

NMP Online User Update

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NMP Upgrade and System improvements

NMP online has been undergoing substantial improvements in recent months and these are outlined in this bulletin. NMP online will continue to undergo a series of improvements following stakeholder consultation over the coming months.

All users are advised to clear the browsing history on the internet providers they use (Section 7).

1. Plan Settings

The Nitrates Directive SI 605/2017 for calculating fertiliser allowances for farms assumes the following:-

- For the purposes of the determination of the grassland stocking rate in tables 12, 13A and 13B the previous calendar year's stocking rate data shall be used to calculate the allowances on the current years land and crops.
- Therefore, last year's Grassland Stocking Rate GSR is used to set the allowances in the current year's plan for the current year's crops and land areas.
- For tillage crops the allowances are based on this year's crops.
- In plan settings under the title, , "Use Historic Grassland Stocking Rate," users must select, "Yes" for any plans 2018 onwards
- Insert GSR from the previous year to the plan - so if a 2019 plan, then put in the GSR from 2018. The GSR is in the units of Kg N/Ha.
- The GSR is the figure of N from Grazing livestock divided by the grassland area as declared on BPS. This may have to be worked out manually. Exclude any import or exports from this figure.

In addition to the bullet points above:

- "Use Historic Grassland Stocking Rate" as the GSR from the year previous to the plan year
- "Insert GSR/ha from the previous year" is in the units of Kg N/Ha (NB Excludes imports and Exports)

$$\text{GSR} = \frac{\text{Total N produced by grazing animals on the farm Previous Year}}{\text{Grassland Area Farmed Previous Year (HA)}}$$

- The "Previous year's Net WFSR/ha (excl Imports and Exports)" is in the units of Kg N/Ha (NB Excludes imports and Exports). Whole Farm Stocking Rate = WFSR

$$\text{Net WFSR} = \frac{\text{Total N produced by animals on the farm Previous Year}}{\text{Total Area Farmed Previous Year (HA)}}$$

- The “Previous year’s Net WFSR/ha (excl Imports and Exports)” Kg N/Ha is the figure of N/ha from All livestock over the Total farm area as declared on BPS (include bovines, ovines, equines and any pig/poultry). This may have to be worked out manually. Exclude any import or exports from this figure.
- A warning will appear where the Nett WF SR has been inserted. **Warning! The Planned Stocking rate may not allow the amount of manure indicated to be imported in subsequent years - Plans imported relate to current year only** – This warning means that as the years change that the level of import allowed needs to be calculated annually.

2. Clarification of Nitrates Directive Calculation’s

To help users calculate the amount of manures that can be imported to reach the 170 NpH limit and in accordance with Nitrates Directive SI 605/2017 for calculating this limit **See section 3 - 6 for details on how this will work.**

- a) The amount of livestock manure applied in any year to land on a holding, together with that deposited to land by livestock, shall not exceed an amount containing 170 kg of nitrogen per hectare. Where imported livestock manure is to be applied to the land on the holding, calculations shall be based on the “Previous year’s Net WFSR/ha (excl Imports and Exports)” that the user inputs to settings; plus any imports minus exports in the current year’s NMP.
- b) NMP online has this facility to help users ensure that the as per (Section 1); above that the allowances in the current year’s plan and the current year’s crops and the current year’s N indices are based on the previous year’s GSR.
- c) Animal manures cannot be imported onto derogation farms; however non-animal manures (referred to in NMP Online as Custom Non Animal) can be imported onto all farms as long as there is “certified analysis on a fresh weight basis” available, and any available N and P replaces chemical N and P on the holding.
- d) When users now create a new version, new copy or new plan (for 2018 onwards); there will be a warning message that will appear. To remove this warning, go to “Plan Settings” and complete the last 3 sections in the screen grab above.

Warning! Previous year’s stocking rates need to be used for all plans with the exception of New Derogation Applications - Go to “Plan Settings” to enter previous years GSR figures

There are a few factors that separately; can limit the import of organic manures onto farms:

- The maximum chemical N permitted on the farm. This chemical N used plus the available organic N imported must be less than this figure
- The maximum chemical P permitted on the farm. This chemical P used plus the available organic P imported must be less than this figure
- The 170 N/ha figure and as discussed above in point (b) this is based on the previous year’s nett WF SR and this year’s imports/exports.
- **Maximum chemical P allowed and maximum organic N (170 NpH limit); are the two most common limiting factors.**

3. Enhanced Plan Summary – Example 2019 Plan

Plan Summary	Planned Stocking Rate 2019 Based on Previous Years stock	Projected 2020 stocking rate based on Planned 2019 Stock
Grassland Stocking Rate (Kg/Ha):	90.00	102.00
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)	90.00	101.78
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)	90.00	103.56
Farm Area	45.00 Ha	
Grass Land Area	45.00 Ha	
Non Grass %	0.00 %	

- New rows of data under the plan summary
- New column “Planned Stocking Rate 2019 Based on Previous Years stock”
- New column “Projected 2020 stocking rate based on Planned 2019 Stock”

“Planned Stocking Rate 2019 Based on Previous Year’s stock” Outlined in red above

- Grassland Stocking Rate comes from the Plan Settings (this figure is last year’s Total grazing N produced on farm divided by last year Grassland)
- Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports) comes from the Plan Settings (this figure is last year’s Total Grazing & Non Grazing N produced on farm divided by last year total farm land)
- Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports) is the previous bullet point plus any imports minus exports in the current year. This figure is the figure for users to check for the 170NpH limit described in section 2. If this figure goes red then the 170NpH figure for the current year has been exceeded and penalties will arise.

“Projected 2020 stocking rate based on Planned 2019 Stock” Outlined in blue above

- Grassland Stocking Rate is the grazing livestock and the grazing area in the current year’s plan. This is an indicator to the user of what the GSR will be next year
- Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports) is the current year’s figures
- Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports) is the previous bullet point plus any imports minus exports in the current year. This figure is the figure for users to check for the 170NpH for next year. If this figure goes red, the 170NpH figure for the next year may be exceeded and penalties will arise. This is to allow users to plan forward based on this year’s land and stocking rates and if the same import/exports happen next year.

4. Case Study A - Exporting manures to come below the relevant 170NpH or 250NpH

To help users calculate the amount of manures that must be exported in the current year to ensure that farms don't exceed the 170 NpH or 250 NpH limit in accordance with Nitrates Directive SI 605/2017 for calculating this limit.

- 170 NpH limit for current year without derogation all farms must be under this to avoid penalty – must be less than 170.50kgs at Figure A below
- 250 NpH limit for current year all derogation farms must be under this to avoid penalty – must be less than 250.50 kgs at Figure B below

Plan Summary	Planned Stocking Rate 2019 Based on Previous Years stock		Projected 2020 stocking rate based on Planned 2019 Stock	
	Figure A	90.00	101.78	Figure B
Grassland Stocking Rate (Kg/Ha):		90.00	101.78	
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)		90.00	101.78	
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)	Figure A	90.00	101.78	Figure B
Farm Area		45.00 Ha		
Grass Land Area		45.00 Ha		
Non Grass %		0.00 %		

Planned Stocking Rate 2019 based on planned 2019 stock column

- GSR Planned column = 90 Kg/ha NpH
- Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports) Planned column = 90 Kg/ha NpH
- Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports) Planned column = 160 Kg/ha NpH. This is due to imports in the current years plan so <170 Kg/ha so under the 170N Kg/ha NpH limit. See changes below

Plan Summary	Planned Stocking Rate 2019 Based on Previous Years stock		Projected 2020 stocking rate based on Planned 2019 Stock	
		90.00	101.78	
Grassland Stocking Rate (Kg/Ha):		90.00	101.78	
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)		90.00	101.78	
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)		160.00	171.78	
Farm Area		45.00 Ha		
Grass Land Area		45.00 Ha		
Non Grass %		0.00 %		

Projected Stocking Rate 2020 Based on previous years stock column

- GSR Projected column = 101.78 Kg/ha NpH. Current year's grazing animals and grassland so allows the user to look forward for next year.
- Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports) Projected column = 101.78 Kg/ha NpH. If there were non-grazing animals on the farm these would be taken into account as well as grazing animals in this calculation.
- Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports) Projected column = 171.46 is the previous bullet point plus any imports minus exports in the current year. This has turned red. Therefore, based on current year's stock figures, land area and using the same imports in the current year next year that import/exports the next year will be >170 Kg/ha so DAFM penalties will apply next year.
- Check warnings at all stages during imports for **Warning! Max P Exceeded, Reduce/Remove Organic Imports or Increase Exports of manures to resolve issue as this will indicate that the P limit has been reached by imports**
- If chemical P has also been used this needs to be reduced further

5. Case Study B – Derogation farm exporting to <250Kg/ha

- Example below of a derogation farm with WFSR of 279 Kg NpH in previous year and planned WFSR for current year is 281.32 Kg NpH.
- How much organic manure needs to be exported to bring the WFSR <250 to comply with derogation rules?
- Without exports Plan Summary looks like this

Plan Summary		Planned Stocking Rate 2019 Based on Previous Years stock	Projected 2020 stocking rate based on Planned 2019 Stock
Grassland Stocking Rate (Kg/Ha):		279.00	281.32
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)		279.00	281.32
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)	Figure 1	279.00	281.32
Farm Area	139.15 Ha	Figure 2	
Grass Land Area	139.15 Ha		
Non Grass %	0.00 %		

- To get <250 Kg/N/Ha you take your Net Whole Farm Stocking Rate (excluding Import and Exports) (Figure 1 – from previous year and in plan settings) and deduct 249 Kg/N/Ha which is your target for the farm (or less to err on the safe side).
- $281.32\text{Kg NpH} - 249\text{ Kg NpH} = 32.32\text{ Kg NpH}$ needs to be exported.
- To find the total N that needs to be exported; we multiply our 32.32 Kg NpH by the amount of Ha we have 139.15Ha (Figure 2 – current years lands). $32.32\text{ Kg NpH} \times 139.15\text{ Ha} = 4497.33\text{ Total Kg of N}$
- To convert these Kgs of N into tonnes of Slurry we divide by 5 as slurry has N content 5 Kg/T or 4.5 Kg/T if we were exporting FYM and 4.2Kg/T for pig slurry.
- $\text{Total Kg N } 4497.33 / 5 = 899.46\text{ Tonnes of slurry}$ need to be exported.
- With this Export the client has been brought back under the Derogation Limits of 250 Kg/N/Ha Figure 3 – this shown below

Manure Type	Quantity (t)	Available N (kg)	Available P (kg)	Available K (kg)
Cattle Slurry	899.5	1,799.0	719.6	3,148.3

Plan Summary		Planned Stocking Rate 2019 Based on Previous Years stock	Projected 2020 stocking rate based on Planned 2019 Stock
Grassland Stocking Rate (Kg/Ha):		279.00	281.32
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)		279.00	281.32
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)		246.68	249.00
Farm Area	139.15 Ha	Figure 3	
Grass Land Area	139.15 Ha		
Non Grass %	0.00 %		

6. Case Study C – Mixed Tillage farm importing to <170Kg/ha

Plan Summary	Planned Stocking Rate 2019 Based on Previous Years stock	Projected 2020 stocking rate based on Planned 2019 Stock
Grassland Stocking Rate (Kg/Ha):	130.00	131.92
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)	80.00	78.24
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)	80.00	78.24
Farm Area	135.80 Ha	
Grass Land Area	80.54 Ha	
Non Grass %	40.70 %	

- Mixed enterprise with Tillage that wish to import organic manures.
- Need to check imports to bring the WFSR in current year to just below <170 Kg NpH.
- Take your Net Whole Farm Stocking Rate (excluding Import and Exports) (Figure 1) and deduct 169 Kg/N/Ha which is your target for the farm
- Total Kg’s N to be exported 80Kg/Ha – 169Kg/Ha = 89 Kg NpH left to import.
- To find Total N that needs to be exported we multiply our 89 Kg NpH by the amount of Ha we have 135.8Ha (Figure 2). 89 Kg NpH x 135.8Ha = 12,086.20 Kg of N (Minus any chemical N bought)
- To convert these Kgs of N into tonnes of Slurry we divide by 4.2 as pig slurry has N content 4.2 Kg/T, 4.5 Kg/T if we were importing FYM and 5 Kg/T for Cattle slurry. 12,325.21 / 4.2= 2934.5 Tonnes of pig slurry need to be imported.
- See figure 4 below showing 169.26 Kg NpH

Plan Summary	Planned Stocking Rate 2019 Based on Previous Years stock	Projected 2020 stocking rate based on Planned 2019 Stock
Grassland Stocking Rate (Kg/Ha):	130.00	131.92
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)	80.00	78.24
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)	Figure 4 169.26	167.50
Farm Area	135.80 Ha	
Grass Land Area	80.54 Ha	
Non Grass %	40.70 %	

7. Check out NMP Bulletin 14 to Clear Browsing History

Check out NMP Bulletin 14 <https://www.teagasc.ie/media/website/environment/soil/NMP-Bulletin-14-2019-v2.pdf>

8. Importing Pig Slurry new Feature

Check out NMP Bulletin 14 <https://www.teagasc.ie/media/website/environment/soil/NMP-Bulletin-14-2019-v2.pdf>

9. For new plans or when copying/new versions

- Figures with 0.00 will appear where Plan Settings sections below are not completed
- Ensure that for all new plans from 2019 onwards that Plan Settings are correct

When creating a new version or new copy check the plan settings are correct for that plan year

Plan Summary	Planned Stocking Rate 2019 Based on Previous Years stock	Projected 2020 stocking rate based on Planned 2019 Stock
	Grassland Stocking Rate (Kg/Ha):	0.00
Net Whole Farm Stocking Rate (Kg/Ha) (Excluding Imports and Exports)	0.00	0.00
Whole Farm Stocking Rate (Kg/Ha) (Including Imports and Exports)	0.00 Ha	0.00
Farm Area	0.00 Ha	
Grass Land Area	0.00 %	
Non Grass %		

Plan Settings

General Settings	Optional Settings	Units
Herd Number	<input type="text" value="H1762429"/>	
County	<input type="text" value="Kerry"/>	
Plan Safety	<input type="text" value="No"/>	
Limit N&P allowed to 170 Kg Level	<input type="text" value="No"/>	
Use Historic Grassland Stocking Rate	<input type="text" value="Yes"/>	
Insert GSR/ha from previous year	<input type="text"/>	
Previous years Net WFSR/ha (excl	<input type="text"/>	