

Future Dairy Farm Systems Project – NARF (Dargaville)

This project commenced June 2021. It 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, 2.1 cows/ha

This project is funded by DairyNZ, MPI (Sustainable Food & Fibre Futures) and Hine Rangī Trust.

Update – 19 th May 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	1736	1795	1857
Pasture Growth (kg DM/ha/d, last 2 weeks)	26	18	20
Rotation Length (days) – avg last 2 wks	52	49	55
Cows in Milk/Peak Cows	0	0	0
SCC	-	-	-
Production/cow/day (kg MS)	-	-	-
Production/ha/day (kg MS)	-	-	-
Production/ha - season to date (kg MS)	1268	1213	794
Milk FEI	-	-	-
Supplement Fed Currently (kg DM/cow/day)	0 PKE 0-1.8 Silage	2.6 PKE	0-2.1 Silage
Purchased Supplement Fed (kg DM/cow/season to date)	575 PKE 176 Purch Silage	528 PKE 276 Purch Silage	67 PKE
Homegrown Silage Fed (kg DM/cow to date)	176	104	355
Home Grown Silage on hand (kg DM/cow)	0	0	268
Average Body Condition Score	4.1	4.3	4.04
Worry Score (1 = Low, 10 = High)	6	2	4
Nitrogen – Season to Date (kg N/ha)	172	172	0
Rainfall (mm last 2 weeks)	6 mm		

CURRENT MANAGEMENT

- Pasture growth has dropped back with cool dry weather, but warm rain last night will kick growth away again, particularly kikuyu regrowth
- The kikuyu management programme has now finished with all kikuyu paddocks mulched and undersown with Italians. Covers have dropped as expected but regrowth quality is high with plenty of green leaf and clover. The mulching programme is spread evenly over 60 days to manage this drop in cover so early mulched paddocks are now being grazed as the last pdks are mulched.
- Undersown paddocks on the Alt Pastures farm have been slow to come away. This is a species trait but has been made worse by cool dry weather. First sowings (mid March) should be ready to graze at end May without pulling.
- All herds are dry now with BCS tracking upwards. Supplement is being used to help this process
- All cows and R2yr have been teat sealed. R2yr will come onto their respective farms in early June.
- N will be applied to non-kikuyu paddocks on the Current and Alt Pastures farms. Kikuyu paddocks will not receive N until at least June, to help minimise shading of Italians.