

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 19 th September 2024	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2423	2446	2232
Pasture Growth (kg DM/ha/d, last 2 weeks) *	69	77	50
Rotation Length (days, last 10 days)	27	29	30
Cows in Milk/Total Cows	81/83	82/84	61/62
Production/cow/day (kg MS/cow)	2.09	2.03	2.02
Production/ha/day (kg MS/ha)	5.96	5.79	4.23
Production/cow season to date (kg MS/cow)	81	85	83
Production/ha season to date (kg MS/ha)	244	257	189
SCC ('000)	29	38	96
Supplement Offered (kg DM/cow/day)	0	0	0
Purchased Supplement Fed season to date (kg DM/cow)	PKE 212 Baleage 21	PKE 196 Baleage 20	PKE 82
Homegrown Silage Fed to date (kg DM/cow)	0	0	28
Homegrown Silage on hand (kg DM/cow)	0	0	54
Average Body Condition Score (Milkers)	4.3	4.2	4.4
Manager Worry Score (1 = Low, 10 = High)	3	3	3
Nitrogen to date – 2023/24 Season (kg N/ha)	83	79	0
Rainfall (last two weeks)	NA		

*Pasture growth rates are calculated using uncalibrated platemeter readings

CURRENT MANAGEMENT

- Pasture growth had stayed high until the last few days of cool wet weather, we are expecting growth to improve again next week.
- All farms have silage paddocks dropped out for harvesting in late September. Residuals will determine how many paddocks are cut on the day.
- Pasture quality is driving high milk production per cow on all three farms. Crude protein levels are running 15% to 40% higher than last season, with ME levels similar.
- Sustain application at 60kg/ha continues while we are getting good responses. Growth is consistently 20kgDM/ha/day higher on the N paddocks.