

Spring Grassland Management

Edition 4

Spring Management Series 2021



Second Rotation Insight

With grazing conditions becoming increasingly difficult towards the end of March, huge efforts have been made on farms to sustain grazed grass as the majority of the diet. Where grass supply was inadequate to start the second rotation, some farms used this spell of unfavourable grazing conditions to their advantage by housing cows by night, therefore reducing grass demand. A wide variation in regrowths on the first paddocks grazed prescribes an in-depth look at soil fertility and reseeding practices on farms to identify possible reasons for growth reductions.



DON'T FORGET

The principles of spring grazing;

1. Feed the cow correctly.
2. Limit poaching.
3. Hit residuals (4cm).

The Final Sprint

The target of 66% of the platform grazed by 20th March (or 7-10 days later on heavier soils) has been achieved on most farms. Efforts must be made to make up for grazings missed during the unfavourable conditions. This will ensure a timely start to the second rotation.

On/Off grazing, spur roadways, and correct allocations of grass are invaluable tools that can be utilised while grazing conditions are unfavourable.

- ▶ **On/Off grazing** - Standing cows off for an hour after milking often helps to increase appetite. Cows can consume 5-6kgDM in a single 3 - 4 hour grazing bout.
- ▶ **Spur Roadways** - These are used to gain access to paddocks with poor grazing infrastructure leading to them, or to extend existing roadways to the back of the paddocks.
- ▶ **Allocations** - Select the driest paddock left in the first rotation, with excellent grazing infrastructure and keep allocations as square as possible. Allocation depth should not be more than twice the allocation width.

Where a shortage of grass in the feed budget has manifested due to insufficient grass regrowths on the first paddocks grazed, grass demand must be reduced for a short period until grass covers allow for the finishing of the first to start off the second rotation.

When to start the second rotation?

Grass supply on the first paddocks grazed in early to mid-February will dictate the starting date of the second rotation on most farms. With grass covers reaching 1,300kg DM/Ha on the first paddock grazed, it is time to begin the second rotation. The start of the second rotation will coincide with magic day on the majority of farms which occurs between the 5-20th of April, depending on several factors listed below (see box).

While the second rotation will commence when the first paddock grazed has a grass cover of 1,300kg DM/Ha, this does not signify the end of the first rotation, as a blended grazing approach may be required. A mixture of first and second rotation paddocks may be grazed together for some time to allow other second rotation paddocks to become available for grazing at the correct grass covers.

WHAT IS MAGIC DAY?

Magic day is where grass growth surpasses grass demand per hectare on the farm.

What influences magic day on farm?

1. Platform Stocking Rates.
2. Concentrate supplementation level.
3. Location.
4. Land type (Free draining or heavy soils).

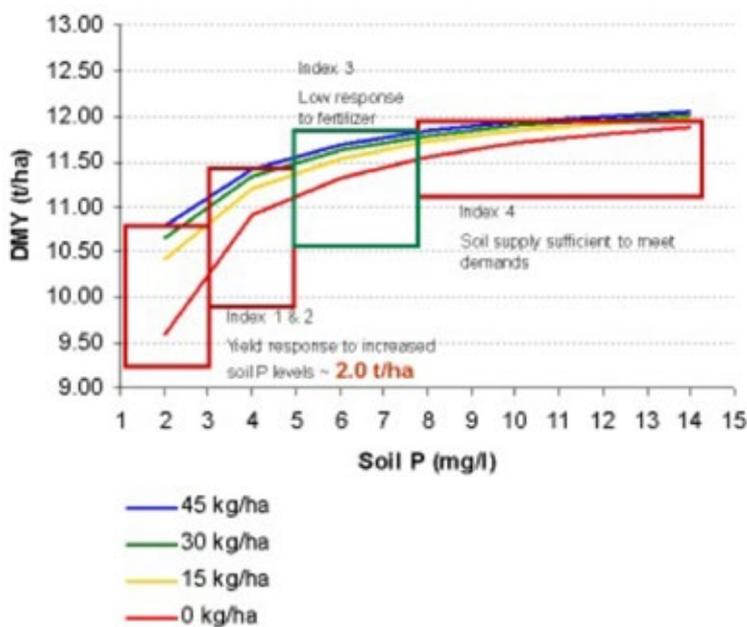
Options to reduce grass demand at herd level?

1. Feed the whole herd some silage every day but continue grazing twice daily.
2. Feed silage to the herd during unfavourable grazing conditions .e.g. house cows 2 to 3 wet nights during the week.
3. Where feed space is limiting, house and feed silage to 3 rows of cows per milking. These housed cows can be alternated at each milking.



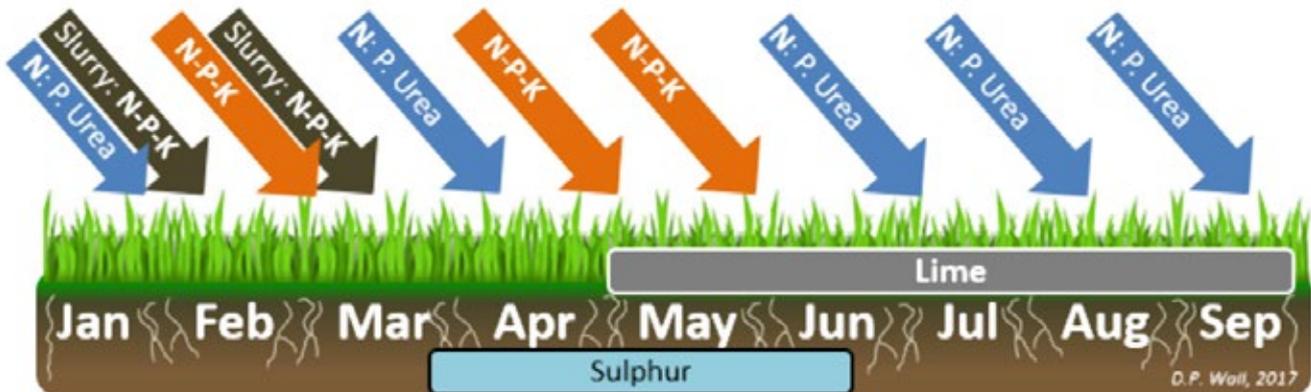
Soil Fertility

With varying levels of regrowths on the first paddocks grazed, underlying issues such as soil fertility and reseeding practices on the farm must be investigated to determine the variation in grass grown in the first rotation. Soil fertility is the kingpin of grass growth, as an increase in soil fertility from an index 1 soil to an index 3 (optimal) soil, while correcting the pH to between 6.3-6.5, could increase grass grown by 3,000kg DM/Ha/year. The increase in grass production can be accredited to an improvement from soil P index 1 to index 3, resulting in a 2,000kg DM/Ha increase, while an increase in soil pH to the targeted 6.3-6.5 will result in an additional 1,000kg DM/Ha of grass production.



The illustration above demonstrates the importance of targeting Phosphorus (P) and Potassium (K) fertilisers where they are required. When setting out the fertiliser plan for the year ahead, it is important to target your P&K fertilisers to index 1 and index 2 soils, as this is where the most significant growth response will be achieved.

Maintenance levels of P&K must be spread to maintain the soils at index 3. Where soils have returned an index 4 status for P&K, Potassium (K) should be omitted for 1 year, Phosphorus (P) should be omitted for 2 years and retested annually to manage the decline of the soil fertility to an optimal index 3 soil.



When building soil fertility, it is important to target soil pH first by applying lime to soils. Lime can be applied any time of the year from May onwards. When building P indexes in soils, target to apply build-up rates of P fertiliser in April – July, and for K build up fertilisers should be targeted from August onwards.

Always adhere to the recommendations set out by the nitrates directive in relation to fertiliser applications.



Reseeding Practice

Older grass swards have a reduced capacity to grow large volumes of grass and experience slower growth in the shoulders of the grazing season. Where soil fertility is optimum and reduced grass growth rates persist, reseeding will provide a sward capable of fully utilising the enhanced soil fertility.





Farmer Focus



Shaun Maguire
Tuberlion, Ballyconnell, Co.Cavan

Farm Profile

Farm Size: 80 Ha

Cow Nos.: 128 spring calving cows

Herd Performance: 527KgMS, from 900kgs concentrate

Milking Platform: 41.5 Ha

Milking Platform stocking rate: 3.1Lu/Ha

% Herd Calved: 93%

“Cows were grazed full-time by day and on/off by night to keep a grass and concentrate diet only throughout the wet spell in late March to early April. Ensuring herd performance was maintained, and the Spring Rotation Planner targets were met.”

Spring Rotation Planner

With only 10 cows remaining to calve in April, herd demand is increasing steadily as the herd's average days in milk increase. *“I'm on target to start my second rotation on the 4th of April, with 1100kg DM/Ha on my first paddocks grazed”*. The grass cover was completed on the 31st of March. *“When starting the second rotation, I will have between 3-4Ha left to graze in the first rotation, and I will use the remainder of the first rotation to transition cows slowly into the second rotation to help alleviate any issues caused by the differences in the dry matter content of the first and second rotation swards.”*



Week	Target HA Grazed/Day	Target HA Grazed By Weekend	Actual HA Grazed By Weekend	Target %	Actual %
03/02/2021-09/02/2021	0.37	2.62		6	
10/02/2021-16/02/2021	0.41	5.51	1.58	12	3
17/02/2021-23/02/2021	0.46	8.73	4.51	19	10
24/02/2021-02/03/2021	0.52	12.37	8.61	27	19
03/03/2021-09/03/2021	0.60	16.55	22.79	37	50
10/03/2021-16/03/2021	0.70	21.47	22.79	47	50
17/03/2021-23/03/2021	0.85	27.42	29.58	61	65
24/03/2021-30/03/2021	1.08	34.98	33.86	77	75
31/03/2021-06/04/2021	1.48	45.30		100	



Farmer Focus (Continued)

Replacement Heifers

"Replacements began grazing mid-March, with the on-target heifers turned out first, followed a week later by the heifers that were above target weight".

"Heifers are well above target weights as a group, average 340kg before turnout". They have received no concentrate since June 2020, as they have been above target weights and have been grazing freshly reseeded swards constantly."

Spring Review

"Overall, I feel the spring has gone to plan; while I am disappointed with my 6-week calving rate, it allowed me to stay at grass with a lower opening AFC. I have only missed 8-10 grazings since I started grazing in early February, and the second rotation is ready to commence in the next couple of days."

Targets for the future;

- ▶ Increase the herd's fertility performance - *"I feel there is more production to be gained from the herd by increasing my 6-week calving rate to 90%. I will focus heavily on pre-breeding management and on presenting problem cows to the vet early to ensure I hit a 90% 3-week submission rate".*



- ▶ *"I would improve my final rotation management this year (last grazing in Autumn) to ensure my opening farm cover is above 1100kg DM/Ha to keep up with the herd's increasing grass demand, especially if I increase my 6-week calving rate".*
- ▶ *"I have noted on my farm's whiteboard map, paddocks that were difficult to access this spring and plan to address this in early summer with extra spur roads".*



Joint Development Programme

Lakeland Dairies/Teagasc Joint Development Programme has produced this Spring Management Series. Our advisors are currently available by phone to discuss all farm related matters.

- ▶ Colin Anderson 087 7467424
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- ▶ Adrian McKeague 087 4138584