

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 – 4 th October 2023	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2235	2291	2093
Pasture Growth (kg DM/ha/d, last 2 weeks)	74	71	50
Rotation Length (days)	26	27	26
Cows in Milk/Peak Cows	81/82	84/84	61/62
Production/cow/day (kg MS)	1.84	1.90	1.65
Production/ha/day (kg MS)	5.35	5.77	3.58
SCC	78	79	86
Supplement Offered (kg DM/cow/day)	3.0 PKE	3.0 PKE	1.9 Silage 4.3 PKE
Purchased Supplement Fed (kg DM/cow)	464 PKE	435 PKE	145 PKE 88 Baleage
Homegrown Silage Fed (kg DM/cow)	0	46 Baleage	512 Baleage
Homegrown Silage on hand (kg DM/cow)	0	0	0
Average Body Condition Score (Milkers)	4.15	4.19	4.10
% cows below 4.0	7%	3%	0%
Manager Worry Score (1 = Low, 10 = High)	4	4	4
Nitrogen to date – 2023/24 Season (kg N/ha)	110	102	0
Rainfall (last two weeks)	30 mm		

CURRENT MANAGEMENT

- We thought spring had arrived, however cold rain and wind during the last week have set the farms back. Pasture covers have dropped on the Current and Low Emissions Farms.
- Pasture growth rates are calculated using the platometer readings. The platometer overestimates this time of year, especially when pugging damage is present. This will be leading to overestimation of pasture growth.
- We had dropped a couple of paddocks out for silage, however we will jump back in to graze one of these.
- With the wet and cold weather we reintroduced PKE to the Current and Alternative Pastures farms. This will be eased out again over the next few days. We are trying to avoid sudden changes in feeding so not to upset cows cycling. AI has been underway for a week.
- 70 kg/ha Sustain continues behind the cows on the Current and Alternative Pastures farms.