

# **Nitrates Derogation Review 2019**

Measure	Implementation
<p><b>Nutrient Management Planning (NMP) is an integral part of the nutrient use efficiency of a farm. and the submissions indicated that how a NMP is implemented at farm level needs greater consideration. At the farm scale, Nitrogen (N) and Phosphorus (P) surplus (defined as the excess of N and P inputs in feeds and fertilisers less N and P exports in milk) and N and P use efficiency (defined as the amount of milk N and P produced relative to total N and P inputs) are commonly used as overall measures of the efficiency of nutrient use to minimise nutrient loss to water. All derogation farms must complete a NMP to be eligible for derogation however there are additional measures required in order to understand and maximise the nutrient use efficiency of a farm.</b></p>	
<p>Adoption of a farm scale liming programme on derogation farms and on farms with a stocking rate above 170 kgs N/ha. Using Lime to optimise pH:</p> <ul style="list-style-type: none"> <li>• releases up to 80kg N/ha/year</li> <li>• unlocks soil phosphorus (P) and potassium (K)</li> <li>• increases the response to freshly applied N, P &amp; K</li> <li>• at farm level every €100 investment in lime equates to approximately €700 in extra grass production annually</li> </ul> <p>At optimum soil pH the soil nitrogen supply capacity of grassland soil is maximised and the uptake and efficiency of fertiliser N is improved. In addition optimum pH increases the availability and use efficiency of other soil nutrients including freshly applied P as either slurry P or chemical P. Where soils are maintained within the optimum soil pH range productive grass species and clover persist for longer and higher overall nitrogen use efficiency (NUE) can be achieved, especially where N fertilisers are appropriately managed.</p> <p>Improving NUE is a key measure in both the greenhouse gas and ammonia MACC analysis. The improvement of soil fertility and NUE on intensively stocked farms can reduce emissions where N fertiliser is reduced while maintaining or increasing yields.</p>	<p><b>2020</b></p>



nutrient accounting at farm level to ensure optimal nutrient use efficiency and recording.	
<b>Grassland Management</b>	
<p>Training on grassland management and recording of Grass Production on farm.</p> <p>Despite the established benefits of grass-based milk and meat production, Irish livestock farmers are currently not optimising sufficiently grass production and utilisation. Training is important to ensure a level of competence is established to ensure farmers understand the benefits of the production and utilisation of grass. Indeed, Teagasc research indicates that the current levels of grass grown (and utilised) on dairy, beef and sheep farms can be increased. Measuring grass and understanding the benefits of budgeting can improve the nutrient use efficiency as well as profitability of the farm.</p> <p>The potential reward of utilising more grass in livestock production is huge. Teagasc estimates that if grass utilised were to be increased by one tonne DM/ha/year, the benefit to dairy farmers would be €181/ha and €105/ha to drystock farmers.</p>	<p><b>2020</b></p> <p><b>2020</b> <b>or</b> <b>2021</b></p>
<b>Land Eligibility</b>	
<p>Commonage/rough grazing will not be eligible for derogation in 2020 – and cannot be included for the calculation of the chemical fertiliser allowance for the holding – this will reduce the chemical fertiliser allowance on marginal lands and reduce the risk of losses to the environment.</p>	<p><b>2020</b></p>
<b>Crude Protein in Concentrate Feeds</b>	
<p>A reduction in the crude protein in concentrate feeds for grazing livestock on farms with a grassland stocking rate greater than 170 kg/ha in order to reduce excess protein in animals diets. This measure provides a number of co-benefits to both water, air and climate challenge. Excess protein in concentrates results in losses from a financial and environmental perspective, therefore striking the balance between production and the environment is critical.</p> <p>According to Teagasc research on average Irish dairy cows have a requirement for a diet</p>	<p><b>2020</b></p>

<p>with a CP content of 15-17%. Grazed grass more than adequately meets animal requirements for crude protein. A 1% reduction in CP of dairy rations reduces N excretion by 1% and also results in a 5% reduction in GHG and ammonia emissions.</p>	
<p><b>Biodiversity</b></p>	
<p>Biodiversity on derogation farms is largely measured in terms of the proportion of farming area with hedgerows and high value ecosystems. Although Irish pasture-based dairy systems have been widely heralded for their lower intensity of food production, the rapid expansion in the sector needs to consider biodiversity actions. Biodiversity loss continues in an unprecedented manner and farmers are required to implement a biodiversity measure on derogation farms. Key management strategies that simultaneously achieve optimum livestock performance and minimise environmental impacts are essential to meet the future challenge however the implementation of appropriate ecological measures to halt the decline of biodiversity is also critical.</p> <p>Improving biodiversity on intensive farms can play an important role in halting the decline of farmland biodiversity and maintaining soil carbon.</p>	<p><b>2020</b></p>

### Concluding Comments

The Review Group has examined all submissions received and made recommendations primarily with the focus of building greater awareness of how agriculture and our natural resources must co-exist and achieve equilibrium in balancing production with environmental sustainability.

In considering the views of each of the submissions and recognising the scope of the Nitrates Directive, the Group have considered it appropriate based on the terms of reference and purpose of the review to propose several recommendations for implementation on Derogation Farms. Each proposal has been considered on its individual technical merit.

The proposed new measures are aimed at further strengthening the protection of water and attaining optimum soil fertility that is consistent with both efficient agricultural production and effective water quality protection. The recommendations made represent the agreed common position of all the experts comprising the Group.