Tuapaka

History:

The original 420 hectare farm was acquired in 1938, with a further 56.5 ha added in 1971. In 1983, Tuapaka was divided into two blocks so that better commercial use could be made of the farm – a 111 ha unit of predominantly flat ground, and a hill unit of 365 ha. Initially following this subdivision it was decided to run bulls from weaners to 18 months on the smaller unit, with a sheep and bull beef system put into place on the larger unit. Recently, management strategies have changed to better utilise the property and improve the farm's ability to service research and teaching activities.

Objectives:

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



Farm no: 12912

Manager: Steven Bayler

Stock Manager: Johno Brophy

Total area: 476 ha – Flats 111 ha and Hill Unit 315 ha

359 ha effective - Flats 99 ha and Hill Unit 300 ha

Legal Description: Massey leased the land for approximately 10 years (1938-

1948) and following Crown ownership acquired freehold title in 2018. Tuapaka is administered and managed by Massey

Ag & Hort Enterprises.

Location: 800 Fitzherbert East Road, Palmerston North

Delivery Heading 15 km north-west from Palmerston North along

Aokautere Road into

Instructions: Fitzherbert East Road. Tuapaka entrance is located 8.2 km

along Fitzherbert East Road on the right.

Services: All major commercial services at Palmerston North (15km)

Primary school at Aokautere (6.5 km and 4 minutes),

Secondary Schools at Palmerston North.

Contour: Flats: mostly flat with some rolling country

Hill Unit: rolling to very steep hill country

Soils: Flats: Tokomaru Silt Loam and Ohakea Silt Loam (derived from

wind-blown dust from riverbeds). The subsoil is compacted which causes the soil to be slow draining. Natural fertility is

medium to high.

Hill Unit: Steepland soil related to Makara Steepland Soils derived from greywacke and slope deposits. Natural fertility

is generally low to very low.

Hilly and Steepland soils related to Halcombe hill and steepland soils – derived from loess, unconsolidated sediments and slope deposits. Natural fertility is very low.

Shannon and Tuapaka series – derived from loess overlaying marine sands and have a naturally low fertility.

Korokoro series – derived from loess and slope deposits overlying greywacke, these soils are generally free draining and have a low natural fertility.

Climate:

Climate data for Aokautere

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Average high °C	21	22	20	17	15	13	12	13	14	16	17	19	16.58
Daily mean °C	17	17.5	15.5	12.5	11	9	7.5	8.5	10	12	13.5	15.5	12.46
Average low °C	13	13	11	8	7	5	3	4	6	8	10	12	7.50
Rainfall mm	59.8	42.4	78	67.6	81.1	106.6	62.7	96	75.4	84.2	81.6	74.9	910
Avg. rainy days	15	12	16	18	20	24	20	21	22	18	20	19	225
% <u>humidity</u>													

1100 mm (average annual rainfall). Summer is predominantly dry. Prevailing winds are westerlies and south easterlies.

100 - 360 m above sea level. Altitude:

Gorse and California thistles **Noxious Weeds:**

Possums and rabbits **Noxious Animals:**

Registered Earmark:

Subdivision/Water: The property is subdivided into 85 paddocks which comprise

of Flats: 31 paddocks ranging from 1.3 to 5.2 ha and Hill Unit:

54 paddocks ranging from 1.2 to 12.8 ha.

Fences on both the flats and hill unit are conventional posts and battens with electric outriggers, plus some 3 wire permanent electric. A grass laneway system allows access

to all paddocks on the flats.

Water sourced from a bore with water being pumped to reservoirs on the hills and gravity-fed to most paddocks.

Farm Buildings: Tuapaka Homestead Stock Manager

Shepherd General Dwelling 2

The Homestead was extensively upgraded in 2018. The Shepherd General's house is tired and is programmed for an upgrade. The third empty dwelling is beyond refurbishment.

Five-stand wool shed and covered yard complex with a 1,500 ewe capacity. Two sets of satellite yards. One main set of cattle yards (near the wool shed) with five main pens with concrete floor crush to race and weighing platform (electronic scales), head bail and spray dip. Another satellite set of yards near the south-western farm boundary.

Pastures

The flats are on a five year rotation of hybrid ryegrass/chicory/white clover species. For the hill unit, typical hill country pastures dominate consisting of brown top, crested dogstail with perennial ryegrass and white clover.

Forestry:

Stand	Species	Area (ha)	Year Planted
Tuapaka 01	Eucalypts	0.56	1980
Tuapaka 02	P. radiata	9.12	1993
Tuapaka 03	P. radiata	8.02	1998
Tuapaka 04	C.mac	0.80	1998
Tuapaka 05	P. radiata	5.26	2000
Tuapaka 06	Eu. fastigata	0.72	2000
Tuapaka 07	P. radiata	9.23	2002

Tuapaka 08	P. radiata	2.53	2005
Tuapaka 09	P. radiata	2.36	2005
Tuapaka 10	P. radiata	2.67	2007
Tuapaka 11	P. radiata	3.92	2015

Total Forestry Area: 45.19ha

As part of NZTA's construction of the new Ashhurst/Woodville expressway, 16.43ha of riparian and wetland areas were planted in the winter 2021 to offset resulting environmental damage. In conjunction with this programme Tuapaka management has identified a further 9.4ha which has been retired and earmarked for future biodiversity planting.

Cover:

As at 1 July 2025:

New Grass incl chicory + Clover	101.90ha
Good – Average Pasture	76.97ha
Old Pasture	180.10ha
Commercial Forestry	45.19ha
Riparian Diversity Planting	15.13ha
Wetland Diversity Planting	1.30ha
Research -Native Shrub Block	2.00ha
Manuka 2019 Planting	2.08ha
Waterfall Regeneration	10.09ha
Retired for Future Biodiversity Planting	9.40ha
Races Tracks waste	<u>28.25ha</u>
Total Tuapaka	<u>472.41ha</u>

Total Area 472ha Total Effective Area 359ha



Livestock Policies:

Sheep

Approximately 1,400 breeding ewes, slightly less than 560 replacement ewe hoggets and 24 rams are carried on Tuapaka.

Replacements are bred on farm. In the past all MA Ewes were mated to a FE resistant Romney maternal sire. In 2025 shedding rams have been introduced. Heavier lambs are transferred to Keebles for finishing; lighter lambs are sold store.

Around 260 MA ewes are transferred to Keebles annually.

When seasonal conditions are favourable Ewe hoggets are mated early May to a Terminal sire.

Key strategies to improve the performance of the flock are as follows:

- Continued pasture improvement involving a 5-year rotation of chicory clover on the flats (around 100ha).
- A focus on all year-round nutrition of the ewe flock and hogget growth rates with an objective of lifting per head performances. Specifically:

Heavier ewes at tupping – MAE at 65kg. 2ths at 63kg. There is now an emphasis in managing fecundity to limit triplet births and raising lamb survival and weaning weights.

- Focus on growing hoggets from weaning. Treat these as a finishing animal.
- Lowering the ewe death rate to provide more cull ewes for sale and more selection pressure in the flock.

Production & Future Targets:

	Last Year	Current	Year 3
Sheep	2023/24	2024/25	2025/26
Scanning %	180.2%	178.3%	180%
Dry %	4.8%	5.1%	3.5%
Ewe Death %	7.7%	8.0%	6.5%
Lambing %	131.8%	131.3%	140%
Weaning Weight	28.6kg	28kg	30kg

Cattle:

Tuapaka has recently bred up an Angus breeding herd. The herd comprises 116 breeding cows (91 Angus breeding cows, 25 in-calf Angus heifers) and replacements. Also grazed are six Angus bulls, 90 Angus calves.

In 2024 Tuapaka enrolled in the Beef & Lamb Genetics 'Informing NZ Beef (INZB) program.

The objectives of the programme are to:

- develop a beef genetic evaluation system that includes traits that are important to New Zealand beef farmers and supports a sustainable beef farming industry.
- create easy-to-use tools that enable data to be efficiently collected, managed, analysed and used by farmers to make profitable decisions for their operation.
- create a new approach to extension design with the goal of increasing farmer engagement across the industry.

Key Strategies to Improve cattle Performance are:

- Target winter growth rates of over 0.5kg/day for June and July.
- Kill over 100% of steers & 70% trade heifers before the second winter
- Weaning weight equivalent to 50% of dam winter weight.

Future Targets

Cattle	Last Year 2020/21	2021/22	Year 3 202/25
Scanning	94.8%	93.2%	96%
Cow Death	2.51%	1.3%	1.2%
Calving Percentage	86.5%	88%	92%

Dry Percentage	7 2%	5.1%	5%
Dry Percentage	1.270	5.170	5%

Tuapaka 2025 Wintering Stock Numbers (@ 1July 2025):

SHEEP	Numbers	SU
MAEwes	650	650
2ths	580	580
Ewe Hoggets*	300*	210
Rams	24	20
Sheep Total	1,554	1,460
CATTLE		
MA Cows	104	578
R2 Yr Heifers	25	150
Dry Heifers	29	130
R1 Yr Heifers	20	80
R1 Yr Steers	62	248
MA Bulls	7	35
Cattle Total	247	1,221

2,681 SU

Fertiliser Policy/ Strategy

- Soil tests are undertaken biennially on pre-determined transect lines.
- Fertiliser applications are then planned in conjunction with the Fertiliser rep using Overseer with objective of achieving economic optimum applications.
- The following table shows the average soil test readings on Tuapaka since the regular testing regime was established in 1988.

Historic soil test results

Flats:

Year	рН	Olsen P	SO4	K
2010	5.6	29	10	5.5
2012	6.1	22	9.5	5
2014	6.02	25.34	11.68	6
2018	5.9	22.4	8.6	9
2020	5.6	23.0	10	5.5
2022	5.8	33	8.4	14
2024	5.7	27	12.0	14

Hill Unit:

Year	рН	Olsen P	SO4	K
2010	5.6	30	12	15
2012	5.7	20	9	11
2014	6	25.86	15.4	11
2018	6.0	25.5	8.2	14.9
2020	5.7	27	10.5	12
2022	5.4	32	8.0	16.2

^{*}An additional 260 ewe hoggets are being wintered on Tuapaka to accommodate a trial.

2024 3.5 24 3.6 14

The 2025 fertiliser programme which reflects current soil test data is as follows:

Flats:

Autumn: 175kg/ha Sulphur Super + Selenium (0-15-0-26)

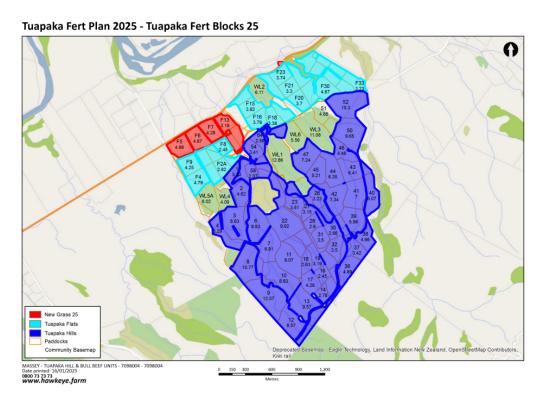
Spring: 80kg/ha Ammo31 PRO (25-0-0-11)

New Grass:

Autumn: 200kg/ha Cropmaster15 (30-20-20-15) Spring: 200kg/ha Cropmaster15 (30-20-20-15)

Hill Block:

Autumn: 175kg/ha Sulphur Super + Selenium (0-15-0-26)



Labour: One permanent staff member and casual staff as required.

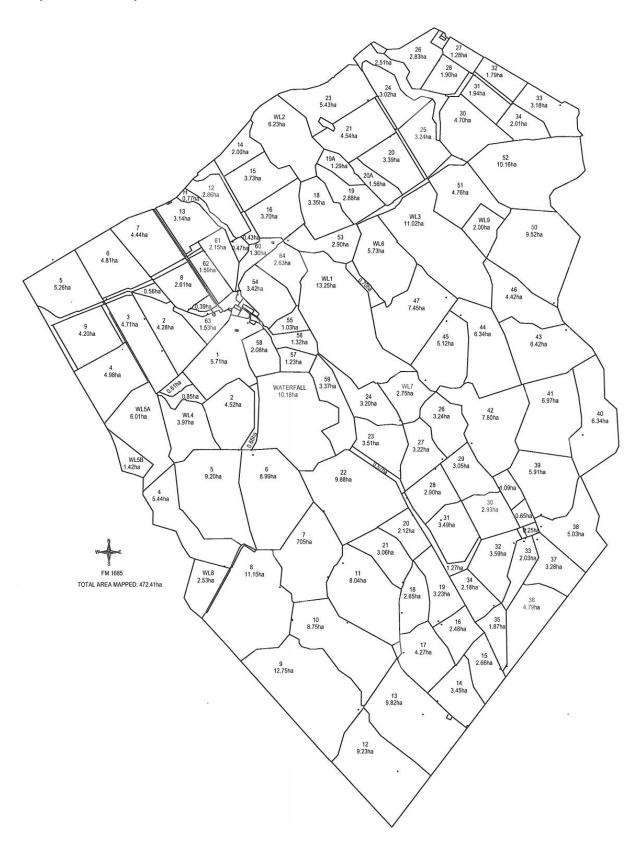
Research:

1. Monitoring stream nitrate concentrations leaving an 85ha catchment on farm via the Main weir using a high frequency nitrate sensor in order to develop strategies to enhance nitrate attenuation in these features.

- 2. Monitoring the behaviour and impact of sheep accessing natural waterways in spring, summer, autumn and impact on water quality.
- 3. Edible native plant species in North Island hill country.



Tuapaka Farm Map



Tuapaka

