a whakatau, and shared their hospitality
- We were taken on a tour of the orchard premises
- Kanohi-ki-te-kanohi interviews (one-on-one) generally lasted 45mins – 1hr 15min
- We interviewed a range of staff, many of whom were Māori and whakapapa to iwi and whenua of the Wakatū/Nelson region



Nick with orchard supervisor Dan Tohill

# What makes Kono Special?

- All workers are immersed in tikanga Māori
- Engaged with marae and a number of iwi
- They manaaki their overseas employees and commit to their professional development
- Annual hīkoi to connect with the whenua
- High work satisfaction
- Karakia before planting/harvesting seasons
- Looking to follow the Maramataka (planting and harvesting calendar)
- Diversifying into Māori crops – kūmara, kamokamo, taewa, kaanga



# Robotic Solutions – Key Findings

- Kono staff offered Robotic invention ideas that would assist their work – i.e. wearable cooling system, superior platforms for multiple terrains and a variety of heights, a device for better back support, better ladder stability, more user-friendly hop ties
- All participants were willing to learn how to use new technologies on the orchard and were enthusiastic by ‘real’ co-design opportunities



# Robotic Solutions – Key Findings

- Opportunities to invent technologies to assist with new Māori crops
- Workers did not feel threatened by the creation of new technologies, but still felt humans were more efficient (however, we have a huge worker shortage in this industry)
- Workers identified, designers need to remember where funding comes from. Technological innovations should not just serve intellectual aspirations without real world application



Marama with Kono Kaumātua Tom Matthews