

EXECUTIVE SUMMARY

SUMMARY OF PROGRESS DURING THIS QUARTER

Social Licence to Operate

- This quarter, the remaining pilot group of farmers were upskilled to record and monitor their on-farm biodiversity. We now have 15 farmers with a baseline biodiversity score and who feel confident to record their own biodiversity in future years. This project will allow us to see trends in biodiversity and to ensure that on-farm management contributes to positive biodiversity outcomes.
- A new resource is due to start in August 2019, and her focus will be on driving carbon and other sustainability projects.
- Fly collection for the flystrike prediction project was completed this quarter. Flies were collected weekly out of traps across the North & South Island from the end of October to the start of June. The prevalence of flies is being analysed in relation to weather patterns to better understand this relationship. The analysis will be completed in the first quarter of Year 5. In future seasons weather data alone will be used to determine fly prevalence and to notify farmers of their flystrike risk. It was noted that across New Zealand, the flystrike season has extended beyond what was previously considered the end point, this is thought to be a combination of warmer climates and the migration of more aggressive fly species from Australia.
- The use of pain relief during farm procedures was raised with growers

this quarter. Initial conversations were positive, with growers understanding that they must lift their practices to align with consumer expectations. A group of growers have committed in principle to use pain relief technology on their own properties this spring. A project plan for trialling the technology will be designed and implemented in Year 5. We will continue to investigate other options to improve animal welfare outcomes during these procedures.

- This quarter, development began on the next iteration of ZQ, moving from a compliance system to a system which recognises and incentivises farmers who go above and beyond. This work will be a major focus in Year 5, with farmer consultation planned and extra resource being brought on to work on this (and other) projects.

Crossing the Chasm

- First container transacted with a high-end Swedish blanket company. The company uses good volumes of lambs wool, and as a 4th generation vertically integrated family business, are moving towards more ethically sourced wool initially for their children's range, and expanding across their wider business over the coming years.
- NZM was invited to a Swedish brand partner's supply chain meeting, where at short notice, were asked to provide an example of our

traceability direct to farm based on orders in their supply chain. The three years of relationship building reflects the time a big company takes to make a substantive change towards ethical sourcing. The brand used the example to support a new ordering system providing traceability through supply chain via their invoice orders, and advised carpet manufactures to reject orders if they did not contain wool from NZM. This bold step supported the rhetoric the brand have used about shifting to all wool from head office in Sweden, making it very pleasing to see this implanted in their supply chain.

- The digital Wool Movement campaign launched this quarter. A website www.woolhq.com has been created, testing different wool messages via blog posts, social media pages, and eventually podcasts with key partners in the industry as it gains momentum. The focus is to drive consumer awareness and understanding of strong wool, linking flooring with merino fashion and sports brands
- New Zealand's largest carpet company visited Studio ZQ. Design thinking workshops explored synergies and created a positive first step towards a partnership, shifting the company back to a wool only business. Wool contracts are being worked through to help build a marketing focus in key markets.

Blue Ocean

- A market trip this quarter provided valuable direction regarding effort and investment. Key takeaways included;
 1. Positioning is key to having a marked impact on wool price. Currently we are working with partners to develop a new yarn blend for a luxury a market.
 2. The luxury market can be quite fad based which could position this technology as a novelty fibre/fabric. Key is to find an emotional, functional and core category to create sustained sales.
 3. Avenues to commercialise the fibre exist. Emerging fibre development companies well worth pursuing to ensure we don't overlook new fibre development and commercialisation models.
- Further insight work delayed pending appropriate samples to show to the market. Currently only 2kg of fibre is able to be produced each week (provided all going well) and therefore we don't have the sample set we need to move commercial evaluation from hypothetical to actual. It is anticipated these samples will be ready in August 2019.
- A new resource has been employed as Director of Technology and Innovation to drive innovation within Studio ZQ. This will include the continued assessment of a new fibre, brand partner fibre developments, bio materials etc. He will begin in August 2019.

- A strong wool design competition run in partnership with IDEALOG commenced this quarter, and helped to raise awareness of the possibilities for strong wool in new products. The competition attracted 73 excellent ideas worthy of commercial consideration. A shortlist of 10 has been created with the winner to be awarded in August 2019. The reach of this competition, and media uptake has had a flow on effect to influencing bales in and providing hope for disenfranchised strong wool growers.
- T&R Interiors launched their strong wool Floc3D acoustic panels at Studio ZQ this quarter to much interest among interior designers and architects. Discussions regarding further supply for their next product have commenced.

Primary Sector Extension

- Design thinking workshops, prototyping for Studio ZQ, have been held with Ag sector partner to help develop story and market plan for their environmentally friendly product that has potential to solve plastic waste in the Ag sector.
- Attended GrowNZ Primary Sector Innovation day in Wellington where 80 high school students were presented with a design challenge from 4 industry representatives (MPI, DairyNZ, Onions NZ and NZM's W3) to come up with an innovative product that uses the properties of

crossbred wool and uses enabling technologies (e.g. AI, Biofuels, Smart Machines, Augmented Reality etc) in producing, marketing or distributing the product. Some ideas included:

1. Kitting schools out with all strong wool based furniture (wool / bio-resin) – desktops, chairs + woollen fabric on the chair seats to help with body temp regulation during the day.
 2. Wool 'the new plastic' – again applying the bio-resin / wool technique to create frames for glasses and alternatives to existing make-up casing and phone cases.
 3. An internal wool lining for tents (applying all the healthy benefits of wool to the sleeping / living environment of tents for camping) + wool liners for sleeping bags.
 4. Dehydrated wool wipes – a household product. Strong wool kitchen clothes that can be used multiple times containing a natural disinfectant solution that is activated when the wipe is wet. The renewable/refillable casing for the wipes was made using a thin wool/bio-resin structured cylinder. This group was even thinking of ways to develop sheep genetics for wool to shed as opposed to needing shorn.
- The Waka Aotearoa initiative has led to some positive developments and although progress has been slower than members initially anticipated, members are still very much engaged.

Upcoming

- In market time with new and existing brands, creating more demand for wool
- Content creation of positive on farm marketing stories
- Building on brand relationships with second wool supply trials
- Development of Studio ZQ innovations and sustainability projects with new resources starting soon.
- Farmer consultations on various on-farm projects and uplevel of ZQ programme

Investment

| Investment period | Industry contribution | MPI contribution | Total investment |
|---------------------|-----------------------|------------------|------------------|
| During this Quarter | \$0.36m | \$0.36m | \$0.72m |
| Programme to Date | \$4.59m | \$4.59m | \$9.18m |

