

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 6 th March 2025	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Average Pasture Cover (kg DM/ha)	1,880	1,808	1,905
Pasture Growth (kg DM/ha/d, last 2 weeks) *	28	25	26
Rotation Length (days, last 10 days)	27	27	29
Cows in Milk/Total Cows	68/68	68/68	55/55
Production/cow/day (kg MS/cow)	1.43	1.44	1.45
Production/ha/day (kg MS/ha)	3.88	3.86	2.98
Production/cow season to date (kg MS/cow)	377	378	379
Production/ha season to date (kg MS/ha)	1,131	1,128	842
SCC (000's)	68	97	64
Supplement Offered (kg DM/cow/day)	3.6 PKE 4.3 Home Silage	3.6 PKE 4.3 Home Silage	3.3 PKE 2.9 Home Sil
Purchased Supplement Fed season to date (kg DM/cow)	PKE 508 Baleage 125	PKE 489 Baleage 189	PKE 211
Homegrown Silage Fed to date (kg DM/cow)	340	239	289
Homegrown Silage on hand (kg DM/cow)	0	0	163
Average Body Condition Score (Milkers)	3.90	3.88	4.16
Nitrogen to date – 2024/25 Season (kg N/ha)	161	145	0
Managers Worry Score (1 = Low, 10 = High)	5	7	5
Rainfall (last two weeks)		2	

*Pasture growth rates are calculated using uncalibrated platometer readings

CURRENT MANAGEMENT

- The second fortnight in a row with only 2 mm of rain, things are getting dry at NARF. Temperate grasses have pretty much stopped growing but kikuyu is keeping pasture covers afloat.
- All culls have gone out of the Baseline and Alternative Pastures herds to reduce feed demand.
- Cows on the Alternative Pastures Farm will move to once-a-day milking to help preserve cow condition. Cows on the Baseline Farm have similar condition, however with more kikuyu presence on the farm we considered we can keep milking twice-a-day for now. Low Emissions Farm cows are doing fine.
- We normally start our re-grassing programme in mid-March, however due to the dry conditions we will delay a week or so and may get another grazing out of those paddocks.