

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 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 Rangi Trust.

Update 21 st August 2025	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Average Pasture Cover (kg DM/ha)	1,999	2,139	2,017
Pasture Growth (kg DM/ha/d, last 2 weeks) *	33	36	23
Rotation Length (days, last 10 days)	37	38	42
Cows in Milk/Total Cows	73/83	69/83	53/66
Production/cow/day (kg MS/cow)	1.85	2.08	2.04
Production/ha/day (kg MS/ha)	4.19	4.23	3.21
Production/cow season to date (kg MS/cow)	32	30	30
Production/ha season to date (kg MS/ha)	97	89	71
Supplement Offered Milkers (kg DM/cow/day)	PKE 4.5	PKE 2.7	PKE 2.7
Purchased Supp Fed season to date (kg DM/c)	PKE 247	PKE 251	PKE 73
Homegrown Silage Fed to date (kg DM/cow)	0	0	128
Homegrown Silage on hand (kg DM/cow)	0	0	0
Average Body Condition Score (Milkers)	4.20	4.36	4.22
% cows below BCS 4.0	4%	4%	4%
Nitrogen to date – 2025/26 Season (kg N/ha)	48	48	0
Managers Worry Score (1 = Low, 10 = High)	6	5	5
Rainfall (last two weeks)	58		

*Pasture growth rates are calculated using uncalibrated platometer readings

CURRENT MANAGEMENT

- Pasture covers have continued to drop due to the cold wet weather. A drier spell this week will help firm up soil conditions.
- Pasture growth at NARF has averaged 26 kg DM/ha/day over the last 4 weeks while the long-term average for the same period is 37 kg/day. The platometer does overestimate pasture cover this time of year, especially on our Italian ryegrass pastures, so these numbers are a bit exaggerated.
- Our grazing rotation has continued to be slightly shorter than planned, targeting 38-40 days now.
- With declining pre-graze pasture covers, we will increase the PKE fed on the Baseline and Alternative Pastures Farms to 5-6kg/c/d to adequately feed the milkers. Milkers on the lower stocked Low Emissions Farm are ok on 3kg/c/d.
- Nitrogen at 100 kg/ha of Ammo36 continues behind the cows on the Baseline and Alternative Pastures Farms. Paddocks on the Low Emissions Farm are not looking too nitrogen hungry, maybe a reflection of very good clover levels throughout the previous season.