

Future Dairy Farm Systems Project – NARF (Dargaville)

This project compares the productivity, profitability and impact on people and the environment on three farms, being:

1. **Current Farm** – Kikuyu & ryegrass based pastures with up to 190 kg N/ha/annum, 3.1 cows/ha
2. **Alternative Pastures Farm** – Fescue & cocksfoot based pastures, up to 190 kg N/ha, 3.1 cows/ha
3. **Low Emissions Farm** – Kikuyu & ryegrass based pastures, designed to reduce methane emissions by 25% and nitrous oxide by 50%, no nitrogen applied, 2.3 cows/ha

This project is funded by DairyNZ, MPI (Sustainable Food & Fibre Futures) and Hine Rangī Trust.

Update – 12 th January 2023	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha, excl silage pad)	2299	2151	2230
Pasture Growth (kg DM/ha/d, last 2 weeks)	52	60	53
Rotation Length (days)	25	26	30
Cows in Milk/Peak Cows	83/84	84/86	62/62
Area out for silage (% of farm)	0%	0%	0%
Production/cow/day (kg MS)	1.27	1.54	1.49
Production/ha/day (kg MS)	3.78	4.65	3.27
Production/cow – 2022/23 season (kg MS)	257	269	260
Production/ha – 2022/23 season (kg MS)	785	883	597
Supplement Fed (kg DM/cow/day)	0	0 – 2.1	0
Total Purchased Supplement Fed (kg DM/cow 2022/23 season)	400 PKE 212 Purch Silage	268 PKE 213 Purch Silage	163 PKE 0 Purch Silage
Homegrown Silage Fed (kg DM/cow)	0	0	221
Homegrown Silage on hand (kg DM/cow)	265	386	372
Average Body Condition Score	4.1	4.2	4.2
Worry Score (1 = Low, 10 = High)	2	3	1
Nitrogen – Season to Date (kg N/ha)	153	152	0
Rainfall (mm last 2 weeks)	27 mm		

CURRENT MANAGEMENT

- Recent rain will likely keep growth rates high for the next few weeks. We will drop a few more paddocks out for silage on the Low Emissions farm, as we anticipate pasture cover will rise fast due to the lower stocking rate.
- A few paddocks are being mown behind the cows where grazing residuals are high.
- Recent spore counts are low (average 6,000), however there are a few spores around. Zinc has commenced in the water.

Save the Date – NDDT Northland Dairy Farmers Conference – 21st February 2023, Whangarei