Importance of Soil Fertility to Grow 16t Grass DM/ha

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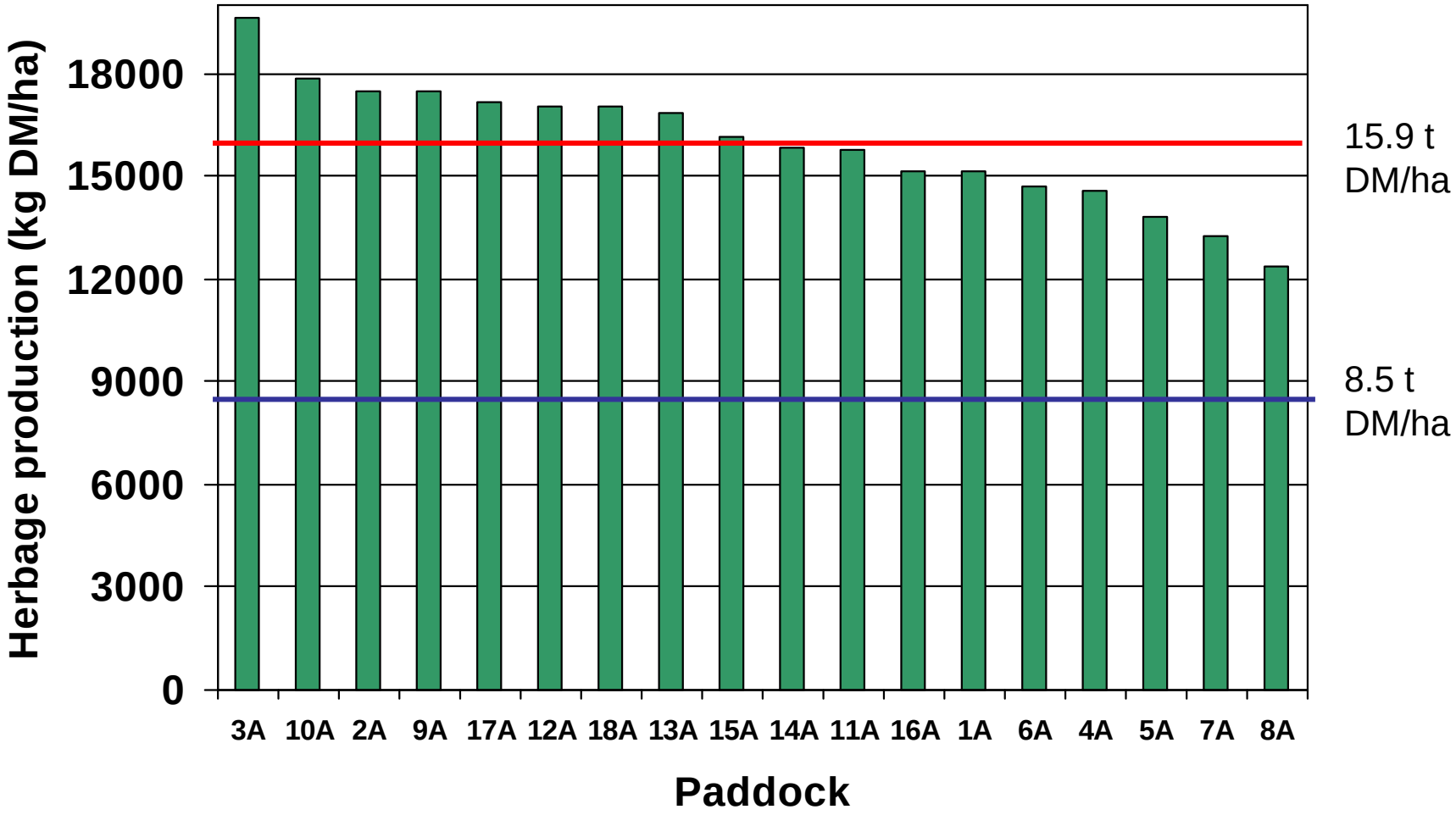
Introduction

- Grass growth is a key driver of profitability
- NFS average growth in 2011 was 8.5 t DM/ha, 15.9 t DM/ha in Curtins

Curtins Grass Growth 2011



Introduction

- Grass growth is a key driver of profitability
- NFS average growth in 2011 was 8.5 t DM/ha, 15.9 t DM/ha in Curtins
- Nitrogen
- Phosphorus
- Potassium
- Sulphur
- Soil pH
- Reseeding Policy

Nitrogen (N)

- Nutrient with the greatest impact on grass growth
- Use of N in slurry is critical – only spread in spring
- ↓ N rate on paddocks receiving soiled water
- Blanket spread N in autumn

Fertiliser & Slurry Plan for Curtins Farm

Period	Type	Quantity	Area Covered	Description
Late January	Urea	29 kg N/ha	66%	All paddocks not getting slurry
Late January	Slurry	2500 gls/acre	33%	All grass covers <600kgDM/ha
Late February	Urea	50 kg N/ha	90-100%	Most Paddocks
Up to 1st March	Slurry	2500 gls/acre	30%	Paddocks already grazed
2nd Rotation				Applied after grazing
May - July	SulCAN	25 kg N/ha	100%	Applied after grazing/silage
July	CAN	30 kg N/ha	100%	Blanket spread on grazing area
August	CAN	30 kg N/ha	100%	Blanket spread on grazing area
September	CAN	30 kg N/ha	100%	Blanket spread on grazing area

100 units/acre N by 1st April

Phosphorus (P)

- Dependent on soil sample results
- Awaiting 2012 results but do not foresee a major drop in P
- Slurry is a major contributor
- No heavy cuts of silage – have adopted a little and often approach
- Is there scope for more P in systems like ours with high P offtake?

Potassium (K)

- Dependent on soil sample results
- Awaiting 2012 results but do not foresee a major drop in K
- Only very small quantities being spread at present
- Exploring the idea of increasing K application rates.

Sulphur (S)

- Integral part of Nutrient Management Plan
- Applied every year
- One application of ASN in April (17.5kg S/ha)
- Four applications of SulCAN from May to July (4*4.7kg S/ha)
- Slightly above recommended levels but farm is free draining and silage is spread over whole farm

Lime & Soil pH

- Average soil pH in 2010 was 6.45
- However, lime is applied annually when reseeding (3t/acre)
- Correct pH status is very important and we try to ensure that all areas of the farm are at optimum pH

Reseeding Policy

- Groundwater wells situated close to ploughed fields have elevated levels of N for 1 – 2 years post ploughing
- This is due to increased leaching and mineralisation of nutrients
- All reseeding is carried out using minimum tillage technique