

## 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 20 <sup>th</sup> March 2025	Baseline Farm	Alternative Pastures Farm	Low Emissions Farm
Average Pasture Cover (kg DM/ha)	1,712	1,686	1,746
Pasture Growth (kg DM/ha/d, last 2 weeks) *	15	16	12
Rotation Length (days, last 10 days)	28	27	32
Cows in Milk/Total Cows	68/68	68/68	55/55
Production/cow/day (kg MS/cow)	1.27	1.11	1.37
Production/ha/day (kg MS/ha)	3.16	2.73	2.76
Production/cow season to date (kg MS/cow)	392	391	397
Production/ha season to date (kg MS/ha)	1,176	1,166	882
SCC	55,000	94,000	69,000
Supplement Offered (kg DM/cow/day)	3.3 PKE 4.3 Baleage	3.3 PKE 4.3 Baleage	3.3 PKE 2.9 Home Bale
Purchased Supplement Fed season to date (kg DM/cow)	PKE 547 Baleage 174	PKE 527 Baleage 237	PKE 251
Homegrown Silage Fed to date (kg DM/cow)	340	239	325
Homegrown Silage on hand (kg DM/cow)	0	0	122
Average Body Condition Score (Milkers)	3.94	3.75	4.12
Nitrogen to date – 2024/25 Season (kg N/ha)	161	145	0
Managers Worry Score (1 = Low, 10 = High)	7	7	7
Rainfall (last two weeks)	4		

\*Pasture growth rates are calculated using uncalibrated platemeter readings

### **CURRENT MANAGEMENT**

- The third fortnight in a row with less than 5 mm of rain and drought has been declared the area.
- Even kikuyu is struggling and paddocks have yellowed. Fescue pastures look good but we are taking care not to overgraze them.
- The farms have a supplement cap of 800kgDM/c/yr so that we don't mask the differences between pasture systems with purchased feed for our trial.
- The Alternative Pastures herd has hit the supplement limit this week so will be dried off. The Baseline herd is going to OAD milking in order to stretch out their remaining supplement over two weeks, in the hope of rain. The Low Emissions farm has plenty of supplement allowance if they need it and are milking well so we will keep them on TAD.
- Kikuyu mulching will begin next week. Crop paddocks will be sprayed and new fescue/cocksfoot pastures sown by 1 April.