

KEITH MOUNT LIMING

Soil pH

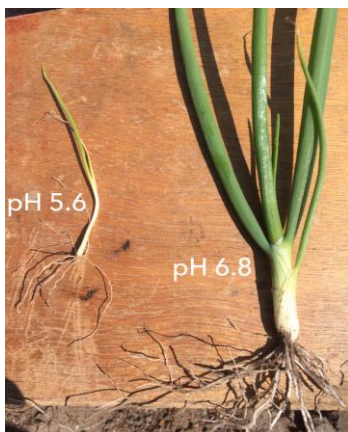
Are you being misled?

Read this article to find out



RB209 advice

Since acidity can occur in patches, spot testing with soil indicator across the field is often useful. Soil indicator can also be useful on soils which contain fragments of free lime, since these can give a misleadingly high pH when analysed following grinding in the laboratory.



Why pH matters

Crop & grass yields can be reduced by up to 20% where soil pH is below target. If the pH is wrong, nutrients applied to the crop may not be available, instead being lost through the soil, incurring costs and run-off issues.

The pH determines the relative acidity or alkalinity of a soil and is important to understand, and assess, in order to maximise crop growth. A pH of 7.0 is neutral, below 7.0 is acidic and above 7.0 alkaline.

N, P, K & Mg are all key nutrients which should be tested regularly, every 3 to 4 years. The availability of these nutrients is affected by soil pH in different ways and it's important to be aware of these impacts. **However, for accurate pH results, a lab analysis cannot be relied upon!**

It PAYS to be PRECISE

A standard soil analysis for P, K & Mg will also report a field average pH. Due to the grinding method that labs use to prepare soil samples, this pH figure can be very misleading

For example: 'In field' tests found pH's of 5.5 on a field where the lab result was pH 7.4



The Hard Facts! In field pH vs Lab pH

Over the last two years we have performed intensive trials on soil pH
The results might surprise you

A standard soil analysis provides results for P, K, Mg & pH. Laboratories dry and grind soil samples prior to testing. The reason for grinding is to protect the expensive probes used in the lab. Unfortunately, the grinding method destroys the accuracy of the reported soil pH. If a field has ever had lime applied or contains any

calcareous deposits, the lab pH result is likely to be unreliable. GPS grid mapping for pH can improve the accuracy due to the intensity of sampling. However, the soil is still tested in the lab after grinding and similar inaccuracies can occur. In field pH testing is THE most reliable method for accurate soil pH results. Some growers

have overlooked pH issues on their fields due to lab data reporting a high pH. Testing in field for soil acidity can quickly identify isolated patches and potentially poor yielding areas.



LAB RESULTS vs 'IN FIELD' RESULTS

	YEAR 1		YEAR 2	
<i>No. of Fields Sampled</i>	88		136	
<i>Total Area Sampled</i>	1100Ha		1320Ha	
	<i>LAB RESULT</i>	<i>IN FIELD RESULT</i>	<i>LAB RESULT</i>	<i>IN FIELD RESULT</i>
<i>No. of Fields with Low pH</i>	6	70 Part fields	2	103 Part fields
	<i>LAB RECS.</i>	<i>IN FIELD RECS.</i>	<i>LAB RECS.</i>	<i>IN FIELD RECS.</i>
<i>Land area with Low pH</i>	29.5Ha	291.3Ha	11.7Ha	390.2Ha
	<i>LAB LIME</i>	<i>IN FIELD LIME</i>	<i>LAB LIME</i>	<i>IN FIELD LIME</i>
<i>Recommendation in Tonnes</i>	147.5	1456.5	58.5	1952.5
	<i>Based on flat rate of 5t/ha</i>		<i>Based on flat rate of 5t/ha</i>	

Experts in your pHield



In field soil pH sampling using ATVs



Digital map of soil pH analysis



Lime being applied to spring barley

Trial Summary

A stark contrast in results. Averages across the 2 years showed a huge difference in recommended treatment areas.

Lab tests suggested liming on **1.78%** of the area sampled. 'In field' results suggested **28%** of the total area sampled required lime, finding isolated patches of soil acidity in **76%** of the fields tested.

How we can help

We have a dedicated team of soil samplers and field advisers covering large areas of the country. Being totally independent and privately owned, we can recommend the most suitable liming product at the best price.



We work with over 40 spreading contractors and arrange all of the deliveries and application including variable rate spreading. We have good relationships with agronomists, advisers and buying groups.

We would love to chat if you think we could work together.

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