

BENEFITS OF LIMEFLO FERTILISER DEMONSTRATED (Part B)

Last month I reported on a trial which Soiltech supervised for Mainland Minerals to investigate what benefits, if any, would accrue from applying finely ground calcium carbonate or Limeflo. Unfortunately, the article was too long and some of the content was edited out. In this article, I will present the balance of the information omitted last month.

To recap: the trial was undertaken in the South Canterbury hill country near Albury. The objective was to compare various plant responses to a conventional aglime application of 2.5T/ha and Mainland Minerals Limeflo applied at 100kg/ha and 200kg/ha. The pre-trial pH was 5.5 and Olsen P levels were not a limiting factor. The trial was set down in February 2003 and ran for three years. We used a randomised block design with 5 replications. No clover was oversown with any treatments.

	Year 1	Year 2	Year 3	TOTAL	Extra DM	Increase (%)
CTRL	4817	5356	6913	17086	0	0
AGLIME	5477	6106	7411	18993	1907	11.2
LF100	6270	6968	7839	21076	3990	23.4
LF200	8006	8663	8112	24780	7694	45.0

The table above summarises the quantity of dry matter grown i.e. the Limeflo treatments grew 23.4% & 45.0% more dry matter compared to the untreated control and about twice and four times as much dry matter as the bulk lime treatment. We believe that much of the reason why the Limeflo treatments grew more and better quality pasture was because these treatments stimulated a response from the clover. There was substantially more clover present in the LF 200 plots than in the aglime plots. The pasture in the LF 200 plots was also more dense than that growing in the aglime plots. We also believe that the Limeflo treatments stimulated a response in the soil biology (earthworms, bacteria, fungi etc). This in turn led to better soil physical properties (structure, porosity, moisture retention) and better nutrient cycling.

Consider the following economic analysis which highlights the impact the extra dry matter grown can make to the farming “bottom line.”

Treatments	Lime	LF100	LF200
Applied in Feb 2003	2.5Tonne/ha	100kg/ha	200kg/ha
Extra DM grown (3 yrs) over control treatment	1907kg (11.2%)	3990kg (23.4%)	7694kg (45.0%)
Extra SU/ha able to be run on the extra feed*	1.16	2.43	4.68
Return/SU**	\$68.00	\$68.00	\$68.00
Potential increase in return/ha***	\$78.88	\$165.24	\$318.24
Cost/ha fertiliser applied****	\$175.00	\$78.00	\$110.00
Fertiliser cost spread over 3 years	\$58.33	\$26.00	\$36.00
Net return/ha	\$20.55	\$139.24	\$282.24

* Assumes a SU requires 1.5kg of dry matter intake/day (1643 kg over 3 years)

** Assumes \$8.00 for wool + 1.2 lambs @ \$50.00/lamb

*** Extra SU/ha multiplied by the Return/SU

**** Assumes application was by groundspread truck

The trial demonstrated significant benefits from the use of Mainland Minerals Limeflo fertiliser, both in terms of the quantity and quality of the dry matter grown and the economic advantages of taking such an approach.