

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 14 th November 2024	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2,245	2,133	2,014
Pasture Growth (kg DM/ha/d, last 2 weeks) *	91	84	84
Rotation Length (days, last 10 days)	26	26	27
Cows in Milk/Total Cows	82/83	83/83	61/61
Production/cow/day (kg MS/cow)	2.03	1.84	2.05
Production/ha/day (kg MS/ha)	5.68	5.61	4.64
Production/cow season to date (kg MS/cow)	191	192	197
Production/ha season to date (kg MS/ha)	581	580	445
SCC	55,000	32,000	48,000
Supplement Offered (kg DM/cow/day)	0 – 3.6	0 – 3.6	0
Purchased Supplement Fed season to date (kg DM/cow)	PKE 240 Baleage 21	PKE 223 Baleage 20	PKE 82
Homegrown Silage Fed to date (kg DM/cow)	0	0	28
Homegrown Silage on hand (kg DM/cow)	212	160	228
Average Body Condition Score (Milkers)	4.15	4.08	4.20
Nitrogen to date – 2023/24 Season (kg N/ha)	145	134	0
Pasture ME (MJ ME/kg DM)	11.8	11.2	11.9
Managers Worry Score (1 = Low, 10 = High)	2	2	2
Rainfall (last two weeks)	29		

*Pasture growth rates are calculated using uncalibrated platemeter readings

CURRENT MANAGEMENT

- Current rainfall will keep pasture growth rates up. We will continue to drop paddocks out of the rotation for silage as surpluses arise.
- Some PKE was fed during the last week on the Baseline and Alternative Pasture Farms due to a hole in the feed wedge, the result of silage cuts and paddocks taken out for cropping. This feeding has stopped now.
- Bloat oil is being added to the troughs on the Low Emissions Farm due to the high clover levels.
- It has been a good season to date, especially on the Low Emissions Farm where milk production is 19% ahead of the three year average. Production on the other farms are 2 – 5% ahead of the three year average.
- Sustain application at 60 kg/ha continues around rainfall.