

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 24 th July 2025	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Average Pasture Cover (kg DM/ha)	2,432	2,469	2,349
Pasture Growth (kg DM/ha/d, last 2 weeks) *	57	53	39
Rotation Length (days, last 10 days)	62	71	75
Cows in Milk/Total Cows	25/84	15/85	16/66
Production/cow/day (kg MS/cow)	1.7	1.7	1.7
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 3.6	PKE 3.6	PKE 3.6
Purchased Supp Fed season to date (kg DM/c)	PKE 164	PKE 202	PKE 21
Homegrown Silage Fed to date (kg DM/cow)	0	0	134
Homegrown Silage on hand (kg DM/cow)	0	0	0
Average Body Condition Score (Milkers)	5.15	5.07	5.1
% cows below BCS 5.0	10%	0%	10%
Nitrogen to date – 2025/26 Season (kg N/ha)	17	21	0
Managers Worry Score (1 = Low, 10 = High)	4	4	4
Rainfall (last two weeks)	93		

*Pasture growth rates are calculated using uncalibrated platemeter readings

CURRENT MANAGEMENT

- Slow rotations, N fertiliser and some warmer days have boosted pasture covers. Soil conditions have dried out slightly but more rain is coming next week so we will stand dry cows off with PKE when needed.
- PKE with minerals is being fed to milkers on all farms to keep rotation on track with our Spring Rotation Planners. We allocate 40 sq.m/day to dry cows, and use the balance of the daily area allocation for milkers. PKE will be fed to top up intakes, and changes depending on paddock covers and utilisation.
- Nitrogen will continue behind the cows during low risk weather periods and we have just changed to 100 kg/ha Ammo36.