

# NMP Online – User Update 7 – 14 March 2017

## Improvement Updates to System

## **NMP Online - System Changes**

| NMP | Online - System Changes1                                               |
|-----|------------------------------------------------------------------------|
| 1   | Remove Part of Organic Manure Table from Report Printouts2             |
| 2   | Disable Usage of Certified Analysis for Cattle & Sheep Slurry2         |
| 3   | Modify Warnings                                                        |
| 4   | Plan Setting - Limit N&P allowed to 170Kg level3                       |
| 5   | Prevent applying excess Chemical N on GLAS crops4                      |
| 6   | Block plan submission if Chemical N or P exceeded4                     |
| 7   | Add crop to Lime page4                                                 |
| 8   | Limit Soil Samples List in Reports                                     |
| 9   | Add 'Sampled Area' to soil sample page5                                |
| 10  | Change the text Colour under Pie Charts5                               |
| 11  | Copy/Version Popup5                                                    |
| 12  | Records versions added6                                                |
| 13  | Warning Message Correction6                                            |
| 14  | N Indices Tillage Crops6                                               |
| 15  | % Reduction in Farm Capacity activated7                                |
| 16  | Indicator for of Chemical P allowed V Individual Crop Recommendations7 |
| 17  | Farmyard Layout Map Printing8                                          |
| 18  | Selector for Non Milking period in winter (Soiled Water)8              |
| 19  | GLAS Crops on Land and Fert Max8                                       |

### **1 Remove Part of Organic Manure Table from Report Printouts**

NMP-Online deals with 2 aspects of nutrient management

- Statutory Requirement
- Agronomic plans to support farmer

There can be a difference between the two requirements in relation to nutrients from organic manures. The standard 'DAFM' specification for manures can be very different from the reality at farm level – particularly in two instances

- With slurry where significant amounts of water enter the system
- With Farmyard manure where moderate to high levels of straw are used

However, DAFM insist on SI figures for Nutrient Content in any part of the plan that impacts on statutory calculation. This includes the following areas:

- Import and Export of Slurry
- Calculation of amount of P allocated to Index 1 or 2.

In practice what this has meant is that there can be a difference between the figures quoted in two sections of the plan. The Land and Fert Max Page is a statutory page and the organic fertiliser page focuses on application of manures at farm level. To avoid confusion in plans submitted DAFM have requested that we remove the bottom section dealing with P in the Fertiliser recommendations page of the report. The manure allocation table is still visible to the planner

| NMP-On             | NMP-Online Screen         |     |     |            |                    | ne Reports   |           |     |
|--------------------|---------------------------|-----|-----|------------|--------------------|--------------|-----------|-----|
|                    |                           |     |     | F          | ertiliser plan     | for the Farm |           |     |
| Manure Alloca      | tions                     |     |     |            | Manure Allocations |              |           |     |
|                    | Estimated Applied Balance |     |     | Fertiliser | Estimated T        | Applied T    | Balance T |     |
| Fertiliser         | т                         | Т   | Т   |            | Cattle Slurry      | 609          | 104       | 506 |
| Cattle Slurry      | 609                       | 104 | 506 |            | Farmyard Manure    | 80           | 0         | 200 |
| Farmyard<br>Manure | 80                        | 0   | 80  |            | Total P in Manures | 200          | U         | 714 |
| Pig Slurry         | 200                       | 0   | 200 |            |                    |              |           |     |
| Total P in Manur   | res                       |     | 714 |            |                    |              |           |     |
| Manure P alloca    | ted                       |     | 66  |            |                    |              |           |     |
| Manure P remai     | ining                     |     | 648 |            |                    |              |           |     |
| Total Manure P     | on Index 1&2              |     | 0   |            |                    |              |           |     |
| Total Manure P     | on Index 3&4              |     | 714 |            |                    |              |           |     |
| Total Available P  | ? (kg)                    |     | 714 |            |                    |              |           |     |
| Total Unavailable  | e P (kg)                  |     | 0   |            |                    |              |           |     |

## 2 Disable Usage of Certified Analysis for Cattle & Sheep Slurry

In the system the user was allowed to select and use 'Other Certified Analysis' when entering imports and exports of manure. That has now been restricted to conform to **S.I. No. 31 of 2014** 

#### 3 Modify Warnings

The warning system around derogations and situations where the higher allowances of N&P for stocking rates above 170 can be allowed has been updated. This includes

- >170 Kg allowances now only applied
  - where derogation rules apply
  - where grassland stocking rate is above 170 and whole farm stocking rate below 170 and >5% of the farm is in tillage
- Warnings that 170Kg has been exceeded and organic manure is being imported
  - Warning message for exceeding Max P through Imports. This message will appear when there is too much organic P on the farm due to excess organic manures imported or where there is excess organic P from home produced intensive enterprises (Pigs or Poultry). The user will need to reduce imported manures or export home produced organic manures (from any livestock enterprise).



|                                       |         |  |                                                 | _       |
|---------------------------------------|---------|--|-------------------------------------------------|---------|
| N allowance                           | (Kgs)   |  | P allowance                                     | (Kgs)   |
| Maximum total available N             | 7,464.5 |  | Maximum total available P                       | 2,791.7 |
| Available N produced on holding       | 1,192.0 |  | Total P in Manures produced on holding          | 465.0   |
| Available N in manures Imported       | 5,170.0 |  | Total P in manures Imported                     | 2,008.0 |
| Available N in manures Exported       | 0.0     |  | Total P in manures Exported                     | 0.0     |
| Maximum Chemical N fertiliser allowed | 1,102.5 |  | Manure P not available (Applied to index 1 & 2) | 252.7   |
|                                       |         |  | Total P in Concentrate Feeds Used               | 1,000.0 |
|                                       |         |  | Discounted P in feeds (up to 300kg)             | 144.7   |
|                                       |         |  | Net P in concentrate feeds used                 | 855.3   |
|                                       |         |  | Maximum Chemical P fertiliser allowed           | 0.0     |

Example of how this appears is below from "The Land and Fert Max" page

#### 4 Plan Setting - Limit N&P allowed to 170Kg level

A new Plan setting **"Limit N&P allowed to 170Kg level".** Only Select yes when Whole Farm Stocking Rate (WFSR) >170.50 and no derogation has been applied for. Farmer should have applied for a derogation but didn't in the year concerned and the available N&P limits will be based on a Grassland Stocking Rate <170NpH from SI tables 12 and 13. (See Bulletin 5 for Plan Safety advice)

https://www.teagasc.ie/media/website/environment/soil/Bulletin-5\_Plan-Safetyoption\_updated.pdf

| Plan Settings                        |                   |       |   |
|--------------------------------------|-------------------|-------|---|
| General Settings                     | Optional Settings | Units |   |
| County                               | Wicklow           |       | ~ |
| Plan Safety                          | No                |       | ~ |
| Limit N&P allowed<br>to 170 Kg Level | No                |       | ▼ |

## 5 Prevent applying excess Chemical N on GLAS crops

A warning system has been put in place to ensure that more than the max amount of chemical N is not applied to GLAS Crops

|                     | $\mathbf{X}^{-}$ | Index | Nutrients<br>Applied<br>(Units/Acre) | Nutrients<br>Advice<br>(Units/Acre) | Nutrients<br>Balance<br>(Units/Acre) | Chemical | Chemical Fertilisers |      |             |
|---------------------|------------------|-------|--------------------------------------|-------------------------------------|--------------------------------------|----------|----------------------|------|-------------|
| Plot(Acre)          | Сгор             | NIPIK | N   P   K                            | N P K                               | NIPIK                                | 1 CAN(2  | 27%N) 🔻 🗙            | 2 50 | %k (MOF 🔻 🗙 |
| Paddy LAND(21.1)    | GLAS THM         | 1 3 1 | 54   0  50                           | <mark>32</mark>  16  97             | -22 16 47                            | 2        | Bags/Acre            | 1.0  | Bags/Acre   |
| Johhnys (Split a)(5 | GLAS Corncrake   | 1 3 1 | 20   11  115                         | 24   24   <b>97</b>                 | 5  13   <b>-18</b>                   | 0.0      | Bags/Acre            | 1.0  | Bags/Acre   |
| Johhnys (Split b)(5 | GLAS Corncrake   | 1 3 1 | 9   1  61                            | 24   24   97                        | 16   23   36                         | 0.0      | Bags/Acre            | 1.0  | Bags/Acre   |

When excess chemical N is allocated to a GLAS crop with restricted chemical N the line for the plot will go pink – (Nutrient Balance will be in red). If this happens you will not be allowed to submit a GLAS plan or create a report until this is rectified

## 6 Block plan submission if Chemical N or P exceeded

If in allocating chemical N or P to crops the Max N or P allowed is exceeded you will not be allowed to submit a GLAS plan or create a report until this is rectified

## 7 Add crop to Lime page

On the Lime recommendation page on the system and in the plan the crop will be shown for the parcel. This facilitates the user to take account of the crop in planning and prioritising lime applications

|                |                    |           | Advised Lim                   | е                      |                                |                |                |                |                |
|----------------|--------------------|-----------|-------------------------------|------------------------|--------------------------------|----------------|----------------|----------------|----------------|
| Plot 🔺<br>Name | Сгор 🔶             | Area (Ha) | Soil<br>Sample <b>‡</b><br>Id | Soil<br>Sample ∳<br>pH | Soil Sample Lime Req<br>(T/Ha) | 2017<br>(T/Ha) | 2018<br>(Т/На) | 2019<br>(T/Ha) | 2020<br>(Т/На) |
| 1              | Grazing            | 7.0       | GAQ123                        | 5.8                    | 5.0                            | 2.0            | 0.0            | 2.0            | 0.0            |
| 2              | Grazing            | 8.0       | GAQ124                        | 6.1                    | 2.5                            | 2.5            | 0.0            | 0.0            | 0.0            |
| 3              | 1 Cut +<br>Grazing | 6.5       | GAQ125                        | 5.9                    | 2.0                            | 2.0            | 0.0            | 0.0            | 0.0            |

## 8 Limit Soil Samples List in Reports

Previously all soil samples entered in the plan were included in the report. This has been changed and only soil samples connected to plots in the plan will be shown on the report/list

## 9 Add 'Sampled Area' to soil sample page

The area of land associated with soil samples is now included. This will facilitate easy checking to ensure that greater than the permitted 5 or 8 Ha is not associated with any plot. This appears on both screen and report

| ▲<br>Name | <b>♦</b><br>Townland | Gross Area(Ha) | Ref. Area(Ha) | Mapped Area(Ha) | Soil<br>Samples<br>Ids | First 🔶<br>Crop    | Crop 🔶<br>2 | Options |
|-----------|----------------------|----------------|---------------|-----------------|------------------------|--------------------|-------------|---------|
| 1         |                      | 7.0            | 7.0           | 3.5             | GAQ123(2016),          | Grazing            |             | Zoom To |
| 2         |                      | 8.2            | 8.2           | 2.7             | GAQ124(2016),          | Grazing            |             | Zoom To |
| 3         |                      | 6.5            | 6.5           | 3.2             | GAQ125(2016),          | 1 Cut +<br>Grazing |             | Zoom To |
| 4         |                      | 6.5            | 6.5           | 3.1             | GAQ126(2016),          | 2 Cut +<br>Grazing |             | Zoom To |
| 5         |                      | 7.0            | 7.0           | 3.2             | GAW127(2016),          | Grazing            |             | Zoom To |

#### 10 Change the text Colour under Pie Charts



Figures in boxes below Pie Charts in black text to improve visibility

## 11 Copy/Version Popup

The Version/Copy pop up box has been modified to provide extra clarity for users on when to use each option.



#### 12 Records versions added

The records version of the programme has been added to allow more records functionality. Please see separate Records Update Bulletin 8

#### 13 Warning Message Correction

1. Warning Message appearing on "*Manure Storage – Storage Requirements*" and "*Soiled Water Winter Dairy Herd*" has been corrected.

| « Pay<br>Itorage Requirements            |                          | Managa Asian wedgenger               | Next > | Sol Samples<br>Lant Detap<br>Linetock<br>Antock<br>Organic Fertilise Imp |
|------------------------------------------|--------------------------|--------------------------------------|--------|--------------------------------------------------------------------------|
| Creatly                                  | Vicition                 |                                      |        | Org NEP Summary<br>Concentrate Feeds                                     |
| Weating Patricial                        |                          | 21 mmwork                            |        | Manure Storage                                                           |
| Default Borage Period                    |                          | W within                             |        | Soled Plater                                                             |
| Custom Storage Period                    |                          | t weeks                              |        | Solled Water Local                                                       |
|                                          | (cative)                 | ( hom above.)                        |        | Yanta to Solled HO<br>Delty Washings                                     |
| SW storage tasks built efter 1 Jan 20157 |                          | ~                                    |        | Storage                                                                  |
|                                          | (This after<br>smoogle p | To the segulated required<br>rived ( |        | FYM Production<br>Draw Regultement<br>FYM Storage                        |
| Solied Water method of application       | Vacuum                   | Tanker                               | 1      | FYM Dorage Bala<br>Skary                                                 |
| Save                                     |                          |                                      |        | Shary Disrage Ava<br>Shary Storage Bab<br>Farmyard Map                   |
| (                                        |                          |                                      |        | Storage Summary                                                          |

#### 14 N Indices Tillage Crops

For new Versions or New Copies of tillage NMP's created before 17<sup>th</sup> February 2017; the NMP system was defaulting all N indices on tillage crops back to N index 3 in the new copy or version of the plan. **Users should check any versions / copies of plans with tillage** 

**crops created prior to Feb 17 2017 and amend accordingly**. The original version of the plan will be accurate (if there is only a single version there is no problem). Since 17<sup>th</sup> February 2017 new versions/copies of tillage plans are retaining the N indices from the original plans.

## 15 % Reduction in Farm Capacity activated

| % reduction in farm capacity to perform based on current fertility levels compared to optimal fertility |    |   |   |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------|----|---|---|--|--|--|--|--|
| pH, P and K                                                                                             | рН | Р | к |  |  |  |  |  |
| 21                                                                                                      | 6  | 8 | 8 |  |  |  |  |  |

The fertility summary report section outlining the % reduction in the capacity of the farm has been activated. Based on new Research data for any reports created from the 17<sup>th</sup> February this indicates the level of losses in production on the farm versus what would be produced if all land was at optimal status for pH, P and K. The example above indicates that this farm is 21% below its farm capacity to perform based on current fertility levels. Looking at the components:

- 6% more yield would be expected if pH for all crops were >6.2
- 8% more yield would be expected if P were optimised (to a level in the Index 3 range)
- 8% more yield would be expected if K were optimised (to a level in the Index 3 range)

The estimates for impact of the individual nutrients do not add up to the total impact as there are combination effects

This figure in conjunction with the Pie Charts is designed to assist advisers and farmers to prioritise action by identifying the soil fertility problems on the farm.

## 16 Indicator for Chemical P allowed V Individual Crop Recommendations

One of the most difficult areas of the programme to understand and operate is the Chemical P recommendation section.

#### Background

The maximum chemical P allowed on the farm is based on the following calculation

- 1. Total Crop Allowance which is defined by
  - a. Grassland (Same for all grassland usage e.g., grazing, 2Cut silage and grazing...)
    - i. Stocking Rate,
    - ii. Enterprise,
    - iii. Soil P Index
    - iv. Allowance for reseeding

#### b. Tillage

- i. Crop Index
- ii. Crop Yield (Optional)
- 2. Less Organic P from home produced and/or imported manures
- 3. Less P from Concentrates (above a threshold of 300Kg / 85kg N)

Maximum chemical P is calculated on a farm level.

Recommended Chemical P is calculated as follows

- 1. NMP online shows the recommended P for each crop based on Green Book figures.
- 2. Organic P allocated to plots is shown as applied

#### Total Recommended P is calculated as

(Sum of Individual Crop Recommendations) – (P from Organic Sources) – (P from Concentrates)

Limited to Max Chemical P allowed

Because of the subtraction of P from Concentrates and difference between statutory limits and recommendations the amount of P allowed regularly is lower than the sum of the plot advice – This creates a difficulty for users in knowing the degree of restriction necessary to stay below overall allowances.

A new figure (beside Chemical P recommended) indicates the percentage of the P advice (less organic P) which can be applied to meet the Max P allowed. This will assist in deciding on how much chemical P to apply on a plot by plot basis.

#### 17 Farmyard Layout Map Printing

The farmyard layout symbols are now printing on Maps

#### **18** Selector for Non-Milking period in winter (Soiled Water)

The difficulty for selecting the dates for non-milking in copied plans has been resolved

#### **19 GLAS Crops on Land and Fert Max**

An issue was identified with GLAS plots with limited Chemical N allowance (e.g. LIPP 40kg). There is no specific total N allowance for these (to cover Chemical and Organic). To rectify this an addition to the Maximum Available N is now being made. This will ensure that the full 40Kg will be available to spread as Chemical N on these plots.