Nitrates, Biodiversity and Engineering
Department of Agriculture, Food and the Marine
Johnstown Castle
Co. Wexford
Y35 PN52

Sent by Post & Email

24th May 2019

Re: Nitrates Derogation Review

To whom it may concern,

The Irish Co-operative Organisation Society (ICOS) is pleased to respond to the public consultation reviewing Ireland's derogation to the Nitrates regulations, which is essential to the future development of the Irish agri-food sector.

ICOS is the umbrella body for over 130 co-operatives in Ireland – including the Irish dairy processing & milk purchasing co-operatives and livestock marts – whose associated businesses have a combined turnover in the region of €14 billion, with some 150,000 individual members, employing 12,000 people in Ireland, and a further 24,000 people overseas.

We look forward to engaging constructively and positively with the Department of Agriculture, Food and the Marine on this important issue and the pressing environmental issues affecting agriculture and wider society.

Yours sincerely,

Michael Spellman
President

The Plunkett House, 84 Merrion Square, Dublin 2
Tel: + 353 1 676 4783 *Fax:* + 353 1 662 4502 *Email:* info@icos.ie *Website:* www.icos.ie
Brussels *Tel:* + 322 2310685 Limerick *Tel:* + 353 61 503066
Follow us on Twitter @ www.twitter.com/ICOSDUBLIN
Find us on LinkedIn @ Irish Co-operative Organisation Society

Vat No. IE3656713A Reg. Office: 84 Merrion Square, Dublin 2. No. 68R

Nitrates Derogation Review 2019

Appendix 1: Questionnaire

Name: The Irish Co-operative Organisation Society

Address: The Plunkett House, 84 Merrion Square, Dublin 2

Email Address: eamonn.farrell@icos.ie

Consultation Questions

In responding to this consultation you are invited to gives your views on the following taking into consideration the relevant links with Annex 1:

1. **Our livestock systems are based on the maximum utilisation of grassland. How can we increase the efficiency of grassland management on derogation farms, while protecting the environment?**

   Efficient grassland management is a key driver of sustainability at farm level. Ireland's grass-based production system is the backbone of Irish farming and underpins the cost competitiveness of Irish agriculture. There are a number of resources / programmes / initiatives available to farmers intended to increase the efficiency of grassland management, while protecting the environment including the following:

- The Dairy Sustainability Ireland booklet "Improving soil fertility and protecting water quality", which was distributed through co-op networks to each dairy farmer, identifies 5 steps to achieving optimal soil fertility. Soil testing is the critical starting point, followed by lime application, ensuring correct P and K levels, use of slurry where possible and providing a balance between slurry and compound fertilizer usage. Another important resource available to farmers are the recommendations contained in the Teagasc Green Book (Major and Micro Nutrient Advice for Productive Agricultural Crops).

- The Teagasc NMP online tool is a significant innovation designed to help agri-professionals and farmers to assess the nutrient balance of Irish farms and devise a fertiliser management programme that will optimise soil fertility and ensure compliance with the limits set under the Nitrates Regulations. The online tool uses mapping technology to produce a farmer friendly nutrient management plan along with colour coded maps. It is important that farmers make better use of new technologies such as the NMP online tool.

- Better grass use on farms can be achieved through grazing management, grassland measurement, soil fertility, grassland infrastructure and reseeding. Grassland management can be further augmented through the use of Pasture Base Ireland, an internet-based grassland management tool and the use of grassland technologies such as grass measuring and budgeting. More farmers should be encouraged to sign up to Pasture Base Ireland and to make better use of grassland technologies. Silage quality is increasingly important due to the extra milk produced in the shoulders of the year. Additionally, the use of baled silage technology as a grassland management tool plays an important role.

- There are several measures that farmers can implement that will improve environmental sustainability. The adoption of these practical measures will also help improve farm level profitability. Substituting clover for chemical fertilizer will deliver a 10% reduction in carbon footprint, while maintaining grass dry matter production per ha. The use of protected urea has the capacity to reduce both greenhouse gas and ammonia emissions at no net cost to the farmer. Protected urea is more stable in soil, benefiting water quality. The use of low emission spreading equipment (LESS) such as a trailing shoe results in reduced ammonia and greenhouse gas emissions, while increasing the fertilizer replacement value of slurry, increasing flexibility around slurry application on grazed pasture and improving spreading accuracy. Earlier application of slurry will also reduce emissions due to soil and climatic reasons.

- Dairy co-ops have undertaken several initiatives in recent years to promote soil fertility and better grassland management. Most notably, there is a commitment by each dairy processor under the Dairy Sustainability Ireland initiative to promote nutrient management planning, to the establishment of pilot farms in each co-op area in order to encourage best practice in soil fertility and overall sustainable farming practices and to the appointment of 10 sustainability advisors within the co-ops to work with Teagasc advisors on priority areas for action as part of the ASSAP (Agricultural Sustainability Support and Advisory Programme) programme. Following the establishment of the Dairy Sustainability Ireland initiatives, the co-ops have heavily promoted nutrient management planning through newsletter articles, social media, workshops, open days and farm walks. In addition, several co-ops have specific soil sampling programmes in place for their suppliers. Finally, co-ops have operated joint programmes with Teagasc for several years with sustainable milk production and soil fertility important objectives within these programmes.

2. How can livestock manure be best managed to ensure its impact on the environment is minimised?

There are a number of options available to farmers to improve the management of livestock manure in a manner that minimises its impact on the environment. Livestock manure is a valuable source of nutrients and should not be viewed as a farm waste.

- The current terms and conditions for derogation farmers under the Nitrates Regulations requires that 50% of all slurry is applied by the 15th of June annually. After this date, slurry can be applied only by using LESS equipment on derogation farms. We support the adoption and greater use of LESS equipment, and believe that consideration should be given to encouraging their uptake by all registered contractors by extending grant aid to them. It is estimated that 50% of all slurry in Ireland is spread by contractors.

- The Dairy Sustainability Ireland booklet "Improving soil fertility and protecting water quality" identifies a simple 5 step guide developed by Teagasc to protecting water quality through good farmyard management. Farmers must ensure that they have sufficient storage capacity to manage all slurry, soiled water, effluents and manure. It is important that all soiled water and slurry is kept separate from rainwater. Soiled

water in farmyards should be kept to a minimum, where practically possible. All storage structures such as silage pit floors should be maintained in good condition and roofed where appropriate. Finally, slurry should be applied based on individual nutrient management plans, and in accordance with best practice guidelines related to the spreading of slurry near watercourses etc.

- Other practical measures include the analysis of slurry by using a simple hydrometer to measure the density of slurry, leading to improved slurry management decisions.

- Additionally, with advances in weather forecasting capabilities, the greater use of localised weather data, as an advisory tool to ensure the most efficient use of slurry should be explored with Met Éireann.

- The use of slurry amendments can reduce ammonia and greenhouse gas emissions and covers on new external stores and floating covers for existing stores should be examined, mindful of the cost implications at farm level. There needs to be greater dissemination of the practical actions farmers can take to reduce ammonia losses during storage, such as having sufficient storage to store parlour washings and slurry together, use of propeller agitations etc In relation to managing livestock diets and nutritional advice, reducing crude protein levels by placing a greater emphasis on the energy value of animal feed is another important measure for consideration.

- Finally, farm systems can also contribute to the displacement of fossil fuels with the adoption of anaerobic digestion and biomethane. Anaerobic digestion (AD) using slurry and grass can produce biogas, that can be upgraded and injected into the national grid. AD is a proven technology with significant potential to reduce emissions from stored slurry and manure, reduces nitrous oxide emissions and offsets fossil fuel as an energy source.

3. How should agricultural impact on soil be minimised on derogation farms?

Farmers are increasingly aware of the importance of soil health and are paying more attention to the soil nutrient status on their farms. A review of soil sample results by Teagasc over 2017 and 2018 indicate some signs of improvement. However, the results of the national soil analysis programme showed that only 14.24% of soils sampled had agronomic optimum soil fertility levels (11.6% in 2016) and 84.16% of soils sampled had a deficiency in at least one parameter.

In 2018, the number of soil samples taken on dairy farms increased by 29% compared to the previous 5-year average, which is a welcome sign of progress. The national figures on lime usage highlight improvement as well. Approximately, 1 million MT of lime was applied in 2018, up by 211,000 MT compared to 2013 levels. However, lime application levels on Irish farms is lagging significantly behind usage figures from the 1970's. The national soil analysis programme in 2017 indicate that 59% of soil samples were sub-optimal for pH. Greater efforts must be made by all stakeholders to promote and encourage lime usage.

The soil results for P and K continue to show that a large number of samples have low fertility.

21% of soils were at the optimal index 3 for P and 24% of soils were at the optimal index 3 for K, according to the national soil analysis programme.

These outcomes highlight the importance of better and more targeted advisory messages on lime application by Teagasc and the development of new collaborative initiatives through Dairy Sustainability Ireland, promoting soil sampling and nutrient management planning.

The use of closed periods under the current Nitrates Regulations is a measure that reduces agriculture's impact on soil. However, it is a blunt instrument and new tools such as weather data should be kept under consideration to improve its effectiveness.

The current NAP 2018-2021 includes a number of new measures designed to break the pathway of nutrient and sediment loss to waters, which will be effective from the 1st of January 2021. These include measures related to access to watercourses, location of water troughs and preventing run-off from farm roadways. It is increasingly apparent that sediment loss is a significant factor related to water quality and the introduction of these measures will be important.

Finally, it is widely acknowledged that permanent grasslands are a natural store of carbon. New research and knowledge are needed so as to quantify the level of soil organic matter in Irish soils and to ensure that appropriate credit is given to grassland farms for sequestering carbon in soils.

4. What specific actions can derogation farms take to minimise their impact on the environment?

There are a number of practical actions that all farmers including derogation farms can undertake to contribute to improved environmental outcomes, while improving farm level profitability.

These measures are outlined in detail under the Teagasc Marginal Abatement Cost Curve and Ammonia Cost Curve and includes the following key recommendations:

- Improving the genetic merit of the dairy herd has the potential to mitigate 0.43 Mt of carbon dioxide equivalent annually over the period 2021-30. Every €10 increase in EBI will result in a 2% decrease in GHG's per unit of product due to a reduction in replacement overheads as herd fertility improves.

- Improved animal health is a critically important objective with 0.10 Mt potential mitigation. We recognise and welcome current efforts by dairy co-ops to increase milk recording across the national herd and urge greater support for milk recording under the next CAP.

- Nitrogen use efficiency due to improved nutrient management planning can mitigate
  0.10 Mt of carbon dioxide equivalent annually for the period 2021-30. The optimisation of soil pH is key.

- Extending the grazing season by 10 days will lead to 1.7% reductions in carbon footprint and a €27 increase in profit per cow.

- Incorporating white clover into perennial ryegrass pastures will lower chemical nitrogen requirements by 100kg/ha.

- The use of protected urea can result in a 71% reduction in nitrous oxide emissions, while limiting ammonia losses. Overall, changing fertilizer type can deliver up to 0.52 Mt of mitigation annually from 2021-30 and policies are urgently required to significantly increase the use of protected urea from current levels, which are low compared to straight nitrogen sales.

- The use of LESS equipment and increasing the proportion of slurry spread in the Spring can reduce greenhouse gas and ammonia emissions and increase N retention. LESS can deliver up to 0.12 Mt in annual mitigation over the period 2021-30.

The widespread and early adoption of these measures will require new collaborative programmes such as the Teagasc Signpost Farm proposal and new initiatives supported by all stakeholders and greater support under the next Common Agricultural Policy, which will have a strengthened environmental focus.

5. Should all intensive livestock farms be subject to the conditions of the derogation whether they apply or not?

We acknowledge that Ireland has significant requirements to meet under the Water Framework Directive. The achievement of good status in waters by 2021 or by 2027 at the latest will be a major challenge.

Nevertheless, we disagree with the proposal to expand the conditions of the derogation to 130kg/ha. Furthermore, the terminology contained in the consultation document is questionable. Farms operating at 131-170 kg are classified as intensive and those at 171kg plus are described as very intensive in the document. By any international comparison, the Irish dairy sector's grass-based system with cows at grass for up to 300 days a year delivers the highest animal welfare, environmental and biodiversity standards. The Irish dairy sector is committed to the principle of sustainable intensification, resulting in improved output from milk production, while minimising its impact on the environment.

A further concern relates to the very considerable administrative burden associated with widening the conditions of the derogation. Extending the scope of the derogation would move the focus of a significant tranche of advisors and consultants from technical advisory roles to scheme work. The advisory network is a critical resource available to farmers and the widespread adoption of ammonia and climate mitigation measures will require significant further investment in knowledge sharing programmes.

Rather than expand the conditions of the derogation, there are changes that all farmers can undertake following targeted advice and support through programmes such as ASSAP.

Furthermore, the new Common Agricultural Policy beyond 2020 includes proposals related to nutrient management planning and the development of national CAP strategic plans and eco-schemes that will achieve a higher level of ambition related to the environment. The new CAP is the main policy instrument that will deliver and drive change across all farming systems.

It is important to recognise the importance of the ASSAP programme, which is a new method to achieving improvements in water quality by providing free and confidential advice via fully trained sustainability advisors. It is an innovative Government/industry collaborative initiative that will run from 2018-2021 and will target up to 23,000 farmers over this period.

The sustainability and water quality improvements under ASSAP will be achieved across 190 priority areas for action through three main areas of focus – 1. Improved nutrient management with more targeted use of slurry and fertilizer, 2. Better farmyard management and practices and 3. New approaches to land management to reduce nutrient losses in critical source areas.

The ASSAP programme involves the deployment of 30 agricultural advisors, 10 working through dairy co-op structures and 20 managed through Teagasc. The advisory teams will work in tandem with scientific teams that will assess each catchment and identify locations in each catchment where agricultural pressures are to be addressed. Where issues are identified at farm level, a plan is drawn up in collaboration with the farmer to resolve the issues, with the objective of "breaking the pathway" so as to prevent nutrients entering waterways.

ENDS

24th May 2019