

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 – 15 th July 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2111	2137	2036
Pasture Growth (kg DM/ha/d, last 2 weeks)	29	32	20
Rotation Length (days) – avg last 2 wks	89	77	94
Cows in Milk/Peak Cows	9/85	20/85	9/63
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 Currently (kg DM/cow/day) (Dry cows)	4.6 PKE 3.2 Baleage	0-3.0 PKE 3.3 Baleage	4.8 PKE 1.8 Baleage
Purchased Supplement Fed (kg DM/cow 2022/23 STD)	193 PKE 124 Purch Silage	44 PKE 125 Purch Silage	103 PKE 0 Purch Silage
Homegrown Silage Fed (kg DM/cow STD)	0	0	150
Home Grown Silage on hand (kg DM/cow)	0	0	61
Average Body Condition Score	5.0	5.1	4.9
% Cows below BCS 5.0	18%	13%	26%
Worry Score (1 = Low, 10 = High)	5	2	4
Nitrogen – Season to Date (kg N/ha)	20	17	0
Rainfall (mm last 2 weeks)	132 mm		

CURRENT MANAGEMENT

- Warmer soil temps have lifted growth and covers despite the extremely wet weather
- Cows are being stood off as needed but well fed and most have now reached target calving BCS
- Supplement feeding is being used to hold rotation length in this wet weather, and try to lift pasture cover further towards targets of 2200+
- Dry cows are getting 30-40sq.m./c/d and Spring Rotation Planner is being used to allocate area to milkers and keep control of rotation length as cows calve
- N and S are being applied as Ammo when conditions are suitable. GR on the No N farm indicates we are getting good responses to this
- Mg is a challenge to get into cows in this weather so we will bullet all cows. This will cover Mg needs for 9-12 weeks.