

Soil sampling and analysis establishes the requirement for major soil nutrients such as lime, Phosphorous (P) and Potassium (K). Knowing the farm soil fertility, field by field, is the starting point to controlling fertiliser costs

Where soil samples have not been taken for several years consider soil sampling now

The cost is modest at about €1.50/ha/year, €0.60/ac/year

Do you want to have soil samples taken?

Contact your local Teagasc advisor

Taking soil samples yourself:

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|  Soil sample areas 2 – 4 ha |  Use a suitable soil corer |
|  Sample top 10 cm of soil |  Wait 3 – 6 months after P & K applications |
|  Take approximately 20 cores |  Leave a gap of two years after a lime application |

Tasks arising from soil test results

-  1 Identify areas of the farm that require lime
-  2 Identify fields with high and low P & K soil fertility
-  3 Target organic manures to fields with low soil P & K fertility (Index 1 & 2)
-  4 Soils with good fertility (Index 3) – apply maintenance levels of P and K
-  5 Ensure that demanding crops (e.g. silage fields) receive sufficient nutrients to drive growth and replace offtakes
-  6 Index 4 soils should not require additional fertiliser



Soil results and the soil P & K index system

Table 1. Soil nutrient index, response to fertilisers and soil test range for P & K (Source: Teagasc, 2020)					
Soil Index	Response to fertilisers	Fertiliser strategy	P (mg/L) Grassland	P (mg/L) Tillage	K (mg/L)
1	Definite	Build – up + M	0 – 3.0	0 – 3.0	0 – 50
2	Likely	Build – up + M	3.1 – 5.0	3.1 – 6.0	51 – 100
3	Unlikely	Maintenance (M)	5.1 – 8.0	6.1 – 10.0	101 – 150
4	None	None	>8.0	>10.0	>150

Where soils are extensively grazed (low stocking rate) and, in particular species rich pastures, lower target fertility and nutrient application rates are appropriate

Soil analysis & planning nutrient applications

- 1 Develop a farm liming plan for the next three to four years based on up-to-date soil test results and select the most suitable type of lime to build/maintain soil pH levels
- 2 Prepare a plan to utilise valuable organic fertilisers such as cattle slurry
- 3 Develop a field by field fertiliser programme to select the most suitable fertiliser types and tailor application rates based on soil analysis

NMP Online

Enter soil sample results into NMP (Nutrient Management Plan) Online with the help of your Teagasc advisor

Putting your soil fertility results into NMP Online can give you:

- A fertiliser plan
 - Split by split, based on the soil fertility of each field
- A lime plan for the farm
 - Targeting fields where lime will have the best impact
- A plan to make the best use of slurry and FYM
 - Targetted at the fields that need it
 - At the right time of year

Ask your Teagasc advisor for NMP online maps

- Colour coded maps help to focus the mind
- See at a glance where you need lime
- See at a glance where you will get the best value from slurry this year