IFA submission
to the Department of Agriculture, Food and the Marine
"2019 Nitrates Derogation Review"

The Irish Farm Centre
Bluebell
Dublin 12

May 2019

Contents

Introduction

The Irish Farmers' Association (IFA), as Ireland's largest farming representative organisation, is making this submission to the early mid-term review of the nitrates derogation in support of farmers in derogation.

The Association organised a number of regional meetings (figure 1), to advise farmers of the consultation being undertaken by the Department of Agriculture, Food and the Marine (DAFM), and to hear proposals and ideas to include in this submission.

Date	Location	Time
16th May	Riverside Park Hotel, Macroom	8pm
17th May	Horse & Jockey Hotel, Thurles	8pm
21st May	Woodford Dolmen Hotel, Carlow	8pm
22nd May	Ardboyne Hotel, Navan	8pm
23rd May	McWilliam Park Hotel, Claremorris	8pm

Figure 1: IFA nitrates derogation regional meetings

Many farmers who attended these meetings were unhappy with the uncertainty being created by this early review of the terms of the nitrates derogation, including proposals to classify farmers at the stocking rate of 1.5 dairy cows/ha as "intensive".

Some comments from the regional meetings included:

"We were told by Ministers to drive on and develop our farming businesses a number of years ago and now having done it, are they trying to change their message to farmers now?"

"The nitrates regulations were reviewed in 2017 and it was clearly explained that the derogation is in place until 2021. I developed my farm business plan on this basis and I have a legitimate expectation that the terms of the nitrates regulations will not be changed."

"Why has this consultation document not listed any of the good actions that farmers are doing to address the challenges highlighted?"

"What is the scientific basis for and how could anyone classify a farmer stocked at 131kgs N/ha as being intensive? It's daft!"

"IFA should reject these five leading questions in the consultation document, which imply that farming in derogation is bad for the environment and extra measures should be imposed. It's wrong and should be challenged."

These meetings were addressed by agricultural consultants and IFA representatives. A copy of IFA's presentation is included in this submission.[1]

[1] Appendix 1: IFA presentation to farmers attending regional nitrates derogation meetings.

The key priorities arising from the regional nitrates derogation meetings are:

1. Retention of the nitrates derogation, without further onerous obligations.
2. Rejection of additional measures on lower stocked farms or their classification as "intensive"[2].
3. The introduction of a Sustainability Development Programme, to support the further sustainable development of sector in the years ahead.

These priorities are discussed further below.

1. Retention of the nitrates derogation, without further onerous obligations

Irish agriculture has the potential to further develop in the years ahead, in line with the State's Food Wise 2025 growth plan for the sector. Farmers in derogation will make a substantial contribution to this future growth, with current annual agricultural output in excess of €900m.

These farmers in derogation, farm under higher and additional administrative and environmental obligations, which include:

- Making an annual online derogation application to DAFM.
- Having at least 80% of the holding in grass.
- Having grazing livestock.
- Submitting soil samples and fertiliser plans to DAFM.
- Submitting fertiliser accounts to DAFM by 31st March of the following year.
- Being subject to additional farm inspections.

Despite the scope for displacing artificial fertiliser use, farmers in derogation are not permitted to import livestock manures.

Since 2018, the following additional obligations apply to farmers in derogation:

- 50% of all slurry produced must be applied by the 15th June annually.
- After this date, slurry may only be applied using low emission equipment.
- Sufficient storage must be in place for all livestock manure and soiled water produced on the holding.

The derogation farmers, must also by 1st January 2021:

- Exclude bovines from watercourses.
- Ensure water troughs are set back 20m+ from watercourses.
- Prevent direct runoff from farm roadways to waters.

In addition, soil sampling must take place more frequently.

These measures combined with the requirements set out below demonstrate a high level of environmental action by farmers.

- The general nitrates regulations requirements (spreading restrictions, buffer zones, storage requirements etc) must be adhered to on all farms.
- There is a requirement for all of the 130,000+ farmers in receipt of a basic payment under CAP to meet stringent EU requirements to keep their farms in Good Agricultural and Environmental Conditions, including compliance obligations regarding the management of soils, hedgerows, water courses and fertiliser usage.

---

[2] See Table 2 page 4 in the DAFM Public Consultation document

These actions by farmers are making a positive contribution to Ireland's environmental well-being, with:

- Phosphorous use efficiency almost doubling over the past two decades.
- Nitrogen surpluses ranked 23rd lowest in the EU.
- Ireland's dairy farmers having the lowest greenhouse gas GHG emissions per kilo of output in the EU.
- Ireland's beef farmers in the top five for lowest GHG emissions per kilo of output.
- Environmental emissions intensity trends continuing to decline on dairy and livestock farms.
- Farmer demand for ammonia reducing equipment currently exceeding supply.
- Farmers have moved beyond regulatory environmental obligations, participating in voluntary programmes such as Smart Farming, the Agricultural Sustainability Support and Advisory Programme (ASSAP) and European Innovation Partnerships, such as the BRIDE Project.

While the majority of EU Member States legislate for nitrogen limits when implementing the Nitrates Directive (ND), Ireland also legislates for phosphorous limits. In addition, Ireland is one of only 10 member states that has adopted a "whole territory" approach to the implementation of the ND, where all farmers are required to adhere to all of the requirements (storage, spreading restrictions, etc) of the ND.

The consultation document refers to increased fertiliser use and cattle numbers, almost as a non-scientific justification for further measures to be imposed on farmers in derogation in the consultation questions. This ignores the increased fertiliser requirements needed to address the underlying soil fertility challenges that the sector faces, with only 11% of soils in Ireland at optimum status. It also ignores the scientific analysis[3] by Teagasc that phosphorous (P) use efficiency continues to increase on Irish farms (figure 2), and that P use efficiency is almost twice that of countries, such as the United Kingdom (figure 3).

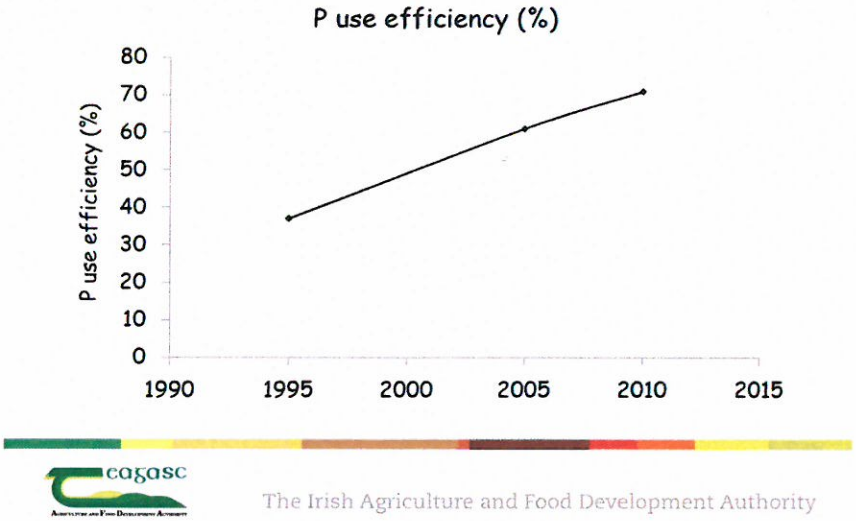


Figure 2: Phosphorous use efficiency (the ratio of P inputs to a farm that end up in products sold off the farm) on dairy farms in Ireland.

[3] Humphreys J, (2018), How sustainable are Irish dairy farms?, presentation to the Fertilizer Association of Ireland spring scientific meeting 2018.

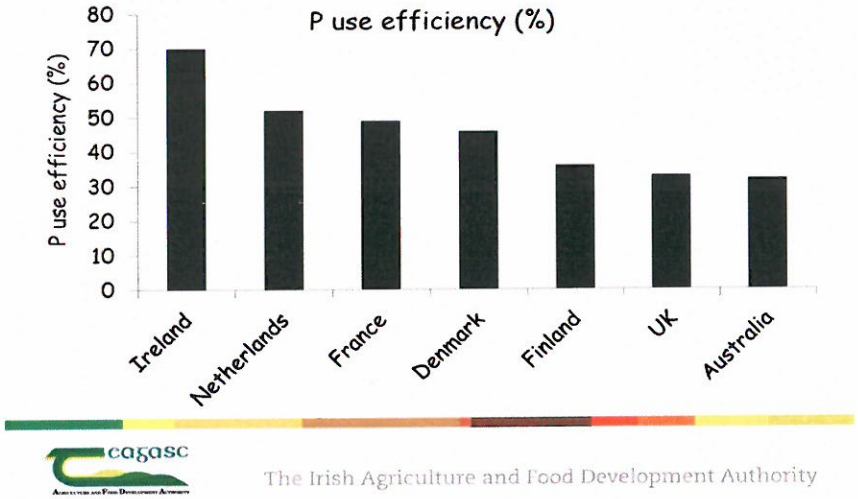


Figure 3: Phosphorous use efficiency (the ratio of P inputs to a farm that end up in products sold off the farm) on dairy farms in different countries.

Regarding nitrogen, Ireland has the 23rd lowest nitrogen surplus of the EU (figure 4) with the 6th highest water quality.

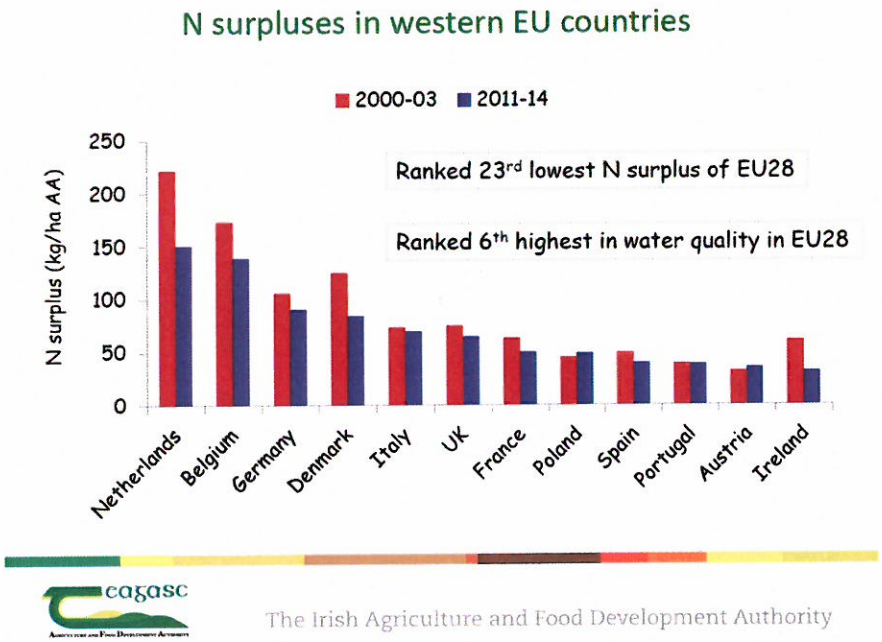


Figure 4: Nitrogen surpluses in western EU countries

Regarding water quality generally, the most significant challenge facing Ireland is compliance with the requirements of the Urban Waste Water Treatment Directive. In March 2019, the European Court of Justice found that Ireland failed to comply with this directive in relation to almost 30 wastewater treatment schemes across the country. Prior to this, the EPA warned of how the failure to treat waste water properly continues to damage Ireland's rivers and coastal waters, with raw sewage from the equivalent of 88,000 people in 38 towns and villages continuing to flow into rivers and streams.

The extension of this consultation to include air quality and climate action has failed to recognise farmers' actions to address these challenges. All available air quality and climate action policy measures are currently being fully taken up by farmers.

For example, on climate action, over 212,000 carbon assessments have been completed on farms using the Teagasc/Bord Bia carbon navigator, as part of Bord Bia's Origin Green programme. Given that there are just over 130,000 farms in Ireland, some farmers are on their second carbon assessment. Therefore, as emissions from sectors such as transport (figure 5) spiral out of control, no other sector of society measures, manages and monitors carbon like farming and is as focused on climate action.

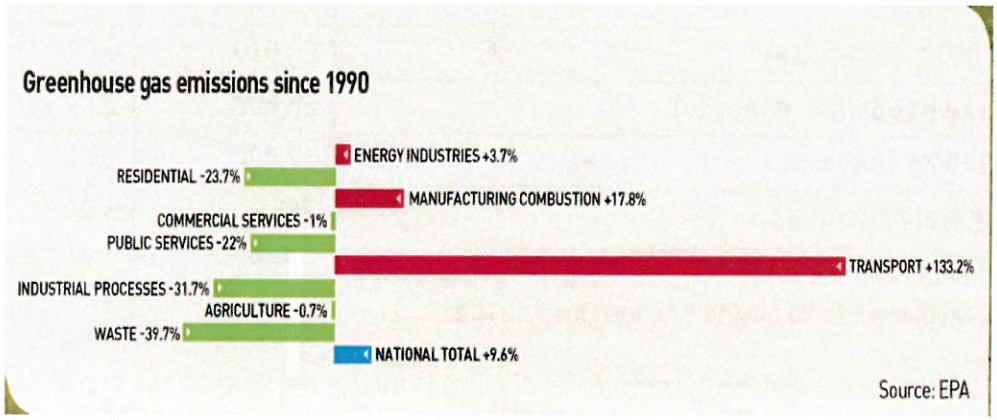


Figure 5: Changes in Ireland's greenhouse gas emissions since 1990.

Regarding air quality and in particular ammonia, the Low Emissions Slurry Spreading (LESS) grant-aid scheme operated by the Department of Agriculture is the key measure for reducing ammonia emissions. Farmer applications to participate in this scheme is at such a level that LESS equipment manufacturers are reporting a 16-18 week waiting time between farmers placing orders and receiving the LESS equipment.

Farming is also making a positive environmental impact when it comes to biodiversity. For example, over 40% of all farmers in Ireland participate in GLAS - the Green Low Carbon Agri-Environment Scheme. This scheme makes a positive difference for the climate, water quality and biodiversity. As part of this scheme:

- Almost 13,000km of watercourses will be fenced off from livestock.
- Almost 46,000ha of traditional hay meadow will be planted.
- Almost 240,000ha of carbon sequestering low-input permanent pastures will be created.
- And 360km of arable grass margins, as well as 62km of riparian margins will be created.

On balance, farmers are engaged in positive air, water and climate action. Imposing additional measures on farmers (in derogation or other-wise) is premature, and would fail to acknowledge their environmental actions and their commitment to adopting additional voluntary measures, such as participation in the ASSAP and Smart Farming programmes.

However, Irish farming has and will continue to play its part when it comes to addressing environmental challenges. Therefore, the only logical action is to recognise this and ensure the continuation of the nitrates derogation, which is key to maximising the contribution of the agri-food sector to economic growth and exports in an environmentally sustainable way in the years ahead.

2. Rejection of additional measures on lower stocked farms or their classification as "intensive"

Table 2 (see figure 6) of the consultation document sets out stocking rates on all farms in Ireland, based on bovine livestock manure nitrogen per hectare.

Table 2 - Analysis of farms by stocking rate for 2017

Stocking Rate kg Bovine Livestock manure N/ ha (as per Nitrates Regs)	No. Farms	% Farms
Under 85 kg (extensive)	80,919	61
86-130 kg (moderate intensity)	26,602	20
131 – 170 kg (intensive)	17,420	13.1
171+ kg (very intensive)	7855	5.9

Source: Nitrates section, DAFM

Figure 6: Stocking rate kg bovine livestock manure N/ha

From this table it is clear that the majority (81%) of farms in Ireland are stocked at a rate of less than 1.5 dairy cows per hectare. In addition, almost all (95%) farms have a stocking rate of less than 2 dairy cows per hectare.

Of concern to farmers, is the unscientific categorisations in the consultation document of farmers who farm at a stocking rate of 1 dairy cow per hectare (/ha) as farming at "moderate intensity" and farms at a stocking rate of 1.5 dairy cows/ha as "intensive". This misrepresents farming in Ireland (figure 7).

Stock Rate Org N/ha	Classification by Dept of Agriculture	Equivalent dairy cows/ha
Under 85kg	"Extensive"	≤ 1 dairy cow
86-130kg	"Moderate intensity"	1 – 1.5 dairy cows
131-170kg	"Intensive"	1.5 – 2 dairy cows
171+ kg	"Very Intensive"	Up to 3 dairy cows

Figure 7: DAFM classification of farms at various stocking rates

In a European context, Ireland's farming system could not be considered intensive. For example, the Netherlands, which is often unjustifiably compared with Ireland, has a much higher stocking rate (3.8 livestock units per hectare of agricultural area) and poorer water quality (average nitrate concentration in ground water). In addition, as seen in figure 4, nitrogen surpluses are at their highest and phosphorous use more inefficient (figure 3) in the Netherlands, when compared to Ireland.

The categorisations/definitions put forward by the Department of Agriculture, which are not required by the EU, encourage the development of an incorrect and deeply unfair perception of our family-owned and operated, grass-based farms among the general public. This is at a time of unprecedented and extraordinarily aggressive social media driven scrutiny of farming and food producing systems.

These categorisations also have the potential to render farms economically unviable, if additional measures are imposed. Such restrictions may reduce incomes further and limit farmers ability to invest in the environmental improvement of their farm businesses.

IFA seeks the removal of misrepresentative narratives, which wrongly seek to classify Ireland's predominately extensive, family farm, grass-based model of food production as "intensive". IFA does not support additional measures being imposed.

3. Sustainability Development Programme, to support the further sustainable development of the sector in the years ahead.

The consultation document states that this "review will examine further opportunities for derogation farmers to improve efficiencies and continue to reduce their environmental footprint with particular regard to water, climate and air quality." In this context, IFA calls for the introduction of a Sustainability Development Programme (SDP), which includes the following measures.

3.1 Implementation of the Teagasc Climate Roadmap

In June 2018, Teagasc published a scientific climate roadmap, to assist farming's continued climate efficiency. This roadmap sets out key measures:

- To displace on-farm fossil fuel use.
- To recognise carbon sequestered by the sector.
- To support greater farm level efficiency.

The implementation of these measures requires policy action and decisions by a number of state agencies and Government Departments.

This SDP must begin with the co-ordination by Government of IFA, relevant Government Departments and state agencies to put in place policy measures, such as price supports for farm-scale and community-based renewables, to ensure the maximum delivery of the measures contained in Teagasc's scientific climate roadmap.

3.2 Update the Low Emissions Slurry Spreading Scheme

The existing Low Emissions Slurry Spreading (LESS) scheme, which while currently well backed by farmers, requires additional support to escalate action to address air quality (ammonia) challenges. Therefore, **IFA proposes:**

- **That the overall grant aid available for individual farmers is increased to 60%.**
- **That the separate limit to general TAMS is increased.**
- **That it remains a strong measure in an enhanced GLAS.**
- **That investment in LESS equipment is VAT exempt.**

3.3 Twelve-month lead time for on-farm nutrient storage

Currently farmers cannot apply for a derogation unless they have the required nutrient storage in place. This obligation creates short-term cash flow and compliance difficulties, as stock numbers may vary during the course of a year, due to external factors, such as market returns, weather etc.
In recognition of these realities, IFA proposes that farmers in derogation should be provided with a twelve-month window to have all adequate nutrient storage facilities in place.

3.4 Supporting greater use of protected urea, lime, slurry additives and soil aeration technologies
The use of coated or "protected" urea is recommended by Teagasc, to help address climate and ammonia challenges; they report that using protected urea can reduce ammonia losses into the atmosphere by 80% compared to standard urea. However, 'protected urea' is more expensive to purchase.

To stimulate demand, IFA proposes that DAFM should introduce an incentive scheme, which closes the price differential gap and includes an additional top-up to incentivise up-take of 'protected urea'.

Lime is an important element to neutralise the acidity in Irish soils and restore them to optimum soil pH to support crop growth and overall soil quality, while reducing risk of run-off and nutrient losses. However, with two thirds of soils in Ireland at sub-optimum pH level and lime use at 1980's (figure 8) levels, there is an urgent need for DAFM to introduce a liming scheme to support use on Irish farms, as suggested by Teagasc.[4]

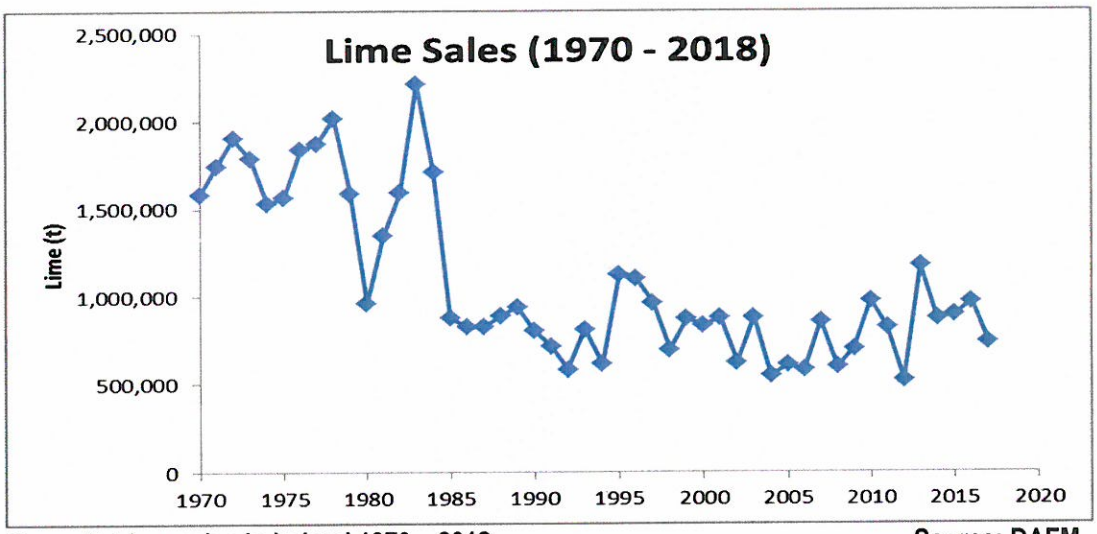


Figure 8: Lime sales in Ireland 1970 – 2018 **Source: DAFM**

IFA proposes that a liming grant support scheme should be introduced to support healthy soils and crop growth and to reduce environment impact from farming practices.

Slurry additives applied in winter slurry storage are recognised by Teagasc[5] as helping to reduce emissions. However, such slurry additives are costly and some farmers have questioned the efficacy of the claims made by the slurry additive suppliers.

---

[4] Farming Independent (2018) *Teagasc baffled by ongoing decline in lime application. Accessed online:* https://www.independent.ie/business/farming/beef/teagasc-baffled-by-ongoing-decline-in-lime-application-37446111.html 22nd May 2019

[5] Irish Examiner (2018), *Positive result for slurry additives* Accessed online: https://www.pressreader.com/ireland/irish-examiner-farming/20181101/281732680487113 22 May 2019

IFA proposes that a support would be put in place to encourage slurry additives uptake, and that Teagasc or DAFM would publish an annual list of slurry additive products that they have tested and that deliver the outcomes claimed.

"Soil structure is critical in determining the provision of nutrients, water and air in soil as this is dictated by soil structure. The benefits of good soil structure from an agronomic and an environmental perspective are plenty. These include:

- Root support, water and air for the growth of food and fibre.
- Cycling of nutrients into plant usable forms.
- Purification of water through the percolation process that relies on good soil structure.
- Storage and cycling of carbon.
- Represents the largest biological habitat on earth.
- A reservoir of potential and currently usable genetic and pharmaceutical resources"[6]

IFA proposes the introduction of a support programme for soil aeration equipment to maximise the agronomic and environmental benefits of good soil structures.

3.5 Support for anaerobic digestion and on-farm renewables

Micro-energy, anaerobic digestion, farm-scale and community renewable energy projects have all been recognised for a long time as important tools to displace fossil fuel use in rural areas, reducing environmental risks (water, air, climate) and generating alternative income streams. Most recently their important role was highlighted in the Oireachtas Committee on Climate Action cross-party report.[7] However, grid connection, price supports and planning changes are required to drive delivery of these measures.

IFA proposes that:

- **The Department of Agriculture should, similar to the LESS grant scheme, remove the overall €80,000 ceiling in the terms of the on-farm renewables fund, to facilitate maximum uptake of the on-farm renewables scheme.**
- **The Department of Housing, Planning and Local Government should review existing planning obligations, for all on-farm renewable projects, to bring planning requirements in line with other EU Member States.**
- **The long-over due renewable electricity support scheme must be announced by the Department of Communications, Climate Action and Environment, with a proportion of the scheme ring-fenced for community and farm scale projects.**

3.6 Carbon sinks from forests, permanent pastures and hedgerows must be fully counted

The positive climate impact achieved through carbon sinks, such as forests, hedges and permanent pastures, are currently not fully counted. This has led to an unbalanced picture of agriculture's climate impact. For example, afforestation since 1990 will remove an estimated net 4.5m tonnes of CO_2 from the atmosphere per annum, over the period 2021 – 2030. Yet the climate value of this will not be fully recognised, but any changes in methane and cattle numbers will be fully counted.

---

[6] Teagasc (2019) *Soil Quality and Nutrients* Accessed online: https://www.teagasc.ie/environment/soil/research/square/soil-quality-and-nutrients/ 22 May 2019

[7] Houses of the Oireachtas (March 2019) *Report of the Joint Committee on Climate Action Climate Change: A Cross-Party Consensus for Action*

IFA proposes that the Department of Agriculture should further incentivise carbon sinks on farms and that these sinks, associated with forestry, hedgerows and permanent pasture must be included and counted when measuring agriculture's climate contribution.

3.7 Benchmarking methane against carbon dioxide when counting carbon must be reviewed.

Methane is short-lived in the atmosphere compared to carbon dioxide (CO_2), as it is broken down by natural processes on a timescale of about 12 years. This compares with 20-200 years for CO_2. Given the short-lived behaviour of methane, the current practice of applying historical type calculations for methane should be reviewed.

IFA proposes that the climate metrics applied for ruminant livestock should more accurately reflect the impact of methane on global temperatures.

3.8 Encouraging greater use of organic manure

Organic manure, such as pig slurry and poultry manure etc. are an excellent source of soil nutrient, as well as acting as soil conditioner/structure improver, particularly on tillage farms. For example, the nutrient value of 1,000 gallons of pig slurry, expressed in terms of a 50kg bag of chemical fertiliser, is typically 19-7-20 (N, P & K)[8]. The Department of Agriculture, Teagasc and IFA continue to encourage customer farmers to consider using organic manure from pig, poultry and livestock farms. It is important that this facility is not hindered by excessive administrative requirements.

Farmers, however are reluctant to import organic manure and will not use the maximum amount of slurry that they are allowed to take in, due to fears regarding increased likelihood of being inspected, additional paperwork and potential basic payment penalties.

Also, under the nitrates regulations, farmers are only allowed to spread organic fertilisers to a level of 170kg N and then up to 226kg N with chemical fertiliser on grassland. This restriction does not incentivise the maximum use of organic manure.

To address this IFA proposes that farmers should be allowed to use either organic (acquired from outside the farm) or chemical fertiliser to the level of 226kg N.

This proposal would not lead to any increase in N usage, but would contribute to a reduction in the use of chemical fertiliser, which would reduce carbon footprint and input costs for farmers.

Currently farmers in derogation are prohibited under the regulations from importing organic manure to substitute chemical fertilisers. The implications of this are three-fold:

- Farmers incur additional costs, substituting local organic manure with more expensive imported chemical fertilisers.
- Neighbouring pig and poultry and mushroom farmers incur additional costs, transporting the organic manure longer distances.
- Farmers are not allowed to recycle locally produced organic manure.

IFA proposes that farmers in derogation should be allowed to import organic fertilisers, up to 250kg/ha, as an alternative to more expensive chemical fertilisers.

[8] Smart Farming (2019). *Soil Fertility. Fertile soils are essential for grass and crop growth* [Online] Available at: http://smartfarming.ie/soil-fertility/ Accessed: 22 May 2019.

Conclusion

Farmers are fully engaged in positive water, air and climate action, with farmers in derogation using resources such as phosphorous with increased efficiency. All of this action is contributing to falling emissions intensity in our livestock sector, strong demand for access to air quality improvement schemes such as LESS; as well as climate, biodiversity and water improvement schemes, such as GLAS. Farmers have also demonstrated a willingness to move beyond the delivery of statutory environmental obligations, through their increasing participation in voluntary programmes, such as ASSAP and Smart Farming.

The circa 7,000 farmers who farm in derogation are a cornerstone of the future development of the sector, contributing €900m in agricultural output. These farmers use inputs efficiently, they have invested heavily in the environmental integrity of their farm businesses by building additional storage and have improved farm yard management etc. to ensure compliance with the additional obligations. The retention of the nitrates derogation by Government is a legitimate expectation of IFA and these farmers. Measures, such as those in IFA's Sustainability Development Programme, should be introduced instead, in collaboration with farmers.

IFA would welcome the opportunity to meet with the Department of Agriculture in the coming weeks to discuss this submission further.

Appendix 1 - IFA presentation to regional nitrates derogation meetings

IFA

Nitrates Derogation Review

IFA meeting

IFA

- Background to review of nitrates derogation
- Sustainability
  - Challenges
  - Farmers' actions
  - Impact of farmers actions
- Nitrates Derogation Review
  - Issues highlighted in consultation document
  - Responding to these challenges
  - Consultation questions
  - Key priorities

IFA

Background to review

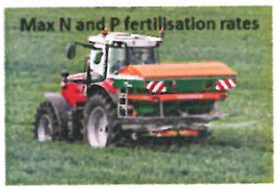
Ireland's Nitrates Action Programme (NAP)

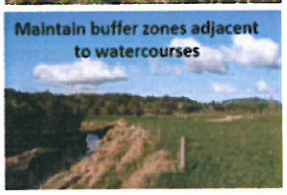
- renewed by the European Commission in 2017
- resulting in renewal 2018 -2021

Irelands Nitrates Action Programme (NAP)

Department of Agriculture, Food and the Marine
An Roinn Talmhaíochta, Bia agus Mara

There are a number of requirements for farmers under the NAP, some of which are:





Farmers must also keep records for each calendar year (1st January – 31st December)

- Area farmed
- Cropping regime
- Types of livestock and livestock numbers
- Storage facilities on farms

Irelands 4th NAP – new water protection measures

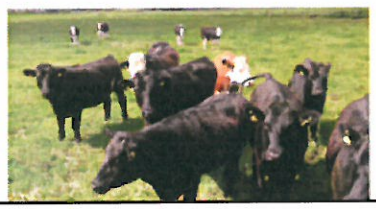
- Exclusion of bovines from watercourses
  - For farms stocked above 170 kg N/ha
- Water troughs set back 20m + from watercourses
  - For farms stocked above 170 kg N/ha
- Prevention of direct runoff from farm roadways to waters
  - Above three measures effective from 1st January 2021
- Prevention of run off resulting from poaching

Irelands 4th NAP – New soil measures

- Soil OM testing in designated peaty areas (Teagasc – EPA subsoils map) unless assume P index 3
  - Minimising the risk of P losses from risky peaty soils
- Soil sampling frequency increased
  - Was 1 soil sample every 8ha and valid for 5 years
  - Now 1 soil sample every 5ha and valid for 4 years
- P build-up programme for low P soils
  - Extra allowance for low P soils – currently 62% of soils have low P
  - Must participate in training programme
  - Must take soil samples and get NMP from FAS advisor
- Allowance to hold back 20 kg P for winter cereals
  - Closed period 15th September but most winter cereals sown after this date
  - Can hold back 20 kg P and apply up to 31st October but must be incorporated

Irelands Nitrates Derogation

- Nitrates derogation allows stocking rates up to 250 kg N/ha
  - Important for Food Wise 2025 expansion targets
- There are certain requirements to be eligible for nitrates derogation
  - Must make an annual online application to DAFM
  - Must be farming a holding that has at least 80% grass
  - Must have grazing livestock
  - Must have soil samples and fertiliser plan submitted to DAFM
  - Fertiliser accounts must be submitted to DAFM by 31st March of following year
- Nitrates derogation farmers must not import livestock manure
- Nitrates derogation farmers are subject to farm inspection


Nitrates derogation – new rules 2018

The new conditions applying for derogation since 2018

- 50% of all slurry produced must be applied by the 15th June annually.
- After this date slurry may only be applied using low emission equipment.
  - This has additional benefits of a reduction in ammonia emissions
- Derogation farmers must have sufficient storage for all livestock manure and soiled water produced on the holding.

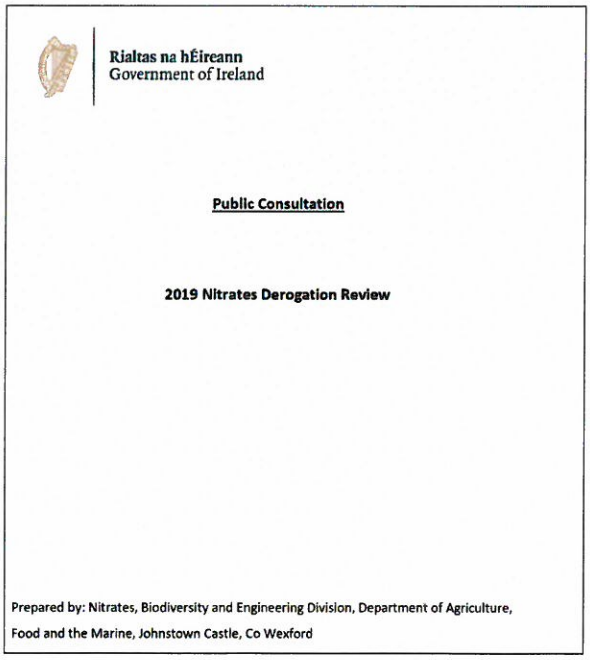

IFA

Background to review

Ireland's Nitrates Action Programme (NAP)

- renewed by the European Commission in 2017
- resulting in renewal 2018 -2021

- Early mid-term review



Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

Prepared by: Nitrates, Biodiversity and Engineering Division, Department of Agriculture, Food and the Marine, Johnstown Castle, Co Wexford

Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

Table 4 – Profile of Derogation farm

	2014	2015	2016	2017	2018
No. Derogation Farms	5,800	6,300	6,800	7,000	6,891
Area under Der. Farms (ha)	332,200	351,900	409,800	432,300	445,200
Average Farm Size (ha)	58	56	60	62	65
Livestock Units/ Der. Farm	139	146	149	150	162

Rialtas na hÉireann
Government of Ireland

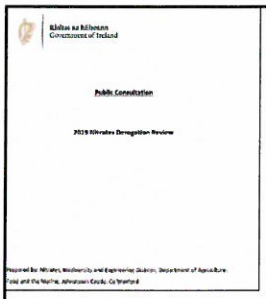
Public Consultation

2019 Nitrates Derogation Review

> €900 million – Annual Output

Table 4 – Profile of Derogation farm

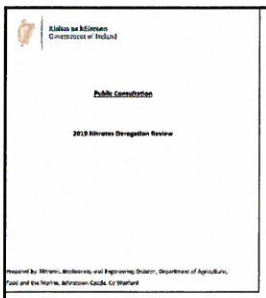
	2014	2015	2016	2017	2018
No. Derogation Farms	5,800	6,300	6,800	7,000	6,891
Area under Der. Farms (ha)	332,200	351,900	409,800	432,300	445,200
Average Farm Size (ha)	58	56	60	62	65
Livestock Units/ Der. Farm	139	146	149	150	162


Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

"The area farmed under derogation, stocked at up to 250 kg livestock manure N/ha, has increased by 34% from 2014 to 2018."


Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

"This review will examine further opportunities for derogation farmers to improve efficiencies and continue to reduce their environmental footprint with particular regard to water, climate and air quality."


Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

"This review will examine further opportunities for derogation farmers to improve efficiencies and continue to reduce their environmental footprint with particular regard to water, climate and air quality."

IFA

Farmers' environment actions

- Over 212,000 carbon assessments have been completed on farms, as part of Bord Bia's Origin Green programme. No other sector of society has shown this commitment.
- In addition, 90% of Ireland's beef exports are now in an audit and carbon foot printing programme and 100% of milk production is in a carbon auditing cycle.

IFA

Farmers' environment actions

Over 40% of all farmers in Ireland participate in GLAS - the Green Low Carbon Agri-Environment Scheme, which makes a positive difference for the climate, water quality and biodiversity.

As part of this scheme:

- Almost 13,000km of watercourses will be fenced off from livestock.
- Almost 46,000ha of traditional hay meadow will be planted.
- Almost 240,000ha of carbon sequestering low-input permanent pastures will be created.
- And 360km of arable grass margins, as well as 62km of riparian margins will be created.

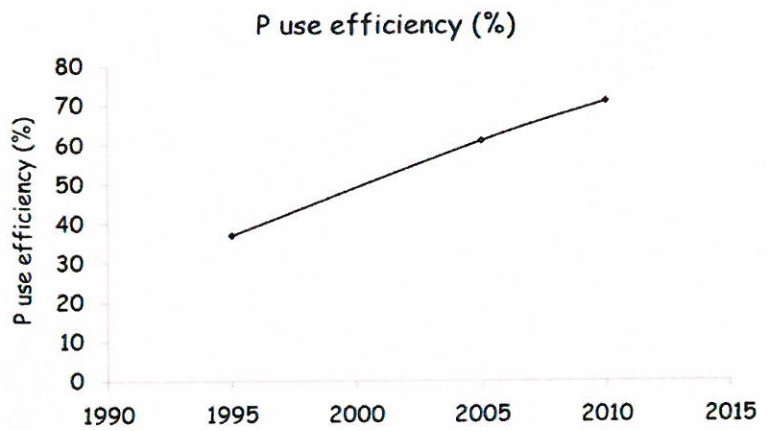
IFA

Farmers' environment actions

- Ireland has some of the best groundwater quality in Europe, with almost no groundwater stations exceeding 50mg nitrate per litre.
- Ireland's nitrogen balance is 9kg lower than the EU average.
- Ireland, Sweden and Greece have the lowest annual average nitrate concentrations (highest proportion less than 2mg/L) in rivers and lakes in the EU

IFA

Impact of farmers' actions

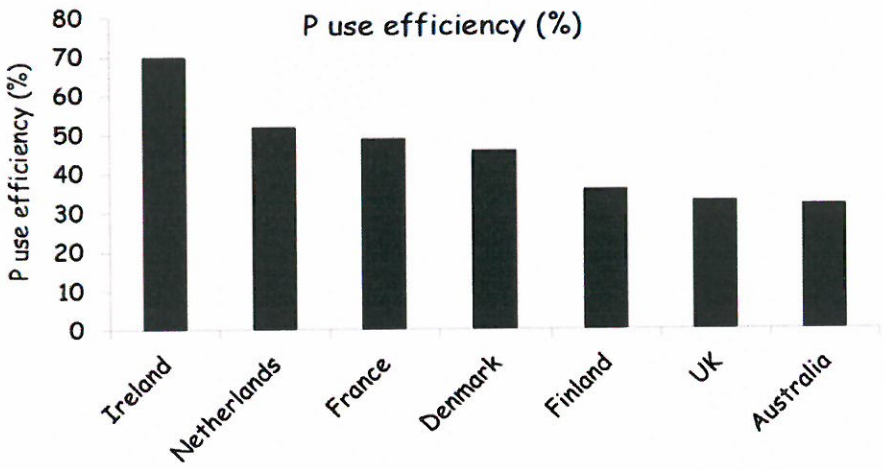


teagasc

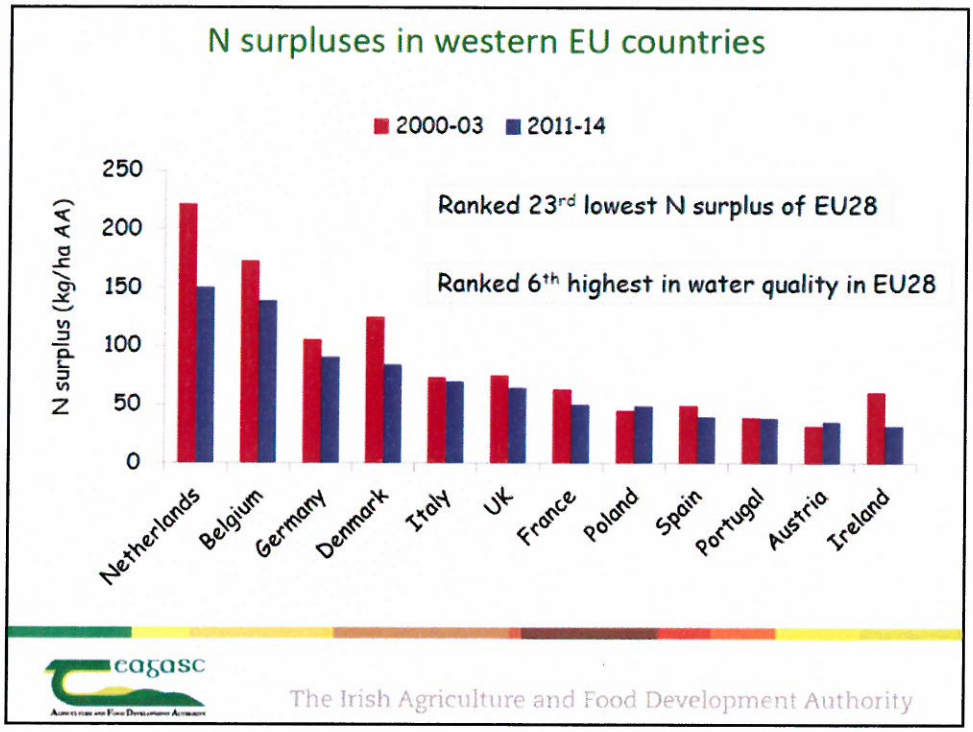
The Irish Agriculture and Food Development Authority

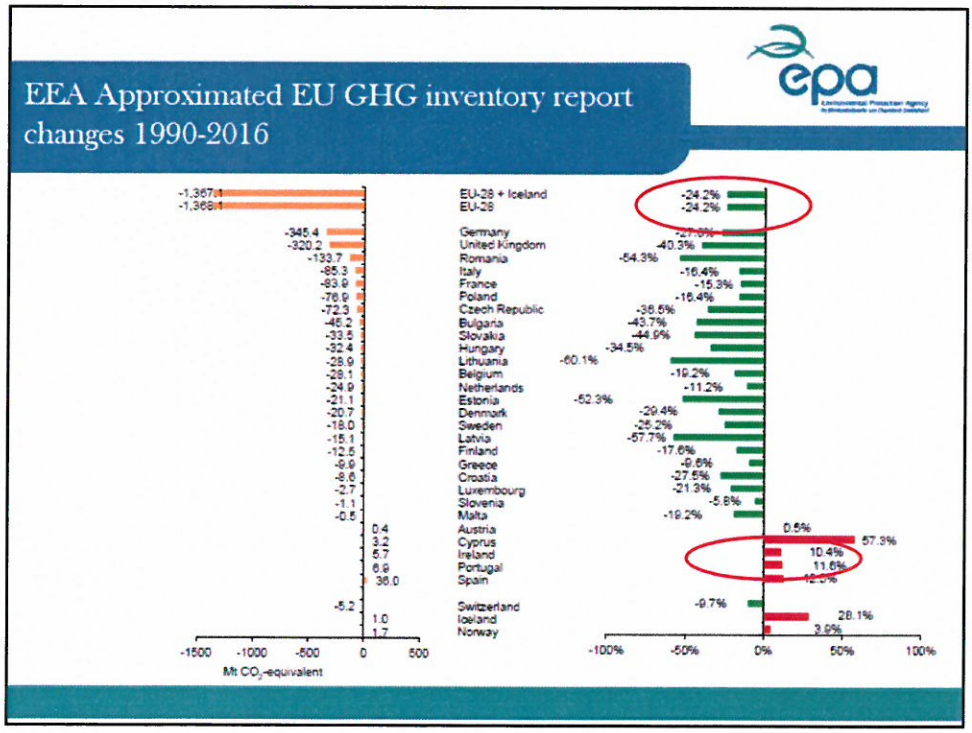
IFA

Impact of farmers' actions



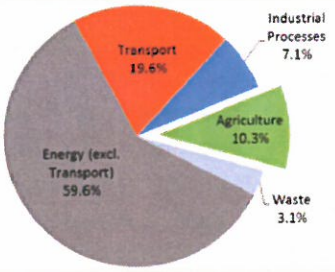
teagasc


N surpluses in western EU countries
2000-03
2011-14
N surplus (kg/ha AA)
250
200
150
100
50
0
Ranked 23rd lowest N surplus of EU28
Ranked 6th highest in water quality in EU28
Netherlands
Belgium
Germany
Denmark
Italy
UK
France
Poland
Spain
Portugal
Austria
Ireland
teagasc
The Irish Agriculture and Food Development Authority

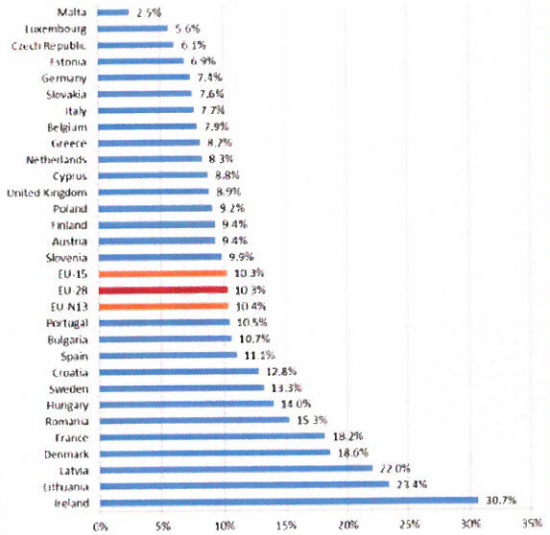

EEA Approximated EU GHG inventory report changes 1990-2016
epa
-1,367.1
-1,368.1
-345.4
-320.2
-133.7
-85.3
-83.9
-76.9
-72.3
-46.2
-33.5
-32.4
-28.9
-28.1
-24.9
-21.1
-20.7
-18.0
-15.1
-12.5
-9.9
-8.6
-2.7
-1.1
-0.5
0.4
3.2
5.7
6.9
36.0
-5.2
1.0
1.7
-1500
-1000
-500
0
500
Mt CO2-equivalent
EU-28 + Iceland
EU-28
Germany
United Kingdom
Romania
Italy
France
Poland
Czech Republic
Bulgaria
Slovakia
Hungary
Lithuania
Belgium
Netherlands
Estonia
Denmark
Sweden
Latvia
Finland
Greece
Croatia
Luxembourg
Slovenia
Malta
Austria
Cyprus
Ireland
Portugal
Spain
Switzerland
Iceland
Norway
-24.2%
-24.2%
-40.3%
-54.3%
-16.4%
-15.3%
-16.4%
-36.5%
-43.7%
-44.9%
-34.5%
-60.1%
-19.2%
-11.2%
-52.3%
-29.4%
-25.2%
-57.7%
-17.6%
-9.6%
-27.5%
-21.3%
-5.8%
-19.2%
0.5%
57.3%
10.4%
11.6%
-9.7%
28.1%
3.9%
-100%
-50%
0%
50%
100%

Agricultural emissions in the EU

How important are agriculture (non-CO_2) emissions in the EU?



Source: EU GHG Inventory 2016 (EEA, 2016)



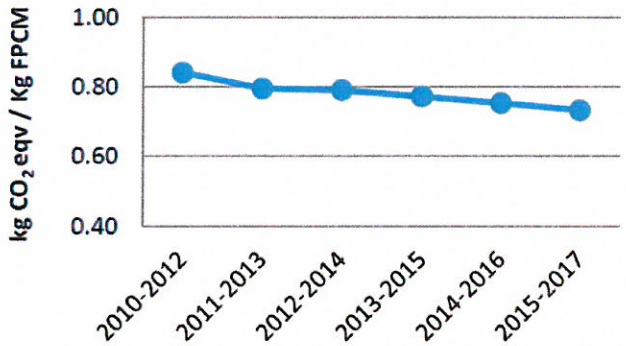
IFA

- Irish dairy farming – lowest GHG emissions in EU
- Irish beef farming – fifth lowest GHG emissions in EU

IFA

Environmental Emissions Intensity Trend

Figure 120: Ag. GHG Emissions per kg FPCM: 2012-2017 (IPCC approach) 3 year rolling average – Dairy Farms

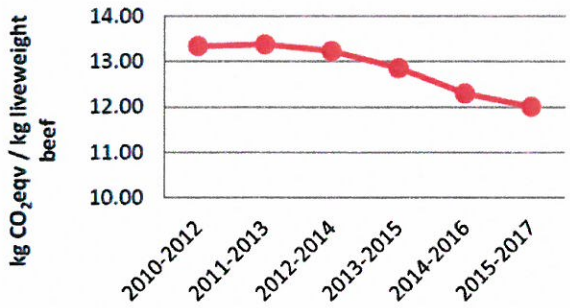


Source: Teagasc National Farm Survey 2017 Sustainability Report

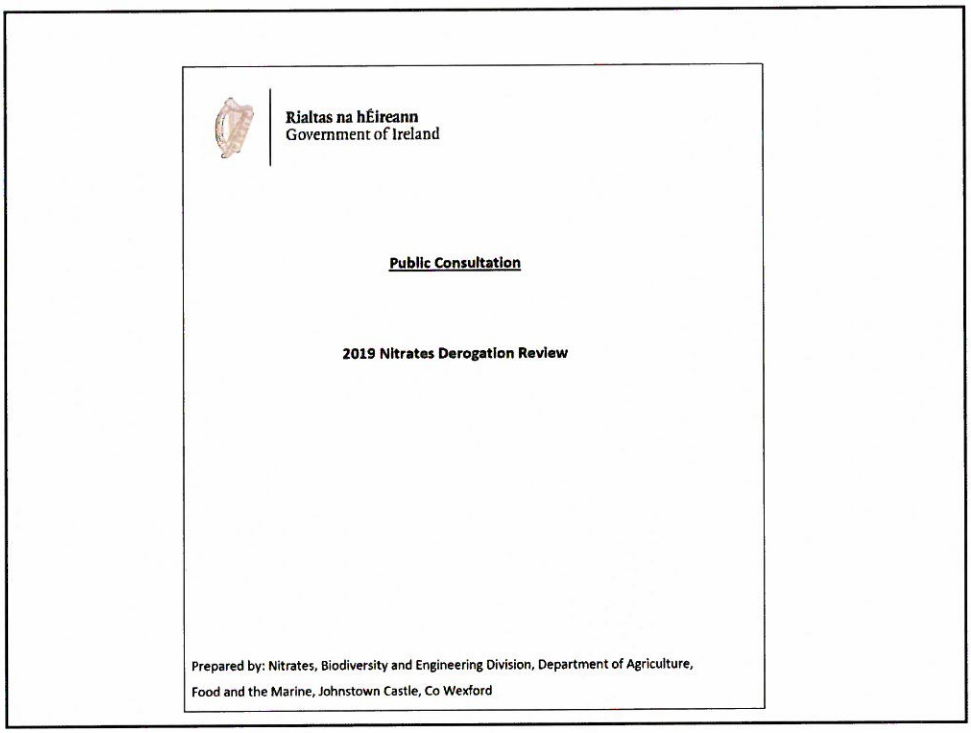
IFA

Environmental Emissions Intensity Trend

Figure 121: Ag. GHG Emissions per kg live-weight beef produced: 2012-2017 (IPCC approach) 3 year rolling average – Cattle Farms



Source: Teagasc National Farm Survey 2017 Sustainability Report

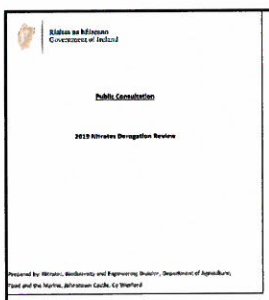


Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

Prepared by: Nitrates, Biodiversity and Engineering Division, Department of Agriculture, Food and the Marine, Johnstown Castle, Co Wexford



Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

Prepared by: Nitrates, Biodiversity and Engineering Division, Department of Agriculture, Food and the Marine, Johnstown Castle, Co Wexford

"It is conducted against the background of derogation farms being a very significant intensive cohort and the increasing area being farmed under the derogation."

Rialtas na hEireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

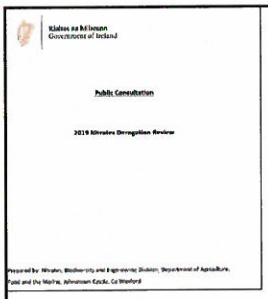
Table 2 - Analysis of farms by stocking rate for 2017

Stocking Rate kg Bovine Livestock manure N/ ha (as per Nitrates Regs)	No. Farms	% Farms
Under 85 kg (extensive)	80,919	61
86-130 kg (moderate intensity)	26,602	20
131 – 170 kg (intensive)	17,420	13.1
171+ kg (very intensive)	7855	5.9

Source: Nitrates section, DAFM

IFA

Stock Rate Org N/ha	Classification by Dept of Agriculture	Equivalent dairy cows/ha	% of Farms
Under 85kg	Extensive	≤ 1 dairy cow	61
86-130kg	Moderate intensity	1 – 1.5 dairy cows	20
131-170kg	Intensive	1.5 – 2 dairy cows	13.1
171+ kg	Very Intensive	Up to 3 dairy cows	5.9


Rialtas na hÉireann
Government of Ireland

Public Consultation

2019 Nitrates Derogation Review

Prepared by Nitrates, Biodiversity and Engineering Division, Department of Agriculture, Food and the Marine, Johnstown Castle, Co Wexford

"Furthermore recent EPA reports have highlighted deterioration in water quality and increasing greenhouse gas and ammonia emissions."

Water Quality

In the consultation document

"The two main causes of pollution in rivers are agriculture and municipal sources"

"Ireland is still a long way from meeting the full legal requirements of the Water Framework Directive, against which water quality is measured."

"A further..reduction in river water quality was observed in 2017"

Source: Nitrates Derogation Review paper

IFA

Water Quality

NOT in the consultation document

- Ireland's biggest challenge when it comes to water quality is non-compliance with the Urban Waste Water Treatment Directive.
- Less than two months ago the European Court of Justice found that Ireland has failed to uphold EU law in relation to almost 30 wastewater treatment schemes across the country.
- Prior to this this the EPA had already warned that the failure to treat waste water properly continues to damage our rivers and costal waters.

IFA

Water Quality

NOT in the consultation document

- Raw sewage from the equivalent of 88,000 people in 38 towns and villages is still flowing into our rivers and streams across the country.
- Unlike diffuse pollution which is sometimes attributed to agriculture, this point source pollution from ineffective wastewater treatment plants is known, identifiable and can be resolved.
- Addressing this would greatly assist our compliance with water regulations and improve water quality.

IFA

Water Quality

NOT in the consultation document

- Regarding agriculture, the sector continues to move beyond regulatory obligations when it comes to water quality, as seen with the recently established water quality advisory service ASSAP which is operated by Teagasc, with Government and dairy co-op support.

IFA

Water Quality

NOT in the consultation document

- This free advisory service has the potential to collaboratively work with the farming community and address water quality challenges, while creating wider community awareness of the value of good water quality.

IFA

Water Quality

NOT in the consultation document

- Farm schemes such as the Green Low-Carbon Agri-Environment Scheme (GLAS) is focused on improving water quality. Almost 50% of the measures in this programme are aimed at improving water quality and over 40% of farmers are in GLAS.
- Farmers have also invested over €2.5bn bringing farmyards to the highest environmental standards.

Greenhouse Gasses

In the consultation document

"Total emissions from agriculture are projected to increase by 4% over the period 2017-2020"

"Emissions are projected to increase by 7% over the period 2017-2030"

"Agriculture emissions increased..in 2017 following an increase in 2016"

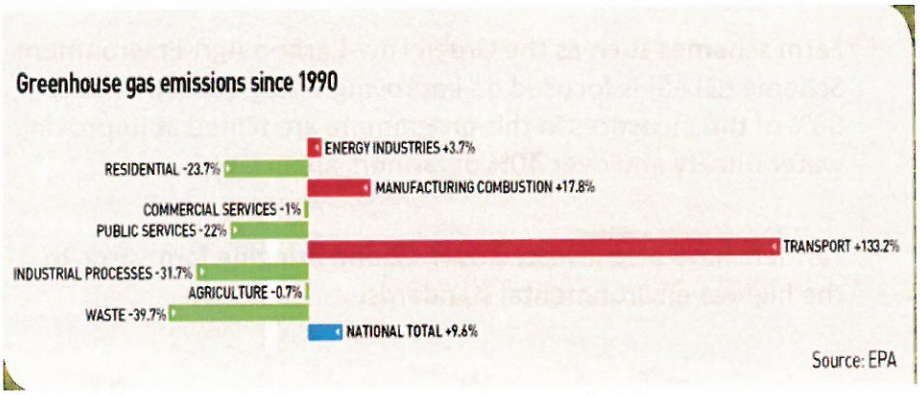
"The most significant drivers for the increased emissions in 2017 are higher dairy cow numbers."

Source: Nitrates Derogation Review paper

IFA

Greenhouse Gasses

NOT In the consultation document



IFA

Greenhouse Gasses

NOT In the consultation document

- Ireland is to the fore in targeting CAP funding to addressing the climate challenge.
- For example, 87% of the measures in the Rural Development Programme are focused on environmental protection and addressing the climate.
- These measures include GLAS and it's predecessor REPS.
- These schemes promote the retention of soil carbon stocks through the encouragement of climate friendly agricultural practices such as minimum tillage, green-cover establishment and low-emission manure spreading techniques.
- There are currently almost 50,000 farmers in the GLAS programme, and it is oversubscribed.

IFA

Greenhouse Gasses

NOT In the consultation document

- Every one of the 130,000+ farmers in receipt of a basic payment under CAP has to meet stringent EU requirements to keep their farms in Good Agricultural and Environmental Conditions, including compliance obligations regarding the management of soils, hedgerows, water courses and fertiliser management.
- Farmers are subject to onerous inspections to ensure adherence to these obligations. Many of these obligations have a positive environmental impact.

IFA

Greenhouse Gasses

NOT In the consultation document

- As part of Bord Bia's Origin Green programme, over 212,000 carbon assessments have been completed. Uniquely, Ireland is the only country in the world that measures, monitors and manages carbon from farm to fork at a national level.

IFA

Greenhouse Gasses

NOT In the consultation document

- In IFA, we are leading a voluntary resource efficiency programme called *Smart Farming* in conjunction with the EPA, which focuses on delivering on the double dividend of reducing climate impact while improving farm returns. Participants in this year's programme identified ways to reduce their climate impact by 9% and reduce costs on their farms by over €7,000.

Ammonia

In the consultation document

- "The agriculture sector accounts for virtually all (99 percent) of ammonia emissions in Ireland."
- "Ireland exceeded the [ammonia] emissions ceiling in 2016 for the first time."
- "Reducing ammonia is a challenge, with almost all our ammonia coming from grass based agricultural activities

Source: Nitrates Derogation Review paper

IFA

Ammonia

NOT In the consultation document

Low Emissions Slurry Equipment - Demand is greater than supply

Mastek

- Sold 220 dribble bars this year , so far. Almost as many as it sold in all of 2018
- Manufacture 10 a week
- Sell 12 a week

Hi-Spec, Major

- 16-20 week wait

IFA

Consultation Questions

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?
2. How can livestock manures be best managed to ensure its impact on the environment is minimised?
3. How should agricultural impact on soil be minimised on derogation farms?
4. What specific actions can derogation farms take to minimise their impact on the environment?
5. Should all intensive livestock farms be subject to the conditions of the derogation whether they apply or not?

IFA

Consultation Questions

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?
2. How can livestock manures be best managed to ensure its impact on the environment is minimised?
3. How should agricultural impact on soil be minimised on derogation farms?
4. What specific actions can derogation farms take to minimise their impact on the environment?
5. Should all intensive livestock farms be subject to the conditions of the derogation whether they apply or not?

IFA

Stock Rate Org N/ha	Classification by Dept of Agriculture	Equivalent dairy cows/ha	% of Farms
Under 85kg	Extensive	≤ 1 dairy cow	61
86-130kg	Moderate intensity	1 – 1.5 dairy cows	20
131-170kg	Intensive	1.5 – 2 dairy cows	13.1
171+ kg	Very Intensive	Up to 3 dairy cows	5.9

IFA

Key Priorities in the Review

IFA

- Derogation
- No additional onerous measures
  - Farmers in derogation
  - Farmers at lower stocking rates
- Sustainability Development Programme
  - LESS equipment
    - Increased grant aid, separate limit to general TAMS remains and increased, remains a strong measure in enhanced GLAS
  - Storage
  - Protected Urea
  - Lime
  - Soil aeration
  - Farm-scale renewables
  - Implementation of Teagasc climate roadmap

IFA

Have Your Say

- Public consultation
  - open until 24th May 2019
  - copy of consultation document in the meeting pack
- Derogationreview@agriculture.gov.ie
- Postal address: Derogation review, Nitrates, Biodiversity and Engineering, Department of Agriculture, Food and the Marine, Johnstown Castle, Wexford, Y35 PN52

IFA

Thank You

Appendix 2 - Farmers' climate actions

Farmers' climate actions

40% of farmers in Ireland participate in GLAS - the Green Low Carbon Agri-Environment Scheme, which makes a positive difference for the climate, water quality and biodiversity.

GLAS is designed to deliver the following agri-environment benefits:

- Almost 13,000km of watercourses will be fenced off from livestock.
- Almost 46,000ha of traditional hay meadow will be planted.
- Almost 240,000ha of carbon sequestering low-input permanent pastures will be created.
- 360km of arable grass margins, as well as 62km of riparian margins will be created.

The GLAS programme is oversubscribed.

Ireland is taking a leading position in Europe by targeting funding, through the Common Agriculture Policy, to areas that reduce greenhouse gas emissions in the sector.

87% of the measures in Ireland's Rural Development Programme have climate reducing elements.

Farmers have a carbon efficient model of food production in Ireland.

Independent research completed by the European Commission's science and knowledge service, the Joint Research Council, has confirmed that Ireland's dairy farmers have the lowest carbon footprint for milk and our beef farmers are in the top five. This is under-pinned by our grass-based model of food production.

Each year Smart Farming resource efficiency studies are completed on at least 50 farms.

Over 1,000 farmers take part in Smart Farming farm talks, seminars and discussion group meetings. In 2018, the average cost savings identified on participating farms was €7,170 and the average greenhouse gas emissions reduction identified was 9%.

Over 200,000 carbon assessments completed, as part of Bord Bia's Origin Green programme.

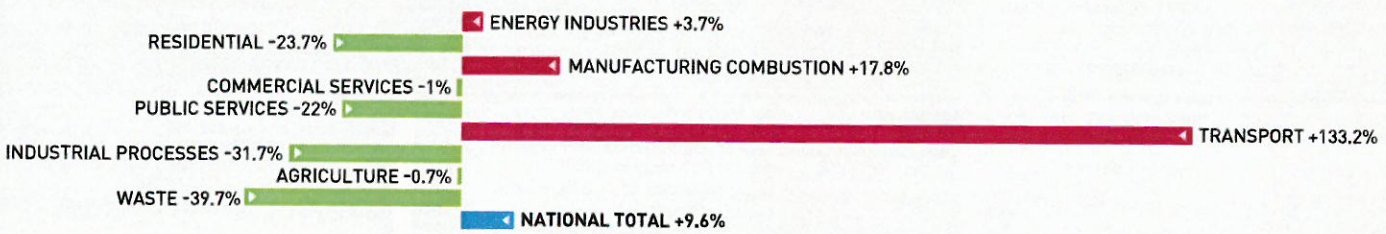
Given that there are only 130,000 family farms in Ireland, no other sector of society has demonstrated such a climate commitment.

CAP and the environment.

All farmers in receipt of a basic payment under CAP have to meet stringent EU requirements to keep their farms in Good Agricultural and Environmental Conditions. This includes requirements regarding the management of soils, hedgerows, water courses and fertiliser management. Farmers are subject to onerous inspections to ensure adherence to these obligations.

Many of these requirements sequester carbon and have a positive environmental impact on water, air and climate.

Greenhouse gas emissions since 1990



Source: EPA

Measures to reduce greenhouse gas emissions

IFA

Teagasc climate roadmap.

The Teagasc scientific report of June 2018 sets out key measures that the agriculture sector could implement to reduce greenhouse gas emissions. The implementation of these measures will also improve farm level efficiency, reduce fossil fuel use and create a vibrant on-farm renewables sector.

Delivery of many of these measures will require cross Government departmental and State agencies co-operation. IFA has requested An Taoiseach Leo Varadkar to provide the climate leadership required, by co-ordinating a whole of Government approach to the delivery of the abatement potential in the Teagasc climate roadmap.

Carbon sinks from forests, permanent pastures and hedgerows must be fully counted.

The positive climate impact achieved through carbon sinks, such as forests, hedges and permanent pastures, are currently not fully counted. This has led to an unbalanced picture of agriculture's climate impact. For example, afforestation since 1990 will remove an estimated net 4.5m tonnes of CO_2 from the atmosphere per annum, over the period 2021 – 2030. Yet the climate value of this will not be fully recognised, but any changes in methane and cattle numbers will be fully counted.

All sinks associated with forestry, hedgerows and permanent pasture must be included when measuring agriculture's climate contribution.

Benchmarking methane against carbon dioxide when counting carbon must be reviewed, as methane does not last as long in the atmosphere.

Methane is short-lived in the atmosphere compared to CO_2, as it is broken down by natural processes on a timescale of about 12 years. This compares with 20-200 years for CO_2. Given the short-lived behaviour of methane, the current practice of applying historical type calculations for methane should be reviewed.

The climate metrics applied for ruminant livestock should reflect the accurate impact of methane on global temperatures.

Climate by numbers

200,000	Carbon assessments completed in the Bord Bia's Origin Green programme.
3.4m tonnes	The amount of CO_2 offset each year from renewable energy in Ireland. Farming receives no credit for this good climate news, it all goes to the energy sector, despite farmlands being used.
€97m	The proposed cut in the annual CAP budget that has to be filled before inflation, if the increased climate and environmental asks are to be delivered.
33%	Emissions attributed to agriculture in Ireland.
90%	Beef exports that are now in a carbon auditing and foot-printing programme.
100%	The percentage of milk production entering into a carbon auditing cycle.
100%	The percentage of eggs produced in Ireland that are part of the Sustainability Egg Assurance Scheme operated by Bord Bia.
90%	The percentage of measures in Ireland's Rural Development programme that have climate reducing elements.
1st	Irish dairy farmers are in first place when it comes to producing low carbon milk in Europe.
Top five	Irish beef farmers are in the top five in Europe for producing low carbon beef.
2.14	The paragraph in the European Union's Heads of Government climate and energy agreement, which states that when deciding on climate plans, regard must be had for the multiple objectives of the agriculture sector as food, fuel and energy producers, as well as environmental enhancement and the lower mitigation potential of the agriculture sector.
2	The Article in the UN Paris Agreement, which states that food production must not be threatened when addressing the climate challenge.

Farming by numbers

1	Agri-food sector is Ireland's largest indigenous productive sector.
300,000	Number of people directly and indirectly employed in the agri-food sector in every parish in Ireland.
€13.5b	Value of food, drink and forestry exports in 2017.
74%	Increase in total exports from the agri-food sector between 2009 - 2017.
€31,000	Average farm income.
70%	Amount of extra food that will be required to be produced by 2050 to meet increasing demand, according to the UN.
€1.5b	Spend by cattle farmers in Ireland each year on agri-inputs.