

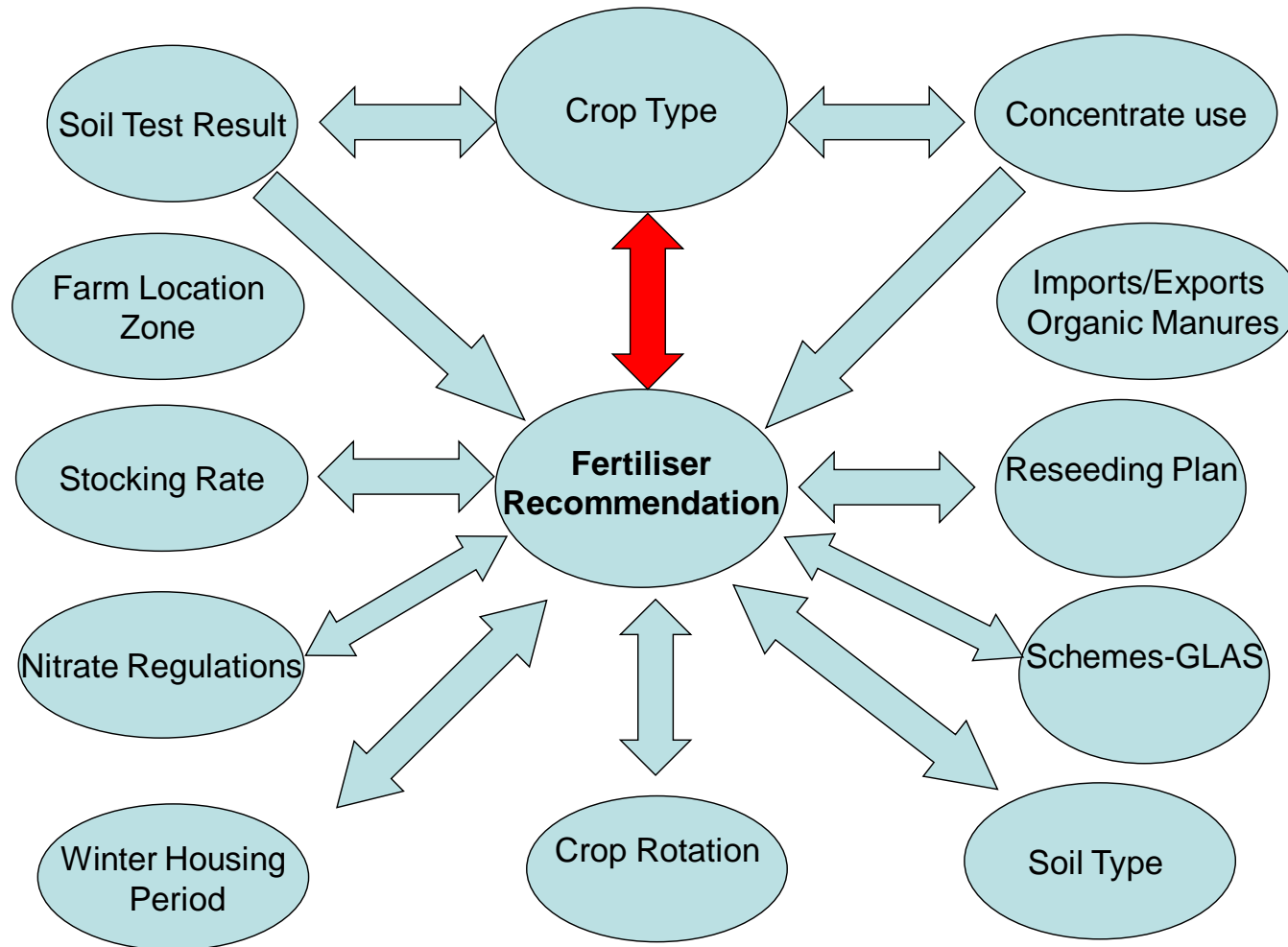
Teagasc Soil Fertility Conference

NMP-Online Planning Farm Lime & Nutrient Requirements

Christy Watson
B & T Adviser

Teagasc Naas

Nutrient Management Planning is Simple ?



NMP-Online



Client		Advisor	Sample Details	
[Redacted]		M. Christy Watson - (94)	Received	05 February 2018
[Redacted]		Teagasc, Fricory Road, Naas, Co. Kildare	Autoclaved	22 February 2018
[Redacted]			Analysed	20/02/18 (1)
[Redacted]			Sampled By	Self Sampler
[Redacted]			Comments on Sample	

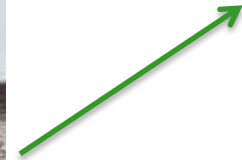
Nutrients Test Results			Laboratory Results				Nutrient Advice					
Ident	Field/NP	Crop	pH	P	K	OM	Other	LR	N	P	K	Slurry Rate
				mg/l	Index	mg/l	Index	%	tha	kg/ha	kg/ha	kg/ha
WH120(4)	1	Good Permanent Grass	6.5	8.8	162.0				13L	0	0	0
WH120(2)	2	Good Permanent Grass	6.3	5.4	189.0				15	0	0	0
WH120(5)	3	Good Permanent Grass	6.3	9.4	142.0				15	0	0	0
WH120(1)	10	Good Permanent Grass	6.5	8.2	205.0				15L	0	0	0
WH120(8)	11	Good Permanent Grass	6.7	8.8	189.0				13L	0	0	0
WH120(2)	13	Good Permanent Grass	6.6	5.0	121.0				13L	0	0	0
WH120(2)	180	Good Permanent Grass	6.3	4.2	105.0				13L	0	0	0
WH120(2)	24	Good Permanent Grass	7.0	6.9	98.3	2			13L	0	0	0
WH121(5)	26	Good Permanent Grass	7.0	4.4	170.0				13L	0	0	0
WH120(2)	15	Good Permanent Grass	6.1	3.8	146.0				15	0	0	0

Conversion table: mg/l to t/ha: 100mg/l = 1.0 t/ha. Index: 1.0 = 100%. Other: 1.0 = 1.0%. LR: 1.0 = 1.0%. N: 1.0 = 1.0%. P: 1.0 = 1.0%. K: 1.0 = 1.0%. Slurry Rate: 1.0 = 1.0 t/ha.



Manure Allocation				Planned Fertilisers		Nutrient Values		
Fertiliser	Substrate T	Applied T	Status T	Fertiliser	Tonnes	N	P	K
Cattle Slurry	20	20	0	Chemical	15	448	180	228
Poultry Slurry	77	0	0	Chemical	15	537	198	228
Total P-Nutrients	197	0	0	Chemical	30	985	378	456

Plot	Crop	Area (ha)	Soil Sample	Index	Nutrients Applied (t/ha)			Organic Resources				Chemical Fertilisers						
					N	P	K	Cattle Slurry (t/ha)	Poultry Slurry (t/ha)	Chemical N	Chemical P	Chemical K	OM	Other	LR	N	P	K
Waters Park No	GLASPP	11.4	08/12/12	11/12	27.3	18	0	0	0	0	0	0	0	0	0	0	0	0
Waters Park	Water Slurry	10.8	08/12/12	11/12	19.4	17	0	0	0	0	0	0	0	0	0	0	0	0
Waters Park	1.0t + Grazing	6.0	08/12/12	11/12	19.8	72	0	0	0	0	0	0	0	0	0	0	0	0
GLASPP	GLAS-16/17/18/19	3.0	08/12/12	11/11	41.15	30	0	0	0	0	0	0	0	0	0	0	0	0
Waters Park Head	Tillage Spring	6.7	08/12/12	11/11	19.3	30	0	0	0	0	0	0	0	0	0	0	0	0
Waters Park Edge	1.0t + Grazing	3.6	08/12/12	11/12	10.4	170	300	0	0	0	0	0	0	0	0	0	0	0
Waters Park	1.0t + Grazing	1.7	08/12/12	11/12	10.4	170	300	0	0	0	0	0	0	0	0	0	0	0



Christy Watson

NMP-Online



- Fertiliser Expenditure €500m.
- NFS-39 Fertiliser Types account for 95% of fertiliser used.
- Produce detailed Nutrient Management Plan for clients.
- Map based programme-Field unit.
- Electronic Import of Soil test results.
- Capacity waste storage facilities on the farm.
- Need for Organic manure exports.
- Capacity for Organic manure imports-throughout year.

NMP-Farmer Report

Derogation - Fertiliser Plan 2018



Name	Sheep and Farm
Address	60c Henz Eggen, Sheebooksdown, Bains, Co. Kildare,
County (Zone)	Kildare (A)
Herd No.	11131055

This fertiliser plan is based on the information provided to Teagasc. Teagasc cannot accept responsibility for inaccurate information being supplied.

This report contains the following:

- 1.; Cover Page
- 2.; Farm Summary of Soil fertility and fertiliser requirements
- 3.; Lime Report
- 4.; Fertiliser plan for the Farm
- 5.; Summary of All Livestock on the holding
- 6.; Soil Sample Results
- 7.; Sample Fertiliser on Farm
- 8.; Summary of Land areas, Cropping and maximum fertiliser allowances
- 9.; Concentrate feed usage on the farm in 2017
- 10.; Cereals analysis where relevant.

Detailed Plan



Detailed Maps



Lime Maps

- Detailed Liming programme.
- Field Specific.
- Annual programme.
- Correct PH-More efficient use of N,P,K



Soil pH & Lime

Lime Planned

2017	142 Tonnes
2018	0 Tonnes
2019	48 Tonnes
2020	0 Tonnes

Phosphorous Maps

- P status of all fields clearly shown.
- Map legend Index and status
- Targeted application of P by Farmer, fields to avoid.

Legend

P value

- Index 1 Very Low
- Index 2 Low
- Index 3 Satisfactory
- Index 4 High



Potassium K Maps

- K the Cinderella nutrient.
- Priority fields shown.
- Spring Plans-Autumn Application-Reminder.
- Map legend Index & Status

Legend

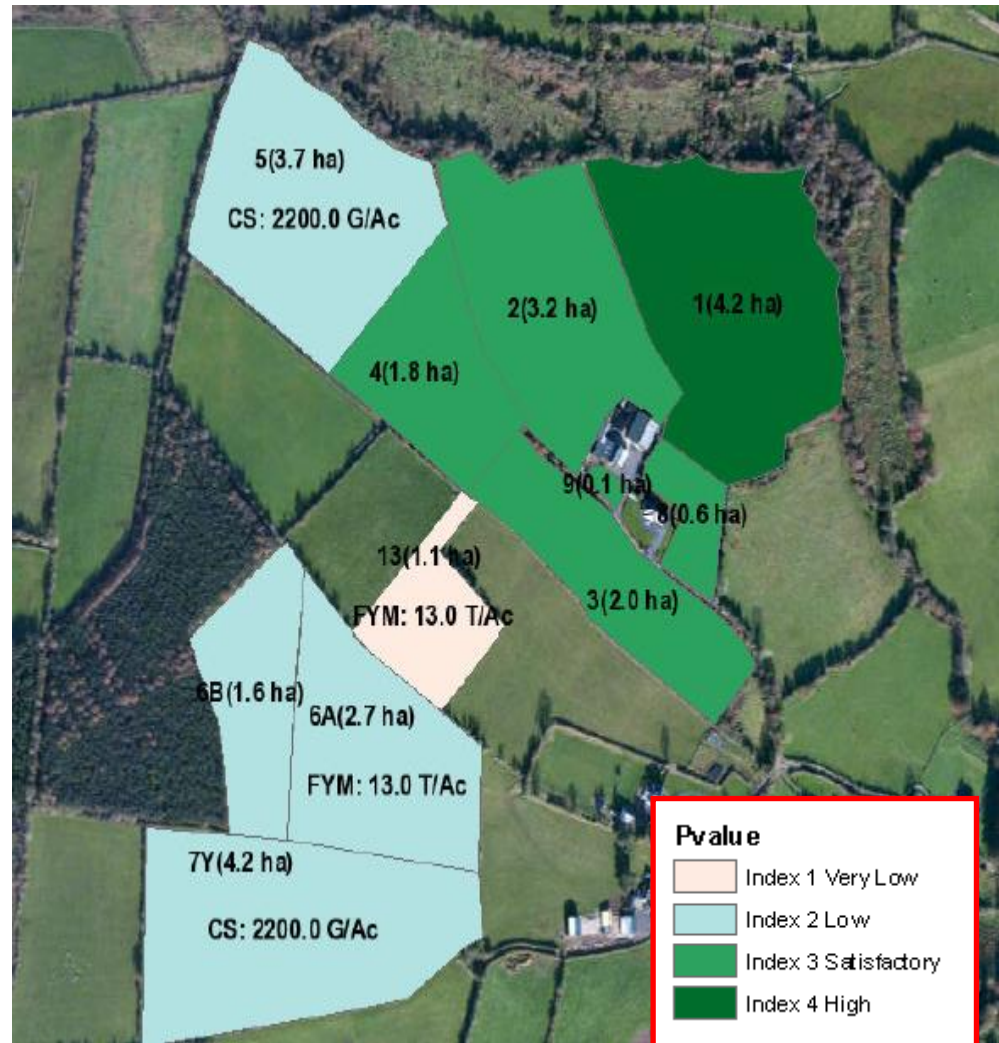
Kvalue

- Index 1 Very Low
- Index 2 Low
- Index 3 Satisfactory
- Index 4 High

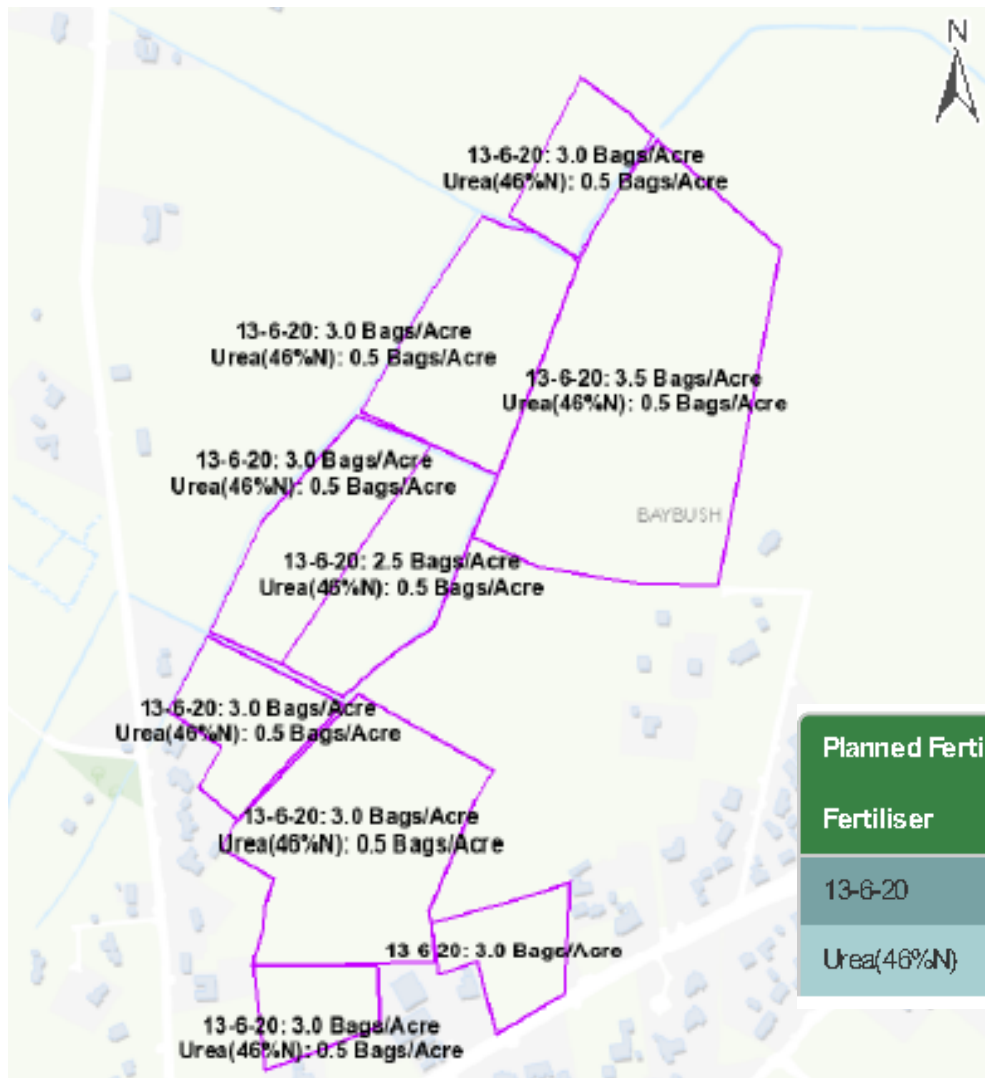


P Map with Organic Manure Application Plan

- Soil fertility status combined with organic manure plan.
- Better use of Organic Manures-where needed.
- Financial and environmental benefits.
- Clear practical plan for farmer.



Map-Chemical Fertiliser Plan



Planned Fertilisers	
Fertiliser	Tonnes
13-6-20	9.11
Urea(46%N)	1.39

Farm and soil fertility Summary

%reduction in farm capacity to perform based on current fertility levels compared to optimal fertility

pH, P and K	pH	P	K
25	6	13	10

Soil pH & Lime

Lime Planned

2017	220 Tonnes
2018	22 Tonnes
2019	37 Tonnes
2020	0 Tonnes

Target pH

Mineral Soil

Organic Soil

Grass

6.3

5.5

Tillage

6.5

5.5

Organic Manure Plan

Chemical Fertiliser Advice

Nutrient Balance

	N(kg)	P(kg)	K(kg)
Chemical Recommended	6,716	916 (77%)	2,960
Max Chemical Allowed	12,611	969	
Chemical Usage	5,447	736	857

Planned Fertilisers

Fertiliser	Tonnes
25-4-0	7.68
27-2.5-5	8.39
18-6-12	3.65
CAN +S(27%N)	2.25

NMP-Online Farm Case Study

- Turnout March 13
- 40 Bulls @ 420 kg
- 28 Heifers @ 390 kg
- 2 Suckler cows plus calves
- 2,400 kgs Liveweight/ha
- As stock finished/housed replaced with Weanlings

Fertilizer/Lime Use 2017

- Autumn 2016 2 tonnes lime/acre
- 0.5 Bag Urea/acre
- 5 Bags/acre 18-6-12 +S

Total Units/acre

N 113-P 30-K 60-S 20

Fert/Lime Inputs

- Fertilizer €2,812
 - €225/ha.
- 20% More than home farm (+€37/ha).
- Lime €400

Total €3,212

Outputs

- 240 Grazing days.
- 9,000 kgs lwt (€21,150)
- 60 Round bales Silage.(€1,500)
- 13.75 Tonnes grass grown/ha.

Total €22,650

NMP-Online Conclusions

- NMP-online is an essential tool for advisers when advising farmers on the use of Fertilizer and lime on their farms.
- Nutrient recommendations are presented in a very user friendly and practical format.
- NMP-online is a map based programme, which creates a very visible field link for the farmer and adviser to the all important soil sample results, nutrient recommendations.
- As well as giving guidance on crop requirements, NMP-online also provides critical information on regulatory compliance.
- By following good nutrient advice farmers can reduce their costs of production, reduction in nutrient use by correction soil acidity-growing more grass reduces need for rented land.

Thank you