



**Planning Land Application of Nutrients for
Efficiency and the EnvironmenT**

**Livestock Manure N Farm Limit
Help file**

**PLANET version 3.3
(England and Wales)**

Livestock Manure N Farm Limit

The Nitrate Pollution Prevention Regulations 2008 establishes a rule which limits the loading of livestock manure to the land on farms in England and Wales. In any year beginning 1 January, the total amount of nitrogen in livestock manure that is applied to a farm, whether directly by grazing animals or by spreading, must not exceed 170 kg N multiplied by the area of the farm (in hectares). If the farm has an approved application for derogation, the limit is increased to 250 kg N multiplied by the area of the farm (in hectares).

The nitrogen from manufactured fertiliser, and any other organic manure that does not originate from livestock (e.g. sewage sludge, compost), does not count towards the limit.

For details of this rule, see the NVZ Guidance available from the *Library* menu.

The PLANET Livestock Manure N Farm Limit module calculates the N capacity and N loading of a farm and will help assess if the farm is compliant with this limit.

Important


The information supplied in the PLANET software is for guidance purposes only and is not intended to fully substitute for professional agricultural advice. The specific statutory elements concerning water and nitrates are set out in the relevant national legislation and you should refer to this legislation to find out exactly what you must do. The nutrient recommendations provided by PLANET are in line with national industry standard guidance. If in doubt, farmers should seek help from a qualified adviser.

The user is responsible for ensuring the accuracy and completeness of all data entered and used by PLANET, and for any commercial decisions taken based on any of the PLANET recommendations or other outputs of this software. Use of the PLANET software is subject to the terms and conditions of the PLANET User Licence.

PLANET v3 has been developed by ADAS and SRUC with funding and support from Defra and the Scottish Government. The software is maintained by ADAS. For further information, visit www.planet4farmers.co.uk or ring the PLANET Helpline on 08453 451302.

Getting started

To use this module, you must first either create a new farm file or open an existing farm file. If you are starting a new file, then as a minimum you must enter the Farm name and STD code in the Farm Details tab before you can open the module – but you do not need to enter any other information. You will be prompted to save any changes before you enter the module.


To use the module, select the Livestock Manure N Farm Limit icon  from the task bar at the top of the screen, or select *Livestock Manure N Farm Limit* from the *View* menu.

The module will appear with three tabs (screens).

- Farm and Livestock Details
- Imports and Exports
- NVZ Compliance

You will then need to enter information for your farm into the Farm and Livestock Details tab, and then into the Imports and Exports tab. The NVZ Compliance tab is the output tab providing calculated values for the permitted livestock manure N capacity and the calculated N loading of the farm.

Further information to help with data entry is provided throughout PLANET by hovering over column

headers that have an  icon, or by clicking in any data entry cell and then pressing the F1 key. This will take you to *Help* about the current screen.

Important. You can only save one set of data in this module. For instance, if you enter data for a calendar year then this will be saved on your computer. However, if you then edit this data (e.g. for a later calendar year) the original data will be overwritten and only the new data will be saved. Therefore, if you wish to keep a permanent record of the PLANET calculation and report for a particular calendar year, you should either print out a hard copy of the PLANET report before making any edits to the data, or use the *Save As* function in the *File* menu to save each set of data as a separate Farm file which you will need to name individually.

Farm and Livestock Details Tab

Farm Details

Calendar year: 2010
 Area of farmed land in an NVZ: 80.00 ha
 Area of farmed land not in an NVZ: 20.00 ha
 Total area of farmed land: 100.00 ha
 Does the farm have derogation: No
 Permitted livestock manure total N capacity: 18,600 kg N/yr

Livestock Details		Imports and Exports	NVZ Compliance		
Livestock group	Livestock type	Average number for year	Occupancy %	N standard kg/yr	Total N produced kg/yr
* Cattle	1 bull for breeding, 25 months and over	1		48.0	48
Cattle	1 calf, up to 3 months	50		8.4	420
Cattle	1 dairy heifer replacement, 3-13 months	35		35.0	1,225
Cattle	1 dairy heifer replacement, 13 months to first calf	35		61.0	2,135
Cattle	1 dairy cow (6000-9000 litres milk yield)	150		101.0	15,150
					Total: 18,578

1. Select the **Calendar year** from the drop-down list. This is the 12 month period starting 1st January for which you are going to enter data.
2. Enter the **Area of the farm in an NVZ** including the area of rough grazing land but excluding areas of surface water, any hard-standing, buildings, roads or woodland unless the woodland is used for grazing. You should include the area of rented land that is under your control during the calendar year. Be careful to enter information in the same units as the current selection, i.e. metric or imperial - you can choose the units by going to the *Units* menu at the top of the screen.
3. Enter the **Area of the farm not in an NVZ**.
4. The **Total area of the farm** is calculated by adding the Area of the farm inside and outside an NVZ. The **Permitted livestock manure total N capacity** (only as kg N/year) for the farm is calculated using the maximum permitted livestock manure N loading of 170 kg N/ha averaged across the area of the farm that is in an NVZ, plus 250 kg N/ha across the area of the farm that is not in an NVZ. If the farm has an approved derogation for the calendar year then select 'Yes' against **Does the farm have a derogation?** – the permitted livestock manure N capacity for land that is in an NVZ will then be calculated based on the limit of 250 kg N/ha.
5. Next select the **Livestock group** and **Livestock type** for each type of livestock that you have on the farm during the calendar year. For each Livestock type, you will first have to select the appropriate Livestock group (e.g. cattle), then select the Livestock type (e.g. dairy cow, 6000-9000 litres milk yield). You must include livestock kept on rented land that is under your control during the calendar year.
6. Enter the average **Number** of each livestock type that are on the farm for the whole calendar year, including livestock kept on rented land that is under your control during the calendar year. If livestock are on the farm for only part of the year then enter the pro-rata number. For instance, if there are 30 dairy heifer replacements on the farm for just 4 months then enter the number 10 which is the pro-rata average number for the year ($30 \times 4/12 = 10$); this is equivalent to having 10 heifers for the whole year. For pigs and poultry where there are usually several 'batches' of

livestock grown in a year, enter the number of 'places' on the farm – the standard values of **Total N produced** for these livestock types are expressed on a per place basis . Poultry are in units of 1,000 bird places so, for example, enter 50 for 50,000 laying hen places.

7. Once you have entered details for each livestock type, the standard value for the **Total N produced** by 1 unit of the livestock type is shown automatically. These are standard values that have been set in the Regulations. The total N produced by each livestock type is calculated automatically by multiplying the **Number** of livestock by the **Total N produced** by 1 unit. The total N produced by all livestock on the farm is summed and appears at the bottom of the screen. You cannot change these standard values for cattle or sheep but you can for pigs and poultry if you have used the ENCASH computer software. ENCASH calculates a specific value for the total N produced by a livestock type based on the specific diet and production system on your farm.
8. To delete a row of information, highlight the row by clicking on the small cell at the far left hand end of the row then press the *Delete* key. If you hold down the Control key, you can select multiple rows. To clear all the information on this tab (screen), click the right mouse button and select **Clear this tab**. To clear information on all the tabs (screens) in this module select **Clear all tabs**.
9. When you have entered details for all the livestock kept on the farm, click on the **Imports and Exports** tab. If you have not imported or exported livestock manures during the calendar year, click on the **NVZ Compliance** tab.

Imports and Exports Tab

This allows you to enter details of any imported or exported livestock manures (if any). If you do not import or export manures, leave this tab blank and move straight to the NVZ compliance tab.

PLANET - Livestock Manure N Farm limit for calendar year 2010

File View Units Tools Library Help

Farm Details

Calendar year: 2010 Does the farm have derogation: No

Area of farmed land in an NVZ: 80.00 ha Permitted livestock manure total N capacity: 18,600 kg N/yr

Area of farmed land not in an NVZ: 20.00 ha

Total area of farmed land: 100.00 ha

Livestock Details Imports and Exports NVZ Compliance

Do you have details of a contingency plan to be used if an agreement to send the manure off your farm fails? Yes Load manure data

Import/export	Date	Manure type	Quantity tonnes or m ³	Total N content kg/t or kg/m ³	Total N kg	Supplier/recipient
*						
Import	03/03/2010	Pig FYM - fresh	200	7.0	1,400	
Export	01/04/2010	Cattle slurry, mech separated liquid	270	3.0	810	
Export	05/05/2010	Cattle FYM - fresh	250	6.0	1,500	

Import total: 1,400
Export total: 2,310
Net total: -910

Current file: PLANET England.mdb PLANET version 3 (England & Wales) Current Units: Metric

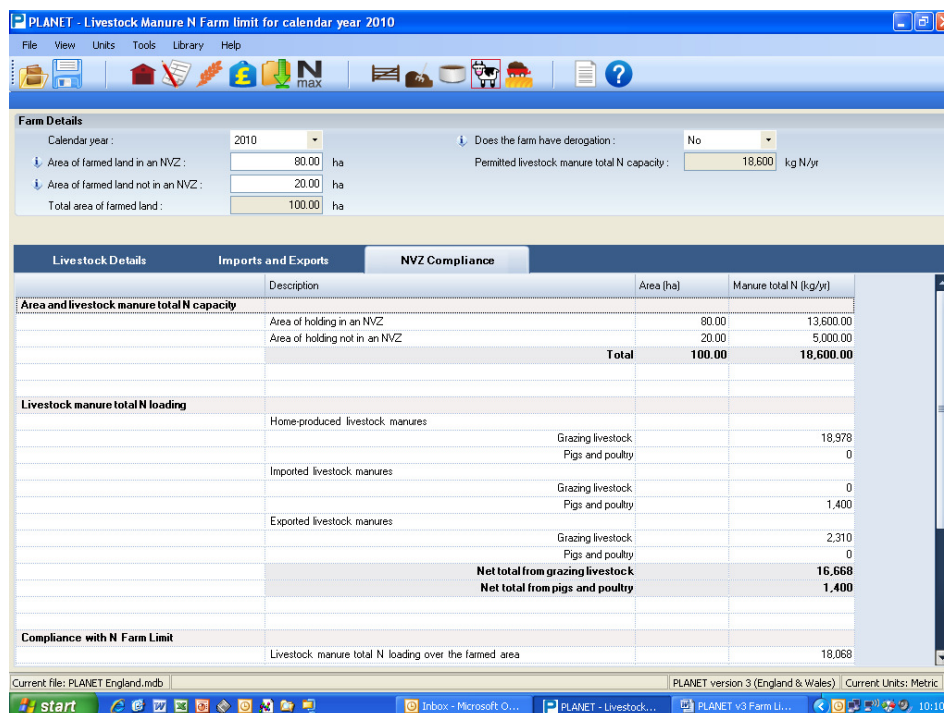
1. If you have previously entered data into the separate Organic Manure Imports and Exports module, you can load this data by clicking the *Load data* button. If you then select 'Yes' to loading the data, data for all Organic manure imports for the 12 month period will automatically be imported to this tab. **Note:** If you select to import data using the *Load data* button, this will overwrite any data that has already been entered into this grid.
2. If you do not want to import data using the *Load data* button, then select Import or Export from the *Import/Export* pull down list.
3. Select the **Manure type** that is being imported or exported from the drop-down list e.g. Broiler/Turkey litter. Include imports onto and exports off rented land that is under your control during the calendar year.
4. Enter the **Quantity** of each manure type, being careful to enter information in the same units as the current selection, i.e. metric or imperial (you can choose the units using the Metric/Imperial menu at the top of the screen).
5. Once a manure type has been selected, its standard **Total N content** will be shown automatically. This figure can be edited if you have undertaken specific sampling and analysis of the manure using the standard method (see NVZ Guidance leaflet 3). If you have selected an **Other** manure type, enter the total N content of this manure. The **Total N (kg)** of each manure type that is imported/exported is calculated automatically. The total N (kg N/yr) imported and exported in manure is shown at the bottom of the screen, as well as the net total (i.e. imports minus exports).
6. Click in the cell in the **Supplier/Recipient** column and enter details of the supplier of imported manures or the recipient of exported manures.
7. To delete a row of information, highlight the row by clicking on the small cell at the far left hand end of the row then press the *Delete* key. If you hold down the Control key, you can select multiple rows. To clear all the information on this tab (screen), click the right mouse button and select **Clear this tab**. To clear information on all the tabs (screens) in this module select **Clear all tabs**.

8. When information for all imports and exports of livestock manures during the calendar year has been entered, then click on the NVZ Compliance tab. You will be prompted to save any changes.

NVZ Compliance Tab

This tab summarises the information that has been entered into the module and calculates the livestock manure total N **capacity**, **production** and **loading** (metric units only) across the area of the farm.

The PLANET calculations are based on a manure total N capacity of 170 kg N/ha for all land on the farm that is in an NVZ, plus 250 kg N/ha for all land that is not in an NVZ. See the NVZ Guidance available from the PLANET library for further details.




Farm Details

Calendar year: 2010
Does the farm have derogation: No
Area of farmed land in an NVZ: 80.00 ha
Area of farmed land not in an NVZ: 20.00 ha
Total area of farmed land: 100.00 ha
Permitted livestock manure total N capacity: 18,600 kg N/yr

Livestock Details		Imports and Exports	NVZ Compliance	Area [ha]	Manure total N [kg/yr]
Area and livestock manure total N capacity					
Area of holding in an NVZ				80.00	13,600.00
Area of holding not in an NVZ				20.00	5,000.00
Total				100.00	18,600.00
Livestock manure total N loading					
Home-produced livestock manures					
		Grazing livestock:			18,978
		Pigs and poultry			0
Imported livestock manures					
		Grazing livestock:			0
		Pigs and poultry			1,400
Exported livestock manures					
		Grazing livestock:			2,310
		Pigs and poultry			0
		Net total from grazing livestock			16,668
		Net total from pigs and poultry			1,400
Compliance with N Farm Limit					
Livestock manure total N loading over the farmed area					18,068

Report

To view and print a report, select the report icon  from the task bar at the top of the screen. The report includes some information about this NVZ rule but further details can be found in NVZ Guidance leaflet 5 'The Livestock Manure N Farm Limit'.

To return to other modules in PLANET select the required icon from the task bar or use the *View* menu.