

## 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 12 <sup>th</sup> December 2024	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2,133	2,184	2,204
Pasture Growth (kg DM/ha/d, last 2 weeks) *	67	68	66
Rotation Length (days, last 10 days)	25	28	30
Cows in Milk/Total Cows	82/82	82/82	60/60
Production/cow/day (kg MS/cow)	1.64	1.68	1.87
Production/ha/day (kg MS/ha)	4.91	4.96	4.09
Production/cow season to date (kg MS/cow)	246	246	252
Production/ha season to date (kg MS/ha)	739	735	560
SCC (000's)	44	43	46
Supplement Offered (kg DM/cow/day)	3.6 PKE	3.6 PKE	0
Purchased Supplement Fed season to date (kg DM/cow)	PKE 261 Baleage 21	PKE 244 Baleage 20	PKE 82
Homegrown Silage Fed to date (kg DM/cow)	0	0	28
Homegrown Silage on hand (kg DM/cow)	293	205	356
Average Body Condition Score (Milkers)	4.08	4.04	4.30
Nitrogen to date – 2024/25 Season (kg N/ha)	147	136	0
Managers Worry Score (1 = Low, 10 = High)	3	4	2
Rainfall (last two weeks)	24		

\*Pasture growth rates are calculated using uncalibrated platometer readings

### **CURRENT MANAGEMENT**

- With the drier weather, pasture growth and covers have dropped back and ryegrass is still heading.
- The Baseline and Alternative Pastures Farms have been feeding 4 kg/cow/day PKE (wet weight) to compensate for reduced pasture supply. This will now be reduced to 3 kg/cow due to milk FEI nearing allowable limits. Baleage will be added in as required to maintain grazing residuals around 1600 kg DM/ha.
- Cows on the lower stocked Low Emissions Farm are milking well on pasture only, likely due to the high clover presence in these pastures
- Sustain will be applied at 40 kg/ha on paddocks grazed in the last week, and chicory paddocks at 70 kg/ha. There was some debate over this as the response will be dependent on further rainfall which is not guaranteed.
- Bulls come out of the herds on 15<sup>th</sup> December.