

Most beef farms can grow more grass.

BEEF

February 2020

Growing more grass in 2020

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Before the grazing season starts in 2020, there are three main areas of focus to be looked at: soil phosphorus (P) and potassium (K); lime (pH) status; and, having a rotational grazing system. If you need to take soil samples, do so before you apply any slurry or bagged fertiliser. Contact your local Teagasc office. Soils that are low in P and K, or in need of lime cannot grow anywhere near the amount of grass that they have the potential to grow.

Based on soil samples prioritise slurry for low P and K ground with low covers. Spread 2,500 gallons of slurry on covers not planned for grazing until March, and spread half a bag of urea on the remaining ground.

Urea is also more stable in soil than CAN in the early spring period. Nitrogen (N) applied in the form of urea has the ability to 'cling' to the soil. Applying early N fertiliser in spring (weather permitting and when soil temperatures are greater than 5°C) will not only grow more grass but help the recovery of grass after grazing, so

there will be more available for the next round of grazing also.

Where only the lime status on a farm is corrected, grass growth can increase by an average of 1.0t of dry matter per hectare in the year. Typical maintenance lime requirement is 2.5-5.0t/ha once every five years, depending on regional location and rainfall. While lime can be spread all year round, ideally apply to bare soils (after grass silage harvest).

February is also the month to divide up large grazing fields with permanent and temporary fencing and to install water troughs where they are needed so that a proper rotational grazing system can be put in place before grazing starts. The experience of beef farms that have invested in fencing and water is that it more than pays for itself through extra production. The aim should be that each group of animals grazing has at least six different grazing divisions to rotate around on the farm. Livestock also become easier to manage.

Benefits of grazed grass

Every blade of grass into an animal's mouth in the spring is a saving on costly indoor feed and will have liveweight benefits. So what we are aiming to do is to make the most out of challenging conditions. Every day at grass is worth €2.00/livestock unit (LU). For example, if 60 extra days at grass are captured for 50LU, then it is worth €6,000. However, to capture days at grass in wet weather you need to have the right cover, the right paddock, the right animal and the right mind! Light weanlings are easiest to turn out first to build confidence. Where possible, move stock to drier parts of the

farm. Lower covers are easier to graze in the wet and as they are green to the base, are faster to recover. Ideally, the paddock should be square in shape. An irregular-shaped paddock will lead to "the racecourse effect", where stock will walk up and down the perimeter fence. If you know a spell of prolonged wet weather is coming, hold off on turning out more stock until the weather settles. Cattle that are used to grazing will be more settled. If cattle are very unsettled, do not be afraid to rehouse. Trial work has shown that cattle that get turned out early and are then rehoused are still heavier than animals that are turned out late.

Calf health

Infectious scours are one of the biggest killers of newborn calves. Early and correct treatment goes a long way to getting the calf back on track. It is essential that the calf and suckler cow are isolated immediately from all the other calves in the group to avoid infection spreading.

Dehydration is what kills the calves, so the sooner they are given fluids the better. Calves that are dehydrated will be weak and listless with their eyes sunken in their head. In severe cases, they will be unable to rise and will have cold ears and feet. Feed two litres, two to three times per day, of a good electrolyte solution (four to six litres in total). Continue to feed the calf milk, i.e., leave them on the cow (in the case of artificially reared calves, continue to feed milk replacer). Keeping the calf on milk helps to maintain its condition, speeds up its recovery and prevents it from starving. Continue to give electrolytes until



the dung consistency is normal or the skin elasticity is back to normal. Antibiotics should only be used where a calf has developed a high temperature. In the case of severe dehydration, fluids should be given intravenously by a vet. A Teagasc study, funded by the Department of Agriculture, Food and the Marine (DAFM), across a large number of farms has shown that 21% of young suckler calves do not have enough antibodies in their blood to protect them, indicating that they are not getting enough colostrum at birth. The first six hours after birth is the critical time period. If they do not get at least three litres of colostrum in these first few hours of life, they are likely to be low in the essential antibodies that they need to protect them. Good hygiene, disinfection of calving areas and plenty of dry clean straw under calves also go a long way to preventing scours. Prolonged housing increases environmental build-up of disease.

The Beef Edge

Teagasc recently launched a beef podcast called *The Beef Edge*. It is targeted at beef farmers and people working in the beef industry. The series of podcasts aims to provide up-to-date advice and insights to Irish beef farms. You can go back and listen to any podcast you like, as often as you like. You can download it for free onto your smartphone and listen via your hands-free car stereo, the tractor cab or anywhere else that suits and is safe.



podcast to cover a variety of topics. During the winter, *The Beef Edge* has discussed weanling management, new markets for Irish beef, the Derrypatrick farm, and animal welfare.

More recently, the podcast has focused on genetics, with an update on the Beef Data and Genomics Programme (BDGP) and Beef Environmental Efficiency Pilot (BEEP) schemes. In the coming weeks, the podcast participants will consider how to achieve target breeding weights for heifers to calve at 24 months, grassland management and soil fertility tips. You can catch up on all the shows and interviews from *The Beef Edge* on the Teagasc website at www.teagasc.ie/thebeefedge, or you can listen on Apple and Google podcasts, as well as on Spotify.

Topics

Teagasc beef specialists, advisors and researchers join presenter Catherine Egan for the fortnightly

HEALTH & SAFETY

Manage workload

February is when workload ramps up on farms. Keep on top of farm health and safety in this busy time. This involves attending to items that need fixing, along with using safe work practices and getting adequate rest. Have physical protection from a freshly calved cow when dealing with its calf. An Irish medical study described a blow from a cow as similar to being struck by a juggernaut! Do not drive on cattle slats – they could collapse. Department of Agriculture, Food and the Marine (DAFM) Targeted Agricultural Modernisation Schemes (TAMS) II grant aid is available for a wide range of farm safety items and infrastructure,



Don't drive on cattle slats.

including slat replacement. During the spring think about how to improve health and safety or reduce workload, with a view to making a grant application.

RESEARCH UPDATE

Human–animal relationships



NIAMH WOODS, MARK MCGEE, MARIJKE BELTMAN, DAVID MEREDITH, JOHN McNAMARA and BERNADETTE EARLEY researched how humans and animals interact.

A detailed understanding of how livestock perceive and communicate with stockpersons is crucial to improving animal welfare and farmer safety. The outcome of any livestock handling event depends on a combination of factors that are associated with the event.

The human–animal relationship (HAR) can be defined as the perception between the animal and the human, which develops and expresses itself in their mutual behaviour. The level of fearfulness of animals is determined by the experiences the animal has gained, in association with their individual genetic disposition.

A recent DAFM-funded study carried out by Teagasc Grange postgraduate, Niamh Woods, investigated the HAR. This study assessed fear responses and HAR responses over time in housed, pregnant heifers, of dairy (20) and beef (43) origin, using three behavioural tests: crush agitation; exit speed from the crush; and, avoidance distance at the feed face.

Avoidance distance

Avoidance distance was measured on days 51 and 99 post housing by a familiar and an unfamiliar human. The beef-origin heifers became accustomed to both the familiar and unfamiliar humans, whereas the dairy-origin



Feed face avoidance distance was one of the measures tested.

heifers only became accustomed to the familiar human, over time. From the three investigated tests, avoidance distance proved to be a more sensitive measure of the HAR and how cattle perceive humans, whether they are familiar or unfamiliar.

Implications

Development of a positive HAR (low levels of fear in animals and high levels of confidence in humans) can be beneficial, e.g., the presence of a familiar human, providing gentle handling may calm animals in potentially aversive situations (e.g., isolation, calving) thereby reducing distress and risk of injury to the animal and the human. Further work assessing the HAR is ongoing, with a primary focus on safety implications when working with cattle.