

IFA /AIB NITRATES CALCULATOR

INSTRUCTIONS FOR USE



SKILLNET

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Introduction

The IFA / AIB Nitrates Calculator is a tool to compile information to help you (the responsible person) and your farm (the holding) comply with the Nitrates Regulations (SI 378 of 2006 European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2006). For the purpose of this regulation, records must be compiled for each calendar year by 31 March of the following year.

Note: Completion of this report does not imply compliance with the regulations and all supporting documentation must be retained for 5 years.

The IFA/AIB Nitrates Calculator enables you:

- Meet your obligations to record all necessary information for a calendar year
- To plan for the coming year.

In order to complete this calculator, you will need the following information:

- Record of land parcels (fields) within your holding, including net area, crops sown etc for each parcel. This information is most readily available in your application form for the EU Single Payment Scheme relevant for the year of completion. Information related to separate plots within a parcel, i.e. soil test results may also be of use
- Records of Livestock numbers, type, and organic fertiliser produced, e.g. CMMS data, sheep flock register, Nitrogen and Phosphorus Statement issued by DAFF (Department of Agriculture Fisheries & Food)
- Fertiliser records on farm, for example purchase dockets, records of any returns, amount of fertiliser on holding but not spread at beginning of year (opening stock) and at the end of year (closing stock).
- Concentrate/ compound feed use on farm, for example, purchase dockets, weighbridge dockets etc, including records of any cereals produced and consumed on the holding.

In addition, the following information will aid the completion of this report:

- To demonstrate high cereal yields in previous years, weighbridge dockets and net area sown of the relevant crop for the identified year.
- Soil analysis results if taken within the previous 6 years.
- Estimate of the amounts of organic manure (pig slurry, chicken manure, cattle slurry etc) moved on or off holding
- Information as to whether or not a derogation was granted for the relevant year.

Records must be prepared for each calendar year by 31 March of the following year.

This information should be inputted after the year has been completed and all documentation must be retained for inspection.

Planning Ahead

This programme also allows you to plan for the coming season. It enables you to examine the impact, on stocking rate for example, if more land became available or if more cattle were purchased.

Information generated for planning purposes will be maintained separately in the system from the actual records and will not interfere with your records.

Farmer details

IFA / AIB Nitrates Calculator

Select Year | Main Menu | **Farmer Details** | Parcels LPI | Live Stock | Fertiliser Usage | Reports

Selected Year: 2006

First Name: Last Name:

Postal Address 1:

Postal Address 2:

Postal Address 3:

County that your Yard is in:

Herd Number:

Total holding area (hectares):

Have you obtained a derogation for your holding?

Please select zone based on whether you have at least 1 parcel

Zone:

- Zone A: 16 Weeks Storage Carlow, Cork, Dublin, Kildare, Kilkenny, Laois, Offaly, Tipperary, Waterford, Wexford, Wicklow.
- Zone B: 18 Weeks Storage Clare, Galway, Kerry, Limerick, Longford, Louth, Mayo, Meath, Roscommon, Sligo, Westmeath
- Zone C: 20 Weeks Storage Donegal, Leitrim
- Zone C: 22 Weeks Storage Cavan, Monahan

Example. if most of your holding is in Meath, including the main yard, but you have a parcel in Monaghan, you must select Zone C, 22 weeks storage

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This section allows you to input basic information unique to your holding. Ensure the drop down menu is used to input the county in which your main yard is located, this is necessary to determine the amount of rainfall applicable to your holding.

Zone

Selecting your appropriate zone will impact on the information that this calculator will produce. Selecting the zone will determine the prohibited period applicable to your holding. Where all your holding is in one county or zone, there is no issue. However, if part of your holding is in one zone and part is in another (regardless of the proportion in each) you must select the zone with the longer prohibited period. For example, if the majority of your holding is in Meath, including the yard, but you have an out-farm in Cavan, you select the county in which your yard is located as Meath, but you select zone C (22 weeks Cavan) for prohibited period.

PARCELS LPI

This information is taken from your SPS application form for the year in question, if appropriate, or from your own records.

LPI: The term LPI is 'Land Parcel Identifier', a unique number assigned to each parcel within the Single Payment Scheme system.

To input each parcel on your holding, press the NEW LPI button. To edit, press EDIT LPI or to delete a parcel press DELETE LPI

Townland	LPI Number	Plot Num...	Net Field Size (ha)	P Index	Soils > 20% P...
The Townla...	L12357	1	15	3	False

There are 2 parts to this section, inputting parcels that are used for grazing or conservation of hay or silage (grazing and/ or silage) or inputting parcels that are used for cropping, for example cereals, vegetable production etc (crop).

Where a holding has no grazing livestock but has grass, for example grass meal production, it is treated as a crop and should be completed in this section.

Grass and/or Silage Crops

This section allows you input LPI you have for grazing and or hay or silage making. This section is for completion for grazing grounds.

New Grazing LPI

Townland:

Land Parcel Number:

Plot number: ?

Net area of each parcel in hectares:

P Index: ?

Soils >20% organic matter (peat soils)

Soils are >20% organic matter only if a soil test has determined that the soil type of the parcel contains more than 20% organic matter and is therefore a peat based soil. This results in a reduction in the amount of P that can be applied on a parcel.

Save **Cancel**

Crops

For parcels involved in crop production, this section is to be completed. Where a holding has no grazing livestock but has grass, for example grass meal production, it is treated as a crop and should be completed in this section.

New Crop LPI

Townland:

Land Parcel Number:

Plot number : ?

Net area of each parcel in hectares:

Parcel Use:

Previous Crop:

N Index: ?

P Index: ?

Soils >20% organic matter (peat soils)

Soils are >20% organic matter only if a soil test has determined that the soil type of the parcel contains more than 20% organic matter and is therefore a peat based soil. This results in a reduction in the amount of P that can be applied on a parcel.

Save **Cancel**

Parcel Use

This section allows you to input the crop that is grown in the parcel for the relevant season. Note the list is not fully alphabetical, cereal crops come first. To find your relevant crop, scroll down, or type the first letter of a crop, c for cabbage etc, and the list will jump to that section.

Previous Crop

This section is important since if a parcel is declared as index 1 then a later inspection may require appropriate information to show the actual previous crop.

N Index

The N index indicates the level of Nitrogen in the soil on a scale of 1 to 4. The higher the N Index, the lower the allowable level of N which can be applied on the land; for example if a soil has N index of 1, more Nitrogen is allowed on that soil for optimum growth than if a soil has an N index of 4. Click on the '?' beside the N index to establish the relevant index for a given previous crop.

- N Index =1

Applies where any crop sown as 5th or subsequent tillage crop following permanent pasture or 3rd or 4th crop following cut pasture, or where previous crop was cereals, maize or vegetables that received less than 200kg/ha.

- N Index =2

Applies where any crop sown as 3rd or 4th tillage crop following permanent pasture or 1st or 2nd crop following cut pasture, or where previous crop was sugar beet, fodder beet, potatoes, mangels, kale, oilseed rape, peas beans, short term ley(1-4 years), swedes (crop removed), any crop receiving dressings of organic fertiliser in 2 subsequent years or vegetables that received more than 200kg/ha.

- N Index =3

Applies where any crop sown as 1st or 2nd tillage crop following permanent pasture or following swedes which were grazed in-situ.

- N Index =4

Applies where any crop sown as 1st or 2nd tillage crop following very good permanent pasture.

P Index

P index indicates the level of Phosphorus in the soil on a scale of 1 to 4. The higher the P Index, the lower the allowable level of P which can be applied to the land; for example if a soil has P index of 1, more phosphate is required on that soil for optimum growth than if a soil has a P index of 4.

If you have a valid soil test for a plot or parcel over the last 6 years, you can use the P index from this. In the absence of this information, the calculator will assume a P index of 3. Click on the '?' beside the P index to establish the relevant index for a given parcel.

P Index is set at index 3 except where soil analysis of the parcel has been taken within the previous 6 years to determine otherwise. Soil analyses of DAFF approved laboratories only are accepted. P index is based on the following Soil P ranges:

- Soil P Index=1 where Soil P (mg/l) =0.0 to 3,
- Soil P Index=2 where Soil P (mg/l) =3.1 to 5 (grassland) or 3.1-6.0 (other crops),
- Soil P Index=3 where Soil P (mg/l) =5.1 to 8 (grassland) or 6.1-10.0 (other crops),
- Soil P Index=4 where Soil P (mg/l) => 8.0 (grassland) or > 10 (other crops)

Soils >20% Organic Matter

Peat soils, or soils with greater than 20% organic matter, have different P requirements than normal soils. If a soil test has indicated that a parcel or plot is a peat soil, there is a lower level of P to be applied than if the soil is not peaty. In the absence of a soil test indicating a peaty soil, assume soils are not >20% organic matter and do not tick this box.

Field identifier

It is not essential to complete both the LPI number and plot number if it is not available, but you must input the net area in ha to allow for correct calculations. Some LPI's are divided into separate management plots, even separate fields. If plots have different P statuses with individual LPI's, you can subdivide the LPI's into different plots. In the absence of an LPI or plot name, you should use some unique identifier to aid your interpretation of the information, for example the field name that you have for a parcel or plot.

Net area

This calculator works solely on the basis of hectares (ha). Acres can be converted to hectares by dividing by 2.471

Livestock

This section is used to record the amount and categories of different livestock on the holding.

The information is based on the average number for the year. For mature animals, cows etc this is self explanatory, However some calculations may be required for different age categories.

	Average number of animals in each Category	Total Nitrogen Excreted	Total Phosphorus Excreted
Dairy Cow:	<input type="text" value="70"/>	<input type="text" value="5950"/>	<input type="text" value="910"/>
Suckler Cow:	<input type="text" value="25"/>	<input type="text" value="1625"/>	<input type="text" value="250"/>
Cattle (0-1 year old):	<input type="text" value="10"/>	<input type="text" value="240"/>	<input type="text" value="30"/>
Cattle (1-2 year old):	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Cattle >2 years:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Average number of livestock on holding throughout the year. This data can be obtained from CMMS data, sheep flock register, Nitrogen and Phosphorous Statement issued by DAFF.

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For holdings where livestock are brought on for portions of the year, the average over the year is used. For example, where 100, 1-2 year old cattle are brought onto the holding for summer grazing and on average spend 3 months on the holding, the average over the year is $\frac{1}{4}$ of 100, or 25, 1-2 year old cattle for the year.

This section is also where mushroom compost production is recorded in the system.

Fertiliser

This section has 3 main sub-sections:

- Chemical fertiliser used on the holding during the year
- Concentrates / compound feed fed on the holding during the year
- Organic fertiliser moved on or off the holding during the year

Chemical Fertiliser

To input a quantity of fertiliser into the system, press the New Stock Record button. To change a record, press Edit Stock Record button or to delete a record, press Delete Stock Record button.

The fertiliser section has four subsections:

1. Opening stock = The amount of fertiliser (in tonnes) purchased the previous year but not used and retained on the farm for the current year.

New Opening Stocks of Fertiliser

Date: 20/02/2008

Fertiliser type: CAN 27%

Other: N% 27 P% 0 K% 0

Amount (t): 14

Save Cancel

2. Fertiliser Bought = The amount of fertiliser (in tonnes) purchased during the year.

New Fertiliser Bought

Date: 20/02/2006

Purchased From: Co-op name

Ref Number: 3489893

Fertiliser type: 10.5.25

Other: N% 10 P% 5 K% 25

Amount (t): 20

Save Cancel

3. Sold / returned = The amount of fertiliser (in tonnes) purchased but returned to the supplier or sold to third parties during the year.

4. Closing stock = The amount of fertiliser (in tonnes) that is not used and retained on the farm at the end of the year in question

Information is taken from delivery dockets/ invoices from merchants etc. Quote the merchant, docket number and date of purchase for each type of fertiliser purchased.

Main fertiliser types are listed on the drop down menu, but if your specific fertiliser is not listed, just enter the N, P and K % of the fertiliser in the boxes provided.

Most merchant invoices for fertiliser are given on the basis of tonnes, so there should be no requirement for recalculations.

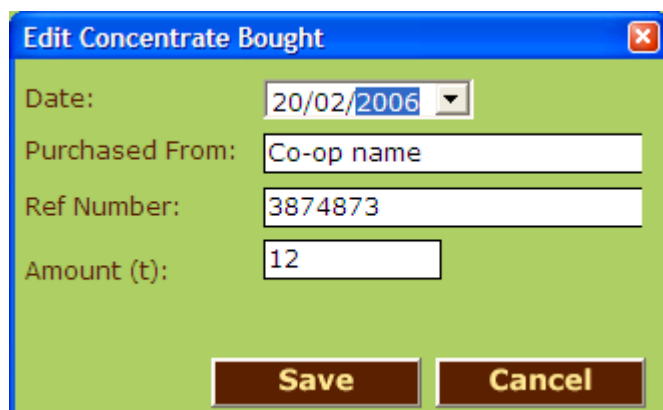
Please ensure that the quantities are inputted in tonnes. If fertiliser is purchased in 50kg bags, 20 bags = 1 tonne. Large power packs are generally in 500kg bags.

Concentrates/ compound feed

The amount of concentrates fed on a holding over a year has an impact on the amount of phosphorus that can be used on the holding as there is a certain amount of phosphorus contained in each tonne of concentrate.

Concentrates / compound feeds are any concentrates fed to livestock over the year, such as coarse ration, cubes, nuts, etc. This also includes any home grown cereals fed to livestock on the farm.

To input a quantity of concentrates into the system, press the New Stock Record button. To change a record, press Edit Stock Record button or to delete a record press Delete Stock Record button.



The concentrate/ compound feeds section has four subsections:

1. Opening stock = The amount of concentrates (in tonnes) purchased the previous year but not used and retained on the farm for the current year.
2. Concentrates bought = The amount of concentrates (in tonnes) purchased during the year.
3. Sold / returned = The amount of concentrates (in tonnes) purchased but returned to the

supplier or sold to third parties during the year.

4. Closing stock = The amount of concentrates (in tonnes) that is not used and retained on the farm at the end of the year in question

Information is taken from delivery dockets / invoices from merchants etc. Quote the merchant, docket number and date of purchase for each type of concentrate purchased.

Please ensure that the quantities are inputted in tonnes. If concentrates are purchased in 25kg bags, 40 bags = 1 tonne.

Most merchant invoices for concentrates are given on the basis of tonnes, so there should be no requirement for recalculations.

Organic fertiliser

This section will be of use if any organic manure is exported from or imported onto a holding. Organic manure is cattle slurry, pig slurry poultry manure etc. A list is given of the main organic fertiliser types imported or exported on farm, but if your specific fertiliser type is not included, you must obtain the N and P constituents for inclusion.

To input a quantity of organic fertiliser onto the system, press the New Stock Record button. To change a record, press the Edit Stock Record button or to delete a record press the Delete Stock Record button.

Edit Organic Imported

Date: 19/02/2008

Source: Pat Murphy

Herd Number: y1234567

Fertiliser type: Pig slurry

Other: Name Pig slurry

N kg/T 4.2 P Kg/T 0.8 K Kg/T 2.6

Amount (t): 123

Save **Cancel**

For any fertiliser imported onto or exported from a holding, a record must be maintained of the herd number of the holding from which the fertiliser originated from or was exported to.

Quantities are given in tonnes, assume 1000 litres = 1m³ = 1 tonne.

Report

When all information has been inputted, the report can be previewed. When the report has been run all information inputted will be used to make the required calculations.

Run the report and print off. Check all information is correct and if any changes are to be made, press the 'previous' button and amend as necessary. All other information is retained. Run report again. When the information is all correct, print off and retain for inspection purposes.

Disclaimer

The Irish Farmers Association, Allied Irish Banks, p.l.c., its Irish subsidiaries and associated companies, servants and agents shall not be liable for any loss, actual or consequential damage cost or expense suffered and arising from your reliance on the contents of, use or inability to use this Programme or failure of any computer system in the use of the Programme.