

## 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 – 1 <sup>st</sup> December 2022	Current Farm	Alternative Pastures Farm	Low Emissions Farm
Avg Pasture Cover (kg DM/ha, excl silage pad)	2086	2046	2132
Pasture Growth (kg DM/ha/d, last 2 weeks)	68	81	65
Rotation Length (days)	20	22	23
Cows in Milk/Peak Cows	83/84	86/86	62/62
Area out for silage (% of farm)	20%	17%	22%
Production/cow/day (kg MS)	1.45	1.53	1.70
Production/ha/day (kg MS)	4.34	4.74	3.80
Production/cow – 2022/23 season (kg MS)	202	207	193
Production/ha – 2022/23 season (kg MS)	618	639	443
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)	0	0	221
Average Body Condition Score	4.1	4.2	4.2
Worry Score (1 = Low, 10 = High)	4	3	2
Nitrogen – Season to Date (kg N/ha)	138	133	0
Rainfall (mm last 2 weeks)	101 mm		

### CURRENT MANAGEMENT

- Pasture growth rates slowed during the last two weeks, compared to the previous fortnight. Plenty of moisture in the ground will ensure good growth rates well into December.
- We had up to one third of each farm closed for silage, however slower pasture growth, poorer pasture utilisation and wet weather delaying the harvest of this silage meant we have had to graze some of those paddocks to adequately feed cows.
- Our feed wedge indicates a small pasture feed deficit over the next week or so. We will fill any pasture shortfall with PKE as needed. This will be the first supplement fed since early September. We are reinstating a rotation length of 28 days to optimise pasture growth and quality.
- Sustain is continuing behind the cows at 40 kg/ha on the Current and Alternative Pastures farms, timed around rain events.