

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 26 th June 2025	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Average Pasture Cover (kg DM/ha)	2,341	2,165	2,029
Pasture Growth (kg DM/ha/d, last 2 weeks) *	38	35	24
Rotation Length (days, last 10 days)	83	93	90
Cows in Milk/Total Cows	0/84	0/85	0/66
Production/cow/day (kg MS/cow)	-	-	-
Production/ha/day (kg MS/ha)	-	-	-
Production/cow season to date (kg MS/cow)	-	-	-
Production/ha season to date (kg MS/ha)	-	-	-
Supplement Offered (kg DM/cow/day)	PKE 4.8	PKE 5.3	Home Baleage 4.8
Purchased Supp Fed season to date (kg DM/c)	PKE 95	PKE 109	PKE 0
Homegrown Silage Fed to date (kg DM/cow)	0	0	68
Homegrown Silage on hand (kg DM/cow)	0	0	68
Average Body Condition Score (Milkers)	4.9	5.1	5.0
Nitrogen to date – 2025/26 Season (kg N/ha)	10	15	0
Managers Worry Score (1 = Low, 10 = High)	3	5	3
Rainfall (last two weeks)	23		

*Pasture growth rates are calculated using uncalibrated platometer readings

CURRENT MANAGEMENT

- Pasture covers have lifted on the Baseline and Alternative Pastures Farms where nitrogen has been applied. Pasture growth has dropped off on the Low Emissions Farm where nitrogen is not applied.
- Cow condition score is almost there with each farm averaging around 5.0. There are still 15 – 25 % of cows at 4.5 BCS so we will keep feeding above maintenance for the next couple of weeks.
- We will cut back PKE feeding on the Baseline and Alternative Pastures Farms to 2 and 3 kg DM/cow respectively. Baleage feeding will continue on the Low Emissions Farm.
- We will allocate a bit more pasture to cows on the Baseline Farm moving to a 70 day rotation, while we will hold the Alternative Pastures and Low Emissions Farms at a 90 day rotation hoping to see a lift in pasture covers.
- Calf sheds are nearly ready. Calving commences officially around 10th July.
- Nitrogen will continue behind the cows at 60 kg/ha Sustain.