

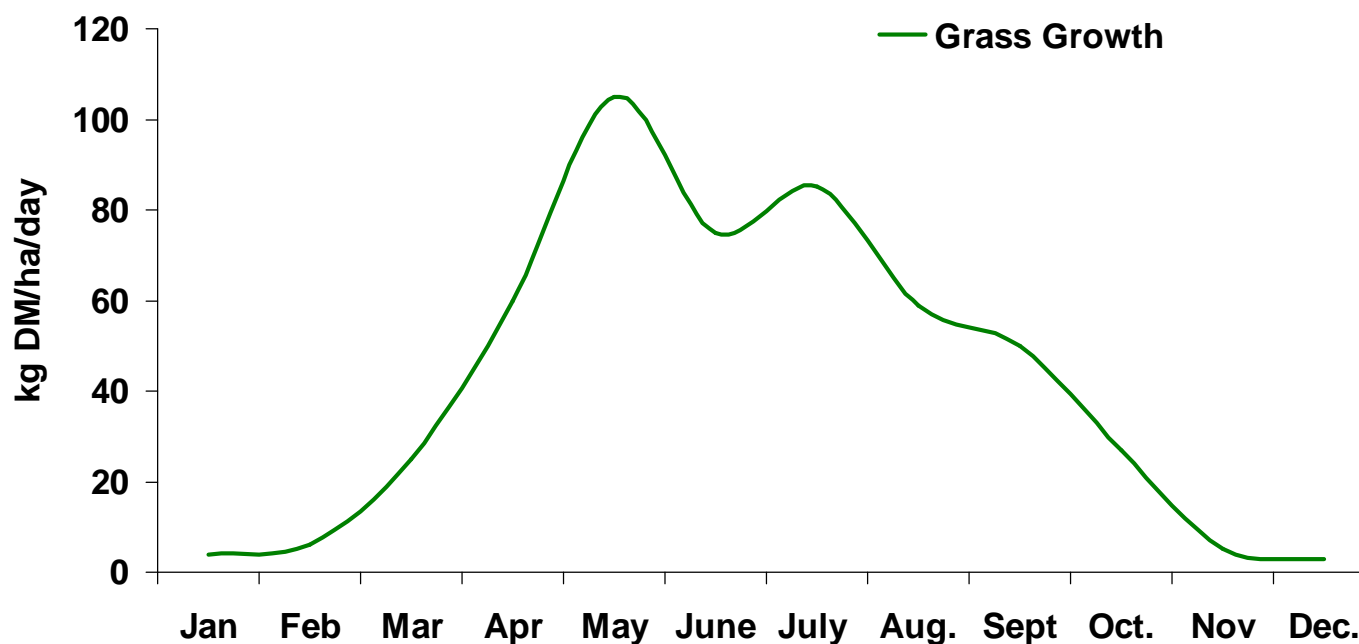
Guidelines and tools to get the most from grazing in Ireland

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Grass growth in Ireland

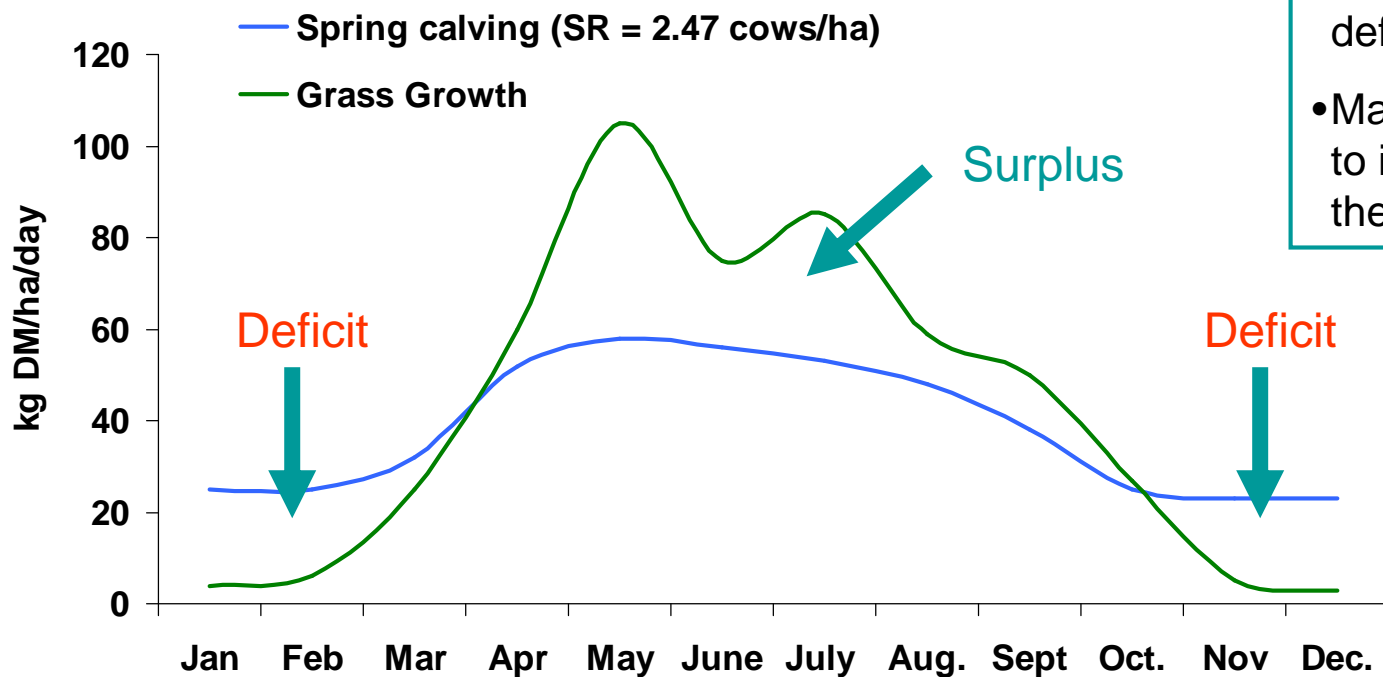
- Ireland has a temperate climate with a long grass growing season



Grass supply and feed demand

- Ireland has a temperate climate with a long grass growing season
- Milk (and meat) production systems in Ireland are predominantly grass based
- Long grazing season
 - February to November

- Grass supply and herd feed demand are not synchronised
- Periods of surplus and deficit
- Management tools help to identify and deal with these issues



Importance of grassland management

Grassland management is critical to

- Ensure adequate grass supply
- Good quality feed
- Spring and autumn grass availability



Weekly grass measurement

- Provides valuable information on how much grass is available for grazing
- Identifies surpluses and deficits
- Methods

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- Methods
 - Plate meter – height
 - Cut and weigh
 - ‘eye ball’



Tools

Three main tools are available to assist grassland farmers manage grass supply on farm

1. Spring rotation planner
2. Grass wedge
3. Autumn budget with the 60:40 rule

Note

All our target covers/pre-grazing herbage masses are above 4 cm.

Post grazing sward height targets are post grazing sward heights measured from ground level with the rising platometer



Grassland management

The grass growing season actually begins in autumn.....whatever you do in autumn has a big influence on grass production in the following spring and early summer!!

Autumn Grassland Management

Autumn grassland management (1)

- Two main objectives of autumn grassland management
 1. Maximise the proportion of grazed grass in the diet of the lactating cow
 2. Finish the grazing season with the desired farm cover
- Begin to extend rotation length in August
 - All ground available for grazing
 - No ground closed for silage
- Extend rotation length to greater than 30 days by mid-September
 - Highest farm cover in mid-September (1100 kg DM/ha)

Autumn grassland management (2)

- Maintain pre-grazing herbage mass below 2,500 kg DM/cow
- Follow the **60:40 rule**

Week end date	% of farm grazed and closed
10 October	Start closing the farm in rotation
7 November	60% grazed and closed
1 December	100% closed; livestock housed

Autumn grassland management (3)

- Close paddocks in the order in which you plan to graze them in spring, e.g. driest paddocks first, paddocks near the yard first
- Be flexible, if the weather turns wet you may need to graze some lighter covers
- All paddocks should be tightly grazed in the final rotation (3.5 to 4 cm) to encourage tillering over winter
- Each day delay in closing after 10th October will reduce spring grass supply by approximately 15 kg DM/ha

Spring Grassland Management

Spring grassland management (1)

- The best way to manage grass in spring is to graze a set area each day
- The **Spring Rotation Planner** is a tool which will assist with this
- The planner incorporates turnout date, weekly calving pattern, grazing area and target finish date of the first rotation



Spring grassland management (2)

- If the Spring Rotation Planner is to be successful the following must apply:
 - Stick to the daily allocated area, do not graze more or less
 - Graze to 3.5 cm to ensure quality grass in next rotation
 - If post grazing sward height is greater than 3.5 cm feed supply is too high and concentrates should be reduced
 - If post grazing sward height is less than 3.5 cm there is a feed deficit, i.e. grass is in short supply, and cows should be supplemented

Spring grassland management (3)

- Spring grazing area allocation

Week end date	% of farm grazed at week end
1 February	Start grazing
1 March	30% grazed
17 March	60% grazed
7 April	Start 2 nd rotation

- Need to measure farm cover

- Know what feed is available
- Supplement if necessary

Spring grassland management (4)

Spring rotation planner available at

<http://www.agresearch.teagasc.ie/moorepark/Articles/springrotationcalculator.xls>

Microsoft Excel - Copy of springrotationcalculator

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Type a question for help

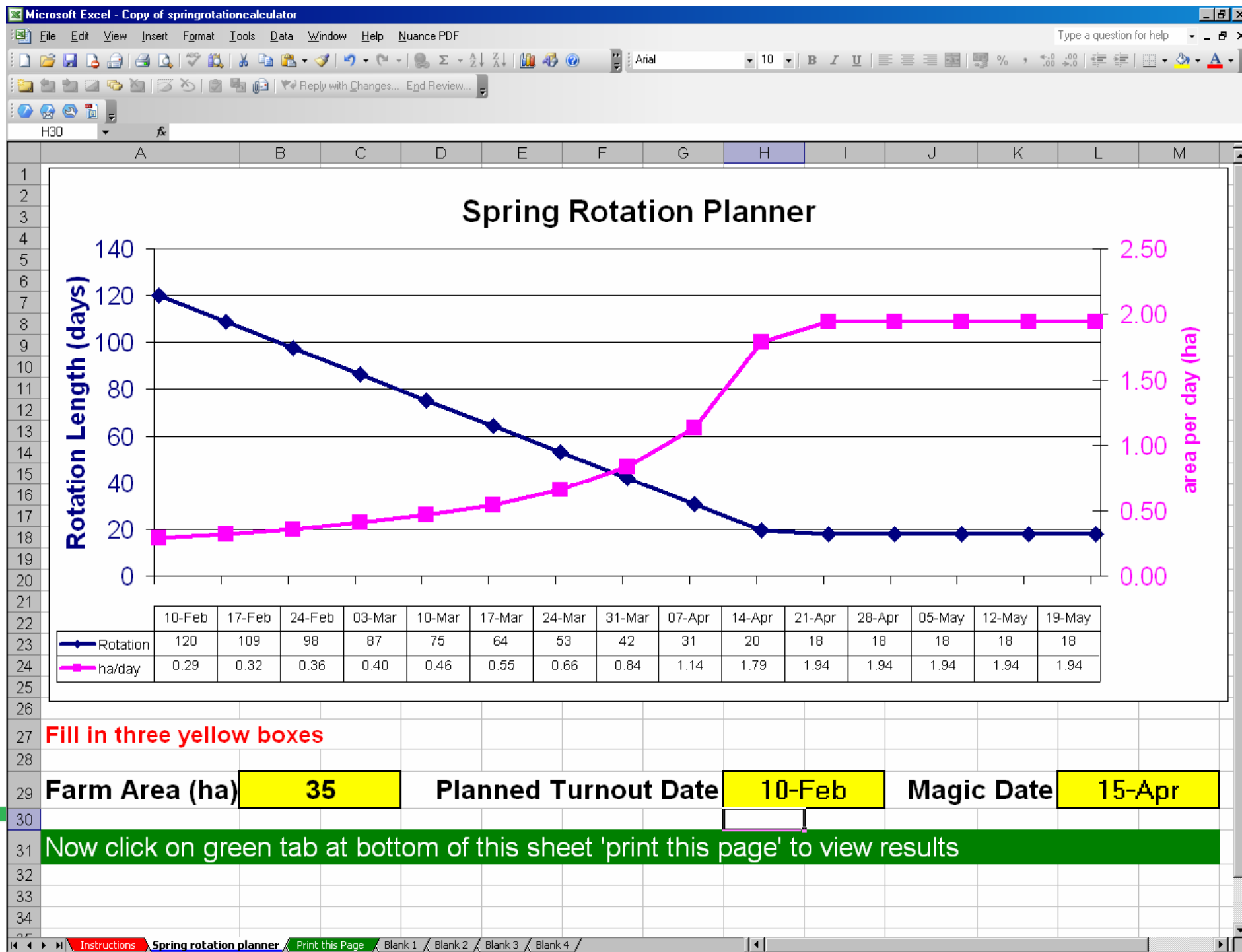
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Reply with Changes... End Review...

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	A	B	C	D	E	F	G
1	Instructions						
2							
3							
4	Click on blue tab at bottom of this sheet 'spring rotation planner' and then fill in the yellow box						
5							
6							
7	Then click on green tab at bottom of this sheet 'print this page' to view results						
8							
9	Example (for 35ha farm)						
10							
11	Date	ha/day	Total area grazed	% of farm grazed			
12	10-Feb	0.29	2.04	5.83			
13	17-Feb	0.32	4.29	12.26			
14							
15							
16	This means that if your farm is 35ha, from the week starting the 10th Feb you should offer the cows 0.29ha/day for the next 7 days.						
17	From the week starting 17th Feb cows should be offered 0.32ha/day for the next 7 days and so on						
18							
19	The red column shows you the total area of the farm grazed by the end of the week						
20	(i.e. if you start on the 10th Feb, by the 16th of Feb 2.04ha will be grazed)						
21							
22	The green column shows what percentage of the farm is grazed by the end of each week						
23	(once this exceeds 100% the first rotation is over and you should move to an 18 day round)						
24							
25							
26							
27							
28							

Instructions Spring rotation planner Print this Page Blank 1 Blank 2 Blank 3 Blank 4



Microsoft Excel - Copy of springrotationcalculator

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Type a question for help

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Reply with Changes... End Review...

E17

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O			
1	Spring Rotation Planner																	
2																		
3																		
4																		
5																		
6																		
7		Farm Size (ha)	35															
8																		
9		Turnout Date	10-Feb															
10																		
11		Magic Day	15-Apr															
12																		
13																		
14																		
15																		
16	Week start	ha/day	Total area grazed	% of farm grazed														
17	date	(to be offered for next 7 days)	by end of week	by end of week														
18																		
19	10-Feb	0.29	2.04	5.83														
20	17-Feb	0.32	4.29	12.26														
21	24-Feb	0.36	6.80	19.43														
22	03-Mar	0.40	9.63	27.52														
23	10-Mar	0.46	12.88	36.81														
24	17-Mar	0.55	16.70	47.71														
25	24-Mar	0.66	21.31	60.90														
26	31-Mar	0.84	27.16	77.60														
27	07-Apr	1.14	35.13	100.37														
28																		
29	Once % grazed exceeds 100% the first rotation is over and you should move to an 18 day round																	
30																		
31	Magic Day = Date when farm is growing more grass than required																	
32																		
33	Tillage Management Data Production Paragraph Content Spring 2000																	

Instructions Spring rotation planner Print this Page Blank 1 Blank 2 Blank 3 Blank 4

Main Grazing Season Management

Main grazing season management (1)

- April to mid-August
- Target pre-grazing herbage mass 1400 – 1600 kg DM/ha
- Post grazing sward height 4 cm
- Approx. 21 day rotation
- Weekly farm cover to base decisions on



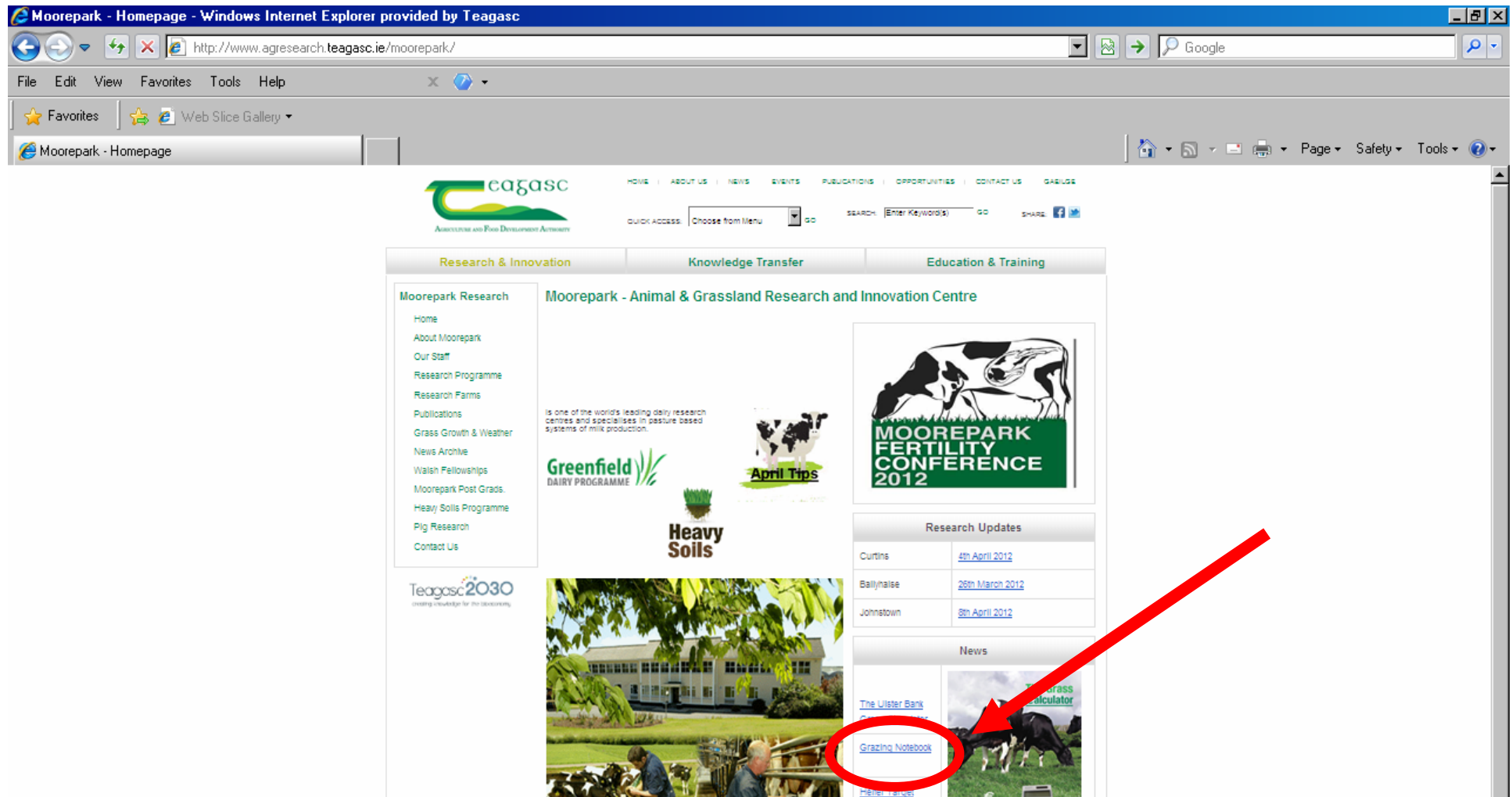
Main grazing season management (2)

- Main management tool is the **Grass Wedge**
 - Walk farm weekly and record farm cover details
 - Use wedge to interpret data
 - Create a profile of the amount of grass available in each paddock from highest to lowest
 - Target line superimposed from target pre-grazing herbage mass to target post grazing herbage mass
 - Target line depicts the herbage mass required in each paddock to meet demand on the day the wedge is created

Main grazing season management (3)

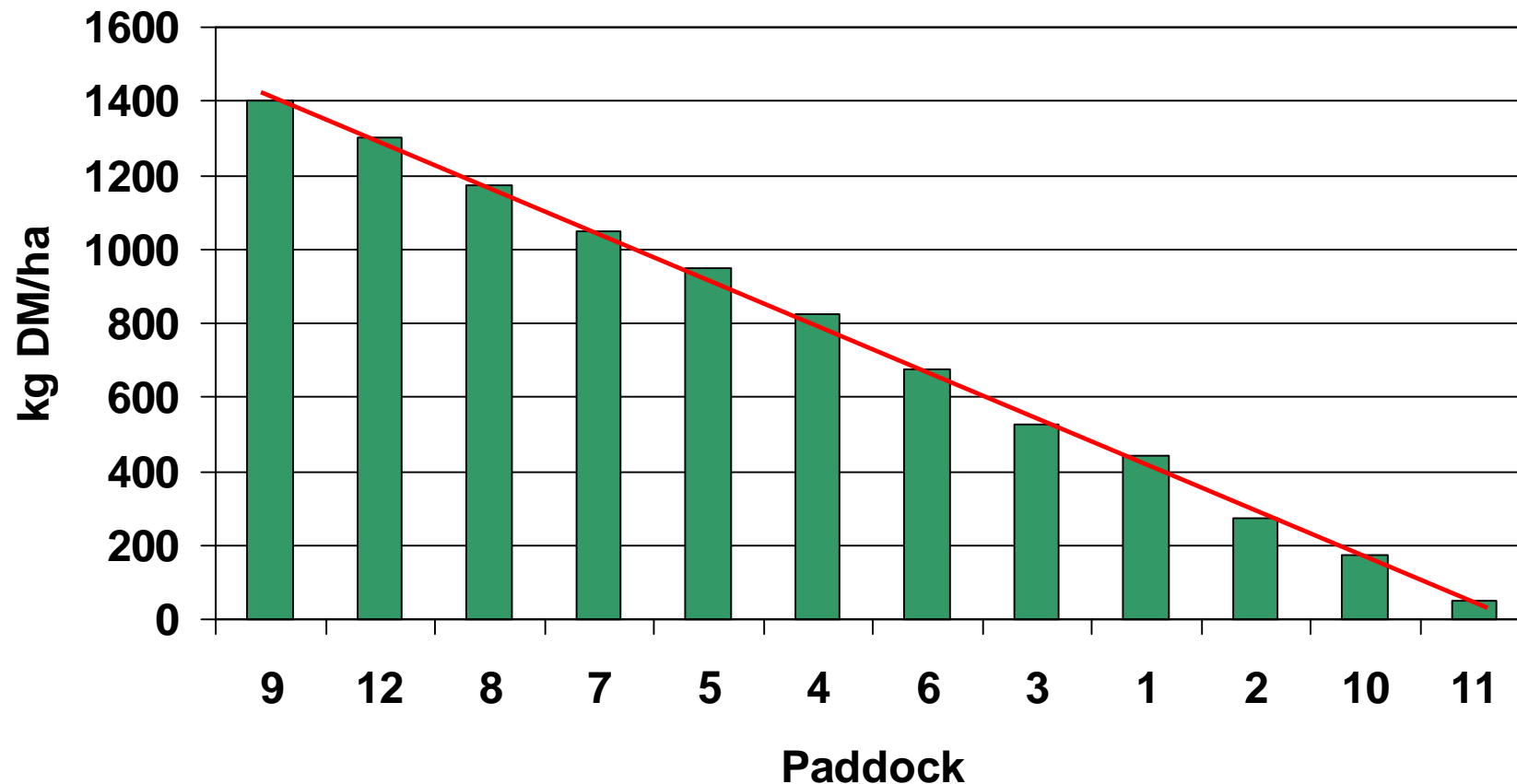
Grazing note book available on

www.agresearch.teagasc.ie/moorepark



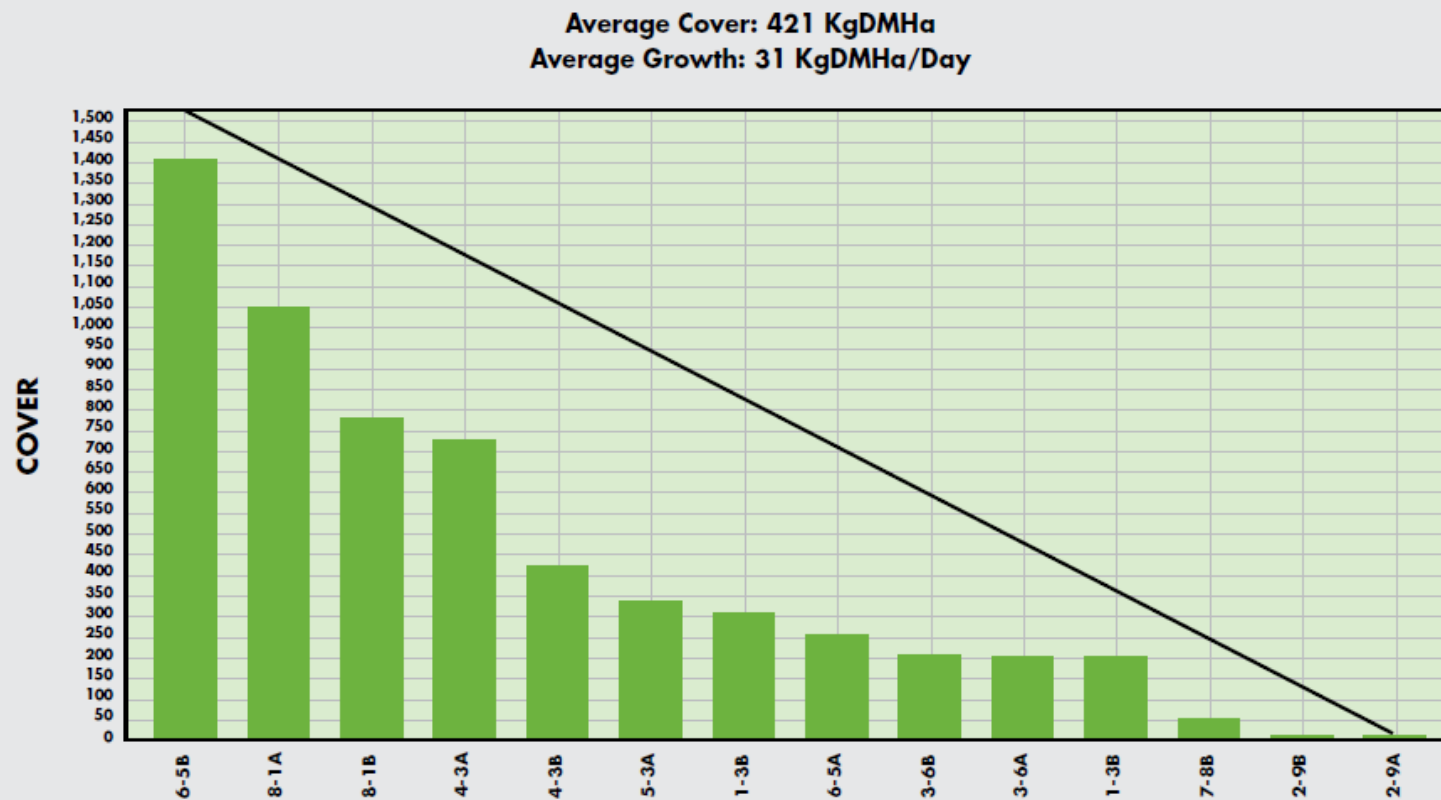
Main grazing season management (4)

An 'ideal' wedge

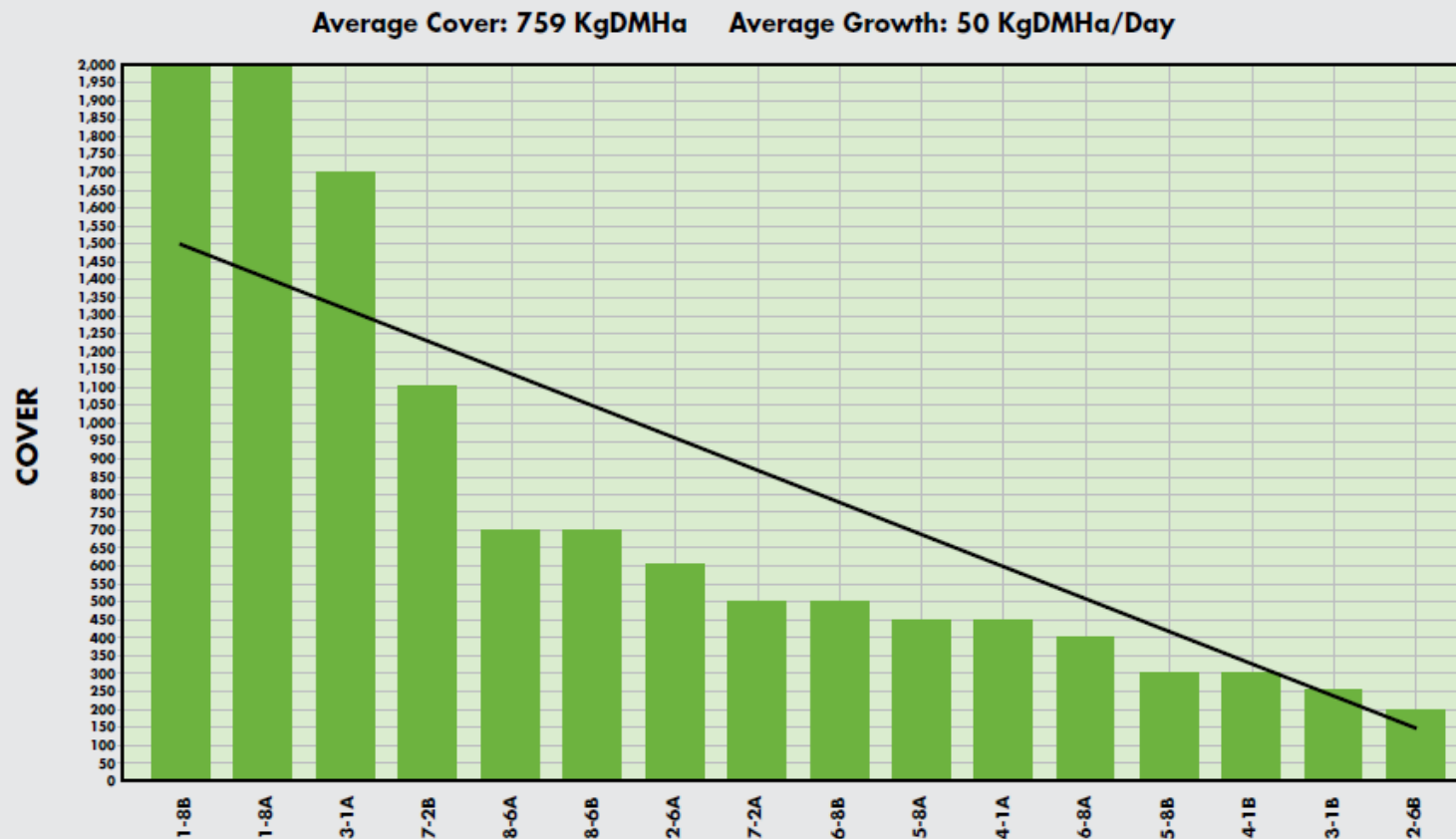


Deficit wedges





It is clear from this graph above that there is a serious deficit of grass on the farm. Extreme action needs to be taken to address the problem.



It can be difficult to make decisions when faced with the graph above. In this situation the next three paddocks to be grazed have a pre-grazing yield higher than the target (i.e., there is surplus grass) however, there is a deficit on the way. Again, quick decisions to remove surpluses should not be made.

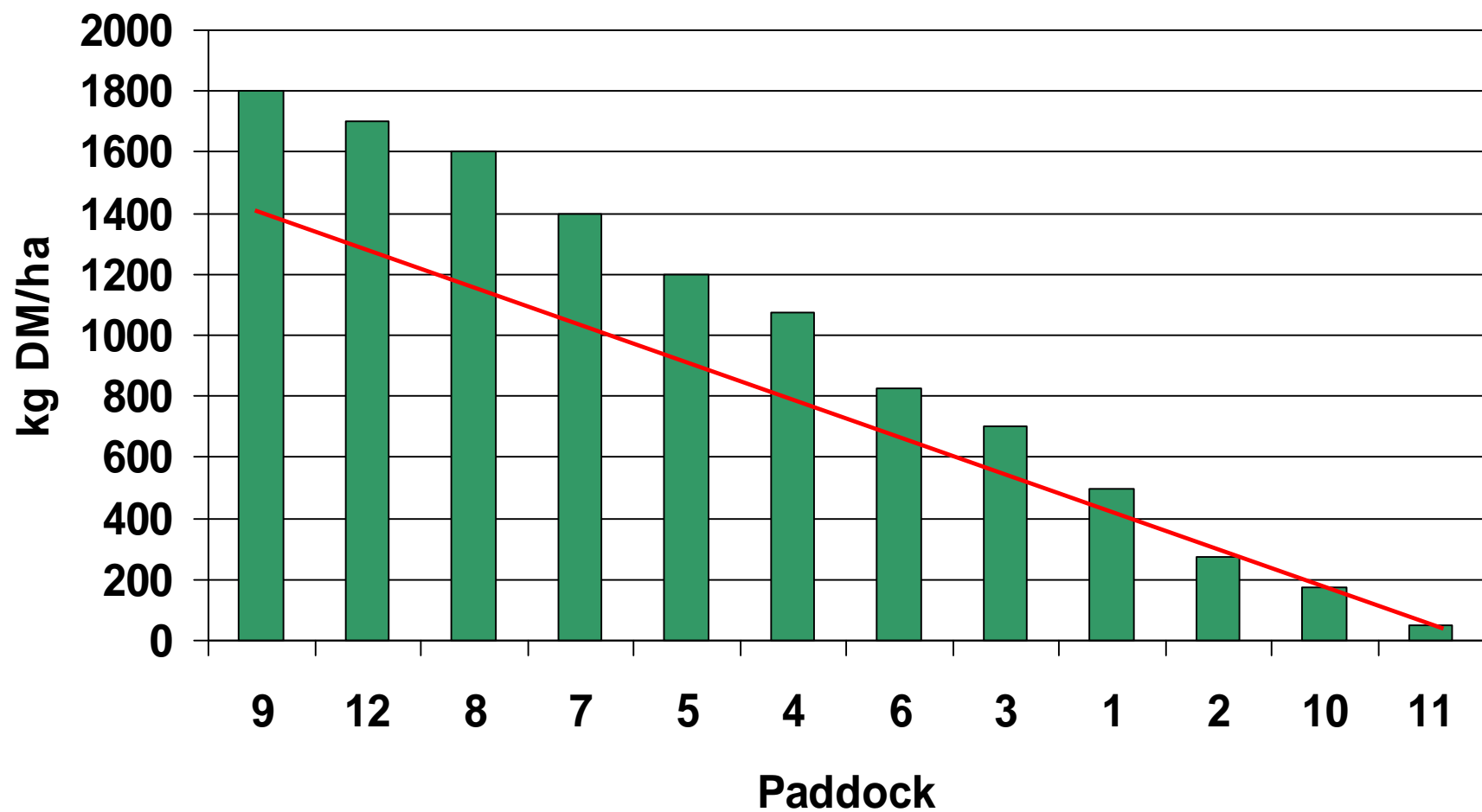
Dealing with a deficit

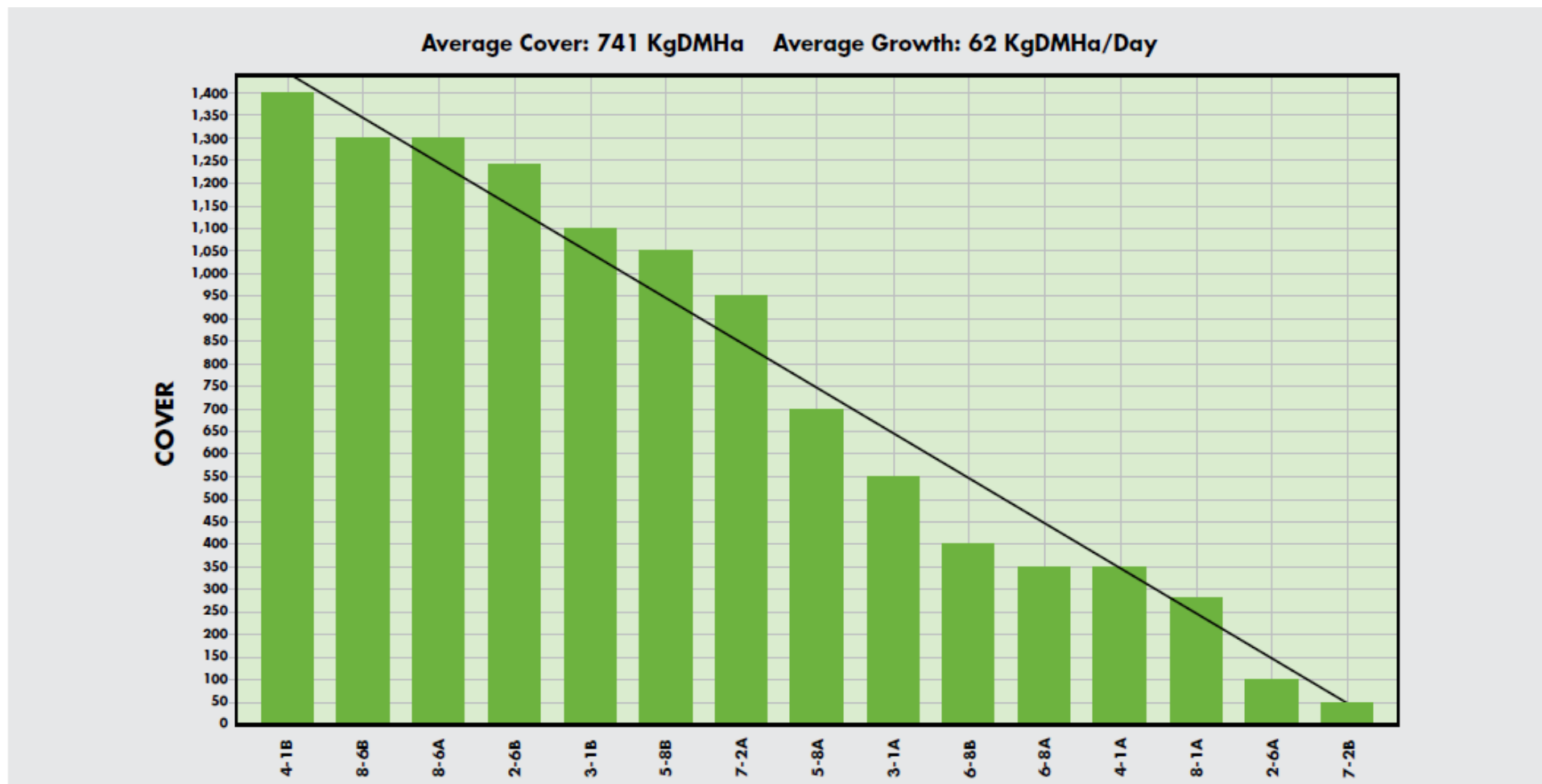
- Supplement with concentrate or good quality grass silage
- Increase grazing area if possible, i.e. bring in land used for heifers/beef animals if it is available



Surplus







This graph shows a situation where the paddocks due to be grazed next are not at target pre-grazing yield. However, there is sufficient grass on the rest of the farm. No action needs to be taken in this situation.

Dealing with a surplus

- Identify surplus as soon as possible
- Remove surplus grass as baled silage immediately so that the paddock remains in the rotation or harvest with main cut silage
- Exercise some caution so that you do not create a deficit in the next rotation



On off grazing

- Use during periods of wet weather and/or poor soil conditions
- Allows grass to constitute most of the cows diet without full time grazing
- Turn cows out for 3 hours after morning and evening milking
 - Remove from paddock as soon as cows stop grazing
- Strip graze and back fence
- Cows can achieve 90% of the DM intake cows full time grazing; no significant effect on milk yield
- Alternative – graze by day and house at night with restricted access to silage



Summary

- Grass measuring is crucial
- Three main tools
 - spring rotation planner
 - grass wedge
 - autumn budget and 60:40 rule
- Other tools
 - on off grazing
 - grass calculator
 - strip grazing, back fencing, rotational grazing
- All tools can be adapted for use in different parts of Europe once knowledge of grass growth/supply and demand is known





Thank you
Questions?