

Fertiliser Programmes

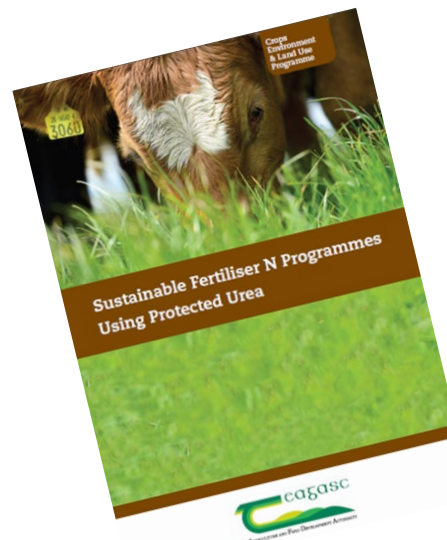


- Fertiliser Products
- Timings of Application
- Suggested Programmes

Table 1:- Outlines recommended rates of N, P & K for a dairy farm stocked 0.8 LU /ac (170kg Org N/ha or 2.0LU/ha). Soil P and K levels assumed to be index 3

Advice	March	April	May	June / July	Sept	Total Units/ac	
Product (units/ac)	1.75 bags/ac 18-6-12	1.0 bag/ac ProUrea + S	0.65 bag/ac ProUrea	0.75 bag/ac ProUrea + S	0.6 bag/ac ProUrea		
N	160	32	40	30	30	27	159
P	11	11					11
K	24	21					21
S	12		6		5		11
Cost €/ac	34	20	35	38	32		€96/ha

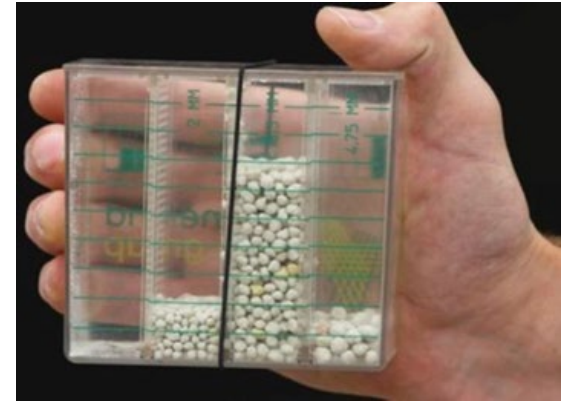
ProUrea = Urea 46% + NBPT / 2-NBPT, Cost/tonne = €430/t, ProUrea 40% N & 6% S- €400t/, 18-6-12 - €385, Urea - €390, CAN - €285. To convert units/ac to kg/ha multiply by 1.25



Urea

Fertiliser Size (mm)		
<2mm	2.00 to 3.3mm	3.3 to 4.75
		

- 46% N / Granular Product
- Lower cost / kg
- Calibrate Fertiliser Spreader
- Protected Urea Available with
 - K & S



Sustainable Fertiliser N Products

Company	Product Name	Inhibitor Type	N%	P %	K%	S%
Grassland Fertilisers (Kilkenny) IFI	Topper N Protect	NBPT	46			
	Super Topper N Protect	NBPT	38			7.5
Grassland Agro	Eco Urea	NBPT	46	-	-	-
	Eco N 38	NBPT	38	-	-	7.6
	Eco 29-0-14 +S	NBPT	29	-	14	2
	Alzon Neo-N	2-NPT + MPA	46	-		
	Alzon Neo-N + S	2-NPT + MPA	40			
Goulding Fertiliser	KaN	NBPT	46	-		
	KaN + S	NBPT	38	-		
	KaN + S	NBPT	35	-		
	KaN + K +S	NBPT	29		14	5.5
Target Fertilisers	UreaMax	NBPT	46	-	-	-
	UreaMax + S	NBPT	40	-	-	6
Yara	Yara Vera AMIPLUS	NBPT	46	-	-	-

**LIMUS
NBPT &
NPPT**

Fertiliser Compound....

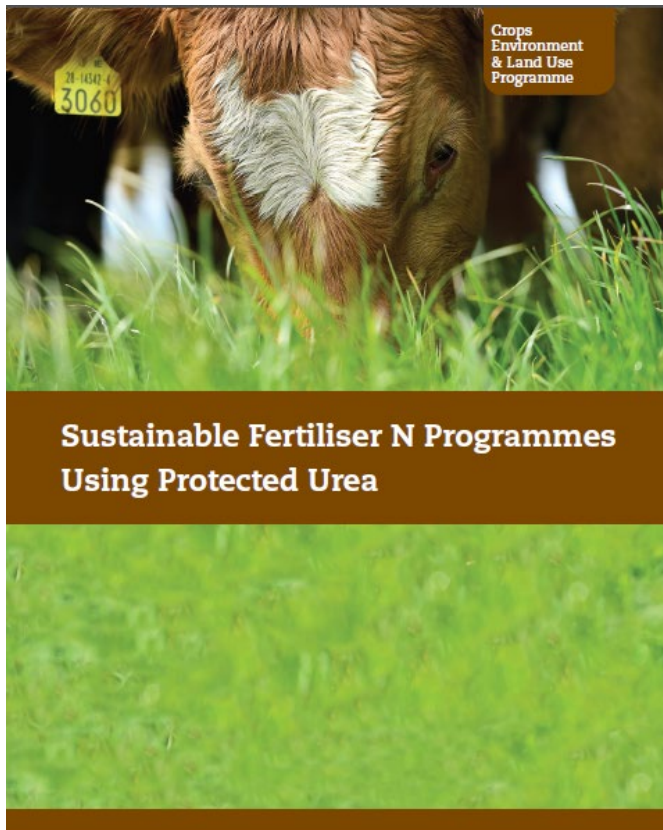
Situation	Fertiliser Type
Grazing	10-10-20 / 18-6-12 / 18-4-12 / 14-7-14 / 15-10-10 / DAP (18N & 20 P) / 25-5-0
Silage / Maize	0-7-30 / 10-10-20 / 13-6-20 / 15-3-20 / 27-2.5-5 / 24-2.5-10
P & K Build-Up	10-10-20 / MOP 50% K / 16% Super P / 0-7-30 / 0-10-20 / 23-10-0
Fertiliser Blends	Any Fertiliser can be made Max. 40 units in 50kg bag

Fertiliser Plan NMP-Online



- Fertiliser advice programme
- Lime advice
- N, P & K Advice
- Fertiliser shopping list for 2020
- Meet requirements for cross compliance

Integrating Protected Urea into Fertiliser programmes



The 2 main sources of N used on Irish farms are CAN & Urea. Due to possible N losses as either nitrous oxide (from CAN) or ammonia (from urea) under poor soil / weather conditions that promote N loss. Urea treated with a urease inhibitor (NBPT / 2-NPT) reduces both ammonia & nitrous oxides losses helping to reduce their impact on both air & water quality.

Example fertiliser programmes integrating protected urea as the main N source during the growing season for both dairy & drystock farms at different stocking rates.

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ProUrea = Urea 46% + NBPT / 2-NBPT, Cost/tonne = €430/t, ProUrea 40% N & 6% S - €400t/, 18-6-12 - €385, Urea - €390, CAN - €285. To convert units/ac to kg/ha multiply by 1.25



Example Dairy - N, P & K Rates

P Rates adjusted for 1t/ha Conc. Feed (5kg/ton)

Stocking Rate 131 – 170 kg Org N/ha			
P & K Index	N	P	K
	Kg/ha (units/ac)		
1	202 (162)	31 (25)	90 (72)
2	202 (162)	21 (17)	60 (48)
3	202 (162)	11 (9)	30 (24)
4	202 (162)	0	0

Complete a Farm Fertiliser to determine farm N, P & K advice

Example Grazing Ground & Fertiliser Programme

SR 131 – 170 kg Org N/ha (P & K Index 1)*

Advice		Feb	March	April	May	June / July	Sept	Total
Product (units/ac)			1.5 bag/ac 18-6-12 + S	0.9 bag/ac Urea	2.0 bag /ac18's S	0.75 bag/ac Urea	24-2.5- 10 /ac bag Urea	
N Splits			27	42	34	34	25	
N	162		27	41	36	34	24	162
P	25		9		12		2.5	24
K	72		18		24		10	52
S	6-12		4.5		6			11

Example

Drystock - N, P & K Rates

P Rates adjust for 1t/ha Conc. Feed (5kg/ton)

Stocking Rate 131 – 170 kg Org N/ha			
P & K Index	N	P	K
	Kg/ha (units/ac)		
1	165 (132)	31 (25)	75 (60)
2	165 (132)	21 (17)	45 (36)
3	165 (132)	11 (9)	15 (12)
4	165 (132)	0	0

Complete a Farm Fertiliser to determine farm N, P & K advice

Example Grazing Ground & Fertiliser Programme

SR 131 – 170 kg Org N/ha (P & K Index 1)*

Advice		March	April	May	June / July	Aug	Sept	Total
Product (units/ac)		0.5 bag Urea /ac	1.5 bag/ac 18-6-12 +S	1.0 bag/ac 18-6-12 +S	1.0 bag/ac 18-6-12 +S	0.5 bag /ac Urea	0.5 bag /ac Urea	
N Splits		23	31	20	16	22	20	132
N	132	23	27	18	18	23	23	132
P	25		9	6	6			21
K	60		18	12	12			42
S	6-12		4.5	3	3			11

1st Cut Grass Silage N, P & K Req. (5tDM/ha)

Nutrient Requirements

1 t Grass DM Req. 4kg P & 25kg K

Fertiliser Options

Soil Index	N (kg/ha)	P (kg/ha)	K *(kg/ha)	No Slurry	Cattle Slurry @ 3,000ga/ac
1	125	40	175	430 kg/ha 13-6-20 170kg/ha Urea + S (6%)	310kg/ha Urea + S (6%)
2	125	30	155	370 kg/ha 13-6-20 190kg/ha Urea + S (6%)	310kg/ha Urea + S (6%)
3	125	20	125	370 kg/ha 13-6-20 190kg/ha Urea + S (6%)	310kg/ha Urea + S (6%)
4	125	0	0	310 kg/ha Urea + S (6%)	310 kg/ha Urea + S (6%)

**Apply P & K balance after 1st cut (June / July / Aug)*

In Summary

- Select suitable fertiliser compounds to deliver P, K & S.
- Apply 50% of P in Spring
- Apply remaining P (50%) in 2/ 3 splits
- Apply protected urea in straight N splits
- Calibrate fertiliser spreader