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

2026 FAS briefing for new advisers

SMR 2 - Nitrates

Ronan Gleeson,
Assistant Agricultural Inspector,
Integrated Controls Division.

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SMR 2 presentation outline

1. Legislative context

2. Farmyard management

3. Nutrient management

4. Prevention of water pollution from fertilisers and other activities

5. Nitrates records

Legislative context

- Nitrates Directive (91/ 676)
  - Objectives: ***reducing and preventing*** *water pollution caused by agriculture*
  - *Limit of 170kg livestock manure nitrogen/ha - may be higher provided this won't prejudice objectives and justified*
- Each MS must draw up Nitrates Action Programme (NAP) : Art. 5 of 91/ 676
- Ireland's first NAP came into operation in 2006
  - *Gives effect to the Nitrates Regulations*
  - *Sets out rules for the management and application of livestock manures and other fertilisers to protect and improve water quality*
- NAP reviewed every 4 years – 2010, 2013, 2017, 2021 and 2025
- Given legal effect by (Good Agricultural Practice for Protection of Waters) Regulations 2025 – **S.I. 588 of 2025**

2. Farmyard management

Soiled water

Clean water which has become **contaminated** with livestock excreta, fertiliser or effluent, or water used in the process of washing e.g. washings from yards or dairy equipment

Minimise the amount of soiled water produced on the holding

Prevent clean water from becoming soiled and clean water must not enter storage facilities

Soiled water stored with slurry is **treated as slurry**

Storage of soiled water – non milk producers

- Stand-alone soiled water storage structures constructed before 01/01/2015 – there must be sufficient capacity to store all soiled water produced on the holding in a **10 day period**. Increasing to **15 days from 01/10/2028**

- Standalone soiled water storage structures constructed on or after 01/01/2015 – there must be sufficient capacity to store all soiled water produced on the holding in a **15 day period**

2. Farmyard management

Storage of soiled water – milk producers

More closely linked to **cows numbers and periods** when storage is more critical

For milk producers, soiled water storage must be sized to handle **the highest number of cows** milked during the winter, based on which ever month produces the greatest volume of soiled water

Soiled water storage requirements on **milk producer** holdings	**Stand-alone soiled water storage faciality construction date**	
	< 01/01/2015[1]	> = 01/01/2015
Oct	Max. number of cows milked over a 10-day period in Oct **or**	Max. number of cows milked over a 15-day period in Oct **or**
Nov	Max. number of cows milked over a 10-day period in Nov **or**	Max. number of cows milked over a 15-day period in Nov **or**
Dec	Max number of cows milked in Dec **or**	Max number of cows milked in Dec **or**
Jan	Max. number of cows milked over a 10-day period in Jan	Max. number of cows milked over a 15-day period in Jan

[1] increasing to 'max. number of cows milked over a 15-day period' from 01/10/2028

One dairy cow will produce **0.21m cu** of soiled water per week. From the 01/10/2028, this figure will increase to **0.30m cu** per week

2. Farmyard management (cont.)

Storage facilities for organic fertilisers (slurry, FYM etc.)
Prior to its land application, organic fertilisers must be **collected** and **held** in a manner which prevents discharge to the environment.

Facilities must be **fit for purpose** and **free from structural defects**

Silage must not be stacked >2 high where there are no collection facilities

Minimum required storage capacity

Animal category	Zone A	Zone B	Zone C (Donegal, Leitrim)	Zone C (Cavan, Monaghan)
Cattle	16 weeks	18 weeks	20 weeks	22 weeks
Sheep, goat, deer, horses	6 weeks			
Pigs, poultry	26 weeks (or as per cattle for less intensive units holdings)			

2. Farmyard management (cont.)

Reduced storage capacity is permitted in certain circumstances:

Having in place exclusive access to stores located off the holding
or
by out-wintering certain categories of livestock subject to the following,

- The holdings annual organic N loading (in the previous year) must be <100kg N ha
- For out-wintered *bovines*, the out-wintering organic N loading must not exceed 85kg N ha
- For out-wintered *sheep, goats, horses or deer*, the out-wintering organic N loading must not exceed 100kg N ha
- Out-wintered dairy cows cannot count towards reduced storage
- 'Severe' poaching must not occur (GAEC 6 will assess poaching severity ranging from mild, medium and severe)

3. Nutrient management

Limits on the amount of livestock manure that can be applied to land

Up to 170kg N ha yr of livestock manure can be applied across the entire holding (whole farm), including that deposited by grazing livestock themselves (*derogation to 220/ 250kg N ha*).

Category	Numbers/ vol.	Calculation	SI 588 of 2025	Kg N produced
Grazing livestock	40 female (1-2yr old) cattle	40 x 55kg N head	Table 7	2,200
Non-grazing livestock	200 pig place integrated	200 x 87kg N place	Table 7	17,400
Exports	1000m^3 pig slurry	1000 x 4.2 kg N m^3	Table 8	-4,200
Imports	50m^3 cattle slurry	50 x 2.4kg N m^3	Table 8	+120
				15,520

Whole farm stocking rate (WFSR) calculation:**15,520kg N** (total N produced by grazing and non-grazing livestock, ± imports/ exports, ÷ **95 ha** (15ha grass + 80ha tillage) = **163kg N ha**

Grassland stocking rate (GSR) calculation: **2200kg N** (total N produced by grazing livestock only) ÷ **15 ha** (15 ha grassland area only) = **147kg N ha**

3. Nutrient management (cont.)

N excretion banding applies to dairy cows. Required to recognise differences in nutrient excretion rates across different herds

	Milk Yield (Kg)	Milk Yield (litres) *CSO coefficient = 1.0297*	N kg/year (Table 7, SI 588 of 2025)	N Kg/ year reduced where CP% in concentrate feed is limited (Table 7a, SI 588 of 2025)		
				CP ≤15%, >14%	CP ≤14%, >13%	CP ≤13%
Band 1	<4,500	<4,370	80	79	78	76
Band 2	4,501 - 6,500	4,371 – 6,313	92	90	89	87
Band 3	>6,500	>6,313	106	103	100	98

Based on average herd milk yield on a rolling 3-year basis or for proceeding year

Calculated using AIM data and Dairy Co-op data

3. Nutrient management (cont.)

Grassland crop N allowance (Table 13 SI 588 of 2025).
N fertiliser recommendations for grassland reflect the level of grazing intensity and production that is required on a specific farm unit.

STEP 1: Determine the previous years grassland stocking rate (GSR). See slide 8 and refer to Table 13 of SI 588 of 2025 for the corresponding N allowance.

STEP 2: for dairy holdings, assess the milking platform (MP) stocking rate (MPSR)

- If the MPSR is ≤ 259 kg N ha, then the full N fertiliser allowance (under STEP 1 above) applies to the MP and non-MP grasslands.
- If the MPSR is > 259 kg N ha, then slurry must be exported off the MP to allow the full retention of the permitted N allowance (under STEP 1 above) on the MP, **or** a reduced N fertiliser allowance applies to the MP.

Refer to Nitrates Advisory CPD Training 2026 for worked examples.

3. Nutrient management (cont.)

Arable crop N allowance (Table 18 SI 588 of 2025).
Nutrient N advice for arable crops is based on a soil nitrogen supply index (SNSI)

SNSI categorised into four index's (N Index 1 = definite response to fertiliser to N Index 4 = no response expected). See Table 11 of SI 588 of 2025.

3. Nutrient management (cont.)

Phosphorus management

- Soil testing can be used to determine readily available P that can be extracted from the soil (Morgan's P test).
- Soil samples are valid for 4 years, and a sample must not exceed an area of 4ha, or 5ha where cropping patterns are similar for the previous 5 years.
- Soil P supply status categorised into an P Index system (P Index 1 = definite response to fertiliser to P Index 4 = no response expected). See Table 12 of SI 588 of 2025.

Grassland crop P allowance(Table 15A, 15B SI 588 of 2025).

P build-up allowance (additional 20kg P ha and 30kg P ha permitted on P Index 1 and 2 soils. Applicable to holdings with a GSR >130kg N ha.

Arable crop P allowance (Table 19 SI 588 of 2025).

3. Nutrient management (cont.)

Soil samples are mandatory on the following holding types, and P Index 4 must be assumed in the absence of valid samples:

- Holdings with a previous year **GSR ≥130kg N ha** before N exports
- All arable land on holdings

All other holdings not listed above, and not taking soil samples, may assume P Index 3 (medium P status). Note that mandatory soil sampling outside of conditionality SMR 2 may still be required on such holdings, e.g. if the holding was in ACRES.

Note in all cases, soil sample results issued after 14 September 2025 with no LPIS/ geo-reference indicator will be defaulted to P Index 4

3. Nutrient management (cont.)

Teagasc/ EPA indicative OM layer

Shaded area not soil sampled

- GSR ≥130 kg N ha or arable: P Index 4
- GSR <130kg N ha: P Index 3

Shaded area soil sampled but no OM sample taken

- P index 3 unless sample result indicates P Index 4

Shaded area soil sampled and OM sampled

- OM result is > 20%: P index 3 unless sample result indicates P Index 4
- OM result is < 20%: P Index as per soil sample result

3. Nutrient management (cont.)

A **liming programme** must be prepared and implemented on the following holding types

- Holdings with a previous year **GSR ≥170kg N ha** before N exports.

The full lime requirement must be applied within 2 years of the soil analysis report date

If the lime requirement exceeds 5t/ ha, apply at least 5t/ ha within 2 years of the soil analysis report date

New perennial ryegrass grass reseeds (excluding reseeds for equine grazing) must incorporate clover (1.5kg/ ha naked clover or 2.5kg / ha pelleted clover

3. Nutrient management (cont.)

The use of **low emission spreading systems (LESS)**, e.g., trailing shoe, is a mandatory requirement for the following:

- Holdings with the previous years **GSR is ≥100** before N exports except where cattle slurry is being applied to parcels with a slope >20%
- In the application of **pig slurry** (including imported pig slurry), irrespective of stocking rate and/ or holding type
- In the application of **livestock slurry to arable land** (unless it is incorporated within 24hrs of application. Notwithstanding the latter, livestock manures applied **post-harvest** must be incorporated and a crop sown with 21 days).

A **crude protein (CP)** limit applies to concentrate feedstuffs fed on the holding.

- This measure applies to all holdings
- Applies where concentrate feeding stuffs are being fed to >2 year old bovines, including dairy cows, between 15th April and 30th September,
- Max CP content must not exceed **14%**

4. Prevention of water pollution from fertilisers and other activities.

Buffer zones	Land storage buffer for FYM	Spreading buffer for organic fertiliser and soiled water	Spreading buffer for chemical fertiliser	Land storage of silage bales[1]/ supplementary feeding	Uncultivated margin for non-grassland crops	Uncultivated margin for late harvested crops e.g. beet, potatoes, maize
Water abstraction points	50m to 250m	15m to 200m	3m	20m	3m for watercourses marked on a 1:5000 OSI map	6m where the parcel slopes towards a watercourse
Lakes/ turlough	20m	20m	3m	20m		
Other surface waters	20m	5m to 10m	3m	20m		

[1] in the absence on collection facilities (applies inside and outside the farmyard)

4. Prevention of water pollution from fertilisers and other activities.

There must be **no direct discharge** from farm roadways to waters.

Mitigation measures can include cambering, bunding or banking

This requirement applies to **all holdings** with farm roads.

4. Prevention of water pollution from fertilisers and other activities.

Poaching must not lead to a direct discharge to water courses

4. Prevention of water pollution from fertilisers and other activities.

Bovine livestock must **not** have direct access to watercourses

Watercourses refer to those features identifiable on a 1:5,000 scale Tailte Éireann map, and any feature where water collects or flows permanently

Such watercourses must be **fenced** to a distance of **1.5m**

Temporary fencing (e.g. pig-tail and tape) is permitted

This measure only applies to those holdings with a **GSR ≥170kg N ha before N exports**

Watercourse fenced but not to the required 1.5m

4. Prevention of water pollution from fertilisers and other activities.

Supplementary drinking points must **not** be located **within 20m** of watercourses

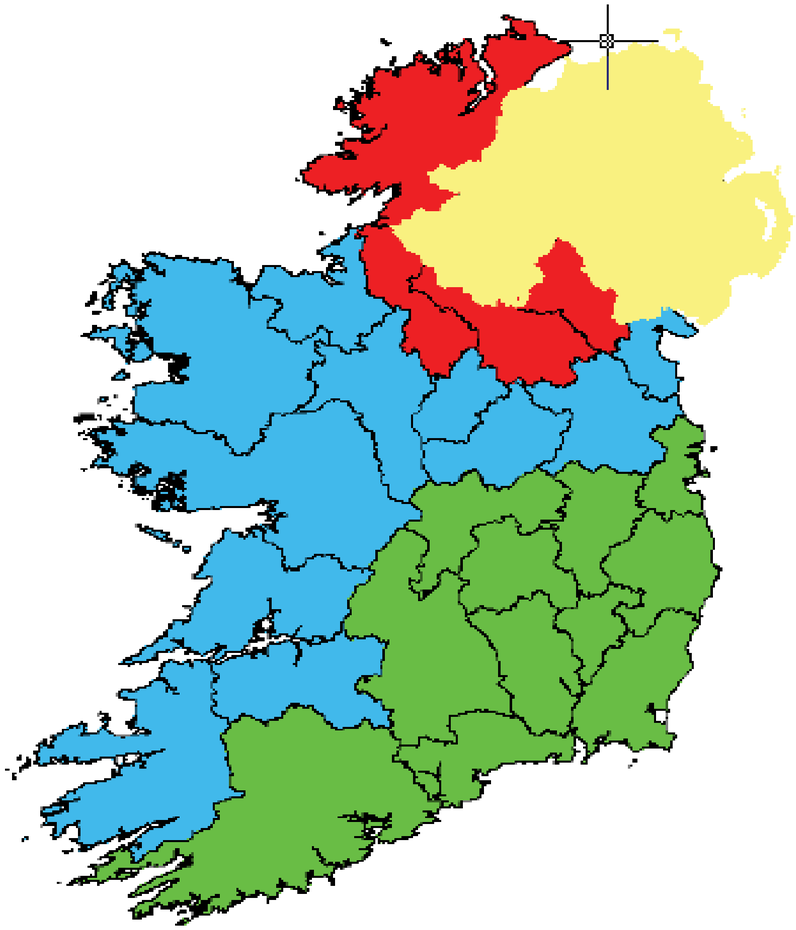
Watercourses refer to those features identifiable on a 1:5,000 scale Tailte Éireann map, and any feature where water collects or flows permanently

Exemptions apply to narrow strips of land <20m in width along such watercourses.

This measure only applies to those holdings with a **GSR ≥170kg N ha before N exports**

Water trough positioned within 20m of a watercourse

4. Prevention of water pollution from fertilisers and other activities



Fertiliser type	Prohibited spreading periods			
	Start date	End date		
		Zone A	Zone B	Zone C
Chemical	15th Sept	29th Jan	29th Jan	14th Feb
Organic	1st Oct	12th Jan	15th Jan	31st Jan
FYM	1st Nov	12th Jan	15th Jan	31st Jan
Soiled water	1th Dec	31st Dec	31st Dec	31st Dec

The spreading of chemical fertiliser from the 15th Jan, and the spreading of slurry between 1st of Oct and the 15th of Oct, may be permitted in limited circumstances.

Fertiliser must not be applied to land outside of these periods in poor weather or when poor weather is forecast

4. Prevention of water pollution from fertilisers and other activities.

Arable ploughed between 01/07 and 30/11
Undertake **necessary measures within 14 days of ploughing** to provide for the emergence of **green cover**

Grassland ploughed between 01/07 and 15/10
Undertake **necessary measures within 14 days of ploughing** to provide for the emergence of green cover from a **sown crop**

Grassland must **not** be ploughed between **16/10 and 30/11**

Non-selective herbicides applied to grassland or arable land between 1st July – 30th Nov.
Est. a **green cover** from a **sown crop/ nat. regeneration** within **6 weeks** of spraying

5. Nitrates records

All holdings must maintain nitrates records for a period of five years.

- Nitrates records must be prepared for the calendar year by 14 February of the following year
- Retain for 5 years (OM samples, if applicable, to be retained for 12 years)

Required records (a nitrates record template is available and provided at inspection)

Feed and fertiliser statements, non-bovine animal inventory, soil samples and nutrient management plans if applicable.

Inspection of records (desk based)

- Completeness and quality of records provided,
- Available storage capacity assessed against the volume of slurry/ manures produced,
- Fertiliser use limits assessed against the volume of N and P imported and applied on the holding.

Further reading

Publication

Rural Environment & Sustainability - Nitrates

From: Department of Agriculture, Food and the Marine

Published on: 23 November 2020

Last updated on: 10 February 2026

1. Farmers Information and Supports
2. Organic Nutrient Movements
3. Dairy Banding
4. Nitrates Derogation
5. Maximum Nitrates Derogation Stocking Rate Limits Map 2025
6. Nitrates Information
7. Nitrates Records
8. Sixth Nitrates Action Programme
9. Legislation
10. Air Quality
11. Contact Us

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Publications

Water Quality and Agriculture

[Rural Environment & Sustainability - Nitrates]

Thank you