

Management Notes



Christopher Breen

Dairying

Colostrum hygiene

Most dairy farmers are aware of the often repeated message about colostrum and the three Qs. The three Qs are:

1. Quickly - feed as soon as possible after birth.
2. Quantity - feed three to four litres, depending on calf size.
3. Quality - ideally above 22% on the brix scale, whether measured digitally or with a hydrometer.

Another aspect of colostrum management that is often overlooked is hygiene. The hygiene of feeding utensils for a human baby is paramount. Should it be any different for a baby calf, especially as a baby calf has no natural immunity? Colostrum can and does get contaminated at every stage, from under collection, through storage to feeding. Udders should be hygienically clean before colostrum collection. Thoroughly disinfect all containers using hot water and an appropriate disinfectant before and after use. If storing colostrum fresh, it should be refrigerated for a maximum of two days or frozen fresh.

Why bother? The higher the level of bacterial contamination the lower the level of circulating antibodies in the calf, irrespective

of the three Qs and the greater the likelihood of disease and possible death!

Winter feeding

The weather throughout the 2020 grass growing season has been extremely variable. This, combined with earlier housing on some farms this autumn, means now is an ideal time to calculate your forage requirements and check that sufficient silage is available.

Silage supplies and requirements

Use Tables 1 and 2 to estimate the tonnage of silage available on your farm and compare this with the likely winter demand. The volume of silage is calculated by multiplying the length by the width by the height. For example the volume of silage in a silo is 38 m x 10 m x 3 m = 1140 cubic metres. To convert the volume to tonnes select the correct conversion factor from Table 1. Assuming the dry matter of silage in our example is 25 percent, multiply the volume by 0.68, 1140 cubic metres x 0.68 = 775 tonnes of fresh silage.

Use table 2 to estimate the quantity of silage required, multiplying the number of each class of stock by the number of months to be fed. For example, 80 cows in milk, fed silage for seven months require a total of 784 tonnes (80 x 7 x 1.4).

Table 1: Conversion factors to convert silage volume to tonnes of silage

Silage dry matter %	Tonnes of silage/ cubic metre
20	Multiply by 0.77
25	Multiply by 0.68
30	Multiply by 0.60

Table 2: Estimated monthly feed requirement of stock eating 25% dry

Livestock	Silage (tonnes/month)
Dairy cow in milk	1.4
Dry cow	0.9
0-1 year heifer	0.6
1-2 year heifer	0.9

What are the options if you have a silage shortfall?

The priority is to feed the best quality silage to early lactation/high yielding cows, then consider the following options:

- Cull barren, poor performing or problem cows.
- Source suitable silage supplies for young or dry stock.
- Feed young stock a straw/concentrate diet.
- Use alternative feeds if available.

Silage quality on farm

Due to variable weather conditions and cutting dates throughout the 2020 grass growing season, there will be a variation in

silage quality. You should therefore get your silage analysed to know its potential feed value (M+). This allows you to make decisions on the level of concentrate feeding needed on your farm at each stage of production.

Table 3 shows the difference in concentrate needed to feed a cow in early lactation with average and good quality silages.

Table 3 Feed requirement for 32 litres of milk

	Average silage	Good silage
Silage ME	10.8	11.8
Silage dry matter %	28.1	28.1
Silage fresh weight (kg)	40	43
M+ (kg of milk daily)	M+8	M+12
Daily concentrate required (kg)	11	9

October jobs checklist

- Identify cows to dry off in the next two months and assess body condition. Feed extra concentrates to cows with a body condition score less than three.
- Get silage analysed in preparation for planning the winter diet.
- Calculate the amount of silage available and how much you need.
- The last day for spreading slurry is 15th October. Try to ensure tanks are empty for the forthcoming housed period.

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Concentrate feeding will also reduce weaning related stress.

Parasite control in cattle

Adult cattle greater than two years of age usually have immunity to worms, whereas there is no natural immunity to liver fluke. All ages of stock therefore need to be assessed for treatment where there is a history or risk of infection. Faecal sampling and fluke reports provided by factories at slaughter can be used to determine whether or not liver fluke is an issue. Discuss this with your vet. The appropriate time to wait to treat post-housing is determined by the active ingredient or product used. While some products can be used from two weeks post-housing, others which target mature fluke will not kill immature fluke. COWS (Control of Worms Sustainably) an industry led stakeholder group, aims to promote best practice in the control of cattle parasites. It urges you to stick to the five Rs; use the right product on the right animal at the right time at the right dose rate and administer in the right way. For more information on COWS visit www.cattleparasites.org.uk

SHEEP

Sheep breeding season

Tupping season will start in most flocks this month. Using a raddle on rams helps to monitor mating and identify repeats, which

are approximately 17 days after first service. An alternative to the conventional raddle is a harness and crayon. This eliminates the need to disturb rams to top up raddle and will give a consistent colour over time. A harness generally costs £15-£20 and the crayon £3-£4. Whichever method is used, changing colours during the season will allow identification of repeats. Start with lighter colours first.

GRASSLAND MANAGEMENT

Closed spreading period

The closed period, prohibiting the spreading of chemical nitrogen and phosphate fertiliser on grassland started on the 15th September and ends on the 31st January inclusive. Organic manures, including slurry and poultry litter cannot be spread from midnight 15th October until midnight 31st January. Farmyard manure can be spread until midnight 31st October. Keep a record of exports of organic manures as these must be submitted annually to NIEA before 31st January for the previous calendar year. Records of slurry imports must be kept, however it is the responsibility of the person exporting the slurry to submit details to NIEA.

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Pamela Gardiner

Information Technology

Nowadays most of us use electronic devices to one degree or another to communicate, manage our farm business data, including finances and obtain products and services. Scammers are targeting agricultural businesses. This month's management note looks at some of the simple steps you can follow to help protect you, your family and your business when using services such as online banking and shopping, social media and email.

Protect your devices

Make sure your devices are kept up to date with respect to operating system and anti-virus software. Use the 'automatically update' option where available. Ensure all installed apps are up to date. Delete any old apps you aren't using, as many apps will track your location and collect data behind the scenes.

Replace devices that are no longer supported by manufacturers with up to date alternatives.

Protect your data

Passwords should be strong and secure, as they are the first line of defence to protect your data. Enable both password/pin and fingerprint recognition to protect your device if lost or stolen. Don't use personal, predictable or real words as passwords. Using a combination of uppercase, lowercase, numbers and special characters increases the complexity of your password and substantially decreases the chances of someone hacking it. For example 'tractors' could be 'Tr@ct0r5'. Two factor authentication is also important for websites like banking, email and DAERA online services, if you are given the option, use it.

Beware of public Wi-Fi hotspots. Wi-Fi is much less secure than using your mobile data. When sending sensitive data don't connect to public

Crops



Leigh McClean

CEREALS

Aphid monitoring and virus control

Once the 'green bridge' has been removed pre-sowing this diminishes the threat from non-winged aphids. Controlling virus carrying winged aphids is key to minimising the cereal virus risk post-emergence. Winged aphid migration is monitored by AFBI and populations are posted weekly at <https://www.afbini.gov.uk/publications/cereals-aphids-weekly-results-2020>. A risk forecast and advice on threshold aphid numbers, above which an aphicide application can be justified, is also published. Earliest sown cereals are at most risk as they are exposed to virus transmitting aphids for longer. Crops emerging after early November, when aphid migration starts to tail off, are a lower infection risk.

Weed control

To achieve good weed control this autumn apply residual herbicides to a reasonably fine, clod free seedbed before or soon after crop emergence, when any grasses or broad leaved weeds are still small or yet to emerge. Prioritise winter oats and barley as active ingredients, particularly those effective on

grass weeds, are limited to a few products and spring herbicide options are fewer than in winter wheat.

Slug monitoring

Continue to monitor winter crops until plants are beyond the vulnerable seedling stage. The highest risk is following rape or vegetable crops where slug numbers are high, seedbeds are cloddy and damp and seedling emergence is slow. 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. When using ferric phosphate, slugs often die underground, with no obvious sign of dead slugs at the soil surface. Therefore monitor closely after pellet application, looking for a decrease of feeding damage to gauge effectiveness of the treatment.

Monitoring crops in store

Continue monitoring stored grain weekly until both grain moisture and temperature have stabilised. Store pests can multiply rapidly in heated grain making early detection of increases in temperature the best way to prevent rising pest populations and grain spoilage.

Wi-Fi hotspots. Hackers can intercept communications, stealing passwords, credit card information and other personal information from you.

Take regular backups of your important data to keep it safe and secure and reduce the inconvenience of data loss. Identify what needs to be backed up and consider the most appropriate back up option for you and your business, for example external device stored at a separate location, cloud storage.

Configure devices so that if they are lost or stolen you can locate them or remotely wipe the device of any data, so that no one can access your information.

Email and texts

Keep your personal information safe and never give out any sensitive details over any chat channel, by email or the phone. Do not open texts or email attachments or click links from unknown or untrusted sources, as you could end up downloading a virus (malware). Be suspicious of any out of the ordinary attachments. Even an email that seems to come from a friend could have been sent by a virus on their device. If in doubt, before opening, ask the person or company using their official contact details. Don't respond to unsolicited emails and texts.

Banking and shopping

Don't bank or buy online when using unsecured Wi-Fi such as hotspots in a café or

hotel. Use your data connection instead or wait until you get home to your secure Wi-Fi. A genuine bank or organisation will never contact you out of the blue to ask for your login details or to move money to another account.

When paying for goods check the payment page is secure. There should be a padlock symbol in the browser window which appears when you attempt to login or register and the address of the page should start with 'https://'; the 's' stands for 'secure'. Always log onto a website directly rather than clicking on links provided in an email, which could be directing you to a bogus website.

Further information

The Consumer Council has recently published a leaflet and video specifically for farmers and agricultural businesses detailing '10 common scams to watch out for' which can be found on their website <https://www.consumer-council.org.uk/index.php/10-common-scams-for-farmers-agricultural-businesses>

You can also learn more about protecting yourself and your devices in general by visiting the NI Direct website www.nidirect.gov.uk/scamwiseni or the Get Safe Online website www.getsafeonline.org

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crushing. Excessive damage can lead to increased problems in store and eventual down grading of produce. Early identification of damage is critical to minimise losses. To do this take a sample of the harvested crop either daily or when entering a new field, wash and inspect for damage. Hotboxing gives a quicker indication if damage has occurred.

Drying and curing

Drying potatoes quickly post-harvesting prevents the development of skin blemish diseases and soft rots. Drying within 48 hours using positive ventilation systems significantly reduces the development of diseases such as silver scurf. The curing period immediately following harvest is one of the most important storage phases. Wound healing occurs most rapidly at high temperatures and high humidity. Maintaining the crop at 12 to 15 degrees centigrade and 85 percent relative humidity for a period of about two weeks, often referred to as 'dry curing', allows wound healing to take place, whilst minimising the risk of disease development. Ventilating the store on dry afternoons during the curing period will normally provide adequate curing conditions. Pay particular attention to potatoes from fields where blight and soft rots are an issue at harvest. Drying and curing before grading or longer term storage is especially important in these circumstances to minimise the spread of rots through the stored crop. For information and guidance during the Covid-19 pandemic please refer to: <https://www.daera-ni.gov.uk/landing-pages/daera-and-covid-19>

Check regularly to minimise harvest damage to tubers

POTATOES

Minimising harvest damage

During potato harvest keep a lookout for mechanical damage to tubers. Samples submitted by Potato Business Development Group members last autumn indicated mechanical damage varied from 3 to 27%, whilst visible bruising varied from 0 to 32%. This demonstrates care taken to harvest and handle the crop carefully can give a significant lift in marketable yield. Damage most frequently occurs at drops from harvesters into boxes or trailers. Bruising is often the result of insufficient soil on the web or excess agitation. Exposed sharp edges or an incorrect share setup can cause slicing and bruising. Oversized tractor tyres running in the drill bottom or stacking overfilled boxes are two of the most common causes of



Nigel Gould

Beef and Sheep

BEEF

Housing cattle

Housing cattle has started earlier this year on some farms due to difficult weather and ground conditions. For most other farms the housing period will begin within the next few weeks. Consider the risks associated with housing cattle. Increased stress, coupled with the housed environment, allows pathogens to live and multiply more easily. The main example of this is the prevalence of pneumonia particularly at this time of year after cattle are housed. Good ventilation in housing is the key to minimising pneumonia

as it allows the replacement of stale, warm air containing pathogens, with fresh cooler air. As a rule of thumb, calves and adult cattle require 0.04 square metres and 0.1 square metres per head of outlet respectively and at least double this area as inlet. Moisture and draughts need to be kept to a minimum. Use a smoke pellet to determine if a shed has sufficient ventilation. This needs to be used while the cattle are in the shed, as it is the cattle that create the 'stack effect'. Smoke pellets can be bought from most hardware and plumbing stores. Complete pneumonia vaccination before the risk period. Increased incidences of pneumonia can occur where weaning calves coincides with housing. Ideally, wean calves outside or allow at least two weeks to allow them to adjust to housing and the silage diet before being weaned.