Altum
NUTRITION FOR GROWTH

Hill Laboratories
BETTER TESTING BETTER RESULTS
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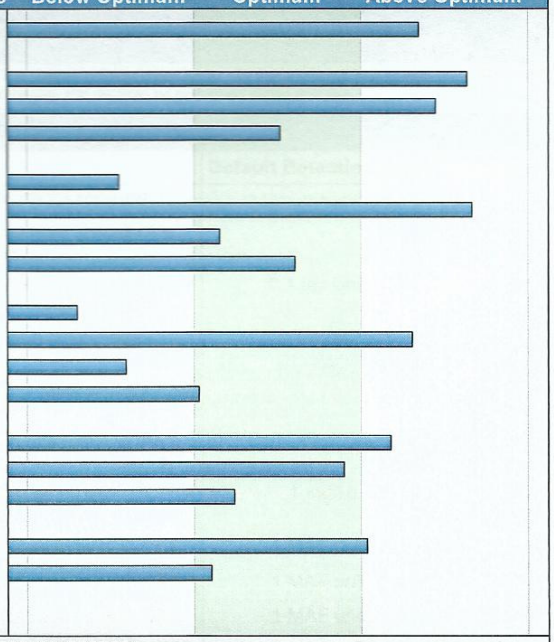
ANALYSIS REPORT

Client:	Southern Star Farms	**Lab No:**	1023779 sqhnv1
Address:	C/- D Crack	**Date Registered:**	06-Jul-2012
	108 Moffat Road	**Date Reported:**	11-Jul-2012
	RD 5	**Quote No:**	
	INVERCARGILL 9875	**Order No:**	
		Client Reference:	3006914
		Add. Client Ref:	Dairy Farm Lawson Rd
Phone:	03 239 5444	**Submitted By:**	C Galbraith

Sample Name: Pdk #42 **Lab Number:** 1023779.3
Sample Type: SOIL Mixed Pasture, M-H SR (low ash YBL, YBE, Sedimentary, Clay) (S169)

Analysis		Level Found	Optimum Range
pH	pH Units	6.3	5.8 - 6.0
Resin P	mg/kg	115	45 - 70
Olsen Phosphorus	mg/L	46	18 - 26
Anion Storage Capacity (estimated)*	%	56	30 - 80
Potassium	me/100g	0.34	0.50 - 0.70
Calcium	me/100g	20.7	6.0 - 12.0
Magnesium	me/100g	1.31	1.00 - 3.00
Sodium	me/100g	0.32	0.20 - 0.40
Potassium	%BS	1.1	2.5 - 4.0
Calcium	%BS	66	50 - 60
Magnesium	%BS	4.2	5.0 - 15.0
Sodium	%BS	1.0	1.0 - 2.0
CEC	me/100g	31	12 - 25
Total Base Saturation	%	72	50 - 75
Volume Weight	g/mL	0.70	0.60 - 1.00
Sulphate Sulphur	mg/kg	11	6 - 9
Extractable Organic Sulphur	mg/kg	7	6 - 12
Soil Sample Depth*	mm	0-75	
GPS Co-ordinates*		E: 2170030, N: 5403898 - E: 2170018, N: 5403931	
MAF Units		K 5 Ca 18 Mg 20 Na 10	



The above nutrient graph compares the levels found with reference interpretation levels. NOTE: It is important that the correct sample type be assigned, and that the recommended sampling procedure has been followed. R J Hill Laboratories Limited does not accept any responsibility for the resulting use of this information. IANZ Accreditation does not apply to comments and interpretations, i.e. the 'Range Levels' and subsequent graphs.

Analyst's Comments

The above results, as shown in the Level Found column, were determined by Hill Laboratories. The Optimum Range values, the subsequent bar graphs and the comments below were provided by Altum Nutrition, in accordance with their agronomic model for sustainable agriculture

OLSEN - EFFECT OF FERTILISER TYPE:
Farms with a history of soluble P use (eg superphosphate) should have P levels at the higher end of the optimum range. Where RPR has been used for a few years or more, the lower end of the range is satisfactory because the Olsen test does not measure RPR residues in the soil.

The Sulphate-S soil test measures only the immediately available sulphur. It does not measure elemental sulphur residues nor organic reserves of this element, both of which are often major sources of sulphur to the plants. Interpretation of this result should take account of these factors.