

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 7 th March 2024	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (excl silage pdks, kg DM/ha)	2017	2018	1977
Pasture Growth (kg DM/ha/d, last 2 weeks) *	32	43	34
Rotation Length (days)	38	39	41
Cows in Milk/Peak Cows	68/81	72/82	59/61
Production/cow/day (kg MS)	1.19	1.33	1.00
Production/ha/day (kg MS)	3.05	3.45	2.21
Production/cow season to date (kg MS/cow)	302	322	287
Production/ha season to date (kg MS/ha)	957	1,020	668
SCC ('000)	61	85	95
Supplement Offered (kg DM/cow/day)	PKE 2.8 Baleage 3.9	PKE 2.7 Baleage 3.7	PKE 2.5
Purchased Supplement Fed to date (kg DM/cow)	PKE 668	PKE 596	PKE 250 Baleage 70
Homegrown Silage Fed to date (kg DM/cow)	124	158	567
Homegrown Silage on hand (kg DM/cow)	102	126	104
Average Body Condition Score (Milkers)	3.90	3.89	3.85
Manager Worry Score (1 = Low, 10 = High)	5	5	5
Nitrogen to date – 2023/24 Season (kg N/ha)	188	181	0
Facial Eczema Spore Count (spores/g)	12,500	0	7,500
Rainfall (last two weeks)	38 mm		

*Pasture growth rates are calculated using uncalibrated platometer readings

CURRENT MANAGEMENT

- After a few good showers we are expecting to see growth rates and pasture covers lift on kikuyu paddocks over the next week or so.
- We have 3 weeks of home grown baleage left at current feeding rate on the Current and Alt Pastures Farms, but we will reduce the baleage feeding rate next week if pasture covers rise.
- Most of the culls from the Current and Alternative Pastures Farms have now gone to reduce feed demand. We haven't needed to remove culls from the Low Emissions Farm yet.
- To protect fescue paddocks we are only grazing them for 3 – 4 hours and then standing cows off on kikuyu paddocks.
- Will start spraying paddocks out for regrassing next week.
- FE spore counts remain fairly low, but we are continuing zinc dosing.