

Teagasc Notes for week ending Friday 28th January 2022

10 Point Action Plan to Reduce Chemical Nitrogen Use in 2022

Step 1.

Lime ground in December/early spring where soil pH is low. Why? Land at pH above 6.3 and at index 3-4 for P and K can release up to 70 kg/N/ha per year every year.

Step 2.

Spread maintenance (Index 3) levels of P and K. Why? Taking a P and K holiday is a false economy as nitrogen use efficiency will be compromised.

Step 3.

Do a fodder budget now to conserve winter feed and carry feed stocks into 2022. Why? Managing silage now and carrying into 2022 will mean a lower requirement to make silage in 2022 and reduce pressure on chemical N for silage.

Step 4.

Match your stocking rate to your farm's grass growing capacity. Can you sustain your current stocking rates at fertiliser costs of almost €200/cow in 2022? Why? The last 40% of fertiliser spread (100 kg/N/ha) on heavy stocked farms grows about 10% of the total grass grown. Can you cull empty cows/poor performers etc. for 2022?

Step 5.

Spread your slurry in the spring and preferably with low emission slurry spreading technology (LESS) and increase N recovery by 50%. Why?

Summer spreading using splash plate	3 units/1,000 gals
Spring spreading using splash plate	6 units/1,000 gals
Spring spreading using LESS	9 units/1,000 gals

Step 6.

Spread your slurry at a rate of 2,500 gallons per acre and target silage ground and lower fertility ground. Why? Spreading at a rate of 2,500 gallons/acre should give enough slurry for 50% of the farm and this rate can replace 20 units of chemical N/acre (enough for the first spreading).

Step 7. Spread Protected Urea where possible as it has lower N losses and reduces greenhouse gas and Ammonia emissions. Why? Protected Urea is ordinary Urea treated with a Urease inhibitor that releases N at a slower rate. 20 units/acre of Protected Urea can give the same effective N as 23 units of Urea/CAN.

Step 8.

Cut the rate of the 2nd spread of fertiliser in March from 46 units to 40 units/acre. Why? Cutting the rate by 6 units/acre is the same as a 3% reduction over the year and this should not compromise grass growth.

Step 9.

A unit a day is ok. Cutting fertiliser to 20 units per round in the summer is ok. Why? Having 130 units/acre available from April onwards means spreading less than 1 unit per day for summer grazing season.

Step 10.

Incorporate clover at 2kg/acre in new reseeds and 2.5 kg/acre where over-sowing. Why? Incorporating clover in the long term can replace up to 100 kg/N/ha mainly from mid-summer onwards. Reduce chemical N on existing clover swards from May onwards.