

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. **Baseline (Current) Farm** – Kikuyu & ryegrass based pastures with up to 190 kg N/ha/annum, 3.1 cows/ha
2. **Alternative Pastures 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 9 th January 2025	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Average Pasture Cover (kg DM/ha)	1,961	2,045	2,046
Pasture Growth (kg DM/ha/d, last 2 weeks) *	30	32	33
Rotation Length (days, last 10 days)	26	25	32
Cows in Milk/Total Cows	82/82	81/81	59/59
Production/cow/day (kg MS/cow)	1.67	1.68	1.70
Production/ha/day (kg MS/ha)	5.00	4.89	3.65
Production/cow season to date (kg MS/cow)	291	289	295
Production/ha season to date (kg MS/ha)	874	863	657
SCC (000's)	37	63	44
Supplement/Crop Offered (kg DM/cow/day)	2.6 PKE 3.3 Home Silage	2.7 PKE 3.3 Home Silage	0 PKE
Purchased Supplement Fed season to date (kg DM/cow)	PKE 335 Baleage 21	PKE 318 Baleage 20	PKE 82
Homegrown Silage Fed to date (kg DM/cow)	83	72	36
Homegrown Silage on hand (kg DM/cow)	208	132	347
Average Body Condition Score (Milkers)	4.26	4.08	4.25
Nitrogen to date – 2024/25 Season (kg N/ha)	161	144	0
Managers Worry Score (1 = Low, 10 = High)	5	5	5
Rainfall (last two weeks)	13		

*Pasture growth rates are calculated using uncalibrated platemeter readings

CURRENT MANAGEMENT

- Pasture growth and pasture covers continued to drop back due to dry conditions. Pasture quality appears to have dropped also. We are hoping for significant rain in the next 10 days.
- Cows on the Alternative Pastures Farm continue to get chicory at around 2.5 kg DM/cow/day.
- The Baseline and Alternative Pastures Farms continue to feed around 3-3.5 kg PKE/day, as milk FEI allows. Baleage is being added in as required to maintain grazing residuals around 1600 kg DM/ha. The Low Emissions Farm will start getting PKE also from now on.