Sample Received

Client: Mr A Farmer

Sample Name: A Field

Sample Ref: H91 11111

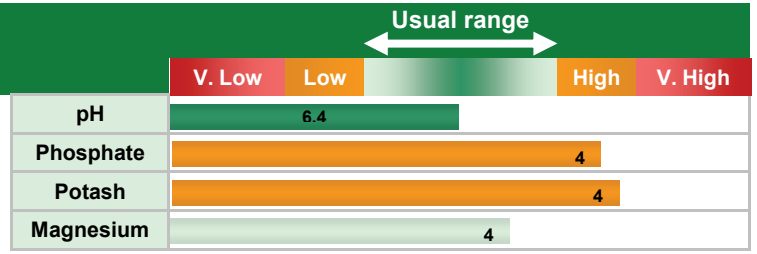
Kingshay SOIL ANALYSIS

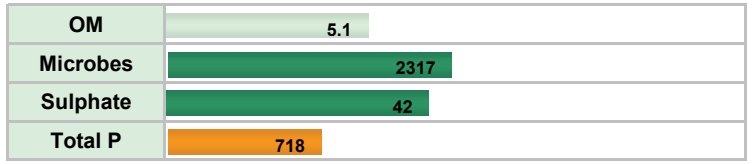
Ground Level Nutrition

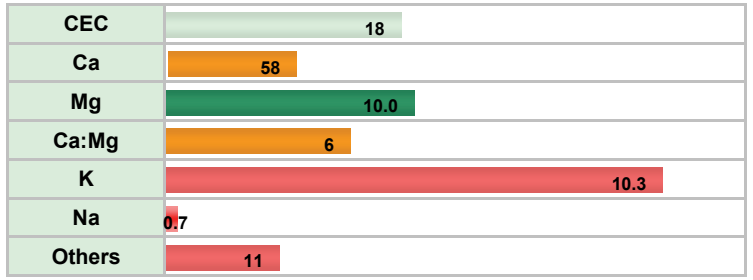
Soil Description: Loam
Land Topography: Flat
Drainage: Good
Cropping: P Pasture → 0

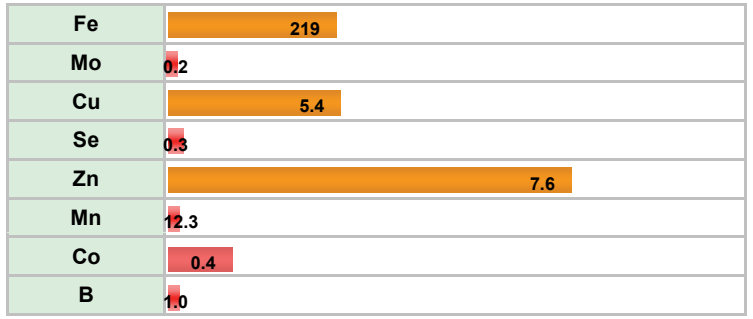
Analysis Factor			Soil Results	Index	Notes
STANDARD SOIL ANALYSIS					
Soil pH			6.4		pH satisfactory - however calcium status low (see CEC). Discuss gypsum.
Phosphate	P_2O_5	mg/l	57	4	Phosphate satisfactory - no additional supplementation required.
Potash	K_20	mg/l	535	4	Potash satisfactory - no additional supplementation required.
Magnesium	MgO	mg/l	177	4	Magnesium satisfactory - check Ca : Mg balance within CEC.
PHYSICAL SOIL STRUCTURE					
Sand		%	77		Sandy Loam - This relatively light, well drained loam should promote maintenance of aerobic structure. However, this soil is still prone to compaction. Consider slit aeration autumn / spring to promote NPK and other nutrient release in established swards .
Silt		%	12		
Clay		%	11		
MACRO NUTRIENTS					
Organic Matter		%	5.1		Moderate OM levels but microbial function could be improved. Discuss deep flat lift aeration in addition to regular slit aeration.
Microbial Activity			2,317		
Sulphate	SO_3	mg/l	42		Sulphate satisfactory - no additional supplementation required.
Total Phosphorus			718		Improved management and soil mineral balance will enhance release of both total phosphorus and potash into the available nutrient forms.
Total Potassium			1,036		
CHEMICAL					
CEC		meq/100	18.3		CEC moderate - build for soil improvement.
Calcium	Ca	%	58.4		Despite adequate pH this soil is dominated by excess magnesium. Calcium is deficient. This will reflect poor forage dry matter production levels and low calcium availability in the forage itself. Apply gypsum - calcium sulphate @ 2.5 t/ha autumn application. Consider calcium based fertiliser ingredients eg CAN.
Magnesium	Mg	%	10.0		
Ca:Mg ratio			6		
Potassium	K	%	10.3		Potash status is extremely high which is likely to be causing metabolic problems in livestock. Additionally sodium is extremely low which may be impacting on sward palatability. Consider applying natural rock salt spring / autumn (125 kg/ha/application). Offer ad lib lump rock salt to livestock.
Sodium	Na	%	0.7		
Hydrogen	H	%	-		
Others		%	10.8		**Summary -** due to specific problems on this ground discussions are ongoing in order to help minimise the adverse affects of the extreme Ca:Mg ratio and K:Na ratio imbalance. Apply gypsum and salt as above. Discuss fertilisers.
TRACE ELEMENTS					
Iron	Fe	mg/l	219		
Molybdenum	Mo	mg/l	0.20		
Copper	Cu	mg/l	5.4		
Selenium	Se	mg/l	0.30		
Zinc	Zn	mg/l	7.6		

Manganese	Mn	mg/l	12.3	Unusual trace element profile, evaluate using FORAGE MINERAL ANALYSIS for livestock mineral supplementation.
Cobalt	Co	mg/l	0.4	
Boron	B	mg/l	1.00	
Conductivity		mg/l	2,137	









Analysis complies with MAFF/DEFRA ref:427209

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