Submission to the Public Consultation on the National Air Pollution Control Programme (NAPCP)

22nd January 2021

1. Executive Summary

- Farmers are committed to helping reduce ammonia emissions, but continued co-investment is needed to support them to remain competitive and sustainable as they go through these changes.

- Complying with the ammonia reduction targets and the measures set out in the National Air Pollution Control Programme (NAPCP) must not impose prohibitive costs that compromise the competitiveness of Ireland's family farm model.

- The Government must work with the farmers to deliver a programme that gathers better data, removes barriers to change, supports investment in mitigation technologies, and finds alternatives to regulation.

- The most significant barriers to change are (i) the cost associated with the adoption of mitigation technologies and innovations and (ii) the supports needed to facilitate farmers to change working practices to meet the measures set out in the programme. IFA proposes the following:
    - Increased grant to 60% for low emission slurry spreading (LESS) equipment under Targeted Agriculture Modernisation Schemes (TAMS) and that LESS equipment is VAT exempt.
    - The Department of Agriculture, Food and Marine introduce an incentive scheme, which closes the price differential gap and includes an additional top-up to incentivise up-take of protected urea.
    - A measure is introduced under future agri-environment scheme to support farmers to incorporate clover as part of grassland management to reduce nitrogen fertiliser requirement.

- The scale of the challenge must not be under estimated and there is a critical need to adopt innovate collaborative models such as Smart Farming and other voluntary programme to drive change at farm level.

2. Introduction

The Irish Farmers Association is Ireland's largest farming organisation with approximately 71,000 members in 940 branches nationwide. We welcome the opportunity to make a submission to the Public Consultation on the National Air Pollution Control Programme (NAPCP).

We recognise the agriculture sector's responsibility to play its part in contributing to a reduction in emissions of atmospheric pollutants.

Safeguarding the environment and maintaining a sustainable and competitive agriculture sector is very important to farmers. Farmers care about the environment as stewards of the land and are continuously refining their farm systems to improve water quality, biodiversity outcomes, and to reduce their emissions while maintaining profitable farm businesses.

There is clear evidence that farmers can help improve air quality by further reducing ammonia emissions. There is extensive research on technologies and management practices to reduce ammonia emissions such as using protected urea, low emission slurry spreading, inclusion of clover in grassland, extended grazing, slurry additives etc.

Already farmers have made significant investment to improve slurry management as well as implemented changes in farming practices to improve efficiency and the reduce emissions. Over €79.6m has been invested in Low Emission Slurry Spreading (LESS) equipment by farmers.

The measures set out in the NAPCP programme to meet the ammonia reduction targets must be guided by the recently updated Teagasc Ammonia MACC report[1], which assesses the most cost-effective

[1] Teagasc (2020*). An Analysis of the Cost of the Abatement of Ammonia Emissions in Irish Agriculture to 2030.*

measures to achieve the reduction targets. If farmers are to meet the challenge to reduce emissions, they must be supported. Complying with the measures must not compromise the competitiveness of their farm.

The scale of the challenge for farmers to enable the Government to meet the National Emissions Ceilings Directive (NECD) must not be under estimated. In light of the challenge, IFA welcomes the EU decision under the new NECD that allows Member States some flexibilities in achieving compliance for air pollution.

The Government must work with the farmers to deliver a programme that gathers better data, removes barriers to change, supports investment in mitigation technologies, and finds alternatives to regulation.

3. Context

Farming and the wider agri-food sector are the backbone of economic activity in rural Ireland, and Ireland's largest indigenous sector, providing employment to over 300,000 people directly and indirectly. Despite wider economic challenges, exports from the agri-food sector were €14.5 billion in 2019[2].

Irish agriculture is dominated by family-owned farms. There are almost 140,000 farms, with an average land holding of 32.5 hectares. It is a predominantly pasture-based system thanks to our rich green grass growth for 9 to 10 months of the year. Output is dominated by dairy and livestock, especially beef. Dairy and beef account for two-thirds of gross agricultural output and similar proportions of agri-food exports.

Irish farming is a highly emissions-efficient food production model. Research[3] has shown that Ireland's dairy farms have the lowest carbon footprint in Europe, while our beef farms are in the top five.

Significant investment that has taken place on farms in recent years to improve efficiency and reduce ammonia emissions. Some of the actions undertaken include:

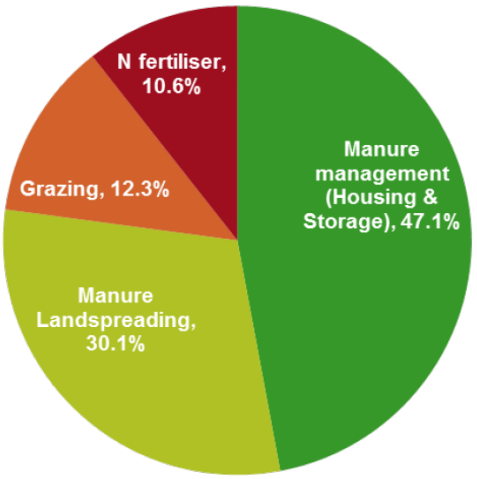
- Over €79.6m has been invested in Low Emission Slurry Spreading (LESS) equipment by farmers.
- Sales of protected urea have more than doubled in 2020 amounting to 49,284 tonnes (21,409 tonnes sold in 2019).
- Following the interim review of the nitrates action programme in 2018 farms stocked above 170kgN/ha will face enhanced requirements:
    - Use of Low Emission Spreading of Slurry (LESS) from 15th April 2021.
    - Must participate in a liming programme.
    - Reduce the crude protein content of concentrate fed to cows from April to September to below 15% (to commence in 2021).
- Following the same review farmers in receipt of a derogation also have to face enhanced requirements:
    - All slurry produced on the farm must be spread with LESS by 15th April 2021.
    - Farmers must attend environmental training.
    - Farmers must incorporate clover in new reseeds.
    - Incorporate a biodiversity measure on their farm aimed at improving the quality of the hedgerows on their farms.

In addition, farmers have engaged positively with voluntary programmes such as Smart Farming, a resource efficiency programme to improve management practices to optimise efficiency at farm level. Smart Farming is an initiative led by IFA in partnership with the Environmental Protection Agency that brings together the knowledge of Teagasc, the Fertilizer Association of Ireland, EPA, University College Dublin and others. The programme focusses on ways farmers can reduce costs at farm level and at the same time protect the environment through better resource management in eight key areas: feed, grassland, water, inputs, time management, soil fertility, machinery management and energy use. In 2020,

[2] Bord Bia (2020). *Export Performance & Prospects 2019–2020*.
[3] European Commission (2010). *Evaluation of the livestock sector's contribution to the EU greenhouse gas emissions (GGELS)* Joint Research Council.

the average cost saving on participation farms was €5,500, with an associated average greenhouse gas emission reduction of 9%.

The composition of the ammonia emission sources in agricultural[4] is as follows:



Despite the efficiency of our food production model and the improvements that are being made on farms, Teagasc[5] estimate that based on the current level of farming activity that ammonia emissions would increase by 9% by 2030 (relative to 2005 levels) if no mitigation measures were adopted.

Under National Emissions Ceilings Directive (NECD) Ireland is legally required to reduce emissions by 1% between 2020 and 2029 and 5% by 2030, relative to 2005 figures. This represents a significant challenge consider that agriculture accounts for over 99% of national ammonia emissions.

4. Supporting farmers to reduce ammonia emissions

There are no economic estimates of the costs associated with implementing the measures set out in the NAPCP programme. The financial vulnerability of many farms must be considered and supports provided to enable farmers to meet the challenge of reducing ammonia emissions.

IFA favour programmes such as Smart Farming that work collaboratively with farmers at farm level and with the wider farming community to share information, to guide their decision making and support them to adopt innovative solutions. This type of bottom up approach has been shown to improve both their profitability and the environmental sustainability of their farms

Farmers must have confidence that their investment in mitigation technologies and/or changes to farming practices will be enough to reduce on-farm emissions while maintaining or improving profitability. There is a deep-rooted concern reducing emissions will compromise the viability of their farm business.

Complying with reduction targets and the measures set out in the programme must not impose prohibitive costs that compromise the competitiveness of their farm. If farmers are to meet the challenge to reduce emissions, they must be supported and the viability of their family farm protected.

4.1. LESS slurry spreading

The programme sets two targets for low emissions spreading targets

[4] Teagasc (2020). *Ammonia Emissions in Agriculture: Sources, Importance and Mitigation*.
[5] Teagasc (2020). *An Analysis of the Cost of the Abatement of Ammonia Emissions in Irish Agriculture to 2030.*

- Pig slurry: 94% of slurry spread by LESS by 2030 with a 50:50 split between trailing hose and trailing shoe application; and
- Cattle slurry: 50% of dairy cow slurry applied through LESS with a 50:50 split between trailing hose and trailing shoe; 50% of other cattle slurry applied through LESS with a 50:50 split between trailing hose and trailing shoe.

Low emission slurry spreading (LESS) like the trailing shoe and band spreader have been proven to cut ammonia losses by 50%[6] while also improving nutrient use of the slurry.

Farmers have already invested, with grant support, an estimated €79.6 million in LESS equipment. The Teagasc roadmap shows that an average annual abatement costs of €12.6 million up to 2030 is required if the mitigation potential of this measure is to be achieved.

IFA opposes extending this measure to smaller farms as the impact would be minimal and it would be cost prohibitive, as well farms may have practical difficulties using LESS equipment.

Cost has been identified as the considerable barrier to the adoption of LESS equipment at the rate required to achieve the mitigation potential. ***To address this, IFA proposes to increase the grant under Targeted Agriculture Modernisation Schemes (TAMS) to 60% for LESS equipment and that LESS equipment should be VAT exempt.***

4.2. Protected Urea

The programme proposes a replacement target of 50% of the calcium ammonium nitrate fertiliser applied to grassland with inhibited urea products.

Protected urea is a fertiliser formulation that is proven to reduce ammonia emissions by over 70%[7].It has been proven equally as effective to grow grass as other nitrogen fertilisers. The Teagasc roadmap estimates that 20% of total ammonia mitigation could be achieved by increased use of protected urea.

Farmers are already switching from traditional chemical fertilisers to protected urea formulations as is demonstrated by the sales of protected urea, which more than doubled in 2020 amounting to 49,284 tonnes from 21,409 tonnes sold in 2019. The significant increase in sales clearly demonstrates farmers willingness to use protected urea however to ensure efficient use as well as increased uptake training will be required. However, 'protected urea' is more expensive to purchase.

To stimulate demand, ***IFA proposes that Department of Agriculture, Food and Marine introduce an incentive scheme, which closes the price differential gap and includes an additional top-up to incentivise up-take of protected urea.***

4.3. Reduction of Crude Protein in Pig Diets

The programme proposes a reduction in the crude protein content of pig feed by 1% point.

The use of low-crude protein in animal feeds is recognised as an important tool to reducing ammonia emissions while maintaining nutritional needs of animals[8]. Since the measure is applied at the beginning of the manure management chain, it has an impact on reducing nitrogen at all subsequent steps.

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[6] Teagasc (2020). *Ammonia Emissions in Agriculture: Sources, Importance and Mitigation*.

[7] Teagasc (2020). *Ammonia Emissions in Agriculture: Sources, Importance and Mitigation*.

[8] Pierce, K (2019). *Managing Crude Protein to Improve Performance,* Proceeding from Smart Farming 2019 Spring Seminar. Accessed online 20th June 2019 (https://smartfarming.ie/wp-content/uploads/2019/05/Karina-Pierce-Managing-Crude-Protein-to-Improve-Performance.pdf)

Pig nutrient is a specialised area that needs to be guided by qualified experts advising farmers. IFA supports the research being under taken by Teagasc, which is moving away from using crude protein as an indicator of protein quantity and quality in pig diets, towards a more scientific based "ideal protein" basis. Total lifetime protein intake needs to be assessed per kilogram of pig meat produced, rather than just the lowering of levels on percentage terms.

IFA proposes that (i) the programme take into consideration the research being undertaken by Teagasc on pig nutrition and that (ii) all merchants, millers and feed retailers are required to list feedstuffs in their rations and the quantity of each per tonne.

4.4. Clover

The programme proposes that the introduction of clover into grass swards equivalent to a saving of 17,400 tonnes of fertiliser nitrogen in 2030.

Incorporating white clover into grassland swards can reduce the requirement for chemical nitrogen application, once adequate clover proportion of > 20% is achieved in the sward. This reduces the volume fertiliser that needs to be applied and the corresponding emissions are avoided.

The scale of the proposed adoption represents a significant challenge, as to date the scale of adoption at farm level has been low. There is a higher management and time cost associated with the use of clover swards. Farmers will require substantial advice and education in terms of sward management if clover is to be successfully established and retained in grass swards, as well as financial assistance due to the higher management costs.

IFA propose that a measure is introduced under future agri-environment scheme to supports farmers to incorporate clover as part of grassland management and reduce application of nitrogen fertiliser.

5. Conclusion

The National Air Pollution Control Programme (NAPCP) must consider the financial vulnerability of many family farms and ensure that a short-term and long-term vulnerability assessment of the sector is undertaken to meet the reduction targets.

Farmers are committed to helping reduce ammonia emissions, but continued co-investment to support the them to remain competitive and sustainable as it goes through these changes, not just on emission reduction, but for other regulations such as water quality and biodiversity is essential.

Ireland's position as a world leader of sustainable food production must be recognised. We need to balance achieving the targets with the agricultural industry's competitive position of producing high quality, safe food at a reasonably low cost.

We trust that these comments are useful. If you wish to discuss any aspect of this submission, please contact Geraldine O'Sullivan, IFA Senior Policy Executive by email on geraldineosullivan@ifa.ie or on 087 9385283.

Ends.