



# Grass – an untapped resource on beef farms!

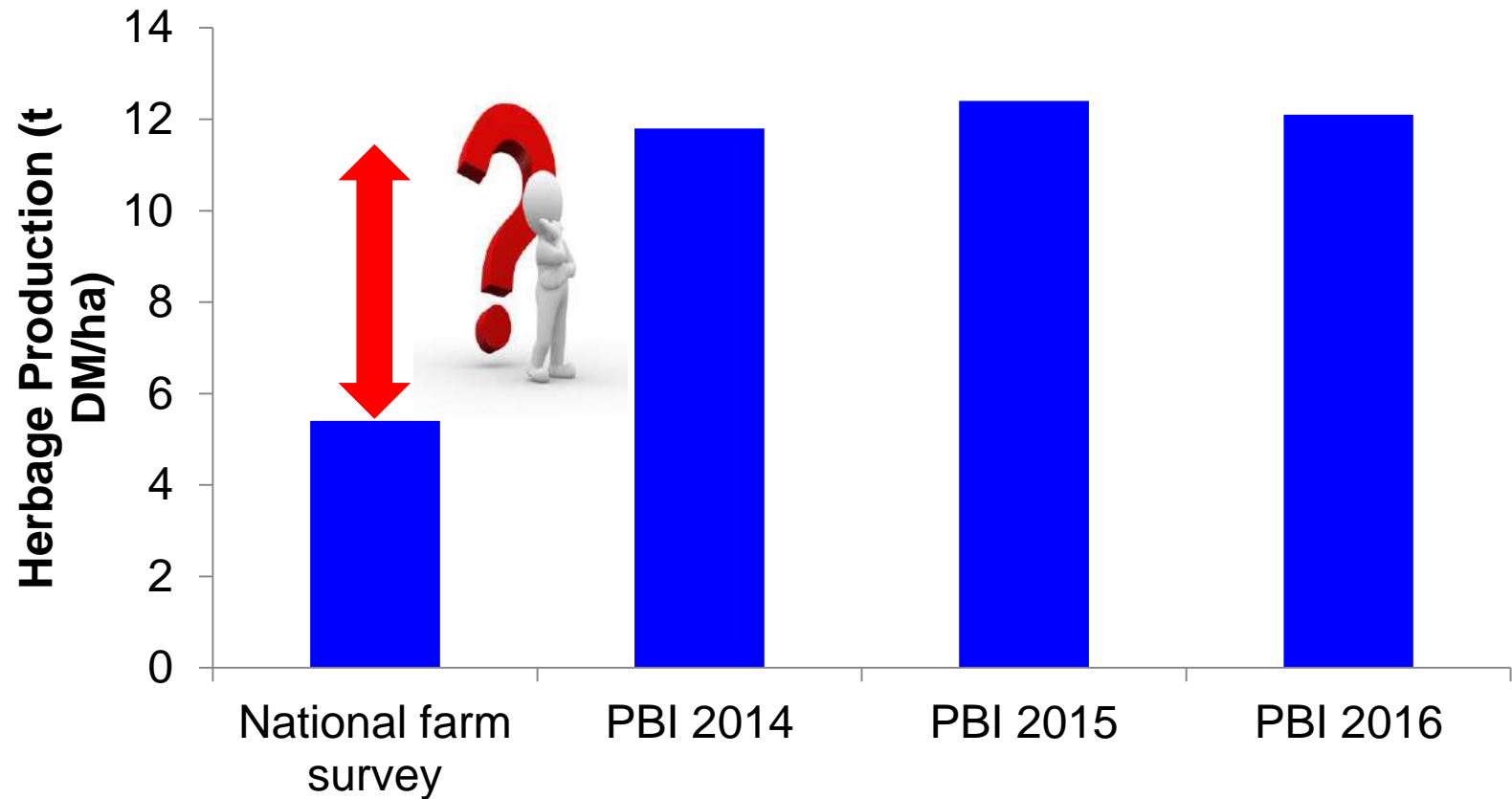
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Beef Conference, Meath  
21<sup>st</sup> June 2017***

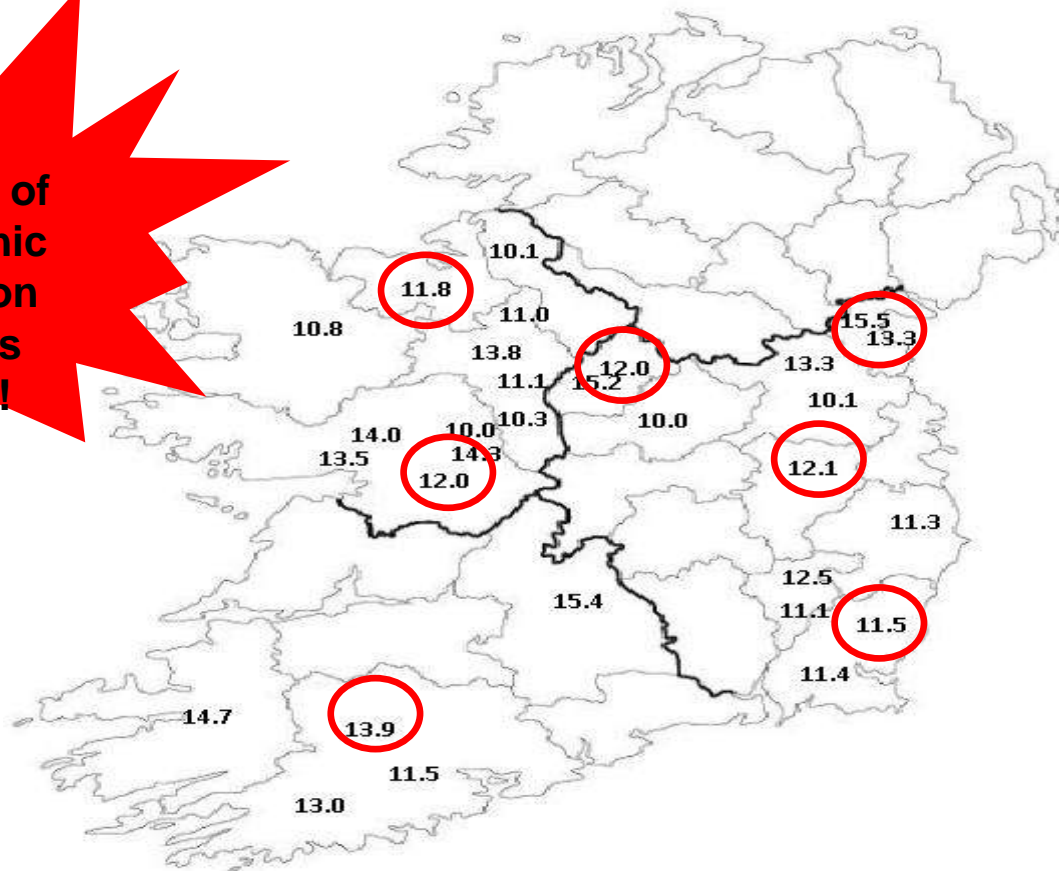
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# PastureBase Ireland Beef Farms DM Production



## DM Production 2016 on Drystock farms Average DM Production 12.2 t DM/ha

No effect of  
geographic  
location  
on grass  
growth!



# What are the high producing farms doing?

1. Routine measurement of grass growth
2. Strong focus on soil fertility
3. Grazing infrastructure – setting the farm up to grow grass
4. Managing grass across the year
5. Routine reseeding plan



# Soil fertility

- Farmers aiming to grow the maximum amount of DM/ha, one of the most important components that must be correct is soil fertility
  - Soil pH – 6.3
  - Phosphorous - Index 3 for P (5.1 – 8.1 mg/l)
  - Potassium - Index 3 (101 – 150 mg/l)
- The most limiting factor in soil fertility will limit overall grass production



**Managing soil fertility is as important as managing your herd of cattle for Irish grassland farmers**

# Effect of soil pH on fertiliser uptake

Soil pH	Nitrogen utilisation	Phosphorous utilisation	Potassium utilisation	% of fertiliser wasted
5.0-5.5	77%	48%	77%	32%
5.5-6.0	85%	52%	100%	21%
6.0-6.5	100%	100%	100%	0%

- Applying 5 t/ha of lime to a soil pH of 5.3 resulted in;
  - increased DM production by 1.5 t DM/ha
  - 20% increase in stocking carrying capacity
  - Additional 60 units/ac of N available (2 bags of CAN)

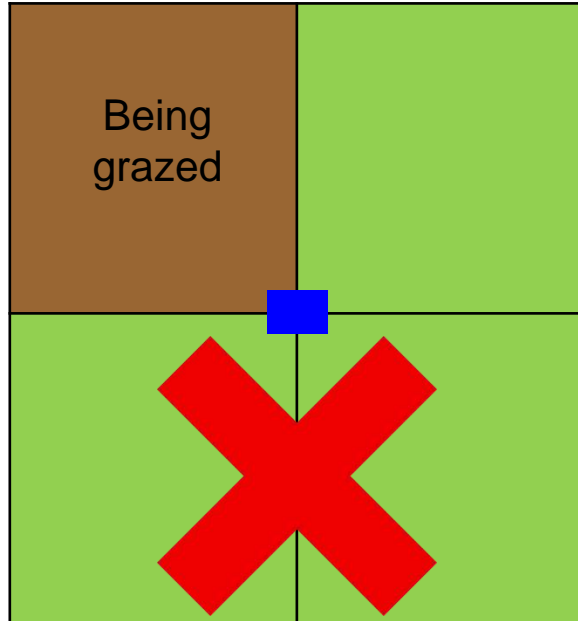
# Grazing infrastructure

- Setting your farm up to grow grass is a fundamental in grassland farming
  - Rotational paddock grazing system
    - 7 – 9 paddocks per grazing group
  - Roadways
  - Paddock access points – minimum of 2 access points per paddock
  - Water troughs
- Paddock size adequate for grazing group size
  - 1 ha paddock for 40 suckler cows or 55 1-2 yr olds
  - Paddock shape 2:1 (length: width)
- Too large of paddocks results in long residency times – reduces growth



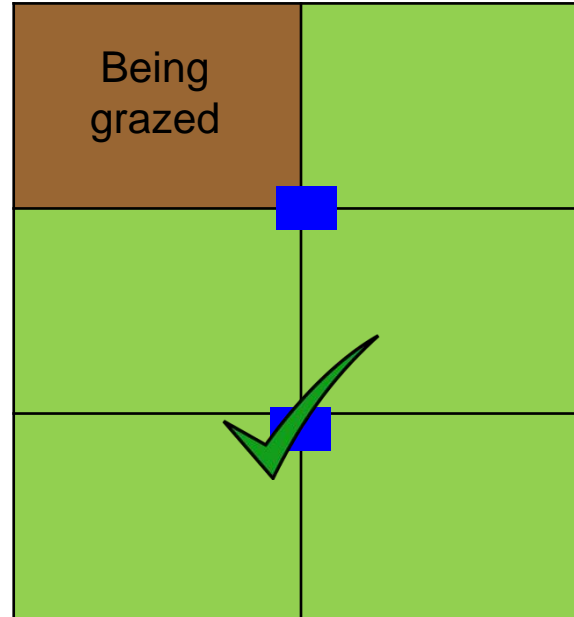
# Paddock system – 20 ha farm

## 5+ day paddocks



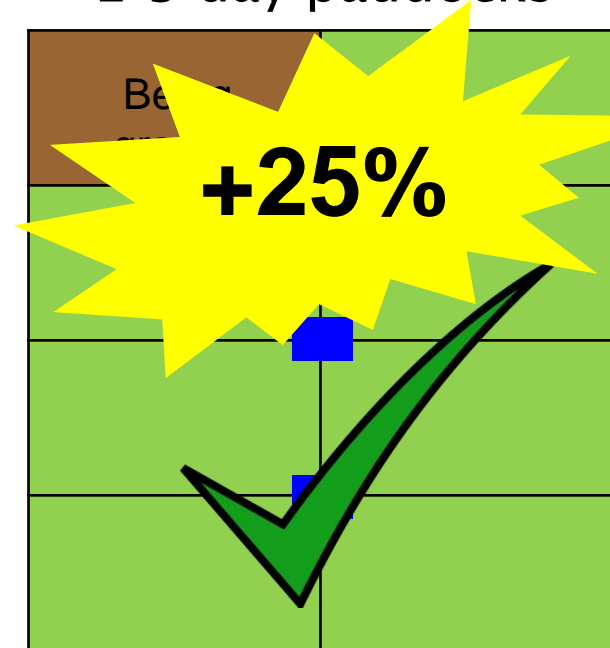
- Re-growths affected
- Difficult to graze out
- Reduced grass growth
- Reduced animal performance
- Hard to manage
- Contractor loves them

## 3-4 day paddocks



- Re-growths somewhat protected
- Difficult to manage in wet weather
- Moderate animal performance
- Average pasture utilisation

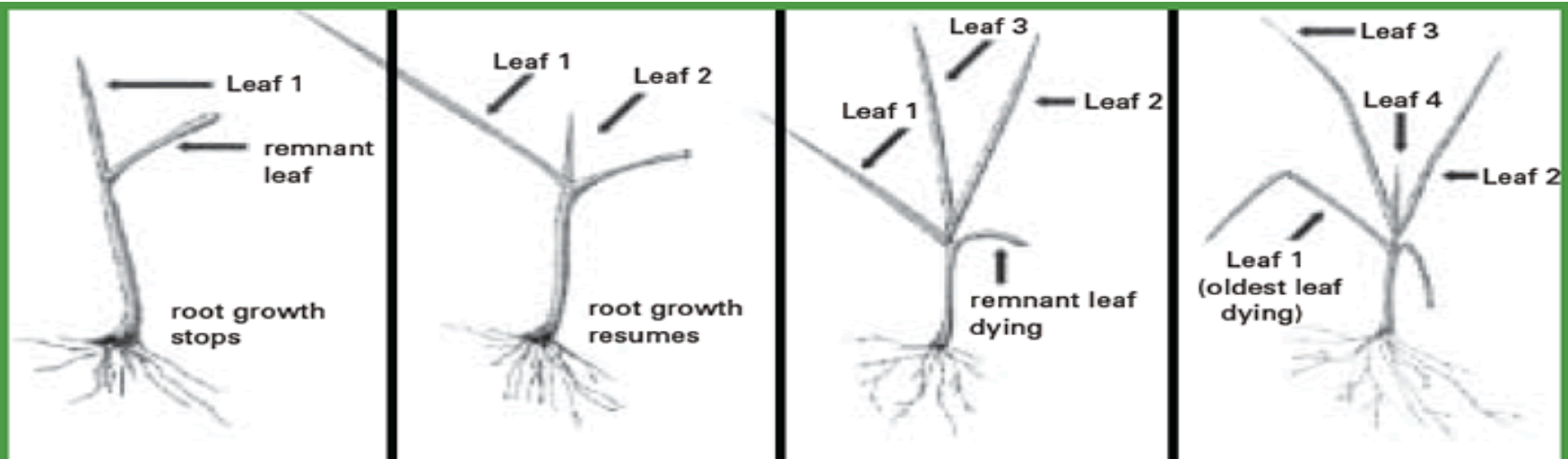
## 2-3 day paddocks



- Re-growths protected
- Increased grass growth
- Increased grass utilisation
- Higher quality grass
- Increased animal performance
- Easy to manage surplus

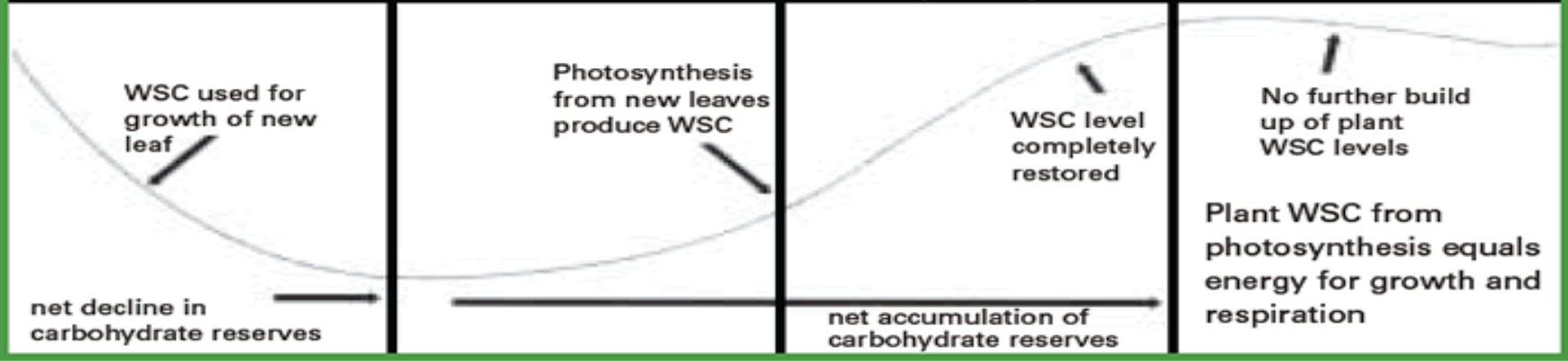


# Grass growth



Regrowth of remnant leaf and emergence of first new leaf.      First new leaf fully emerged and second leaf beginning to emerge      The 3-leaf stage - 3 new leaves fully emerged      The oldest leaf dies with the emergence of the fourth leaf

## WATER SOLUBLE CARBOHYDRATE LEVELS (WSC) IN RYEGRASS PLANTS



0

7

15

21

30

# Grass growth



# Fencing types

Two strand electric fence – creosote posts



- €1.50 to €1.70/meter
- Very high quality
- Low maintenance costs
- Long term
- Harder changed

Single strand electric fence – posts



- €1.10 to €1.20/meter
- High quality
- Medium maintenance costs

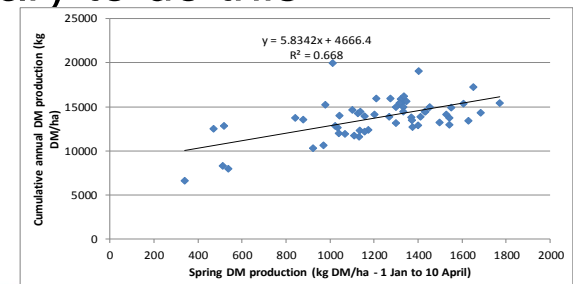
Temporary pig tail and polywire



- €0.30 to €0.40/meter
- Temporary/easily moved
- Higher maintenance required

# Spring Grazing Management

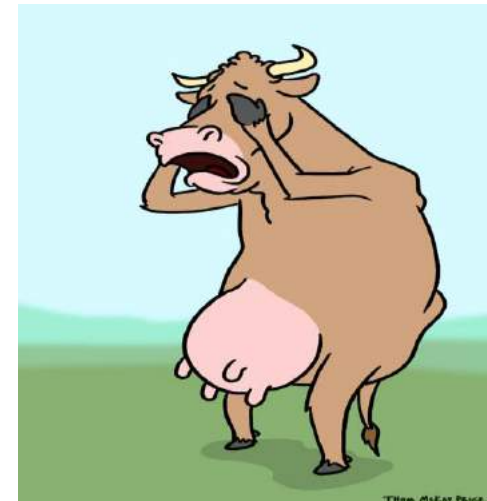
1. What happens in the first two months influences cumulative herbage production!
2. Need to finish the first rotation in early April to capture extra growth
  - Target April 10<sup>th</sup>
  - Farms that finished the first round pre April 10<sup>th</sup> grew **1.1 t DM/ha more grass**
3. Need to have animals out in early to mid-February to do this



# Grazing management



- ✗ + 25 day rotation
- ✗ Pre-grazing covers of  $>1700$  kg DM/ha ( $>12$  cm)
- ✗ Poor grass utilisation (+4.5 cm)
- ✗ Poor grass quality
- ✗ Lower animal performance



# Grazing management



- ✓ 18 – 21 day rotation in mid-season
- ✓ Pre-grazing covers of 1400 – 1600 kg DM/ha (9 – 10cm)
- ✓ High grass utilisation
- ✓ Graze swards to 4 cm residual
- ✓ High grass quality
- ✓ Increased animal performance



# Reseeding

- Reseeding is costly - €250 to €350/acre
  - Need to make sure it is managed well
- When selecting cultivars select cultivars from the DAFM recommended list and Pasture Profit Index
- White clover can have a high role on Irish beef farms
  - Increased grass growth
  - Reduced Nitrogen fertiliser application
  - Increased animal performance



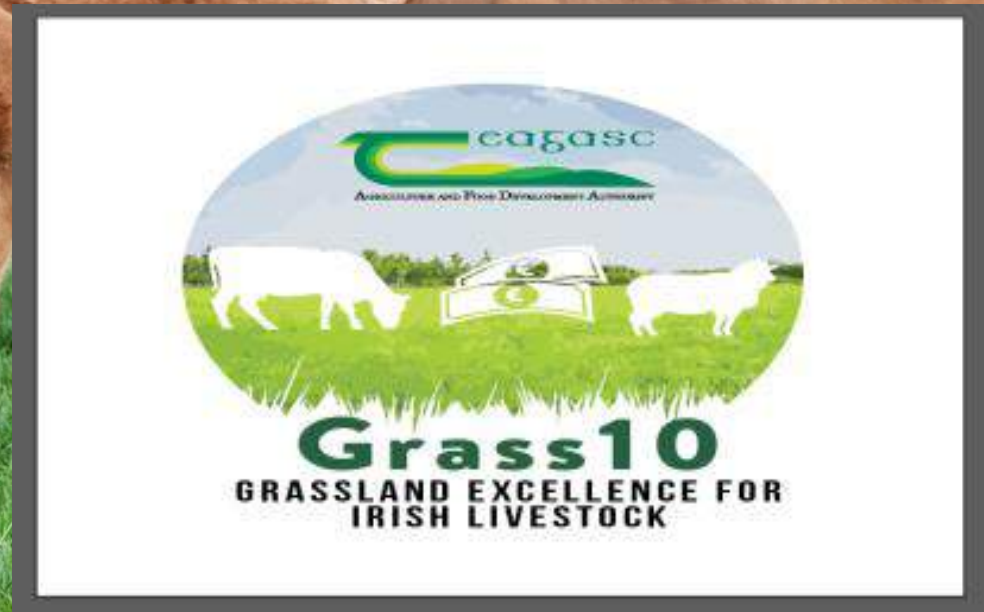
# Take home messages!

1. Soil sample farm regularly – more importantly act on results
  - Soil pH 6.3, Index 3 and 4 for P and K
2. Grazing infrastructure essential – every extra paddock increases grass growth and number of grazings achieved
3. Bigger focus needed on getting high quality grass for animals
  - Improved grassland management

**Better grass = increased profit €€€€€**



# 2017 “Year of Sustainable Grassland”



## Questions ?