

# Management Notes



Richard Gibson

## Dairying

### Transition cow management

The transition period is from when the cow is dried off and up to the calving period. Problems that can arise from poor management during this period include, udder oedema, milk fever, retained placenta, displaced abomasum (stomach), laminitis, metritis, ketosis and fatty liver syndrome; all of which result in lost profitability. Poor management may also result in increased calf mortality due to difficult calvings and weak calves.

Restoring body energy and nutrient reserves is more efficient if achieved during late lactation, rather than during the dry period. Therefore, aim to dry cows off at body condition score 3. The dry period is necessary to allow the mammary gland to go through a period of repair and development and to ensure the cells continue to multiply during early lactation. A short or absent dry period greatly reduces the number of secretory cells in the mammary gland, resulting in reduced milk yields. Research shows that cows dry for 60 days produce at least 500 kg more milk in the following lactation than cows dry for 30 days.

During the last four weeks of the dry period nutritional changes are required. Pay particular attention to the mineral supply as the mineral requirements of dry cows differ from those lactating. Carry out a mineral analysis of your dry cow forage to develop a suitable feeding plan. Avoid feeding forages that are high in potassium. Cows eating such feeds have an increased risk of milk fever post-calving.

### Greenmount Campus dry cow policy

Dry cows at Greenmount are offered 1.0-2.0 kg of a pre-calver feed containing 250 to 300 g digestible undegradable protein (DUP) freshweight per day plus dry cow minerals. Sources of DUP include, protected soya or prairie meal. At this stage of the gestation cycle the developing calf has a large nutrient demand for protein. Cows are therefore offered a high protein concentrate daily. One week before calving, dry cows are fed the same concentrates and forages as the milking cows. This helps rumen adaptation and transition after calving.

### Preparing for calves on your farm

Colostrum management is the single most important factor in determining calf survival and subsequent health. As the immune system of the calf is not fully developed until three weeks of age, passive immunity is required in the form of quality colostrum from the cow. Successful colostrum management means giving calves clean, high quality colostrum by stomach tube or teated bottle. 10% of calves body weight (3.5 to 5.0 litres) is required as soon as possible and certainly within the first six hours of life. Over the first six hours of life, calves ability to absorb antibodies from the gut is very high. However, as time passes this declines to 50% within 12 hours of birth, 25% within 18 hours and only 10% within 24 hours.



If calf health is poor on your farm, your vet may do a Zinc Sulphate Turbidity (ZST) test on a range of calves to determine colostrum uptake/quality. Older cows will have been exposed to a greater number and range of

infections than first calved heifers and should have a higher concentration of antibodies in their colostrum. However, if there is a risk of Johne's disease in the herd, pooled colostrum should not be used. Vaccinations are effective at boosting the ability to combat disease. In designing the most appropriate vaccination programme, get advice from your vet. Efficient hygiene management is also critical in rearing calves free from infection. Make sure calf pens and milk buckets are thoroughly cleaned and disinfected between feeds.

### September's top tips

- Select sires for the upcoming breeding season. How many replacement heifers do you need? Will sexed semen play a role in your breeding policy? Set your breeding criteria for sires and use Predicted Transmitting Ability (PTA) data to guide your selection. Ensure the replacement stock bred on farm are genetically better than the stock leaving.
- Carry out a forage budget so you can take action early to avoid fodder shortages and maximise the likelihood of a consistent diet throughout the winter.
- Planning an autumn reseed? Start now if you want any residual grazing on the reseeded area before the end of October. Select grass varieties which suit your farm, soil type and system.
- Build grass covers to maximise days at grass this winter. The aim is to build grass cover on your farm in September to allow a longer grazing rotation in October.



Emma Kirkland

## Information Technology

### CAFRE Nutrient Calculators

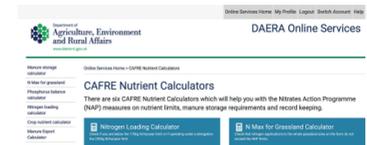
The CAFRE Nutrient Calculators, which are available through DAREA online services, [www.daera-ni.gov.uk/onlineservices](http://www.daera-ni.gov.uk/onlineservices), are an excellent suite of tools. They can assist you with many tasks throughout the farming year, from planning the application of nutrients to calculating organic nitrogen (N) loading and manure storage.

As well as the five Calculators, which are listed below, there is also a reporting application:

1. Nitrogen Loading Calculator
2. Crop Nutrient Calculator
3. Manure Storage Calculator
4. N Max for Grassland Calculator
5. Phosphorus Balance Calculator
6. Manure Exports Records

Each of the Calculators have a different function, but they all help ensure you are

compliant with the Nutrients Action Programme (NAP) 2019-2022 Regulations on nutrient limits, manure storage requirements and record keeping.



### Nitrogen Loading Calculator

In the coming weeks, the Nitrogen Loading Calculator will be particularly useful. Use it to determine the farms organic loading. If necessary, slurry can be exported or spread before the closed period.

This Calculator helps you to establish if you are below the 170 kg N per hectare per year limit or if you are operating under a derogation, the 250 kg N per hectare per year limit. Simply select the year and enter details about land,



Nigel Gould

## Beef and Sheep

### Options for lambs still on farm

With positive market reports for store lamb prices, the decision needs to be made whether lambs still on the farm should be sold now or kept for finishing. Completing a budget is a useful exercise as it takes into account the cost of finishing the lambs and the expected price received. When completing a budget it is often difficult to predict the price. Studying market trends over recent years will help you decide on an appropriate price.

You may choose to store lighter lambs over the winter to take advantage of the price rise which normally occurs when supplies become

tight. However, be careful that grass supplies are not reduced to an extent that affects the main ewe flock. If surplus grass is available, finishing off grass may be a viable option. Lambs can gain 80-130 g per day at grass. Performance, however, is very much linked to lamb type, sward quality, parasite control and the absence of prolonged periods of wet weather. Concentrates can be offered to reduce the time to slaughter but will incur a higher cost. Another option is to finish the heavier lambs on farm and sell the lighter ones as stores. Ideally, group lambs by weight and avoid feeding high levels of concentrates to light lambs. This will reduce the problem of lambs becoming over fat at lower carcass weights. This is more of a problem with ewe lambs. An alternative to outdoor finishing is intensive finishing indoors on a high concentrate diet. Performance is higher and the feed conversion ratio can be 7.0-8.0 kg of

concentrate to 1.0 kg of live weight gain, depending on ration quality and lamb type. A source of roughage in the diet is important for rumen function. Allow a total dry matter intake of 4%. Lambs can eat 1.5 kg of concentrate in an ad-lib system and have the potential to gain up to 250 g per day during the finishing period, however, large variation will still occur between lambs. Avoid feeding ewe minerals due to the risk of urinary calculi in ram and wether lambs.

### Quarantine purchased sheep

From an animal health perspective, a closed flock is the best way of guarding against disease and in turn keeping mortality and reduced performance to a minimum. On most farms rams have to be purchased. Some farmers also purchase female replacements for practical reasons. If buying in replacements, minimise the chance of importing problems by having a good quarantine strategy in place, particularly with the aim of removing any resistant worms and scab. On arrival, keep the replacements away from the rest of the flock. Plunge dipping with an appropriate product is the most effective method for controlling sheep scab. Foot bathing should eliminate any early signs of lameness related to scald and footrot. Resistance to the main wormer classes is becoming an increasing problem on sheep farms. Sometimes bought in sheep have a population of worms resistant to one or more

of the main classes of anthelmintics. It is important to bear this in mind. Ideally, treat purchased sheep with a suitable product on arrival and house for 24-48 hours. If this isn't practical and they are turned onto grazing ground straight away, it is preferable that this isn't 'clean' ground as this could help the development of a population of resistant worms. Discuss appropriate parasite control options specific to your own farm with your vet. Ideally, keep the purchased sheep separate from the existing flock for at least three weeks after arrival. The perceived hassle will be well worth the effort if it avoids the introduction of health issues, such as, lameness, scab or worms resistant to any of the main classes of wormers.

### Autumn calving

Autumn calving is now well under way on many farms. Close observation of these cows is needed both pre and post-calving. Large calf size can be more of a problem with autumn calving, particularly where grass has been plentiful. Be prepared and have the necessary calving equipment and items to reduce mortality after birth available. Grass tetany caused by magnesium deficiency, can also be a problem in autumn calving herds, particularly where there are stress triggers, such as, changeable weather or prolonged wet periods. The most popular preventative measures are magnesium lick buckets and boluses.



Leigh McClean

## Crops

### CEREALS

#### Variety selection and seed availability

You are strongly advised to place seed orders as early as possible this autumn. Local supplies of certain varieties may be limited and seed imported from Great Britain can take weeks longer to arrive due to Brexit. Consider varieties with good disease resistance scores and favourable agronomic profiles as part of an integrated pest management strategy and the first step to achieving high yields. Leaving seed orders to the last minute could mean reduced choice, delays in delivery or no seed availability.

#### Aphid monitoring and virus control

Whilst not a widespread issue in recent years, don't disregard the BYDV risk this season. Destroy the 'green bridge' for wingless aphids by burning off seven to ten days before ploughing or allowing 14 days between ploughing and sowing. Infection by migrating winged aphids is the most common route for

BYDV infection in autumn cereals. To assess this threat, AFBI, using a suction trap, monitor cereal aphid migration.

As autumn progresses, aphid migration and consequent BYDV infection pressure diminishes. As early drilled autumn cereals are at greater risk, you should balance this against later sowing, slower emergence and potentially poorer establishment. Only apply pyrethroid sprays when aphid colonies, not individual aphids, are present on leaves, to slow development of pyrethroid resistance.

A few winter barley varieties show tolerance to BYDV, meaning if infected suffer less of a yield penalty in severe outbreaks than non-tolerant varieties. As small quantities of tolerant seed are available this autumn, consider these for early sown high risk situations.

#### Cultural weed control

Grass weeds, most commonly sterile brome, continue to be a problem in certain places. Stale seedbeds are a useful way of reducing

livestock and manure/slurry imports or exports. A report is generated and this, along with the calculation of the farms organic N loading, can be downloaded and either saved electronically or printed.

### Crop Nutrient Calculator

The Crop Nutrient Calculator helps you create a nutrient management plan for your farm, determining nutrients and quantity to be applied for the crop to be grown. The Calculator also helps you comply with the nutrient limit requirements under the NAP 2019-2022 Regulations.

This Calculator is particularly useful where a fertilisation plan is required, as the final report satisfies inspection requirements for a non-derogated farm. A fertilisation plan is required where chemical phosphate fertiliser is applied to grassland, or phosphorus-rich manures or anaerobic digestate are applied to any land.

### Manure Storage Calculator

Use the Manure Storage Calculator to calculate the storage capacity on your farm. It calculates weekly slurry, dirty water and manure production, helping to ensure you remain compliant with NAP Regulations.

### N Max for Grassland Calculator

The N Max for Grassland Calculator allows you to check that the chemical N fertiliser applications to the whole grassland area on the farm do not exceed the NAP Regulation limits.

### Phosphorus Balance Calculator

The Phosphorus Balance Calculator is useful if operating under a derogation. It allows you to manage the inputs and outputs of phosphorus (P) and also check if you are below the limit of 10 kg P per hectare per year. It is important that P is applied to meet, but not exceed, crop requirement. Nutrients applied in excess of crop requirements can enter waterways causing eutrophication, the enrichment of waterbodies with dissolved minerals and nutrients. Eutrophication, caused primarily by excess P, is one of the major water quality issues in Northern Ireland.

### Manure Export Records

For non-derogated farms, this application can be used to submit the annual exported organic manure records to NIEA. It is a simple and quick method for recording manure exports by entering the following information:

- Export date
- Manure type
- Quantity exported (tonnes or m3)
- Transporters name and address
- Importers name and business number

Using the Calculators to plan and target nutrient applications can minimise negative environmental impact and save the farm business money.

the weed seed bank by light cultivation immediately after harvest. This encourages a flush of weeds which can be burnt off before ploughing and drilling.

### Slug monitoring

Assess slug numbers before winter crops are sown. Set traps on damp soil using dry bait under a tea tray sized cover, leave overnight and check for slugs the next day. Removing green cover reduces their habitat and feed source. A clod free, firm seedbed allows seed to germinate quickly whilst restricting slug movement, making it harder for them to find seed and seedlings. If slug numbers exceed four per trap in cereals or one per trap in oilseed rape consider applying ferric phosphate slug pellets if emerging crops are still at risk.

### POTATOES

#### Late season management

Maintain blight spray programmes until after haulm desiccation to avoid late blight developing. Blight strains insensitive to Fluzinam are common in Northern Ireland, meaning this active should no longer be relied on for tuber blight control. The EuroBlight late blight fungicide table, available online, provides alternatives to fluzinam such as Ranman Top and Infinito, which have high tuber blight ratings and good antispurulant activity.

#### Desiccation

Regular trial digs indicate when tuber size has reached your market specification, allowing

desiccation to be timed accordingly. PPO Inhibitors, Spotlight Plus (carfentrazone) and Gozai (pyraflufen-ethyl) can take longer to give the same effect as diquat. Make the first application seven to ten days earlier than usual. They work best in bright, sunny conditions and good spray penetration into the canopy is key. Therefore, use slow forward speeds, high water volumes with forward and backward facing nozzles applying a medium quality spray. Including a fungicide, either Ranman Top or Infinito, can improve the desiccants efficacy whilst also having good activity on tuber blight.

#### Store and equipment preparation

Spores of many storage diseases lie dormant in the dust and debris in stores, boxes and equipment. Thorough cleaning and disinfection is one of the most effective ways to avoid carryover of disease from previous years. Significant reductions in infection can be achieved by thoroughly power-hosing or vacuuming stores and equipment before the new crop is harvested.

