

## 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 – 25 <sup>th</sup> August 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2360	2171	2208
Pasture Growth (kg DM/ha/d, last 2 weeks)	55	46	42
Rotation Length (days)	51	57	52
Cows in Milk/Peak Cows	77/86	78/86	54/63
Production/cow/day (kg MS)	1.78	1.86	1.58
Production/ha/day (kg MS)	4.59	5.07	2.84
Production/cow – 2022/23 season (kg MS)	35	37	28
Production/ha – 2022/23 season (kg MS)	110	115	63
Supplement Fed Milkers (kg DM/cow/day)	4.7 PKE 0-3.3 Baleage	4.6 PKE 0-3.2 Baleage	0-4 PKE 4.2 Baleage
Purchased Supplement Fed (kg DM/cow 2022/23 STD)	328 PKE 212 Purch Silage	179 PKE 213 Purch Silage	150 PKE 0 Purch Silage
Homegrown Silage Fed (kg DM/cow STD)	0	0	221
Average Body Condition Score - Milkers	4.08	4.2	4.32
Worry Score (1 = Low, 10 = High)	4	4	3
Nitrogen – Season to Date (kg N/ha)	42	42	0
Rainfall (mm last 2 weeks)	43 mm		

### CURRENT MANAGEMENT

- Pasture growth rates have jumped up with warmer weather and pasture covers risen accordingly. However grazing residuals have been relatively low at times, partially due to poor pasture utilisation.
- We are still using the grazing rotation planner to slowly the speed the rotation up to hit 25 days by 10 Sept, but have agreed to speed up the rotation to 35 days now on all farms in response to higher growth.
- Milkers on the Current and Alt Pastures farms are being fed PKE and baleage. The Low Emissions herd are only receiving PKE when they are standing off paddocks in wet weather.
- Ammo 36 is being applied at 100kg/ha behind the cows. The difference in pasture growth between the Current farm and the Low Emissions Farm indicates we are still getting good nitrogen responses.
- Recent metrichecking identified 5% of cows needed attention.