Teagasc Advisory Newsletter

DAIRY

January 2018

Early spring nitrogen application

Edited by George Ramsbottom, Dairy Specialist

The PastureBase Ireland database shows us that those farmers who grow the most grass target early grazing. They get cows out to grass as soon as possible in February.

However, they also apply early nitrogen (N) and typically apply a half bag of urea/ac (23 units/ac) in the latter half of January (weather permitting) to get grass moving.

Over the past number of years, the average response to 1kg of early spring N was 10kg DM of grass.

This makes it profitable to apply, because the N fertiliser costs about 70-75c/kg, and the return in grass value is €1.60.

The other reasons to apply early fertiliser N is to help with the recovery of grass after grazing, so that there is also more grass available for the next round of grazing.

Sometimes the weather in January is better for spreading N fertiliser than February.

You will also be a lot busier in February than you will be in late January.

Teagasc also recommends that urea rather than CAN is applied early for two reasons: 1kg of N in urea costs approximately 70% of the equivalent in the form of CAN; and, urea N is a safer form of N to apply in early spring, because it binds closely to soil particles and is less likely to be washed out of the soil.

In this issue

Teagasc
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Cow metabolic health around calving

Managing BCS can prevent many calving problems.

Cow metabolic diseases such as milk fever, retained placenta and displaced stomachs can cause major stress on farms around calving time. Working with the Department of Agriculture, Food and the Marine (DAFM) regional vet labs, Teagasc recently undertook a survey of management practices in herds that reported persistent cow health problems in spring. In summary, it was found that very few problem herds were managing body condition score (BCS) in dry cows.

Over-conditioned cows had increased risk of problems. If there is a history of metabolic problems at calving in your herd, manage cows to calve at BCS 3.0-3.25 at calving. Restrict silage to late calvers if needed. Separate thin cows for extra feeding.

Table 1 is a useful guide to recommended silage allowance and supplementation rates

Table 1: Eight-week dry period silage allowance and supplementation rates.

Silage DMD% (UFL)	BCS at drying off			
	<2.5	2.5	2.75	3.0+
>72 (0.81)	Silage 1kg conc.	Silage	Restrict silage	Restrict silage
68-72 (0.78)	Silage 2kg conc.	Silage 1kg conc.	Silage	Restrict silage
<68 (0.76)	Silage 3kg conc.	Silage 2kg conc.	Silage 1kg conc.	Silage

for cows for an eight-week dry period.
Further investigation by Teagasc and the regional veterinary laboratories identified that magnesium (Mg) supplementation levels were too low before calving.
Finally, high silage potassium (K) levels were associated with a risk of milk fever, especially if Mg feeding was low.
Most problem herds had never tested silage mineral levels:

- ensure each cow receives at least 25g Mg added to the diet per day – dry cow minerals need to contain at least 20% Mg for a 120g/head feeding rate;
- add extra Mg for three weeks pre-calving if needed; and,
- check that silage fed in the two to three weeks before calving has K of less than 2.5%.

As well as posing a greater risk to the cow's metabolic health, inadequate mineral supplementation during the dry period can cause problems to calf health around birth. This can result in the birth of dead or weak calves.
A typical specification for dry cow minerals fed at a rate of 120g/head/day for the duration of the dry period is shown in **Table 2**.
While formulated to a 120g/cow/day feeding rate, when dusting minerals on silage, it is preferable to offer minerals twice daily (60g/cow in two feeds) to try to ensure that intake is controlled and that all cows can have access to minerals.
This is especially important where feed space is limited. For herds with a history of mineral-related issues, a farm-specific mineral mix may be required.

Table 2: Typical specification for dry cow minerals fed at a rate of 120g/head/day.

Major elements	Per kg	Per 120g fed
Calcium	0%	0g
Phosphorus	4%	5g
Sodium	15%	18g
Magnesium	21%	25g
Trace elements		
Copper	4,800mg/kg	400mg/kg
Selenium	60mg/kg	5mg/kg
Iodine	600mg/kg	50mg/kg
Cobalt	120mg/kg	10mg/kg
Zinc	6,000mg/kg	500mg/kg
Manganese	1,200mg/kg	100mg

CalfCare events

A series of ten CalfCare events run in conjunction with Animal Health Ireland (AHI) and the milk processors and sponsored by Volac, will take place around the country between January 8 and 25.
The topics highlighted this year will include:

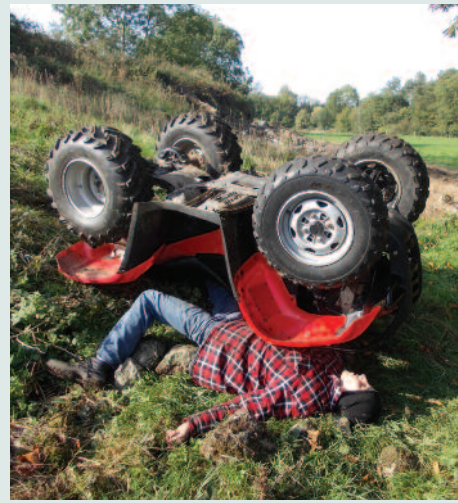
- guidelines on how to minimise the risk of spreading Johne's disease at calving time;
- an update of disinfection procedures around calving;
- labour-saving ideas for spring calving; and,
- a review of the latest recommendations for high-quality calf accommodation.

All events begin at 11.00am, with the talks presented by Teagasc advisers and specialists, and members of the AHI working group on calf health.
Further details can be found on the Teagasc and AHI websites or by ringing your local Teagasc office.

HEALTH & SAFETY

Manage workload

Workload rises from January onwards in Irish grass-based farming.
Farm accidents in spring are often associated with doing work in a hurry and not concentrating on the job in hand.
Work planning is key to safe work.
At the start of each week, consciously plan and prioritise your essential work tasks.
Postpone non-urgent tasks until a later date.
Work planning prevents fatigue from setting in as the spring progresses.
There is a lot of walking around farms in spring, so keep walkways clear of trip hazards. Work at a steady pace.



Speed kills.

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