

BEEF

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Early spring nitrogen

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Knowledge Transfer

Beef farms with medium to high stocking rates and on dry land will be looking to get cattle out and their first round of nitrogen (N) spread over the coming weeks. However, while early N applications are beneficial, the incorrect application of fertiliser is wasteful, costly, pollutes water and increases greenhouse gas (GHG) emissions. The priority is to check the weather forecast before you spread anything. The website www.met.ie has a number of really useful maps that can help you to make your decision. The soil moisture deficit (SMD) and the soil temperature maps will give figures for all regions. Fertiliser should only be spread if the SMD in your area is greater than zero and the soil temperature is greater than 5°C and rising. Never apply fertiliser on frozen soils or if there is a yellow rainfall warning in place or forecast within the next 48 hours.

It makes sense to only target fields for early N that are most likely to respond to it. These are



Protected urea consistently and reliably produces top yields.

your driest fields with swards with a high amount of perennial ryegrass or recently reseeded fields. Fields that have a grass cover of less than 400kg DM/ha or 5cm of grass will not respond well and slurry should be applied to these fields.

The last thing to decide then is what should you spread and how much? Teagasc research has shown that protected urea consistently and

reliably produces top yields under spring and summer conditions. It is significantly cheaper per kg of N than CAN with significantly lower emissions of the dangerous GHG nitrous oxide (N₂O). There is now a huge number of

protected urea brands on the market with many different N percentages. Speak to your advisor to see which one suits your farm best. Keep this first round of protected urea to a maximum of 30kg N/ha (24 units N/ac).

BEAM -5%

Over 32,000 farmers signed up in 2019 to the Beef Emergency Aid Measure (BEAM) scheme. Compensation payments were made to these farmers on the condition that they met the 5% reduction in organic nitrogen (N) requirement which must take place from July 1, 2020 to June 30, 2021. If you are a participating farmer in this scheme, the 5% reduction must be met, otherwise there will be a clawback of the money paid to you. Throughout 2020 and into the new year, Teagasc advisors have worked with clients who are in the scheme to ensure

they understand the numbers of stock they can carry on their farm to meet the 5% reduction. As these calculations are worked out on a daily basis, the sooner a reduction in stock numbers takes place the lower the overall numbers have to be reduced by. The closer to June 30, 2021 we get, the bigger the reduction in numbers will have to be if a farmer has not already reduced their cattle numbers. Your Teagasc advisor can do the calculations with you and go through what your best options are. The sooner you have this discussion though, the better.

HEALTH & SAFETY

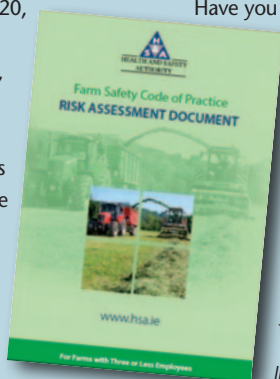
Review your risk assessment

February brings an increase in workload and associated risk to the farm. In 2020, 19 farm workplace deaths occurred, three in the childhood, six in the 17-64 years, and 10 in the 65 year old or higher age categories. Each of these fatalities is a huge tragedy. Let us all in the farming sector aim for zero accidents and make every possible effort to prevent deaths and serious injuries in 2021. This involves being alert to

possible dangers and taking preventative action. Have you reviewed your risk assessment

document for 2021? It is a legal duty to do this at least annually. Farmers tend to mainly use the farm vehicle, machinery and buildings pages. To do a comprehensive risk assessment review, go through the complete document, particularly the children and older farmers risk assessment section. Most importantly, follow-up with actions.

Implement your risk assessment.



Spring rotation planner



A lot of drystock farms struggle to achieve more than five grazings per paddock or field.

Have you started to plan your first grazing rotation of 2021? If not, February is the month to do just that and if the weather and ground conditions allow, you may even start it over the coming weeks. One of the main Grass10 messages is to increase the number of grazings throughout the year. A lot of drystock farms struggle to achieve more than five grazings per paddock or field. Key to increasing this number is getting an extra grazing in the spring. During the main grazing season we often talk about a 21-day rotation. The first grazing of the year is different. We want to get grass into the diet of

the animal, stimulate the grass to start growing again and leave enough time so that there is a cover of grass there for them when they come back to graze it the second time round. Most farms should aim to finish the first rotation in early to mid April. Leave turning out too late and this is impossible to achieve. By turning stock out too early you risk running out of grass early in the season. That is why you have to put a plan in place.

- The sooner you get out to grass the longer the first rotation can be and the more recovery there will be. How early can you start grazing?
- Calculate the number of weeks you will have from turnout to early April.
- Aim to graze an equal amount of hectares/acres each week with the last block being grazed in early April.
- Only turn out enough cattle that will graze that amount of ground each week.
- Make sure the fields you graze first are not planned for first-cut silage as you want these to have a reasonable cover of grass to start your second rotation in April.
- Take the opportunity to graze wetter parts of the farm when you can.



Grazing courses 2021

The Teagasc Grass10 team, along with their colleagues in the local advisory offices, is running grazing courses again in 2021. These courses are for farmers who wish to improve their grassland management skills and to help

their farm reach its full potential. There is on-farm practical experience with advisors, specialists and farmer coaches, and the feedback from previous courses has been extremely positive. If you would like to enrol on one of these courses, talk to your local Teagasc advisor.

RESEARCH UPDATE



More space for more weight

BERNADETTE EARLEY, MARK McGEE, and EDWARD O'RIORDAN of the Animal & Grassland Research and Innovation Centre, Teagasc, Grange, Dunsany, Co. Meath, have examined performance and welfare of steers housed on concrete slatted floors at fixed and dynamic space allowances.

One way of determining the optimal space for finishing cattle is through the use of dynamic (allometric) equations. Instead of allocating a fixed space allowance per animal, dynamic equations use the progressing weight of an animal to estimate the space that they require during housing. Finishing steers (n=120; (mean initial liveweight 590kg) were assigned to one of five space allowance treatments (three fixed and two dynamic) on concrete slatted floors:

i) 2.0m²; ii) 2.5m²; iii) 3.0m²; iv) E1 ($y=0.033w^{0.667}$ where y is area and w is bodyweight; similar to 3.0m² /animal); and, v) E2 ($y=0.048w^{0.667}$ more generous space allowance recommended by the EU scientific committee on animal health and welfare report (SCAHAW, 2001)).

For the latter two treatments (E1 and E2), the pen size increased as the animals gained weight. The study duration was 105 days. Steers were weighed and dirt scored every 14 days. Hooves were inspected for lesions at the beginning and the end of the experimental period and behaviour was recorded during the study. The average daily weight gain (ADG) of steers housed at 2.0m² was lower than steers on all other treatments except for 2.5m². The carcass weights of steers at 2.0m² were lower than each of the other space allowances. Steers



An approach based on an animal's progressing weight may be a more suitable method for estimating space requirements for cattle.

housed at 2.5m² had lower carcass weights than those with space allowances defined by E1 and E2, whereas the carcass weight of steers with 3.0m² was intermediate. Lying duration was reduced for steers housed at 2.0m² in comparison to all other treatments. Dirt scores and hoof lesion number were not affected by treatment. It was concluded that: i), 2.0m² per animal is an insufficient space allowance for housing finishing beef steers, ii), that the equation $y=0.033w^{0.667}$ is sufficient for estimating the space required by finishing beef cattle, and iii), that an allometric approach based on an animal's progressing weight may be a more suitable method for estimating space requirements for cattle, than assigning a fixed space allowance (m² per animal).