

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 Rangi Trust.

Update 16 th October 2025	Baseline Farm	Alternative Pasture Farm	Low Emissions Farm
Average Pasture Cover with silage paddocks	2,815	2,615	2,166
Average Pasture Cover without silage padds	2,397	2,297	2,166
% of farm closed up for silage	22%	19%	0%
Pasture Growth (kg DM/ha/d, last 2 weeks) *	90	72	42
Rotation Length (days, last 10 days)	23	24	31
Cows in Milk/Total Cows	81/81	82/82	64/64
Production/cow/day (kg MS/cow)	2.00	1.94	1.99
Production/ha/day (kg MS/ha)	5.45	5.59	4.27
Production/cow season to date (kg MS/cow)	137	129	130
Production/ha season to date (kg MS/ha)	411	386	304
Supplement Offered Milkers (kg DM/cow/day)	PKE 0	PKE 0	PKE 0
Purchased Supp Fed season to date (kg DM/c)	PKE 467 Purch bale 24	PKE 409	PKE 246
Homegrown Silage Fed to date (kg DM/cow)	0	0	128
Average Body Condition Score (Milkers)	4.08	4.05	3.98
% cows below BCS 4.0	19%	20%	20%
Nitrogen to date – 2025/26 Season (kg N/ha)	115	107	0
Managers Worry Score (1 = Low, 10 = High)	2	2	3
Rainfall (last two weeks)	56		

*Pasture growth rates are calculated using uncalibrated platemeter readings

CURRENT MANAGEMENT

- Good pasture growth on the Baseline and Alternative Pasture farms has led to us closing around 20% of each farm for silage. We hope to cut this next week.
- Pasture growth on the Low Emissions Farm, (no nitrogen applied), continues to be significantly behind the other farms. The farm response to nitrogen has been very high this season, at 28 kg DM/kg N applied so far.
- We are putting in turnip crops on all farms this summer to try and improve establishment of new pastures for next season. Spray-out is planned in 10 days as some areas are still very wet.
- We will continue with sustain at 70 kg/ha behind cows on the Baseline and Alternative Pasture farms while conditions are good for a response, hoping to drive more silage conservation.