

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 – 28 th December 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha, excl silage pad)	2353	2284	2212
Pasture Growth (kg DM/ha/d, last 2 weeks)	78	86	63
Rotation Length (days)	27	27	26
Cows in Milk/Peak Cows	83/84	84/86	62/62
Area out for silage (% of farm)	0%	7%	0%
Production/cow/day (kg MS)	1.35	1.51	1.53
Production/ha/day (kg MS)	4.01	4.85	3.41
Production/cow – 2022/23 season (kg MS)	239	248	240
Production/ha – 2022/23 season (kg MS)	730	783	550
Supplement Fed (kg DM/cow/day)	0	0	0
Total Purchased Supplement Fed (kg DM/cow 2022/23 season)	400 PKE 212 Purch Silage	258 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	332	290
Average Body Condition Score	4.2	4.1	4.2
Worry Score (1 = Low, 10 = High)	2	2	1
Nitrogen – Season to Date (kg N/ha)	153	147	0
Rainfall (mm last 2 weeks)	28 mm		

CURRENT MANAGEMENT

- Pre graze pasture covers continue to rise. A few paddocks are being mown behind the cows where residuals are high.
- A few paddocks were harvested for silage this week, a few more have been dropped out to be harvested in the next week or two. Rotation length will remain at around 28 days.
- Still have a little sustain in storage which will be used if we get some decent rain, no more will be purchased until late autumn.