

Managing early nitrogen this spring

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High fertiliser nitrogen (N) prices will add significantly to cash cost on dairy farms this spring. However, a lack of N supply in the soil limits spring grass growth, which will lead in turn to higher feed costs. It is important to maximise the efficiency of fertiliser used this spring. Research has shown a large range in grass response to early N (between 5kg and 18kg DM/kg N applied). Appropriate application of early N is beneficial, but incorrect application is wasteful, costly, pollutes water and increases greenhouse gas emissions. The timing and rate of fertiliser N and slurry applications are key decisions for every farmer. The following dos and don'ts should guide your decisions around early N application:

DO

1. Check the weather forecast (www.met.ie) prior to fertiliser N applications.
2. Check soil trafficability before spreading.
3. Only apply fertiliser N when soil temperature is greater than 5°C and rising.
4. Check grass growth predictions (Grass10 Newsletter, PastureBase, *Farming Forecast*, Sunday, RTÉ 1).
5. Target fields that are most likely to respond to an early N application:
 - a. perennial ryegrass/recently reseeded fields;
 - b. fields with a grass cover of greater than 400kg DM/ha or 6cm; and,
 - c. fields with optimum soil fertility, i.e., good phosphorus (P) and potassium (K) status, pH >6.2.
6. Farms need to make the best use of slurry across the whole farm. That means:
 - a. getting more of the area covered at moderate rates in spring; and,
 - b. targeting the slurry to high-demand areas, e.g., silage fields, low P and K fields.

7. Apply cattle slurry instead of chemical N fertiliser on approximately 50-60% of the whole farm area in spring:
 - a. apply all slurry using low-emission slurry spreading (LESS) techniques;
 - b. target slurry to fields with low P and K levels and low grass covers (<1,000kg DM/ha);
 - c. 2,000 gals/ac by LESS application will supply ~20kg/ha (16 units/ac) of available N; and,
 - d. manage slurry application to ensure that no more than 2,500 gals/ac are applied in spring.
8. Where silage ground is unavailable for grazing, reserve some slurry for silage ground in mid February.
9. Use protected urea (NBPT).
10. Link your early N application strategy with spring feed budget for the farm.

11. Calibrate and maintain your fertiliser spreader in good condition.

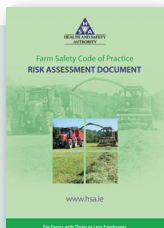
DON'T

1. Don't apply slurry or fertiliser N before the end of the prohibited spreading period.
2. Never apply fertiliser on waterlogged or frozen soils.
3. Don't apply slurry or fertiliser if a yellow rainfall warning is in place or is forecast within the next 48 hours.
4. Never apply slurry or fertiliser into buffer margins and know your buffer margins.
5. Don't apply fertiliser N on fields that receive slurry in the first round.
6. Don't apply more than 29kg N/ha (23 units N/ac) chemical N fertiliser in February.
7. Don't apply more than 78kg N/ha (slurry N plus chemical N) in total up to early April.

HEALTH & SAFETY

Prepare to cut risk

Research by Teagasc indicates that rushing and tiredness are major causal factors of farm workplace injuries, so good preparation is essential to cut risks. The coming weeks provide an opportunity for farm maintenance and making health and safety improvements before the busy spring season. The Department of Agriculture, Food and the Marine (DAFM) has extended the Targeted Agriculture Modernisation Scheme II (TAMSII) into 2022, so longer-term measures can be planned. January is an ideal time to update your farm's risk assessment document. It is a legal requirement to



Complete your risk assessment document.

complete a risk assessment at least annually. This document will provide guidance to you to identify and remedy the full range of farm hazards and risks. Most importantly, where hazards and risks are identified – take action.

Finally, health is wealth and farmers have been found to have a lower health status than other occupational groups. The early part of the year is a great time to get a health check done and to consider taking on health-enhancing measures, e.g., diet, aerobic exercise.



Mastitis in early lactation

Early lactation mastitis, which occurs in the first week or so after calving, is a problem in individual herds. Cows are especially at risk of acquiring such mastitis in the two weeks either side of calving because at this time the cow's immune system is at its lowest ebb. The two types of bacteria most often associated with early lactation mastitis are:

- *Streptococcus uberis* – a bacterium that causes distinct clinical mastitis infection, where cows generally do not become very ill; and,

- coliform bacteria, of which *E. coli* is the most widely known, which cause severe mastitis often resulting in the loss of the affected quarter, if not of the infected cow.

Most of the bacteria that cause mastitis in early lactation are of environmental origin. Improving the environment of cows and heifers in late pregnancy will usually reduce the incidence of mastitis occurring after calving:

- clean, dry cubicle beds are a must – clean and lime cubicle beds twice a day from four weeks before the start of calving; and,
- dirty straw beds are a prime source of environmental mastitis. Ensure the calving pen is kept clean and dry every day and avoid overstocking.

Climate Actions for January

Plan spring fertiliser applications for tillage crops



Get your slurry analysed for nutrient content

Create a slurry spreading plan with your adviser to get the most from it



Get your nutrient management plan completed. It will be particularly important in 2022



Continue to spread lime, where you can



Order your protected urea now



Labour saving spring 2022

Workload in spring makes up over one-third of the total hours needed per year to run a farm. Many farm owners are working in excess of 80 hours per week in spring and overcoming this workload can be a challenge on many farms. The main spring labour-efficient practices highlighted from a recent labour efficiency study are summarised as follows.

Calf care practices:

- ▶ fresh milk piped directly or transported mechanically to the calf house;
- ▶ calves trained on group feeders from days one to four;
- ▶ calves fed on automatic feeders or *ad-lib* once grouped and trained;
- ▶ calf pens bedded every second day and cleaned regularly; and,
- ▶ arrangements put in place to sell bull calves promptly, preferably in batches directly from the farm.

Cow care practices:

- ▶ cows in the correct body condition score (BCS) and receiving correct minerals to reduce problems at calving;
- ▶ once-a-day (OAD) milking for the first two to three weeks of the calving season;
- ▶ dry cows housed in groups according to calving date to make sorting easier; and,
- ▶ a group pen provided for calving, with easy access to individual pen for handling from this area.

Don't forget to listen...



The Dairy Edge Podcast

The Dairy Edge is Teagasc's weekly podcast covering news, information, tips and advice for dairy farmers.

Presented by Emma Louise Coffey, The Dairy Edge provides insights and opinion to improve your dairy farm performance.

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Open the camera on your phone & scan the QR code for more information



Grassland practices:

- ▶ book the contractor in advance for fertiliser and slurry applications;
- ▶ have a farm map and clear instructions in terms of the fields and amounts;
- ▶ repair any fencing/water troughs before turnout and have reels/posts ready; and,
- ▶ increase the width of any narrow entry/exit points.

Another area commonly mentioned is the importance of having all supplies on farm before the cows start calving. Finally, a perennial issue for many is sourcing labour for the peak period. It is worth remembering that while the 'ideal' worker is hard to find, any help that reduces your daily and weekly routine, even by a few hours, is worth it. Consider options for weekend and evening work.