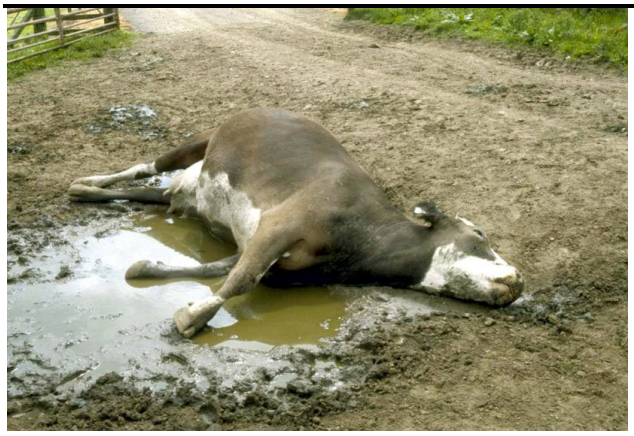
DAIRY HERD HEALTH & PRODUCTIVITY SERVICE

Newsletter 2019, Q2 May 2019



Don't forget magnesium this spring

The weather has been pretty mixed this spring so far. Some lovely days but cold nights, with some getting the cows out to grass early. All interspersed with heavy showers and even snow: classic ingredients for grass staggers…..

Although there is plenty of magnesium stored in the skeleton, very little of this is available for the animals' daily needs. These magnesium needs are highest for milking animals as there is a daily loss of magnesium in the milk – although all animals need magnesium each day for a wide range of biological processes.

Vets commonly report that they end up treating more beef cows for grass staggers than dairy cows. This is probably because the risks of grass staggers in dairy cows are well recognised, and dairy cows are fed supplementary magnesium via the parlour cake or buffer feed. In contrast, spring calving beef cows at grass often receive minimal or even no mineral supplementation.

Along with the well-recognised risks in animals producing milk, magnesium is vital in late pregnancy. Magnesium is an essential co-factor required for the calcium hormone mechanisms to work, and so a lack of magnesium precalving can result in milk fever problems. In beef cows, a lack of magnesium has been associated with slow calvings and increased calf deaths at calving, associated with subclinical milk fever.

- Magnesium requirements in late pregnancy are quoted as being 1.2 g/kg DM, which equates to 16 grams of magnesium at 13 kg DM intake. If feeding 100 grams of dry cow minerals, it will need to contain 16% magnesium to achieve this.
- Standard milking cow recommendations are 2 g/kg DM magnesium, which is usually supplied by feeding 30 grams of magnesium per cow per day (provided by 60 grams or 2 oz of calcined magnesite). Note that this is based on a 25 litre cow absorbing 20% of the magnesium from the diet – and actual requirements may be higher!
- Supplementation via the water can work in low yielding cows. However, remember that drinking water intakes will be lower during rainfall, when water intakes from grazed grass will be higher. Cows do not like the taste of medicated water, and will drink from other sources such as streams if given the choice.
- Uptake of magnesium in the cows' gut requires sodium, and so sodium (salt) deficiency can result in secondary hypomagnesaemia. Conversely, high levels of potassium (potash) inhibit magnesium absorption – watch for fields with high slurry or potash fertilizer applications. Check soil and forage mineral status.
- Another preventative measure is to feed long fibre (such a straw or big bale silage) to beef cows at pasture. This slows down gut transit time, allowing more time for magnesium absorption in the cows' gut.

Do not leave it to chance – grass staggers is preventable provided that the cows' magnesium requirements are met. If in doubt, check by blood testing "at risk" cows.

Mobility scoring course

We are running a Register of Mobility Scorers approved training course on Tuesday 7th May 2019 at Langhill Farm, Midlothian, EH25 9ST from 10am-4pm (lunch provided). POA. Please contact the DHHPS office to register.

Dairy Herd Health and Productivity Service, Division of Veterinary Clinical Sciences, Royal (Dick) School of Veterinary Studies, University of Edinburgh, EBVC, Easter Bush, Roslin, Midlothian EH25 9RG
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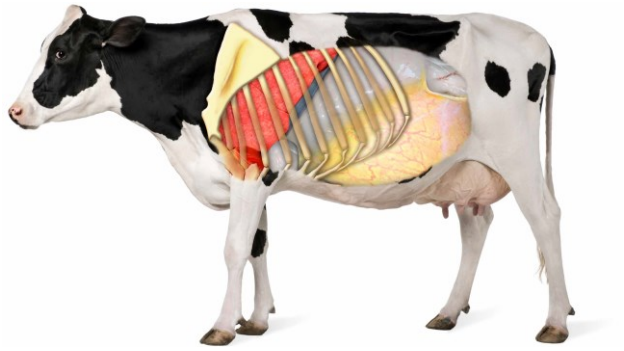
DHHPS prices

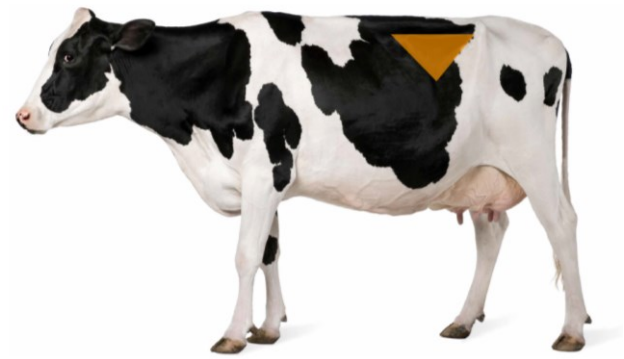
We are holding our annual DHHPS membership prices for 2019-20, but unfortunately have had to make increases in April 2019 for "one off" tests. A "one off" test costs £340 for 17 cows, and pre-lambing sheep test is £150 for 20 sheep.

Assessing Rumen Fill



Assessing rumen fill is a useful management tool to evaluate Dry Matter intake, recent appetite and give an indication about the rate of feed passage through the digestive tract.

The rumen takes up the majority of the left side of the abdomen of ruminants. Rumen fill scores can only be evaluated from the left hand side in the paralumbar fossa. The area to assess is the orange triangle shown in the diagram below.



When rumen fill is poor, this area is hollow/concave - often described as the "danger triangle". This signals that the rumen is empty, and the cow has not been eating as much as she should. This could signal that she is sick, or that there is insufficient or unpalatable feed. Rumen Fill is scored on a five point scale: 1 = very poor rumen fill to 5= full rumen.

Score	Rumen Fill: Description
1	A deep dip in the left flank. Concave and when viewed from the side is rectangular in appearance. The rumen fossa behind the last rib is more than one hand width deep. **This cow has eaten nothing in the last 24hours.**
2	Concave and when viewed from the side is triangular in appearance. Rumen fossa behind the last rib is one hand width deep. This is a signal of insufficient feed intake or a rate of passage that is too high.
3	Slight dip visible in left flank, after the last rib. Skin under lumbar vertebrae runs vertically down for one hand's width before bulging out slightly. This is desired score for milking cows.
4	No dip visible in the left flank, after the last rib. Skin under lumbar vertebrae curves outwards. This is the correct score for cows nearing end of lactation.
5	Lumbar vertebrae are not visible. There is no visible transition between flank and the ribs. This score is often seen in dry cows

Score cows during daily inspections. Remember the rumen fill score of a cow is only a snapshot in time, and so it is useful to carry out scoring at different times in the day to get a better representation. Variation in rumen fill scores throughout the day should not deviate more than +/- 0.5 score from the target - see table.

Depending on the ration being fed, there are different targets for rumen fill scores. Rations that have a slower rate of passage have higher rumen fill scores, compared to rations that have a faster rate of passage. In addition, a heavily pregnant uterus and high fibre diet should lead to a higher rumen fill score for dry cows.

If the rumen fill score is 2 or less, the cow has not eaten enough. Note that a score of 2 is common in the first week of lactation, but later in lactation a score of 2 or less indicates either poor feed intake and/or a high rate of passage.

If individual cows have low scores, this needs further investigation. Are they ill? Or are the more vulnerable lower ranking animals getting pushed out from feed if trough space is tight? If there is a lot of variation in rumen fill scores in the group, find out why. If the scores in a group are too low or too high, monitor feed intakes and inspect the ration.

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