Management Notes

cafre
College of Agriculture, Food & Rural Enterprise

Management Notes are prepared by staff from the College of Agriculture, Food and Rural Enterprise (CAFRE). CAFRE is a college within the Department of Agriculture, Environment and Rural Affairs (DAERA).

Prepared: 04/10/2021

Dairying

Richard Gibson

Autumn grazing management

The focus of autumn grazing management is to increase the number of days at grass and animal performance, but also to set the farm up during the final rotation to grow grass over winter and provide grass the following spring. The rotation length should be 30 days for mid-September and pushed to 35 days from 1st October. On 1st October, if you have 100 cows grazing a 35 hectare grazing platform, then to have a 35 day rotation, allow the herd one hectare per day. If this does not provide enough grass, supplement with silage and additional concentrate. Aim for an average farm cover of 2650 kg dry matter (DM) per hectare for 1st October. Start closing paddocks up for the winter from 1st October. This will be the last grazing on your grazing block. Ensure paddocks are grazed tight to encourage tillering over winter months. During the last rotation, focus on grazing residuals if you want to have top quality swards for your milking herd next spring.

Calculate your forage requirements

Estimate the tonnage of silage available on your farm and compare this with the likely winter demand. Start by measuring your pit, length (m) X width (m) X average silage depth (m).

After consulting your silage analysis, use Table 1 to multiply by the correct conversion factor to calculate the tonnes of fresh weight silage.

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

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

Use the silage requirement figures in Table 2 to estimate the demand for silage. Multiply the number of each type of stock by the number of months to be fed by the monthly silage requirement. For example, 80 cows in milk fed for seven months require 784 tonnes (80 cows x 7 months x 1.4 tonnes per month).

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

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

Get your silage tested

Get your silage analysed so you know its potential feed value (M+). This allows you to make decisions on the level of concentrates needed. Table 3 shows the difference in concentrate required in early lactation for cows fed average or good quality silage.

Table 3: Feed requirement for 32 kg of milk

Livestock	Average silage	Good silage
Silage ME (MJ/kg DM)	10.8	11.8
Silage dry matter (%)	28	28
Silage fresh weight intake (kg)	40	43
M+ (kg of milk daily)	M+8	M+12
Daily concentrate required (kg)	11	9

Grouping cows is key to achieving good feed efficiency

Group 1 - highest yielding/early lactation group (cows giving more than 28 kg milk or less than 150 days in milk).

Group 2 - lower yielding/late lactation group (cows giving less than 28 kg milk or more than 150 days in milk).

Set the amount of concentrates fed per cow in the wagon to suit the lowest yielding cow in the group. Good quality (M+12) silage and up to 7.0 kg daily of parlour feed allows cows with yields of 28 kg of milk to be managed satisfactorily, without extra concentrate in the wagon.

Move cows between groups as their yield declines. Cows more than 150 days in milk no longer producing 28 kg of milk should be moved to the low yield group. At this stage, they may receive a greater proportion of their concentrate in the parlour than before, but it is important that cows in late lactation are not over fed in order to maximise efficiency this winter.

Future proofing your dairy business webinars

CAFRE are hosting a series of three webinars on 'Future proofing your dairy business'. They will be held on consecutive Tuesday evenings starting at 8.00pm on 2nd November. The webinars will cover carbon awareness, managing and feeding for sustainability and attracting and retaining staff. For more information, please visit the news and events section on the CAFRE website: www.cafre.ac.uk.

Pigs

Liz Donnelly

New Red Tractor standards

In less than one month changes to the Red Tractor standards will come into effect. If you have an inspection on or after the 1st November, your farm will be audited to the new standards. Changes include the upgrading of existing standards to 'key' standards, the introduction of new standards and the revision of existing ones. Some of the main changes are highlighted below. However, it is important to stress that there are other changes. Please familiarise yourself with them to avoid too many non-conformances and the risk of scheme suspension.

Housing

There are quite a few changes in the housing section. The two main ones are firstly the need to complete an extreme weather contingency plan. This plan will outline steps to take in unusually hot/cold weather, snow, wet weather and ventilation failure.

Secondly, sows must be provided with nesting material, such as natural rope, hessian sack, paper or straw in the 24-hour period before farrowing. The provision of nesting material is required irrespective of the slurry system.

Health and welfare

In the health and welfare section, the main change concerns the provision of environmental enrichment. All pigs, including sows in crates and suckling pigs, must have access to enrichment which meets the pigs behavioural needs. This means that the enrichment currently in use may not meet the revised standard and additional enrichment may be required. For example, if you have alkathene piping or piping plus a chain in pens you will need to provide another type of enrichment such as natural rope, untreated wood or salt licks. You will find more information on the combination of materials and objects that you can use in the standards manual. Other new requirements in this section include the need to record outbreaks of tail biting, possible causes and the calculation of mortality figures for pigs pre-weaning, sows and gilts and growing pigs.

Several of the existing euthanasia standards have been revised and three new ones introduced. For example, initial euthanasia training must be done by your vet. Your vet must also reassess the competency of everyone who euthanases pigs every two years. Contingency procedures in the event of equipment failure and unavailability of a trained person now have to be included in the euthanasia policy.

Biosecurity

In relation to biosecurity, three changes have been made. Firstly, visible markers, for example, a line on the ground or sign are required at vehicle entry points to biosecure areas. Secondly, vehicles collecting fallen stock must not enter the site biosecure area and thirdly you must sign up to the Significant Disease Charter. You can sign up to the Charter through the Pig Hub.

Husbandry

The main changes in this section focus on minimising the risk of tail biting and reducing the need to tail dock. From the 1st November Red Tractor requires you to complete an annual risk assessment to identify risk factors for tail biting and a tail biting action plan. The purpose of the plan is to outline what you are going to do on your farm to reduce the risk of tail biting.

Other changes

Other changes include:

- At least one person on the farm must complete training in the responsible use of medicines and hold a certificate of attendance/competence.

- Medicines must be stored in a fridge separate from drink and food and the temperature of this fridge recorded weekly.
- Anyone involved in the care of pigs must complete online welfare training courses. The first course, which is on moving and handling pigs, will be available online soon. Once launched you have three months to complete the course.
- If you have workers on the farm, you will need to complete a written health and safety policy.
- If feeders are accessible to birds, measures must be put in place to minimise the risk of the feed being contaminated. These include for example. bird proofing houses or lids on feeders.
- The need for a written, up to date calculation of slurry storage on the farm.

Beef and Sheep

Nigel Gould

Housing cattle

As the focus turns to winter housing of cattle, take time to think about what you can do on your farm to minimise health issues. Increased levels of stress in cattle, together with the housed environment, allows pathogens to live and multiply more easily. A good example of this is the increased prevalence of pneumonia in cattle as they are housed. Good ventilation is 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 m^2 and 0.1 m^2 of outlet respectively per head and at least double this amount as inlet. A smoke pellet can be used to determine if a shed has sufficient ventilation. Use the smoke pellet while the cattle are in the shed, as it is the cattle that creates the 'stack' effect. Smoke pellets can be purchased from most hardware and plumbing stores. Weaned calves are particularly susceptible to pneumonia, especially if housing and weaning occur at the same time. Where facilities and weather conditions allow, wean calves at grass and let them stay there for three weeks post-weaning. Alternatively, delay weaning until after the calves have been in the house for a period of time to give them a chance to adjust to their new environment and silage based diet. Another stressor to consider is the grouping of cattle in the house. There will be less stress at housing on animals that were grazed together compared to those mixed with different cattle at housing. Treatments for lungworm and pneumonia vaccination before housing will reduce the incidence of pneumonia.

Sheep breeding season

Tupping season will start in most mid-season lambing flocks this month. Use a raddle on rams to help monitor mating and identify repeats, which will be 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 the raddle and will give a consistent colour over time. If using the harness, check that it is put on correctly so that it does not impede mating activity. Whichever method is used, changing colours during the season will allow identification of repeats. Start with lighter colours and change colours every two weeks. Take time to monitor the ram mounting, particularly when he is first turned out with the ewes. Where single sire mating is practiced, do not rely on one ram but swap rams across groups of ewes to reduce the effects an infertile or sub-fertile ram could have on scanning rate. Be mindful that an increase in ram body temperature, even for a short period, is likely to render that ram infertile and new sperm production generally takes six to seven weeks. Where more than one ram is used with a single group of ewes, monitor activity as some rams tend to dedicate more of their time towards impeding the other ram from serving ewes.

Breeding ewe lambs

If ewe lambs are being served it is important they weigh at least 60% of their expected mature weight. This means a live weight of at least 45-50 kg for most sheep breeds. It is not recommended to over feed ewe lambs in the period following ram turnout as this can have a negative effect on embryo survival. Average quality grazing is desirable to maintain or just slightly increase live weight. However, during pregnancy, ewe lambs require a higher level of feeding compared to mature ewes of similar live weight to meet growth demands and sustain the nutritional needs of pregnancy. It is important ewe lambs are managed as a separate batch to the mature ewe flock up to weaning to ensure they reach their target of 85% of mature ewe weight by breeding the following year. Some farmers choose to lamb these ewes after the main flock for ease of management. Others lamb them at the same time as the main flock to have more options of cross fostering multiple lambs. This is of greater benefit for prolific breeds.

DAERA
Department of Agriculture, Environment and Rural Affairs
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Crops

Leigh McClean

CEREALS

Aphid monitoring and virus control

Controlling virus carrying winged aphids is crucial to minimising the virus risk to cereals post-emergence. 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 at lower risk of infection.

Weed control

To achieve good weed control this autumn, apply residual herbicides before the crop or weeds emerge. Prioritise winter oats and barley as active ingredients, particularly those effective on grass weeds, are limited to a few products.

Slug monitoring

Continue to monitor winter crops until plants are beyond the vulnerable seedling stage. The highest risks are following rape or vegetable crops and where seedbeds are cloddy and damp and seedling emergence is slow.

If using slug traps and numbers exceed four per trap in cereals or one per trap in oilseed rape, consider applying ferric phosphate 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 in feeding damage to gauge effectiveness of this 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.

POTATOES

Minimising harvest damage

During potato harvest, watch out for mechanical damage to tubers. Samples previously submitted by potato BDG members indicated mechanical damage varied from 3% to 27%, whilst visible bruising varied from zero to 32%. This demonstrates that taking care when harvesting and handling the crop 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 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. Everyone involved in harvesting should be made aware of the importance of damage and bruise prevention. Often they are in the best position to identify problems and do something about reducing damage.

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 disease 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% 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.