

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)	2,376	2,275	2,329
Pasture Growth (kg DM/ha/d, last 2 weeks) *	88	82	77
Rotation Length (days, last 10 days)	25	26	27
Cows in Milk/Total Cows	82/83	82/83	59/61
Production/cow/day (kg MS/cow)	1.89	1.87	1.78
Production/ha/day (kg MS/ha)	5.68	5.51	3.85
Production/cow season to date (kg MS/cow)	221	221	223
Production/ha season to date (kg MS/ha)	663	659	495
SCC	33,000	40,000	56,000
Supplement Offered (kg DM/cow/day)	0	0	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)	252	204	230
Average Body Condition Score (Milkers)	4.15	4.08	4.34
Nitrogen to date – 2023/24 Season (kg N/ha)	147	136	0
Managers Worry Score (1 = Low, 10 = High)	2	2	2
Rainfall (last two weeks)	49		

*Pasture growth rates are calculated using uncalibrated platemeter readings

CURRENT MANAGEMENT

- Milk production has dropped slightly from peak levels despite full feeding on high quality pasture.
- Hot dry weather is drying ground conditions out quickly and grass seedheads are still appearing.
- The next two weeks we will be balancing quality, quantity and residuals while trying to capture any surplus pasture into baleage before growth drops too much.
- There could be a few more surplus paddocks harvested on the lower stocked Low Emissions farm. Without decent rain the other two farms are unlikely to harvest any more silage.
- N application has finished now that ground conditions are too dry and rainfall too unreliable.
- Mating appears to have gone well with bulls coming out after 11 weeks mating, on 15th December.
- One cow was lost to bloat in the Low Emissions herd, so we are continuing bloat oil in troughs and checking them each evening.