

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. **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 – 29 th July 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2237	2189	2155
Pasture Growth (kg DM/ha/d, last 2 weeks)	32	32	29
Rotation Length (days) – avg last 2 wks	72	68	72
Cows in Milk/Peak Cows	46/85	54/85	37/63
SCC	-	-	-
Production/cow/day (kg MS)	-	-	-
Production/ha/day (kg MS)	-	-	-
Production/cow – 2022/23 season (kg MS)	-	-	-
Production/ha – 2022/23 season (kg MS)	-	-	-
Milk FEI	-	-	-
Supplement Fed Dry Cows (kg DM/cow/day)	5.7 Baleage	6.8 Baleage	3.5 Baleage
Supplement Fed Milkers (kg DM/cow/day)	5.4 PKE	5.0 PKE	3.0 Baleage
Purchased Supplement Fed (kg DM/cow 2022/23 STD)	236 PKE 160 Purch Silage	86 PKE 156 Purch Silage	107 PKE 0 Purch Silage
Homegrown Silage Fed (kg DM/cow STD)	0	0	177
Home Grown Silage on hand (kg DM/cow)	0	0	33
Average Body Condition Score - Milkers	4.5	4.7	4.5
Worry Score (1 = Low, 10 = High)	7	6	5
Nitrogen – Season to Date (kg N/ha)	23	21	0
Rainfall (mm last 2 weeks)	132 mm		

CURRENT MANAGEMENT

- Pasture growth rates have been relatively good, however continuing wet weather is challenging pasture utilisation. Average farm pasture covers have remained steady.
- Cows are being stood off as much as practical to minimise damage to pasture. Dries remain in good condition, though milkers will need to be watched closely to ensure we don't drop too fast.
- Dry cows are receiving baleage, while milkers are getting either PKE or baleage.
- Dry cows continue to get 30-40sq.m./c/d and the Spring Rotation Planner used to allocate area to milkers so that we don't exceed daily total area and speed up too fast.
- Sustain (Urea) will be replaced with Ammo from now on and applied when conditions are suitable. Pasture growth rates on the Low Emissions farm seem to be holding up despite no nitrogen being applied.