

Interpreting your Soil Analysis Report

At Nutrias, we offer a range of soil analysis options which provide information on the health of your soil and the nutrients it contains. Only 16% farms in Ireland have optimum soil fertility ('National Soil Fertility Trends' Teagasc, 2022), which is why testing is so important to ensure you are treating your soil correctly.

We advise that you aim to test your soil every three to four years and would suggest that it is carried out 3 to 6 months after/before P and K fertiliser applications. Use a soil auger to sample a 10cm depth on average and aim to have 15 cores per sample for accurate representation. We would advise to take samples from across the field – do not take samples in a straight line but rather in the shape of a 'W' as this will give you a uniform representation of the field being sampled.

Below is a step-by-step guide on how to interpretate your soil analysis report:

Section 1.

Independent Analytical Supplies			
Test Report			
Lab Report Number: 8477S001			
Customer ID:	AURI C1	Analysis Type:	S3A (S3A)
Contact Name:	Farmer A	Delivery By:	AN POST
Company Name:	AURIVO ANIMAL FEEDS	Sample Card Number:	150422B
Address:	LUNG DUBLIN ROAD BALLAGHADEERAN CO ROSCOMMON	Condition on Receipt:	Acceptable
Sample Type:	SOIL	Date Sample Received:	15/04/2022
Sample Reference:	2022 Soil Samples	Date Analysis Commenced:	15/04/2022
Sample Description:	Paddock 1	Date Certificate Issued:	22/04/2022

The sample reference and description are shown, these help the farmer to identify which results are for which field/paddock. Other information such as the date which the samples were received by the lab and when the testing took place is also shown. Each soil sample's results will be shown on a page in the report.

Section 2.

Parameter	Method	Result	Unit	Very Low Index 1	Low Index 2	Normal Index 3	High Index 4
Phosphorus (P) Morgans	SOP 2040	29.42	mg/l	3	5	8	30
Potassium (K) Morgans	SOP 2009	135.5	mg/l	50	100	150	200
pH (Water)	SOP 2001	7.1	pH units				
pH (SMP)	SOP 2002	6.9	pH units				

Section 2. shows the results for the soil sample. Using your result, measured in mg/l, you can see which index your soil's nutrients (P&K) falls into. The indexes are broken into four groups, indexes 1 & 2 indicate that your soil is low in the nutrient and additional fertiliser needs to be applied to replace what is used in the growing crop and to build up the soil's reserve for future seasons. Index 3 suggests that the soil has optimum levels of nutrients and fertiliser only needs to be spread to replace that which is taken up by the crop. Index 4 means that there are high levels of that nutrient in the soil, here there is no need to apply fertiliser which allows the soil to use this excess in nutrients.

In the report there are two figures for soil pH. 'pH (Water)' is the true indicator of soil pH which has an optimum target of 6.3 for grassland. The 'pH (SMP)' is used by the lab technicians to calculate the lime requirement for the soil.

Section 3.

Lime & Fertilizer Requirements:	
Lime Requirements for Grass (Tonnes/ha):	None
P Index Grassland:	4
P Index Other Crops:	4

Next the test results for the soil sample will be summarised highlighting the recommended lime requirements based on the soils pH and which nutrient index the soil is for P

Additional Information:

Index 1 & 2 Soils – As mentioned the aim for these soils is to replace the nutrients that is taken up by the growing crop and to build up future reserves. If farmers are unable to spread the recommended levels of fertiliser to raise the soils index, they should target to spread the maintenance P & K rates at minimum. Target to spread organic manure on these soils to fully utilise P and K, this is particularly important on soils where silage is planned to be harvested which results in significant offtakes of nutrients.

Index 3 Soils – These soils have an optimum level of nutrients and farmers should spread the maintenance rates of P and K. When targeting maintenance rates farmers should take into account stocking rate and farm enterprise, maintenance rates are highest for arable farms then dairy and finally dry stock farms. Relatively small quantities of P and K are required for maintenance when livestock are grazing as approx. 60% of P and 90% of K are recycled.

Index 4 Soils – These are the soils where farmers can really capitalise on fertiliser savings. For P stop applications for 2-3 years and then resample and assess. For K there is no need for application for 1 year following which farmers can either resample or spread maintenance rates until soil is tested again.

Actions arising from soil test results:

When you receive your test results you can contract your farm advisor who can develop a Nutrient Management Plan which will provide you with a fertiliser and lime plan that outlines which fields are best to receive to slurry/FYM.