

Teagasc Beef Webinar

Wednesday January 27th 2021



Early spring nitrogen application with the major focus on improving Nitrogen Use Efficiency (NUE)



1. Soil Sampling

Annual Fertiliser Plan must be based on the most recent soil analysis



2. Soil Temperature



- Weather forecasts need to be monitored closely (A minimum of 7 days post application needs to be considered)
- Grass Growth commences where soil temperature exceeds 6°C

Weather Station Kilkenny

Station	Average Soil Temperature 10cm
Years	2018 - 2020
January	5.7
February	5.3
March	6.2

Met.ie

3. Traffic ability

Weather Station Kilkenny

Station	Average precipitation in (mm)
Years	2018 - 2020
• S January	71.7
○ February	78.6
• S March	84.3

Using N More Efficiently

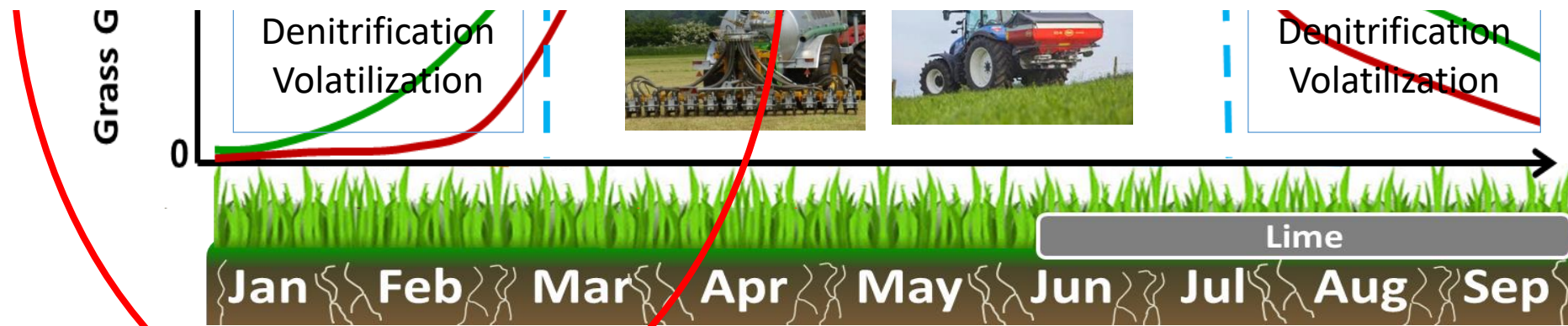
1. Where should we apply early Nitrogen (Use all available at hand)

Keeping more N in the system

Less to air, Less to water

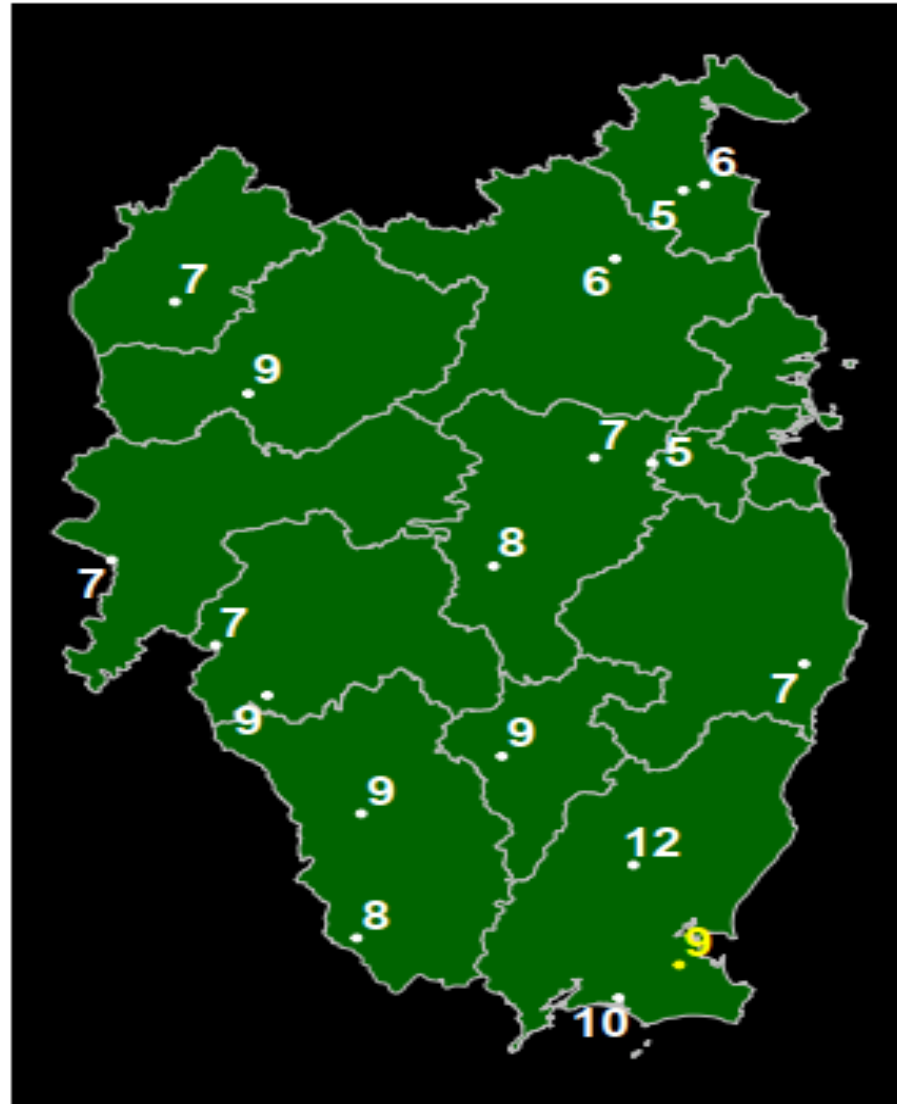
Provide the Plant only with its requirements

research/monitor farms



Grass Production & N Efficiency

Prediction Leinster:
27/01/2021-02/02/2021



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- Expect
- With 3
- Soil wi
if pH a

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N bank

Spring Slurry Application

N value with different slurry application methods



Benefits of using Cattle Slurry in early Spring time

- 50% of the available N is readily available
- 50% of the N is available throughout the year

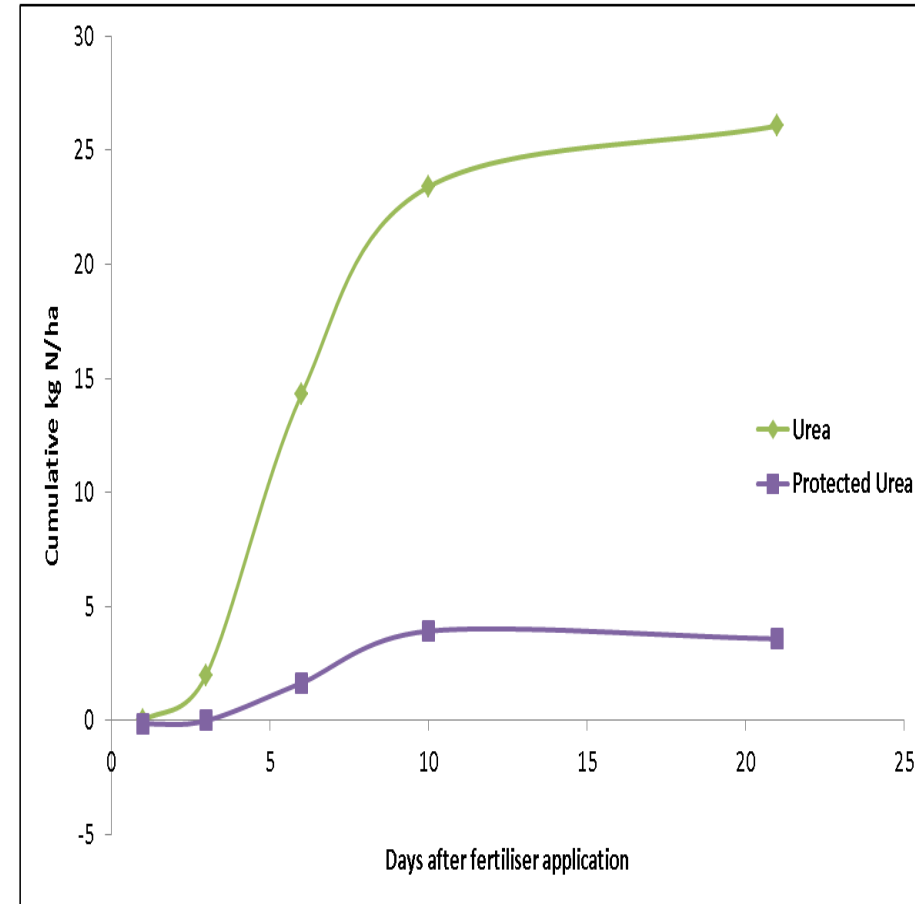
Dribbler Bar / Trailing Shoe Benefits

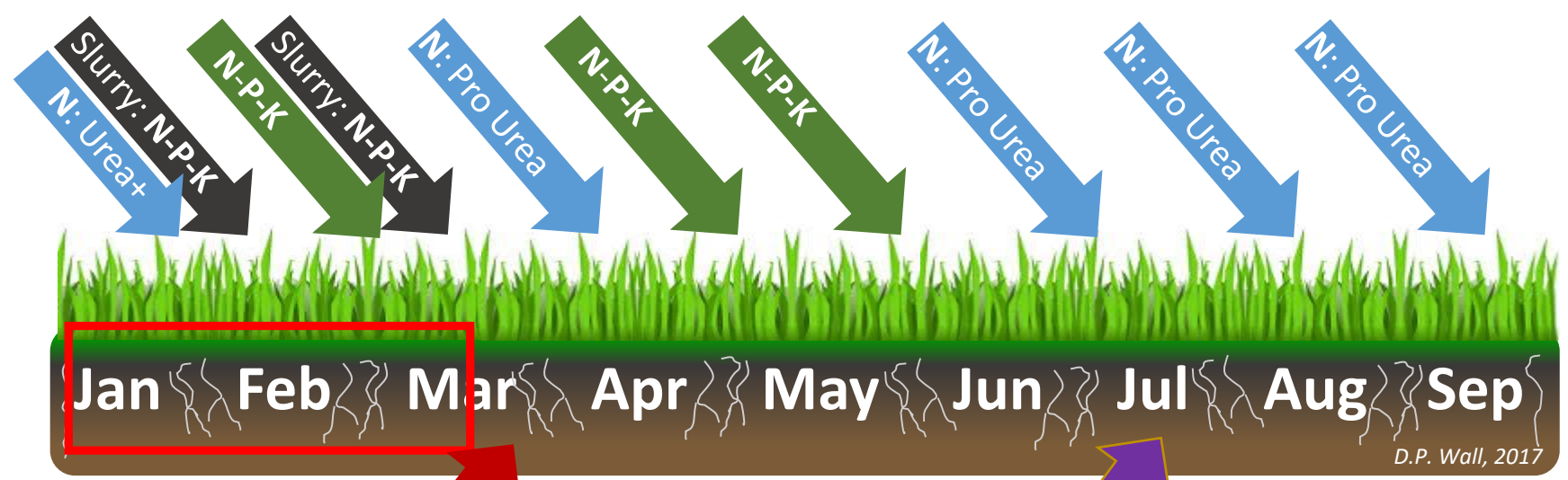
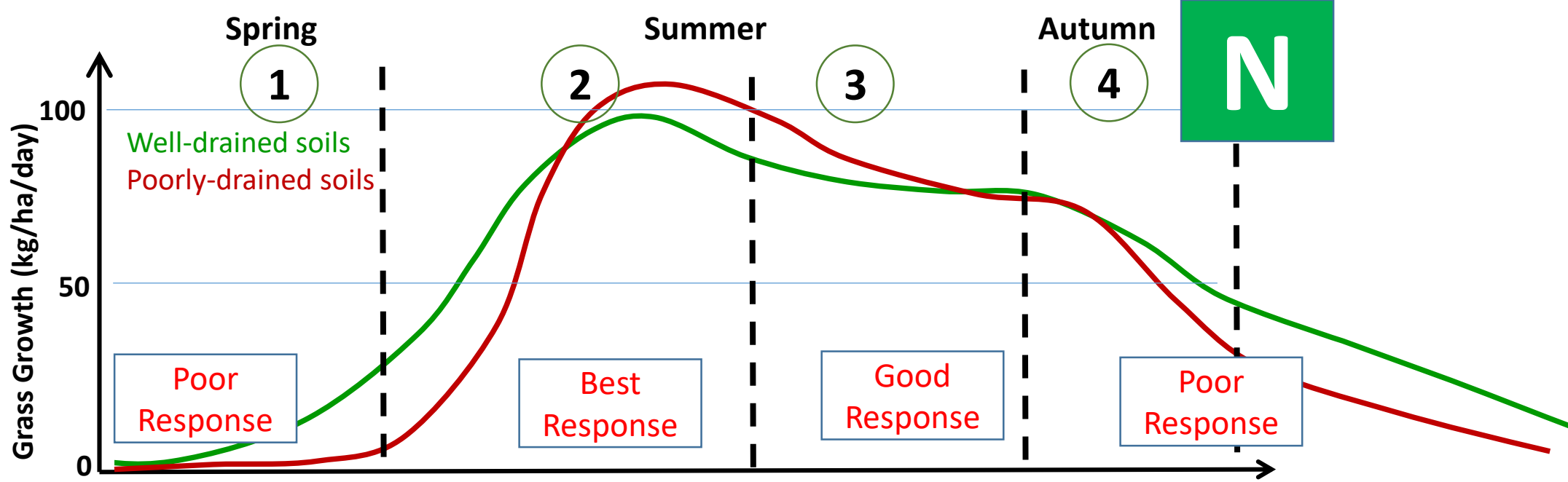
- Less grass contamination / More precise app. of nutrients
- Increased Flexibility -Spread on higher grass covers
- Wider window of application / better soil condition

What is Protected Urea?



1. Urea + Urease Inhibitor
2. Reduces Ammonia Loss (79%)
3. Increases the recovery of N from Urea
4. Reduces loss of N_2O (Green House Gas)
5. Inhibitors : NBPT, 2-NPT & NPPT





N

P: Build-up

K: Build-up

Urea+ = Protected Urea

In Summary

Spring N application

- **Right Timing**
 - Greatest quantities of nitrate is lost (Jan – March)
 - Apply when plants are actively growing
 - Weather
- **Right Location**
 - Suitable fields
 - Soil fertility – pH, P & K at optimum levels
- **Right Rate of Application**
 - Apply in accordance with demand (23 units/ac)
 - Apply in accordance with growth rates (PBI & Met.ie >5°C)