

Soil Analysis - What to prioritise

Key



Critical for soil health and crop growth



Important for plant and animal health



Indicative of soil types and management practices

pH – a measure acidity or alkalinity of a soil which affects nutrient availability, soil microbe activity and plant health. Target pH depends on soil type and crops being grown.



- Mineral Soils - Target pH 6 for grassland and crops
- Peat/Organic soil – Target pH 5.5 for grassland
- Moorland peat should not be limed

Phosphorous (P) – measures P available for plants



- Target status is Moderate for grassland and crops
- Check the phosphate sorption capacity (PSC) of your soil as it will affect how much P is recommended

Organic Matter – a measure of the organic matter in the soil. Sandy soils and soils with repeated cultivations and no livestock manures of grazing livestock will have lower OM levels. Very high levels >20% will indicate organic and peat soils.



Cation Exchange Capacity (CEC) – Indicates a soils ability to retain nutrients (a measure of the number of negative charges within a soil). Soils with lower CEC <5 meq/100g tend to be classed as a sandy soils with soils 15+ meq/100g having a higher clay content.



Soil Report		eurofins			
All tests reported here were conducted by Eurofins. The work was done as part of Eurofins' strategic partnership with SRUC innovation Ltd.					
Farm Sampled Field Name or I FID Number Soil Type	Previous Crop Next Crop Date received Date reported	Batch Number Lab Sample No Case No Cost Centre	S14568 S14568 S14568		
Mineral					
Determination	Result	Units	Target Value	Target Status	Status
(a) pH	5.2		na	M-	5.0 6.2 7.0
(a) Extractable Phosphorus	0.74	mg/l	4.5 - 9.4	M-	Very Low Low Moderate- Moderate+ High Very High
(a) Extractable Potassium	73.8	mg/l	76 - 140	M-	Very Low Low Moderate- Moderate+ High Very High
(a) Extractable Magnesium	192.7	mg/l	61 - 200	M	Low Moderate High Very High
(a) Extractable Calcium	732	mg/l	1000 - 3000 (**)	M	Low Moderate High
(a) Organic Matter (LOI)	15.11	%	4 - 10	M	0 50
(a) Extractable Sodium	63.28	mg/l	na		63.28
Cation Exchange Capacity	19.77	meq/100g			
Extractable Ca:Mg Ratio	3.8				
(a) Lime requirement - arable	8.7	t/ha			
(a) Lime requirement - grass	5.7	t/ha			

Potassium (K) – measure K available for plants



- Target status is Moderate for grassland and crops

Magnesium (Mg) –



- Target a Moderate status for grassland and crops

Calcium (Ca) -



- Target a moderate status for grassland and crops

Calcium and Magnesium status will dictate whether a calcium or a magnesium base lime should be used where there is also an increase in pH required.

Further Resources

[Understanding Soil pH](#)

[Technical Note \(TN714\): Liming Materials and Recommendations](#)

[Interpreting Grassland P & K Soil Analysis](#)

[Map of Soil Phosphorus Sorption Capacity - Scotland's Soils](#)