

Sheep, Beef & Cattle Research Unit (Keebles & Haurongo Farms) – Massey University



History:

Keebles was purchased in 1978 from the estate of Charles Keeble. A feature of the farm is Keebles Bush, a 15.5 hectare protected bush reserve considered to be one of the finest remaining examples of podocarp/broadleaf lowland forest in the Manawatu. Haurongo was originally part of a research farm run jointly by the now defunct Department of Scientific and Industrial Research (DSIR), and Ministry of Agriculture and Fisheries (MAF). Ownership was transferred to Massey University in 1987. The three separate blocks Dry Stock Unit, Haurongo & Keebles now make up Keebles Farm.

Objectives:

- To provide a facility for quality research, teaching and extension in sheep and beef farming.
- To be managed as a profitable unit.
- To provide a link between the University and Agribusiness.

Farm Manager: Steven Bayler

Location: The farm is located approximately 7 km SE of Palmerston North on Tennent Drive SH 57.

Altitude: Ranges from 40 to 80 m above sea level.

Topography: Flat terrace dissected by easy gullies, with some steep faces.

Climate: 1000 mm (average annual rainfall). July wettest month, February driest month. Prevailing southwest winds.

Temperature: Soil temperature (at 10 cm) – 6.7°C July minimum; 18.5°C January maximum.

Soil Types: Free draining recent alluvial soil (Manawatu/Rangitikei) on river terraces. Poor draining heavy clay Tokomaru Silt Loam on the higher terraces. Compact clay loams with compact subsoil, poor natural drainage and with a tendency to dry out in summer. Moderate natural fertility. Some Ohakea Silt Loam soils. Haurongo has predominantly Tokomaru Silt Loam.

Area: 500.84 ha

Effective area: 415.67 ha

Subdivision: The farm is subdivided three separate blocks then into approximately 216 paddocks, ranging from 0.16 to 5.08 ha. Conventional post and batten fences plus some 7-wire electric.

Drainage: Tile and mole drainage.

Water Supply: The Keeble block is supplied by reticulated water from main Massey University supply. On Haurongo bore water is pumped to a central reservoir then gravity fed to paddocks.

Staff: 2 full-time equivalent labour units + casuals as required.

Stock Policy: *Sheep:*
All sheep on Keebles are involved in research trials so feeding and breeding policy is largely determined by trial protocols. Numbers on farm vary depending on research requirements but generally around 700 MA ewes are wintered and lambed down. No ewe hogget replacements are retained from the breeding ewes but on occasions ewe hoggets may be acquired for specific trials.. Only Terminal sires are used, and replacement Mixed Age ewes are transferred in from Tuapaka Farm annually as replacements.

Beef:
Policy is largely determined by research requirements. No capital beef stock is currently carried on Keebles; dairy beef steers or heifers are acquired from the two dairy farms and carried through to finishing before the second winter.

From 2025 those beef calves sourced from Dairy 1 & Dairy 4 will be part of Beef & Lamb Progeny test programme. The bottom 20% of animals on Breeding Worth bases, have been mated to Dairy Beef Progeny Test (DBPT) sires 2024 mating and it is anticipated that around 100 calves will be enrolled into the first DBPT cohort in Spring 2025.

Dairy grazing: 150-200 dairy replacements heifers (owned by University dairy farms) come on the farm after being weaned from milk November/December. 160 of these are carried

through until several weeks before calving as two-year-old in-calf heifers.

200 dry dairy cows from the University farms are also carried over the winter and are grazed on crop and farm grown baleage.



Yards: Main set of covered yards attached to five-stand raised board woolshed (~700 sheep night-pen capacity). Another set of satellite yards are located towards the rear of the farm. The main set of sheep yards are attached to the small woolshed (two-stand, night pen of 200). There is a modern set of cattle yards on Keebles.

Pasture: Predominantly perennial ryegrass / white clover species but boosted by chicory mixes.

Grazing Policies: Non-trial mobs are generally rotationally grazed, with baleage used to extend the rotation when required. Cows and in-calf heifers graze a winter forage crop (primarily kale).

Crops/Supplements: 10ha kale plus 10ha chicory & are sown annually. Around 10ha of maize silage is harvested annually and transferred to Dairy 4. Baleage is harvested off approximately 25 ha, along with hay.

Regrassing Policy: Pastures are renewed on a ten-year rotation

Fertiliser: Fertiliser programmes are based on soil test results.

Keebles(SBCRU):

| <i>Year</i> | <i>pH</i> | <i>Olsen P</i> | <i>SO₄</i> | <i>K</i> | <i>Mg</i> |
|-------------|-----------|----------------|-----------------------|----------|-----------|
| 2002 | 5.9 | 26 | 4 | 6 | |
| 2004 | 5.6 | 19 | 13 | 5 | |
| 2010 | 5.8 | 29 | 10 | 7 | 24 |
| 2012 | 6.2 | 17 | 9 | 4 | 19 |
| 2016 | 5.8 | 28 | 12 | 6 | 22 |
| 2018 | 5.9 | 21 | 6 | 4 | 18 |
| 2020 | 5.6 | 28 | 9.5 | 5 | 23 |
| 2022 | 5.6 | 38 | 4.8 | 9.1 | 21 |
| 2024 | 6.1 | 42 | 6 | 10 | 25 |

Haurongo:

| <i>Year</i> | <i>pH</i> | <i>Olsen P</i> | <i>SO₄</i> | <i>K</i> | <i>Mg</i> |
|-------------|-----------|----------------|-----------------------|----------|-----------|
| 2002 | 5.8 | 18 | 7 | 7 | |
| 2004 | 5.6 | 20 | 7.0 | 7 | |
| 2010 | 5.5 | 30 | 7.0 | 4 | 17 |
| 2012 | 5.9 | 25 | 13 | 6 | 17 |
| 2020 | 5.8 | 22 | 10 | 4 | 18 |
| 2022 | 6.0 | 30 | 6.2 | 6 | 18 |
| 2024 | 6.0 | 31 | 4.0 | 7 | 25 |

Maintenance Fertiliser program 2025 is as follows:

230 kg/ha of Sulphur Super with added Selenium (0-17-0-30).

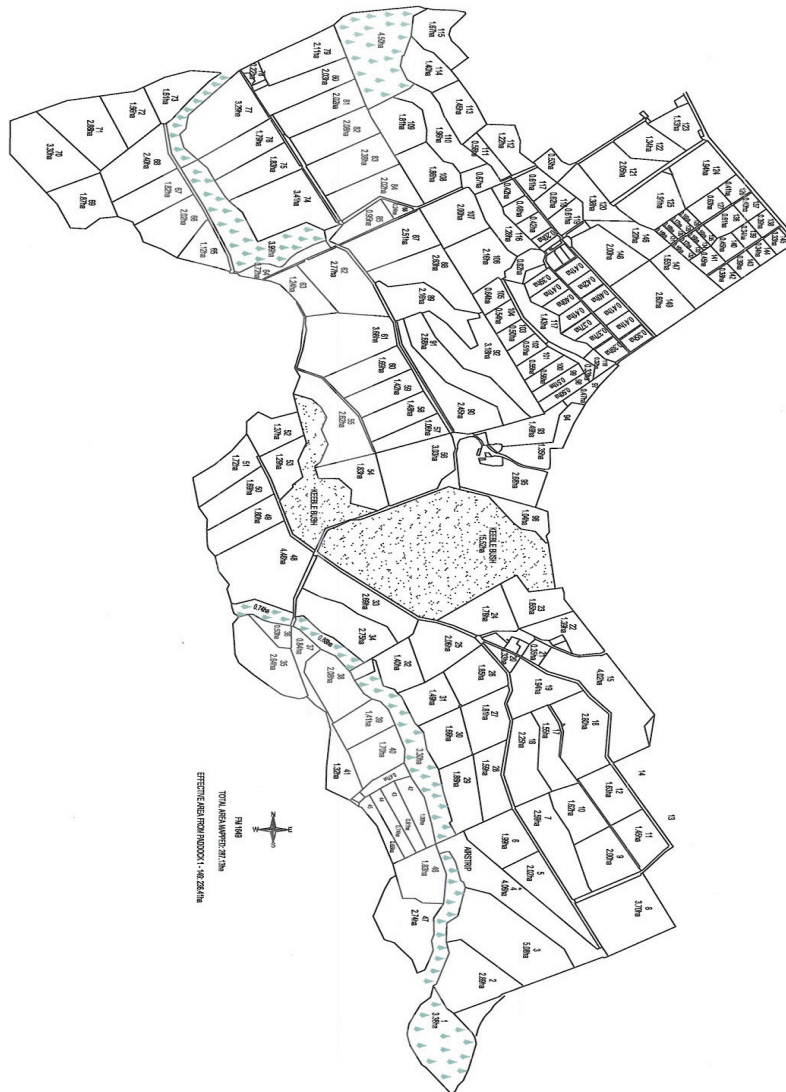
2025 Wintering Stock Numbers (@ 1July 2025):

| SHEEP | Numbers | SU |
|---------------------------|----------------|-------------|
| MAEwes | 700 | 700 |
| 2ths | | |
| Ewe Hoggets | 260 | 180 |
| Rams | 8 | 7 |
| Sheep Total | 968 | 887 |
| CATTLE | | |
| R2 Yr Charolais X Steers | 44 | 220 |
| R2 Yr Charolais X Heifers | 37 | 167 |
| R1 Heifers | 162 | 668 |
| R1 M/S Dairy X | 58 | 232 |
| Autumn M/S FXH Calves | 45 | 180 |
| Dairy Cows Wintered | 200 | 308 |
| Cattle Total | 546 | 1775 |

2,662 SU

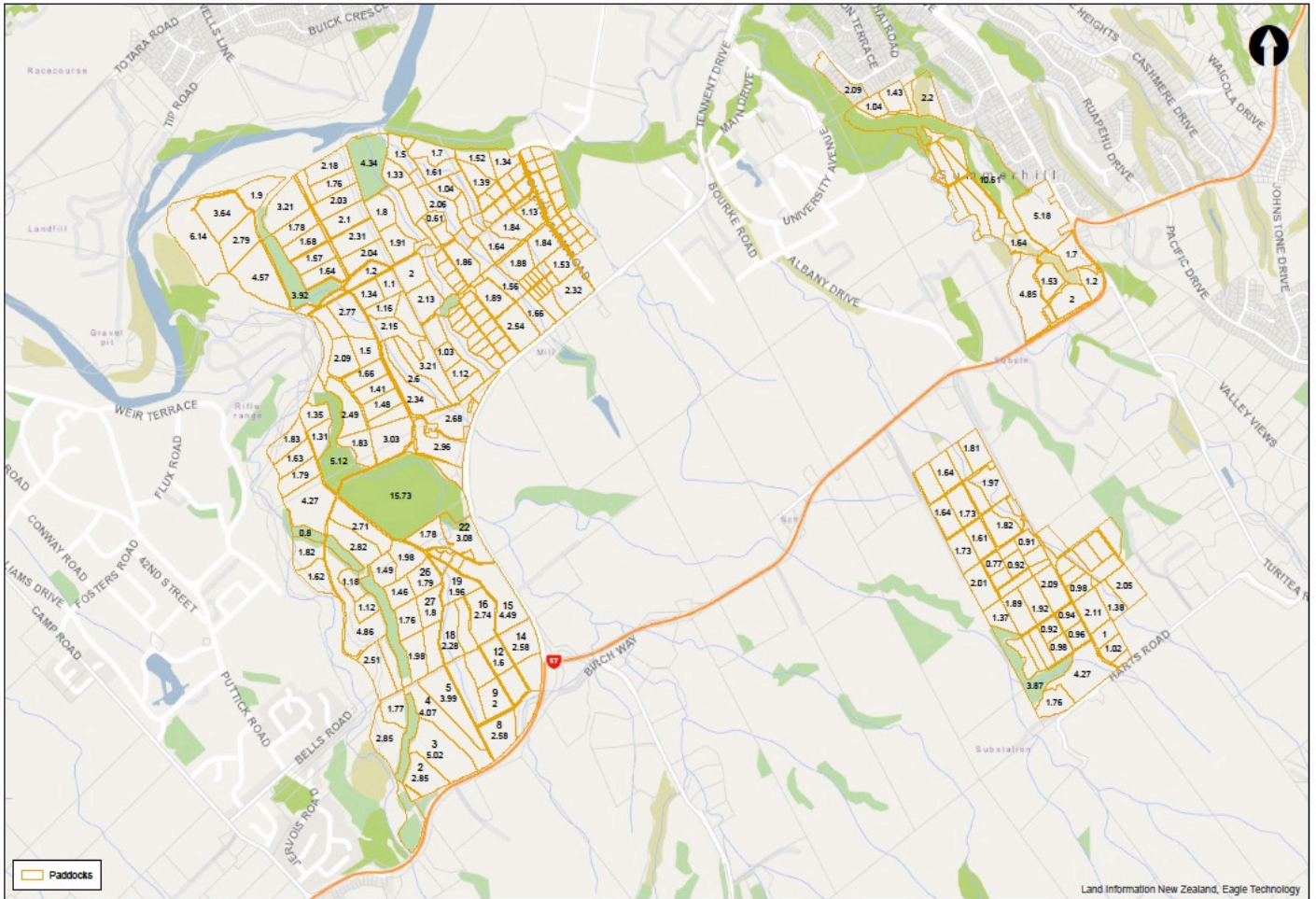


Keebles Farm Map





Keebles - Consolidated



MASSEY - SHEEP, BEEF & DEER RESEARCH UNIT - 60021583
 Date printed: 16/01/2020
 0800 73 73 73
www.hawkeye.farm

0 165 330 660 990 1,320
 Metres

Hawkeye