

Future Dairy Farm Systems Project – NARF (Dargaville)

This project compares the impact on productivity, profitability, people and the environment on three farms:

1. **Baseline (Current) Farm** – Kikuyu & ryegrass based pastures with up to 190 kg N/ha/annum, 3.1 cows/ha
2. **Alternative Pasture Farm** – Tall 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 16 th March 2026 | Baseline Farm | Alternative Pasture Farm | Low Emissions Farm |
|--|--------------------------|--------------------------|--------------------|
| Average Pasture Cover with silage paddocks | 1,972 | 1,747 | 1,937 |
| % farm out for turnips | 9% | 12% | 9% |
| Pasture Growth (kg DM/ha/d, last 2 weeks)* | 31 | 17 | 17 |
| Rotation Length (days, last 10 days) | 29 | 31 | 34 |
| Cows in Milk/Total Cows | 80/80 | 82/82 | 63/63 |
| SCC (000's) | 88 | 134 | 174 |
| Production/cow/day (kg MS/cow) | 1.41 | 1.3 | 1.45 |
| Production/ha/day (kg MS/ha) | 4.05 | 3.84 | 3.38 |
| Production/cow, season to date (kg MS/cow) | 386 | 371 | 386 |
| Production/ha, season to date (kg MS/ha) | 1,145 | 1,093 | 900 |
| Supplement Offered Milkers (kg DM/cow/day) | 3.4 PKE | 4.9 PKE 3.9 Bale | 2.9 PKE |
| Purchased Supp Fed, season to date (kg DM/c) | PKE 655 Purch bale 24 | PKE 592 | PKE 302 |
| Homegrown Silage Fed to date (kg DM/cow) | 32 | 66 | 135 |
| Homegrown Silage on hand (kg DM/cow) | 382 | 373 | 460 |
| Average Body Condition Score (Milkers) | 4.05 | 3.93 | 3.92 |
| Nitrogen to date – 2025/26 Season (kg N/ha) | 170 | 164 | 0 |
| Managers Worry Score (1 = Low, 10 = High) | 3 | 5 | 2 |
| Rainfall (last two weeks) | 10 | | |

*Pasture growth rates are calculated using uncalibrated platometer readings

CURRENT MANAGEMENT

- Pasture growth is slow but pasture covers are holding with the increased level of supplement we are feeding. All herds are now getting baleage and PKE.
- We have sown 1ha in a new kikuyu variety imported from Australia. We will be closely monitoring the establishment and performance of this paddock separately from the current trial.
- Turnip paddocks have been sown into either perennial ryegrass/clove, or Tall-fescue/clover. We have used a mix of Tower and Nougā fescue cultivars in most paddocks, with some test strips of pure Nougā, Haven, Tower and Quantica in one paddock for comparison.
- Mulching and under-sowing Italian ryegrass has also begun into all kikuyu based pastures (behind the cows). We will spread this over the next 45 days, aiming to finish early May.
- Facial eczema spores are still around, continuing to dose with zinc at full rates.