Grow more, graze more, earn more

Increasing the level of grass eaten/ha by 1t DM on Irish farms would benefit livestock farmers by over €500m. Therefore, pursuing a more comprehensive and focused campaign on improving the level of grass grown and utilised at farm level would have a substantial economic impact. That is Grass10!

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Teagasc Animal and Grassland Research & Innovation Programme
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Grazed grass is the cheapest and most widespread feed available for animal production systems in Ireland. Grass enables low-cost animal production and promotes a sustainable, green and high-quality image of milk and meat production across the world.

Recent industry reports (FoodHarvest 2020 and FoodWise 2025) have highlighted the important role grass can play in an expanding milk and meat production industry. Through a combination of climate and soil type, Ireland possesses the ability to grow large quantities of high-quality grass and convert it through the grazing animals into high-quality grass-based milk and meat products.

Environmental sustainability (carbon footprint, nutrient use efficiency) is also improved by increased grass utilisation.

Earn more

Our competitive advantage in milk and meat production can be explained by the relative cost of grass, silage and concentrate feeds. Grazed grass is about five times cheaper than meal and three times cheaper than grass silage as a feed.

Therefore, increased focus on grass production and efficient utilisation of that grass should be the main driver for improving efficiency and expansion of the livestock sector.

An analysis of farms completing both grassland measurement and financial farm analysis demonstrated extra profit of €181/ha for every 1t DM/ha increase in grass utilised on dairy farms and an extra €105/ha per tonne increase on drystock farms.

How are we doing?

Based on National Farm Survey data, we estimate that about 5.5t of grass DM/ha/year is eaten nationally on drystock farms; 8.8t on dairy farms.

However, results from the best commercial grassland farms show that the level of grass utilised can be increased significantly on all livestock farms. Greater than 10t DM/ha utilised – ie 14t DM/ha grown and 75% utilisation – is realistic.

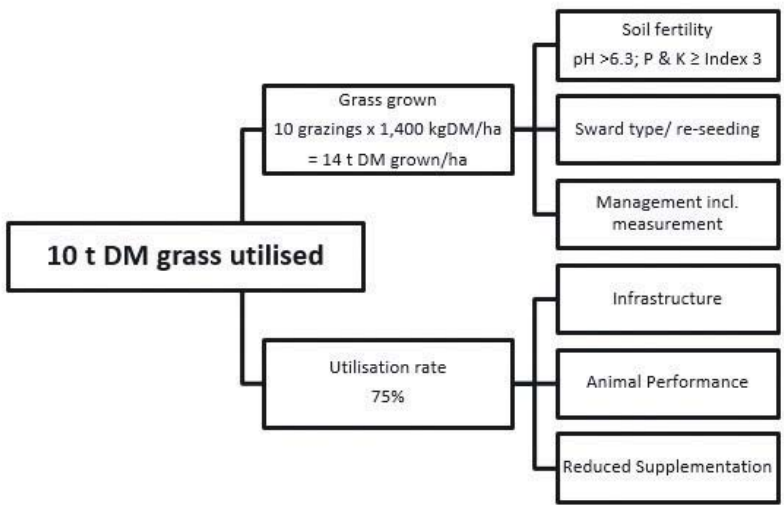
So there are major improvements possible in grass production and utilisation. While every farm situation is different due to varying soil types, local climatic conditions, stocking rates and farmer management capabilities, many Irish farms are only producing 50% of their grass growth capability and, therefore, grass production is limiting output on most farms.

Increases in animal output production must come from utilising more grass and not from importing supplementary feed.

Grass10 campaign

Grass10 is a new a four-year campaign recently launched by Teagasc to promote sustainable grassland excellence.

The Grass10 campaign will play an important part in increasing grass growth and utilisation on Irish grassland farms, thereby improving profitability and helping to ensure the long-term sustainability of Irish



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dairy, beef and sheep production.

The objective of the campaign is to achieve 10 grazings/paddock/year, utilising 10t grass DM/ha. In order to achieve this objective, we will need to achieve significant changes in on-farm practices, specifically:

- More grass measurement and use of PastureBase Ireland.
- Enhanced grassland management skills.
- Better soil fertility management.
- Upgraded grazing infrastructure.
- Improved sward composition.

Number of grazings/paddock

There is a strong relationship between the number of paddocks per farm and the total number of grazings achieved per farm. PastureBase Ireland (PBI) data has identified that creating one new paddock on a farm will give five extra grazings from the farm annually.

The creation of additional paddocks makes management of pasture more streamlined and leads to better control of grass, especially during periods of high growth.

A key finding from the grazing performance of dairy and drystock farms recording on PBI showed the greater the number of grazings achieved, the higher the level of grass DM production produced.

Every extra grazing achieved increased annual grass DM production by 1.5t DM/ha.

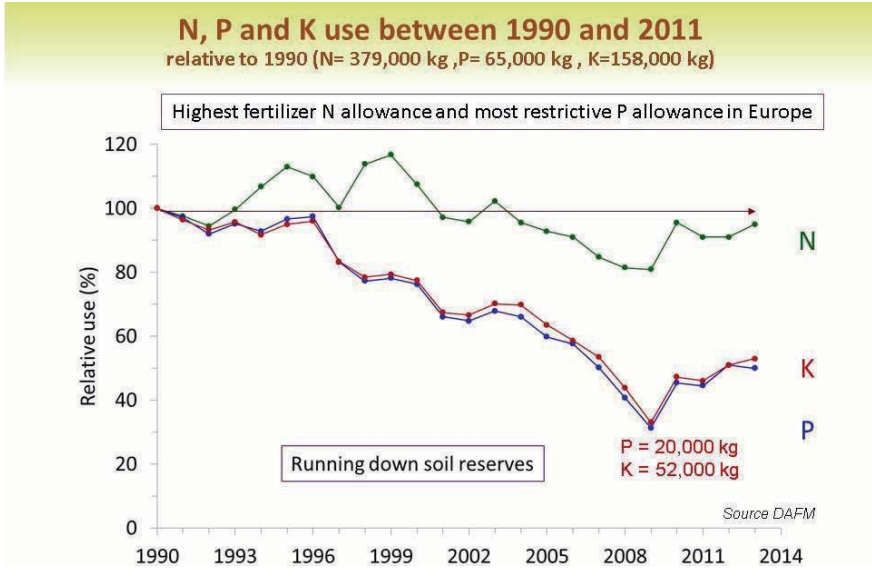
Taking a more in-depth look at why some farms are able to produce high quantities of grass, it is clear that achieving more grazings from each paddock during the season is a key driver of success.

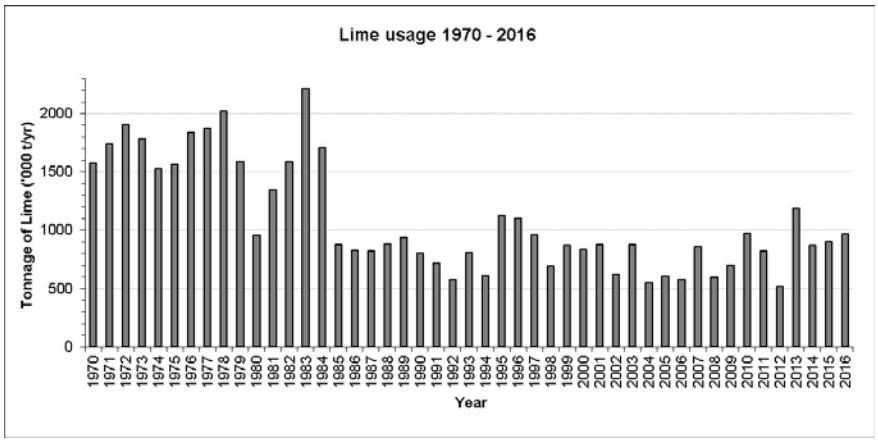
The average number of grazings achieved per paddock/year on dairy farms is over seven and on drystock farms it's around five. Maximising the number of grazings achieved on each paddock is a very effective way of increasing farm grass utilisation. Paddock residency should be no longer than three or four days on drystock farms during the mid-season. So, grow the grass in three weeks and graze it in three days.

Grazing infrastructure

Effective grazing infrastructure is central to optimising grazing management and animal performance at grass. Implementing a rotational grazing system is essential to ensuring the availability of leafy high digestibility grass.

Rotational grazing needs to be in the form of a paddock system, with fixed or flexible paddock sizes. A good farm roadway and water supply allows great flexibility in grazing management. In times of difficult grazing conditions, a good grazing infrastructure in place on the farm is essential.





Unfortunately, grazing infrastructure is often not adequate or requires re-investment on both drystock and dairy farms. This is particularly true on the extremities of grazing platforms. Yet these parts of the farms are often grazed at the very start and very end of the grazing season when grazing conditions are often at their most challenging.

Soil fertility management

Good productive soils are key to growing sufficient high-quality grass to feed the herd. A recent review of soils tested at Teagasc indicates that the majority of soils in Ireland are well below the target levels for pH (i.e. 6.3) or P and K (i.e. Index 3) and will respond very well to applications of lime, P and K. On many farms, sub-optimal soil fertility is reducing potential output and income.

Lime, P and K fertiliser usage has dropped by over 50% over the last 25 years (see Figure 1 and Figure 2). It comes as no surprise that most of our soils are now deficient in lime, P and K.

The soil P, K and lime status continues to deteriorate, yet we are trying to grow more grass to produce extra milk and meat and carry more animals. The net result will be increased use of imported or higher-cost feeds, such as concentrates or silage.

The level of lime usage must at least double to return the soil to its correct pH. Doing that will:

- Increase soil P and K availability.
- Increase nitrogen fertiliser efficiency.