

Future Dairy Farm Systems Project – NARF (Dargaville)

This project commenced June 2021. It will compare the productivity, profitability and impact on people and the environment on three farms, being:

1. **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, 2.1 cows/ha

This project is funded by DairyNZ, MPI (Sustainable Farming Fund) and Hine Rangi Trust.

Update - 7 th October 2021	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha) excl silage pdks	2197	1978	2044
Pasture Growth (kg DM/ha/d, last 2 weeks)	46	46	45
Rotation Length (days) – avg last 2 wks	23	20	25
Area out for silage	7%	0%	8%
Cows in Milk/Peak Cows	85/85	85/85	59/59
Production/cow/day (kg MS)	1.95	1.86	1.69
Production/ha/day (kg MS)	5.92	5.63	3.50
Production/ha/season to date	356	378	228
SCC ('000)	117	134	78
Milk FEI Zone	A	A	A
Supplement Fed (kg DM/cow/day)	0	0	0
Purchased Supplement Fed (kg DM/cow/season to date)	159 PKE 81 Purch Bale	118 PKE 6 Purch Bale	66 PKE 139 HG Bale
Average Body Condition Score (Milkers)	4.1	4.2	4.0
Worry Score (1 = Low, 10 = High)	4	5	2
Nitrogen – Season to Date (kg N/ha)	105	115	0
Rainfall (mm last 2 weeks)	40 mm		

CURRENT MANAGEMENT

- Pasture growth eased off over the last couple of weeks. Warm rain over the last few days should get growth back into top gear
- Fescue and cocksfoot-based pastures showed higher growth rates than the ryegrass paddocks during winter and early spring, however all pastures types have been similar in recent weeks.
- Silage paddocks that were closed-up in early September were the cut last week. A small area on the Current farm and Low Emissions farm is now shut up and likely to be cut in the next week or two
- Light conditioned heifers and the odd light conditioned cow continue on once-a-day milking. If they are >3.5 BCS then once mated they go back on twice-a-day
- Sustain continues behind the cows on the Current farm at 65 kg/ha and at 50 kg/ha on the Alt Pastures farm. Pastures on the Low Emissions farm that have received no nitrogen are starting to show higher clover presence (38% vs 9% white clover in the most recent sample). We are watching for bloat on this farm