

Teagasc Notes for week ending Friday 24th December 2021

Now is a great time to put a plan in place regarding next spring's fertilizer and slurry applications.

There are three things you can do on your farm straight away.

1/ Get your farm soil sampled – this should be done 3 months since your last slurry and P & K fertilizer application.

2/ Spread lime – this is the cheapest fertilizer available, will release Nitrogen in the soil and improve your NUE next year.

3/ Spread Potash – Potash can be spread any time of the year but now is the perfect time to build up indexes to avoid luxury uptake of K.

A fourth thing that you can do on your farm next spring is to get your slurry tested. This can be done by taking an agitated slurry sample from your tanker and sending it to the lab to be tested. The benefits of getting your slurry tested are

- Tell you the N/P/K value of your slurry
- Reduce the amount of chemical fertilizer you spread
- Avoid overspreading slurry which can prevent issues such as milk fever and grass tetany

KK/Waterford slurry project

A project was completed in the KK/Waterford area in 2021 where 48 farmers got their slurry tested. The below table shows the average value of the slurry results for N/P/K in units per 1000 gallons

<u>Slurry type</u>	<u>DM</u>	<u>Nitrogen</u>	<u>Phosphorus</u>	<u>Potash</u>	<u>Value of slurry per 1000 gallons</u>
Covered slurry tanks	7 %	6*	5	41	€43
Slurry Lagoons	3 %	3*	2	14	€16
Dairy washings	2 %	2*	2	14	€15

*If using LESS add +3 units of N

The key finding from the project was that there was:

- High variation in the slurry results depending on the Dry matter %.
- K values came in much higher than originally expected (Teagasc reference figure for standard slurry is 6-5-30 compared to projects 6-5-41).

Next spring's slurry and fertilizer applications

The aim should be to apply slurry and chemical fertilizer at the:

- Right **Time**
- Right **Paddock**
- Right **Rate**
- Right **Machine**

1/ Time

Slurry – First application of Slurry can be applied from Mid-January onwards once land is trafficable and no heavy rain is forecast. However the best response from spring slurry is from February onwards.

Fertilizer - First application of fertilizer should be applied in early - Mid February provided soil temperatures are + 6 degrees and there is no heavy rain forecast.

2/ Paddock

Slurry – Slurry should be targeted on silage fields where possible as these have the highest P and K offtakes. On the grazing platform it should be aimed on paddocks with low covers of grass <1000 kg/dm/ha and on paddocks in index 1 & 2 for P and K.

Fertilizer – 1st round of fertilizer application should only be applied on fields that you will get a response on such as dry fields and fields with a high ryegrass %. You will also get your best response on paddocks with medium & high covers of grass, whereas lower covers should be targeted with slurry.

3/ Rate

Slurry – The maximum rate per application should be 2,500 gallons per acre. Average quality slurry of 9 N-5 P- 30 K would be the same as applying 23 units of chemical N. Therefore where slurry is applied chemical fertilizer rates should be reduced accordingly.

Fertilizer – The aim should be to have 60 units of Nitrogen (including slurry Nitrogen) out by the 1st of April. The 1st application rate of chemical N should be 23 units and the 2nd application rate 37 units. On paddocks that received 2,500 gallons of slurry these rates should be reduced by 23 units of chemical N. The chemical Nitrogen product of choice should be Protected Urea and where P & K indexes are low 2 bags of 18-6-12 should be applied for the 2nd application.

4/ Machine

Slurry – LESS techniques will give + 3 units of Nitrogen and will leave paddocks much cleaner and give more options for grazing.

Fertilizer - It is important to make sure your fertilizer spreader is calibrated and working correctly. Having a GPS on your spreader could also avoid over spreading and save you money on fertilizer.