

Land Research Services Client Report

Client: United Fisheries Ltd



The Effect of Bio Marinus Liquid Fish Fertiliser on Pasture Growth in Canterbury: Preliminary Trials

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Summary of Trial Results

Trial sites were set out on two Canterbury dairy farms on a heavy silt (slow-draining) and a sandy loam (free-draining), respectively, to measure the performance of Bio Marinus (BM), a new liquid fish product (BM) developed by United Fisheries. Pasture growth was measured on each trial plot during August-December 2010. Nine treatments including a control were applied as follows:

1. Control (no BM or N applied)
2. 2x applications of BM at 20 L/ha (BM40); applied Aug/Oct
3. 1x application of BM at 40 L/ha (BM1x40); applied
4. 4x applications of BM at 15 L/ha (BM60); applied monthly
5. 2x applications of urea at 43 kg/ha (2x 20 kg N/ha; N40) ; applied Aug/Oct
6. 2x applications of both BM at 20 L/ha and urea at 20 kg N/ha (BM40+N40); applied bimonthly
7. Dairy farm effluent (DFE) 2x 20 L/m²; applied Aug/Oct
8. DFE 2x 20 L/m² + BM 2x 20 L/ha; applied Aug/Oct
9. 2x applications of BM bone-in at 20 L/ha (BMB40); applied Aug/Oct

Each treatment had five replicates and four cuts were taken for dry matter yield and nutrient content (N, P and K) analysis approximately one month after each application.

Results (see figure) showed that there were increases in DM production from 6-15% due to BM application, similar to using urea at 2x 20 kg N/ha. Overall, the DM increases due to BM were significant at the 5% level (i.e. there was less than a 1-in-20 chance these results were coincidental). Further trials are planned over 2011/12 to investigate these responses more thoroughly.

Nutritional assessment of the mixed herbage from the four cuts was remarkably similar but showed a tendency towards slight N deficiency across all treatments. There were no noticeable differences in N, P, K, S or brix content in mixed pasture between treatments but given the short-term nature of this first trial series this is not surprising.

