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## Fertiliser Trial Demonstrates Excellent Stock Performance

For the past 3 seasons, Soiltech has overseen a trial for Mainland Minerals to evaluate any stock performance differences which might result from using Mainland Minerals fertiliser system rather than conventional granular fertiliser.

The trial was situated on a working sheep and beef property in South Canterbury. It arose largely from the dissatisfaction of the farmer with the stock performance he was obtaining after years of using granular fertiliser.

A 14 hectare block of similar fertility was subdivided into roughly similar 7 hectare blocks. Each season, one block was fertilised with Mainland Minerals fertiliser treatments and the other with the farmer's normal granular application. The cost of the fertiliser applied to each side of the trial was about the same in each season.

The trial started in the autumn of 2005 with 300 lambs block grazed on each side of the trial area. Lambs were weighed whenever a draft was taken. By the end of April, nearly twice the number of lambs had been drafted off the Mainland Minerals side and at a slightly heavier live weight than on the granular side of the trial.

The following season, 85 ewes with twins lambed on each side of the trial area. After weaning and drafting, additional lambs were brought onto the trial blocks from elsewhere on the farm, which at this stage was all receiving granular fertiliser.

An economic analysis (based on the works kill sheets) was undertaken for the lambs that were drafted to the works on 5/1/06 and 7/3/06. This demonstrated a significant stock performance advantage to the farmer from using Mainland Minerals fertiliser system. Results are outlined in the Table that follows:

<b>Combined Drafts</b>	<b>Granular</b>	<b>Mainland Minerals</b>
Lambs drafted	197 of 514 <b>(38%)</b>	251 of 512 <b>(49%)</b>
Average kill weight (kg)	16.61	16.84
Total meat weight (kg)	3272.17	4226.84
Price (\$/kg)	\$2.92	\$2.91
Gross return (7ha)	\$9,554.73	\$12,300.10
<b>Gross return (/ha)</b>	<b>\$1364.96</b>	<b>\$1757.16</b>
Fertiliser cost (/ha)	\$131.00	\$127.85
<b>Net return (/ha)</b>	<b>\$1233.96</b>	<b>\$1629.30</b>
<b>Increased return(/ha)</b>		<b>\$395.34 (32%)</b>

In the season just completed, ewes with twins were again lambled on each side of the trial areas. However, this season, after weaning and drafting, the “top up” lambs were supplied from other areas on the farm which had received identical fertilisation to the trial areas i.e. the “top up” lambs added to the Mainland Minerals fertilised side of the trial came from other areas of the farm that had also received the same Mainland Minerals fertilisation.

Another economic analysis (based on the works kill sheets) was undertaken for the first and second drafts taken on 27/12/06 and 19/2/2007. These results are shown in the Table that follows, which once again demonstrated a significant stock performance advantage as a result of using Mainland Minerals fertiliser.

<b>Combined Drafts</b>	<b>Granular</b>	<b>Mainland Minerals</b>
Lambs drafted	183 of 435 (42%)	280 of 453 (61%)
Average kill weight (kg)	16.60	16.79
Total meat weight (kg)	3037.8	4701.2
Price (\$/kg)	\$3.30	\$3.36
Gross return (7 ha blk)	\$10,024.74	\$15,796.03
<b>Gross return (/ha)</b>	<b>\$1432.10</b>	<b>\$2256.57</b>
Fertiliser cost (/ha)	\$108.55	\$101.85
<b>Net return (/ha)</b>	<b>\$1323.77</b>	<b>\$2154.72</b>
<b>Increased return (/ha)</b>		<b>\$830.95 (62%)</b>

Faecal egg counts and animal blood livers were also assessed over the three seasons this trial has been running. The results of these also came out favourably for the lambs grazed on Mainland Minerals fertilised pasture.

The conclusion? After three seasons of results, the Mainland Minerals fertilised area of the trial has yielded significantly better stock health performance and economic return than the trial area fertilised with conventional granular fertiliser.