

## 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** – 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 22 <sup>nd</sup> August 2024	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2381	2525	2272
Pasture Growth (kg DM/ha/d, last 2 weeks) *	48	48	32
Rotation Length (days, last 10 days)	41	46	44
Cows in Milk/Total Cows	67/83	68/85	51/64
Production/cow/day (kg MS/cow)	1.8	2.08	2.01
Production/ha/day (kg MS/ha)	3.64	4.91	3.27
Production/cow season to date (kg MS/cow)	29	38	32
Production/ha season to date (kg MS/ha)	91	117	74
SCC	39,000	33,000	65,000
Supplement Offered (kg DM/cow/day)	PKE 3.3 Milker	PKE 0 Milker	PKE 0 Milker
Purchased Supplement Fed season to date (kg DM/cow)	PKE 186 Baleage 21	PKE 188 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)	4.4	4.5	4.6
Manager Worry Score (1 = Low, 10 = High)	5	3	3
Nitrogen to date – 2023/24 Season (kg N/ha)	59	56	0
Rainfall (last two weeks)	55 mm		

\*Pasture growth rates are calculated using uncalibrated platometer readings

### **CURRENT MANAGEMENT**

- Good soil conditions and pasture growth continue to provide higher than normal pasture intakes for this time of year.
- The Alternative Pastures and Low Emissions farms are feeding pasture only, and cows are milking at around 2kgMS/c/d. Grazing rotations have been sped up in response to high growth rates and covers.
- Baseline Farm cows still need PKE to maintain rotation length and residuals. We anticipate this will reduce over the next two to three weeks.
- Target residuals are sitting at 1600kgDM/ha for Italian rye/kikuyu paddocks, and slightly higher at 17-1800kgDM/ha on fescue and perennial ryegrass paddocks. This is an attempt to improve persistence on these species.
- Ammo 36 is continuing at the lower rate of 80kg/ha, reflecting the excellent soil conditions and pasture growth.