

BEEF

May 2022

Growing more with less

Edited by
Pearse Kelly,
Head of Drystock
Knowledge Transfer

With the huge rise in fertiliser prices this spring it is no wonder a lot of drystock farmers are planning on spreading less per hectare on their grazing ground in 2022. Less fertiliser will however mean less grass being grown unless something else changes on the farm. For some, this will mean carrying less stock over the summer, growing less silage, and having fewer cattle over the coming winter. For others, the plan is to grow more grass for every kg of fertiliser they spread. This might be easier said than done but for many beef farmers around the country, the potential to increase grass production can come from protecting the regrowths in the fields they are grazing.

When a grass plant is grazed, it will use the energy reserves it has to push out a new leaf to start soaking up the rays from the sun and use that energy to start growing again. Typically, we see these new shoots approximately three days after



By protecting regrowths beef farmers can grow more grass for each kg of fertiliser they spread.

the plant is grazed. If cattle are still grazing the sward these new leaves will be grazed very quickly. The grass plant will not have rebuilt its energy reserves to push out another new shoot again in three days, but instead it could be 11 days before

it appears. This is why it is important to not leave cattle grazing the same sward for more than three days, as it significantly reduces the amount of grass that sward will grow for the same level of inputs. Putting a permanent paddock system in place has big advantages, but even using a small number of geared reels and electric fencing pigtales to divide up large fields will go a long way on many farms to grow more grass for the same amount of fertiliser. Reducing the number of grazing groups on the farm is also a big help. This might mean

combining two groups of stock, so that the ratio of grazing divisions to grazing groups increases. An example would be where a farm with 10 large fields and three grazing groups combines two of the groups and divides each of the fields in two with temporary fences. That farm goes from a ratio of 3.3:1 grazing divisions per grazing group to 10:1 grazing divisions per grazing group, with very little extra work involved. Now instead of spending seven to 10 days grazing a field, this farm will be off a sward after two to three days.

Lime – a good investment

Research shows that liming acidic soils increases grass production by 1.0 tonne of dry matter (DM) per hectare. On a drystock farm, this extra tonne of grass DM is valued at over €100. An application of five tonnes per ha of ground limestone to correct soil pH represents a cost of €25/ha/year over five years. Every €100 spent on

lime is giving you back at least €400 worth of grass. If you have acidic soils and you don't spread lime on them, you will not be getting a return from a significant amount of the fertiliser that you do spread on these fields. Spreading expensive fertiliser on acidic soils is a bad investment.

Changing from CAN to protected urea

In a recent Teagasc online survey of almost 1,000 drystock farmers, one of the questions that was asked was the type of fertiliser that was being purchased this year. A relatively small proportion of farmers said they were buying protected urea. There are probably many different reasons for this, but if beef farmers are looking to save money this year on their fertiliser bill, switching from CAN to protected urea will give them one of the biggest savings. Per unit of nitrogen (N), if a tonne of CAN costs €750, one unit of N costs €1.39. If a tonne of protected urea (46%) costs €1,000, one unit of N

costs €1.08 – so on these prices, protected urea is 22% cheaper per unit of N than CAN. Add to this that research in Johnstown Castle has shown that over a seven-year project protected urea will also grow 12% more grass (when the same rate of N is spread per acre). Remember, you can spread protected urea throughout the summer, similar to CAN-based products. The win from an environmental point of view is that protected urea results in 71% less nitrous oxide emissions than CAN. Nitrous oxide is a major greenhouse gas that we need to reduce emissions of.

Making quality silage

It is difficult to predict next winter's concentrate prices but all the signs at this stage are pointing to a rise across the board. Beef farmers who have growing or finishing cattle will need to offset the rising meal price per tonne by improving the quality of silage they make this year, allowing them to feed less meal per head while still achieving target growth rates. For example, a farmer feeding weanlings 72% DMD grass silage instead of 67% DMD could save 1kg of meal per head per day (1.0kg vs 2.0kg meal per day) and still have the same daily gain. If this farmer was feeding 50 weanlings over 140 days that would be a saving of seven tonnes of ration. The biggest influence on whether you make a 72% DMD or a 67% DMD grass silage is the date

you cut the crop. Basically, once the sward is mostly leaf and stem material is kept to a minimum, the quality will remain high. This is usually the case up until the middle of May. From then on quality starts to drop as more and more stem develops. Every week cutting is delayed drops the quality by 2.5-3.0 DMD units. Where swards were not grazed this spring before they were closed, it is even more important to bring forward the cutting date. Lodging will have the biggest impact on reducing silage quality. If you are targeting 72% plus DMD silage you will need to watch the crop closely from May 20 onwards and have your contractor lined up. Silage crops not harvested until the early days of June are unlikely to be above 70% DMD.

Use protected urea.
It's 25-30% cheaper than CAN



To help reduce age at slaughter, graze grass at 8-10cm



Only set clover on high P & K index soils with a pH of 6.3+



Target a late May silage cut for good yield and quality



Check that silage effluent collection and storage facilities are working properly



Apply 15kg S/ha to cereal crops to improve N efficiency and crop yields



HEALTH & SAFETY



May is a high-risk month

May is the month when silage making commences. It is a high-risk month when safety planning is needed. There is a lot of machinery movement, both in the farmyards and on public roads, so knock-down, roll-over and crushing accidents are possible. Make sure that there is a clear view for drivers at entrances/exits to public roads. Warn oncoming traffic of dangers, but warning devices such as signs and bollards should not be placed on a road surface. Farmers and contractors



should discuss safety matters in advance. Watch out for blind spots where collisions could take place. Stop immediately if any dangerous work takes place and resume only when safe. Keep family members, particularly children and elderly farmers, well away from moving machinery. Ensure that farmyards are tidy to allow efficient machinery movement. Remember too that speed kills – make sure that machinery movement occurs at a steady pace.

Manage safety at silage making.

Date for the diary

On Tuesday July 5, Teagasc will host BEEF2022 in the national beef research centre in Teagasc Grange, Dunsany, Co. Meath. It is four years since this major open day was last held and the theme for this year's event is 'Supporting Sustainable Beef Farming'. The focus of BEEF2022 will be on the application of technologies that will help beef farmers increase the profitability and environmental

sustainability of their family farm businesses. Technologies in relation to grazing management, beef genetics, reproductive management, animal health, and farm planning will all be essential to increase the competitiveness and sustainability of the Irish beef sector, and these will form the main focus of the day. Please note the date in your diary and we look forward to meeting you on the day.

