

Future Dairy Farm Systems Project – NARF (Dargaville)

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

1. **Baseline (Current) Farm** – Kikuyu & ryegrass based pastures with up to 190 kg N/ha/annum, 3.1 cows/ha
2. **Alternative Pasture Farm** – Tall 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 5 th February 2026	Baseline Farm	Alternative Pasture Farm	Low Emissions Farm
Average Pasture Cover with silage paddocks	2,155	1,930	2,265
% farm out for turnips	9%	12%	9%
Pasture Growth (kg DM/ha/d, last 2 weeks)*	81	55	71
Rotation Length (days, last 10 days)	32	29	32
Cows in Milk/Total Cows	80/80	82/82	64/64
SCC (000's)	80	131	238
Production/cow/day (kg MS/cow)	1.57	1.52	1.53
Production/ha/day (kg MS/ha)	4.51	4.47	3.56
Production/cow, season to date (kg MS/cow)	325	310	318
Production/ha, season to date (kg MS/ha)	963	915	742
Supplement Offered Milkers (kg DM/cow/day)	0	0	0
Purchased Supp Fed, season to date (kg DM/c)	PKE 327 Purch bale 24	PKE 545	PKE 302
Homegrown Silage Fed to date (kg DM/cow)	28	36	135
Homegrown Silage on hand (kg DM/cow)	287	315	254
Average Body Condition Score (Milkers)	3.87	3.81	3.93
Nitrogen to date – 2025/26 Season (kg N/ha)	170	164	0
Managers Worry Score (1 = Low, 10 = High)	2	4	2
Rainfall (last two weeks)	64		

*Pasture growth rates are calculated using uncalibrated platometer readings

CURRENT MANAGEMENT

- Rain two weeks ago boosted pasture growth and cover, especially kikuyu. The Alternative Pastures farm, where the kikuyu presence is much lower, is showing lower growth and cover.
- Around 15% of each farm was cut for silage last week to help keep kikuyu under control. This will be relatively poor-quality silage so is targeted for dry cow feeding during winter. We have closed up another 10% of the Low Emissions farm for silage to keep control.
- All farms continue turnip feeding with cows offered 4 – 6 kg DM/day. Turnip paddocks have filled out with the rain and are currently at 6.2 – 10.1 t DM/ha.
- Cow condition score is drifting down. We are watching this and making changes if needed.