

Future Dairy Farm Systems Project – NARF (Dargaville)

This project commenced June 2021. It will compare 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 Farming Fund) and Hine Rangi Trust.

Update – 10 th February 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha)	2045	1722	2160
Pasture Growth (kg DM/ha/d, last 2 weeks)	20	21	17
Rotation Length (days) – avg last 2 wks	28	27	31
Cows in Milk/Peak Cows	85/85	85/85	59/59
Production/cow/day (kg MS)	1.27	1.41	1.08
Production/ha/day (kg MS)	3.94	4.36	2.32
Production/ha/season to date	967	997	629
Milk FEI	8.2	7.9	5.0
Supplement Fed Currently (kg DM/cow/day)	2.6 PKE 3.5 Silage	2.6 PKE 7.1 Silage	0 – 2.5 Silage
Purchased Supplement Fed (kg DM/cow/season to date)	327 PKE 91 Purch Silage	300 PKE 6 Purch Silage	67 PKE
Homegrown Silage Fed (kg DM/cow to date)	111	161	208
Home Grown Silage on hand (kg DM/cow)	171	0	641
Average Body Condition Score	3.9	3.9	3.9
Worry Score (1 = Low, 10 = High)	3	4	1
Nitrogen – Season to Date (kg N/ha)	172	172	0
Rainfall (mm last 2 weeks)	63 mm		

CURRENT MANAGEMENT

- A great drop of rain this week will change the farming game for a while. Pasture covers have started rising again after a few months of decline
- PKE feeding continues at milk FEI limits on the Current and Alternative Pasture farms. Baleage feeding was increased on the Alternative Pastures farm to cover the feed deficit. Home grown silage has now run out so bought in silage is being used
- Pasture covers are expected to rise on the Low Emissions farm, which has a lower stocking rate than the other farms. We will speed up the rotation length on this farm to 25 days to maximise cow nutrition on pasture and try to keep pasture under control. We will start mowing behind the cows as residuals rise. The two other farms will stay on a 30-day rotation
- We are planning to sow 17% of the Alternative Pastures farm in new pasture this autumn
- All farms will continue milking twice-a-day, though some light conditioned cows (mainly heifers) are on OAD
- Facial eczema risk is likely to be rising due to high humidity and warm temperatures. Zinc treatment continues