

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 – 20 th October 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha, excl silage pad)	2275	2291	2168
Pasture Growth (kg DM/ha/d, last 2 weeks)	68	77	59
Rotation Length (days)	27	29	26
Cows in Milk/Peak Cows	84/84	86/86	63/63
Area out for silage (% of farm)	7%	19%	15%
Production/cow/day (kg MS)	1.83	1.72	1.83
Production/ha/day (kg MS)	5.52	5.31	4.14
Production/cow – 2022/23 season (kg MS)	138	139	125
Production/ha – 2022/23 season (kg MS)	421	430	287
Supplement Fed (kg DM/cow/day)	0	0	0
Total Purchased Supplement Fed (kg DM/cow 2022/23 season)	388 PKE 212 Purch Silage	239 PKE 213 Purch Silage	163 PKE 0 Purch Silage
Homegrown Silage Fed (kg DM/cow STD)	0	0	221
Average Body Condition Score - Milkers	4.2	4.2	4.1
Worry Score (1 = Low, 10 = High)	2	2	2
Nitrogen – Season to Date (kg N/ha)	103	102	0
Rainfall (mm last 2 weeks)	28 mm		

CURRENT MANAGEMENT

- Pasture covers have continued to lift allowing some area to be closed up for silage on all farms. Anticipating cutting much of this silage next week, keen to get the paddocks back in the grazing round as early as possible.
- The first cycle of mating has just finished with around 80% of cows been submitted for AI. Planning to do 4 weeks of AI this season, a bit less than previous years. Bulls will go out with the herds late next week.
- Applying 50 kg/ha sustain behind the cows on the Current and Alternative Pasture farms, only around rain events from now on.