

## 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 – 9 <sup>th</sup> February 2023	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha, excl silage pad)	2386	2314	2352
Pasture Growth (kg DM/ha/d, last 2 weeks)	67	63	76
Rotation Length (days, with silage pads out)	28	30	20
Cows in Milk/Peak Cows	82/84	83/86	59/62
Area out for silage (% of farm)	0%	0%	26%
Production/cow/day (kg MS)	1.32	1.39	1.35
Production/ha/day (kg MS)	3.93	4.18	2.97
Production/cow – 2022/23 season (kg MS)	292	308	297
Production/ha – 2022/23 season (kg MS)	894	953	681
6 week in-calf rate	81%	82%	82%
Supplement Fed (kg DM/cow/day)	0	0	0
Total Purchased Supplement Fed (kg DM/cow 2022/23 season)	400 PKE 212 Purch Silage	268 PKE 213 Purch Silage	163 PKE 0 Purch Silage
Homegrown Silage Fed (kg DM/cow)	0	0	221
Homegrown Silage on hand (kg DM/cow)	265	386	372
Average Body Condition Score	4.1	4.2	4.2
Worry Score (1 = Low, 10 = High)	2	2	2
Nitrogen – Season to Date (kg N/ha)	153	152	0
Rainfall (mm last 2 weeks)	125 mm		

### CURRENT MANAGEMENT

- Good soil moisture and warm temperatures has boosted pasture growth (especially kikuyu) and created plentiful pasture cover on all farms. All herds continue with pasture only feeding.
- The Low Emissions Farm has just harvested more silage on 26% of the farm. We have also shut up some paddocks on the Current Farm. This kikuyu silage quality will not be great so will be targeting this for feeding dry cows.
- We are running the mower behind the cows on a few of the paddocks where residuals are high.
- Zinc treatment now through troughs. Facial eczema spore counts have risen in the last couple of weeks. Earlier this week the ryegrass pastures at NARF were 152,000 on ryegrass, fescue/cocksfoot pastures 10,000 and kikuyu pastures 27,500.