



The Fertilizer Association of Ireland

FIFTH NITRATE ACTION PROGRAMME (NAP) 2022 – 2025

S.I. No. 113 of 2022

In 2006 the first Nitrates action programme was published, tasked with protecting and improving water quality and preventing the pollution of watercourses from agricultural sources. This was published in response to Ireland's target of meeting the Water Framework Directive (WFD) with requirements of achieving waters of good ecological status by 2015 and at latest 2027. Back then Ireland was unique in declaring itself a total nutrient vulnerable zone (NVZ). The reasoning for this was Ireland is a small island country, with a large network of waterways. Furthermore, Ireland added phosphorus (P) to the nitrate regulations because of its eutrophic effects as it takes very small quantities to cause nutrient enrichment. Since then, the programme has been reviewed and updated in 2010, 2013, 2017 and 2021 with an interim review in relation to the derogation carried out in 2019. Successive programmes have strengthened the original measures and added additional measures with the aim of improving water quality. Despite the new measures, water quality has remained very static over the years without any significant improvement.

This document will outline the main changes that have been put in place in the 5th Nitrates Action Programme.

Ireland has secured a Nitrates Derogation for 2022 - 2025. Farmers may apply for a derogation but there are additional rules which must be adhered to along with original rules as set out in SI No. 393 of 2022. Farmers in derogation must complete environmental training and carry out grass measuring as well as a nutrient management programme and liming programme.

There will be a two-year interim review of water quality in 2023 in terms of review of NAP and derogation. If water quality has not improved there is a risk of stricter measures, especially for those farmers located near lower quality water bodies and a risk of the maximum derogation limits of 250 kg N/ha reduced to 220 kg N/ha.

The derogation is not guaranteed and, in order to ensure that we retain the derogation going forward, it is important that there is no further deterioration in water quality and water quality is improved where possible and losses from agriculture are reduced.

The full nitrates action programme (S.I. No. 113 of 2022) can be found here;

[pdf \(irishstatutebook.ie\)](https://www.irishstatutebook.ie/eli/2022/si/113/2022-01-01)

The nitrates programme was updated in August (S.I. No. 293 of 2022) and can be found here;

[pdf \(irishstatutebook.ie\)](https://www.irishstatutebook.ie/eli/2022/si/293/2022-08-01)



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Slurry Storage and Management (All farmers)

Closed period will be extended and farmers will require greater on farm storage

- From 11th March 2022 the Closed period for organic manures (slurry) is brought forward to the 8th Oct for 2022
- From 1st January 2023 the Closed period for FYM and organic manures (slurry) is brought forward to the 1st October for 2023 and subsequent years.
- All slurry generated on holding must be applied by prescribed dates.
- Measures relating to cover of external stores will be included in the interim report.

The closed period for slurry may be reduced from the 15th to the 8th October in 2022 and the to the 1st October for following years if the following criteria apply;

- a) Exceptional weather condition leading up to the closed period must be demonstrated
- b) The Moorepark St Jilles Grass Growth Model (MoST) must demonstrate sufficient growth for nutrient uptake **and**;
- c) No heavy rain forecast **and**;
- d) Consideration may also be given to the situation pertaining on farms

Soiled Water Closed Period (Dairy Farmers)

There is a Phased introduction of the closed period for soiled water so that no soiled water can be spread in December going forward. The dates are as follows:

- a) 21st Dec – 31st Dec for 2022 for all milk producers
- b) 10th Dec – 31st Dec for 2023 for all milk producers
- c) 1st Dec – 31st Dec for 2024 for all milk producers except winter/liquid milk producers
- d) 1st Dec – 31st Dec for 2025 for all milk producers including winter milk/liquid milk producers

Soiled Water Storage (All farmers)

In line with the phased increase in the closed period there is an increase in storage over a 3-year period. This relates all farms that produce soiled water.

- a) 21 days storage in place by 1st December 2023
- b) 31 days storage in place by 1st December 2024
- c) 31 days storage for winter/liquid producers by 1st December 2025

Lower livestock manure storage is allowed for out-wintered cattle (non-dairy) but stocking rate shall not exceed 85kg/ha during the closed period.



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Livestock Excretion Rates (Dairy Famers)

- Following the changes in the nitrogen excretion rates for the dairy cow from 85 kg/ha to 89 kg/ha the figures in Table 6 of the new regulations have changed (Ref: S.I. 113 of 2022)
- From 2023 Excretion rates will be linked to Dairy cow milk yield. The reason for this is higher yielding dairy cows have higher organic output. Therefore, higher producing herds will have tighter stocking limits resulting in possibly requiring additional land or reduced stock numbers. The banding is as follow:

	Milk Yield	N kg/year	P kg/year
Band 1	<4,500	80	12
Band 2	4,500 – 6,500	92	13.6
Band 3	>6,500	106	15.8

- Banding to come into effect from 1st January 2023
- Organic N & P production calculation rates will be on a rolling 3 year average
- First calculation period is 2020 – 2022 inclusive

Chemical fertilizer controls (All Farmers)

- Famers will face a 10% reduction in maximum permitted nitrogen allowance as per Table 12 and 14.*

Grassland Stocking Rate	Available Nitrogen
Kg/ha/year	Kg/ha
<130	114
131-170	185
<i>Grassland stocking rate greater than 170 kg/ha/yr</i>	
171 – 210	254
211 – 250	225
>250	225

- Following interim review there is a risk of a further 5% reduction from 1st January 2024
- Chemical register to be put in place and in operation from 1st January 2023



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Chemical Fertiliser closed period (All Farmers)

This is extended by 14 days in all zones at the back end as follows:

Zone A extending from 15th September to 26th January

Zone B extending from 15th September to 29th January

Zone C extending from 15th September to 14th February

The closed period may be reduced to the 15th January in Zone A and B and 31st January in Zone C where the following scientific criteria apply;

- a) The Moorepark St Jilles Grass Growth Model (MoST) must demonstrate sufficient growth for nutrient uptake **and**;
- b) No heavy rain is forecast.

Green cover on tillage land (Tillage Farmers)

Following Autumn ploughing, a green cover must be established within 14 days.

Following harvest shallow cultivation is a requirement in 14 counties located in the East and South of the country. This measure must take place on no more than 75% - 80% of the arable land available to allow space as a food source for farmyard birds.

Specific criteria include;

- Shallow cultivation must take place within 10 days of chopping / baling straw post-harvest or within 14 days of harvest
- In all cases shallow cultivation must take place within 14 days of harvest.
- Where broom or blackgrass are certified an issue by a FAS advisor, soil consolidation is allowed in place of shallow cultivation to aid adequate control.
- Green cover on shallow cultivated land should not be ploughed or sprayed with non-selective herbicide before 1st February unless a crop has subsequently been established.
- Uncultivated land (food source for farmland birds) should not be sprayed with non-selective herbicide until the 1st February unless a crop is to be sown.
- Shallow cultivation does not apply where;
 - Land is certified organic
 - Late harvested root crops
 - Late harvested cereal and beans (after 15th September) and undersown crops
 - Winter cereal crops, oilseed rape or beans is planned to be sown before 31st October.



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- Land being used for ploughing matches.
- Late harvested crops on a 6m buffer in intersecting watercourses.

or

Saturated soil conditions as per the Met Eireann's Soil Moisture Deficit model or;

Drought conditions as per Met Eireann's Soil Moisture Deficit model or;

Consideration of the weather forecast issued by Met Eireann, potentially including forecasted heavy rain.

Soil Sampling & Analysis: (All Farmers)

Increased requirement for farmers to soil sampling

Soil sampling and analysis for Phosphorus (P), organic matter (OM) and soil pH shall be done in accordance with requirements of the DAFM and as outlined in Schedule 1. of the new Regulations.

The 5th review carries the following changes:

- a) From the 11th March 2022, all farmers above 170 kg N/ha must take soil samples
- b) From 1st January 2023, all farmers above 130 kg N/ha must take soil samples
- c) Where soil samples are not taken, for whatever reason, then it is assumed phosphorus Index 4. This applies to all farmers above 170 kg N/ha in 2022 and all farmers above 130 kg N/ha from 2023 on.
- d) From 1st January 2023, all arable land sown must be soil tested and assumed index 4 without soil samples.
- e) Organic Matter (OM) determination: From 2022, soils greater than 20% OM (as per Teagasc/EPA Indicative Soils map) are required to carry an OM determination.

Management of Grazing Land: (Livestock Farmers)

- a) Stocking rate calculations: the SR allowance for commonage is reduced from 170kg N/ha down to 50kg N/ha
- b) No chemical fertiliser allowed for commonage lands
- c) From 1st January 2025, to avail of reduced storage through overwintering, farmers must be stocked < 100 kg/ha.

Review of Technical Tables; (All Farmers)

Changes are made to Nitrogen contained in cattle slurry and broilers/deep litter as per tables 7 & 8. Other Technical tables are for consideration in the interim review in 2023.



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Table 7. Amount of nutrient contained in 1 cubic metre of slurry

Livestock type	Total Nitrogen (kg)	Total Phosphorus (kg)
Cattle	2.4	0.5
Pig	4.2	0.8
Sheep	10.2	1.5
Poultry-layers 30% DM	13.7	2.9

For the purposes of calculation assume that 1 cubic metre = 1000 litres = 1 tonne = 1000kg

Table 8. Amount of nutrients contained in 1 tonne of organic fertiliser other than slurry

Livestock type		Total Nitrogen kg	Total Phosphorus kg
Poultry manure	<i>Broiler/deep litter</i>	28.0	6.0
	<i>Layers 55% dry matter</i>	23.0	5.5
	<i>Turkeys</i>	28.0	13.8
Dungstead manure (cattle)		3.5	0.9
Farmyard manure		4.5	1.2
Spent mushroom compost		8	1.5

Low Emission Slurry Spreading (LESS) :(All Farmers)

Use of LESS is considered most important in the reduction of Ammonia emissions. For that reason, its use is extended beyond the present 170 kg/ha under the new NAP and will be phased in as follows:-

- From 1st January 2023, use of LESS for all farmers operating above 150kg livestock N/ha
- From 1st January 2024, use of LESS for all farmers operating above 130kg livestock N/ha
- From 1st January 2025, use of LESS for all farmers operating above 100 kg livestock N/ha



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- d) From 1st January 2023, use of LESS for all farmers spreading pig slurry
- e) From 1st January 2023 onwards, organic manure applied to arable land must be by LESS or incorporated within 24 hours of application.

Crude Protein content in Feed stuffs: (Ruminant Grazing Famers)

Protein inclusion rate limits to apply for holdings with stocking rate > 130 kg N/ha for all grazing livestock and prior to manure export.

From 11th March 2022, the maximum crude protein content allowed to be fed in concentrate feedstuffs is 15%.

This measure is to apply to Dairy cows and other bovine over two years and operate from 15th April to 30th September annually.

Phosphorus Build-Up: (All Farmers)

P Build-Up is seen as an important measure in balancing soil fertility and optimising nutrient efficiency and will continue in the new NAP. However, it will be restricted to farmers operating above 130kg N/ha. This is outlined in Table 13B and applying to Index 1& 2 soils.

Review & Interim Review:

- a) Sewage sludge: - This is managed by Irish Water and its application is controlled by local authorities while the EPA regulates through the issuing of IED licences. A review will be undertaken under the River Basin Management Plan (RBMP) and will be for consideration in the interim review 2023.
- b) The present NAP and Ireland's Derogation will be subject to an Interim Review in 2023. This review will reflect on up-to-date water quality reports. It will assess the effectiveness of the new NAP measures and consider new measures that might be needed to reflect water quality data and other relevant changes.



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Further requirements for farmers who are in derogation

1. Following the two-year review in 2024 derogation farmers may have a reduced rate set at 220kg/ha Org. N from the present 250 kg/ha Org. N from 2024.
2. Nitrogen inputs to crops should not exceed the crop requirement or the N fertilizer allowable on the holding.
3. Fertilisation plan is to be developed and kept for each grassland farm for every year and available on farm on or by the 1st March. The plan should include;
 - a. Crop rotation plan
 - b. Area devoted to grass and other crops
 - c. Map showing all individual parcels
 - d. Number of livestock on the farm
 - e. Description of housing, quantity and type of manure storage available on the farm
 - f. A fully labelled farm sketch indicating slurry storage location, dimensions and volume storage capacity.
 - g. Amount of N and P produced on the farm and exported off the farm
 - h. Planned application of all manure on the farm
 - i. Details of any manure delivered onto the farm
 - j. Nutrient (N and P) requirement of each parcel on the farm, planned application time, rate and product to be used.
 - k. Soil test results for each parcel
 - l. Details of liming programme

The plan should also be reviewed and updated within seven days of any changes in agricultural practices.

4. Fertilizer records will have to be kept and submitted by 31st March 2023 for 2022 and by 31st January for 2024 and subsequent years.
5. Any information on manure transferred off the holding should be completed by 31st October each year.
6. Livestock manure should not be spread in the autumn before grass cultivation
7. At least 50% of all slurry produced on the holding should be applied by 15th June.
8. Grassland can only be ploughed between 1st March and 31st May and should be sowed within 3 weeks.
9. New grass reseeds should contain at least 1.5kg/ha of naked clover seed or 2.5kg/ha of pelleted clover.
10. Hedgerows should be managed to have at least one mature whitethorn/ blackthorn or hedgerows managed on a minimum of a three-year cutting cycle.
11. Evidence of participation in approved training programmes on nutrient use efficiency and the protection of water.
12. Evidence of participation in grass measurement training and attendance at grass measurement workshops in 2022 or at least 20 grass measurements on farm.