DAIRY HERD HEALTH & PRODUCTIVITY SERVICE

Newsletter 2023, Q2 May 2023

Calving cows at grass over the summer

After a wet and cold spring for many, turnout is now well underway across the country, with many herds now getting out to grass. This still includes many dry cows at grass, calving outside in calving paddocks. Whilst such systems can potentially work well, there can be issues……

Grass growth can be very variable over the summer grazing period: if we have a dry spell like summer 2022 in England, then grass growth will be very limited, restricting Dry Matter and energy intakes. However, if we get a warm wet spell, then cows can easily end up knee-deep in lush wet grazing, which will often cause as many problems.

The mineral balance of grazed grass is also an issue for milk fever control, as grass is usually high in both calcium and potassium, both of which can be bad news for milk fever cases. If "close up" dry cows are out at grass and you are getting too many milk fever cases (more than 5%, or 1 in 20 cows calving getting milk fever), then it is worth making changes.

Current recommendations are not to rely on grazed grass alone for precalving cows. Buffer feeding some conserved forage in the last three weeks of pregnancy will help to maintain Dry Matter intakes, especially in the face of fluctuations in grass growth. Maize silage and wholecrop can work well, as they generally have a better mineral balance for milk fever control.

Feeding 2 – 3 kilos of dry cow concentrates in the last three weeks of pregnancy is helpful to get the rumen ready for the coming lactation and smooth the transition at calving. It will also help with the mineral balance of the precalving diet to prevent milk fevers. Feeding a proprietary dry cow roll to cows at grass can work well, as can a homemix or mixed ration, provided that it is fed fresh each day.

Indeed, a number of herds have found that fully housing the "close up" dry cows for the last three weeks of pregnancy is the only way of maintaining proper control over the precalving diet. Whilst this may be a step too far for some, it does illustrate the difficulties in managing dry cows at grass.

Don't forget about the "far off" dry cows, who can end up over-consuming energy if they are out on lush grazing. Keeping their grazing tight to limit grass intakes is one option to ensure that they do not get too fat, especially if some cows end up with longer dry periods due to extended lactations. "Standing hay" fields can work well for "far off" dry cows to limit energy intakes.

Whatever your system for "close up" dry cow management over the summer period, monitoring is key to identifying problems early, and nipping them in the bud. Rumen fill can be a good early indication of problems in dry cows at grass: if the "danger triangle" is visible on the left hand side of the cow (where the rumen gas cap is), then this would indicate that feed intakes are poor, and some sort of system to buffer feed forages to improve Dry Matter intakes is needed. Likewise, regular body condition scoring of cows can help identify problems, although this can take a while to change.

Metabolic profile blood testing is invaluable to "ask the cows" what they think of their diet, especially in dry cows out at grass. Sampling at least 5 – 6 "close up" dry cows in the last 10 days prior to calving will assess nutritional status during the critical stages close to calving, and enable any issues to be identified and sorted.

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

Tel: 0131 651 7474 DHHPS@ed.ac.uk www.ed.ac.uk/vet/dhhps

Importance of colostrum for beef calves

There are lots of data available on the importance of good colostrum intakes in dairy calves, but what about beef calves? Published work from one of our colleagues, Rachel Bragg MRCVS, has highlighted that significant numbers of newborn beef calves do not receive sufficient colostrum after birth. She has also recently published work showing that not getting enough colostrum has significant adverse effects on beef calf performance.

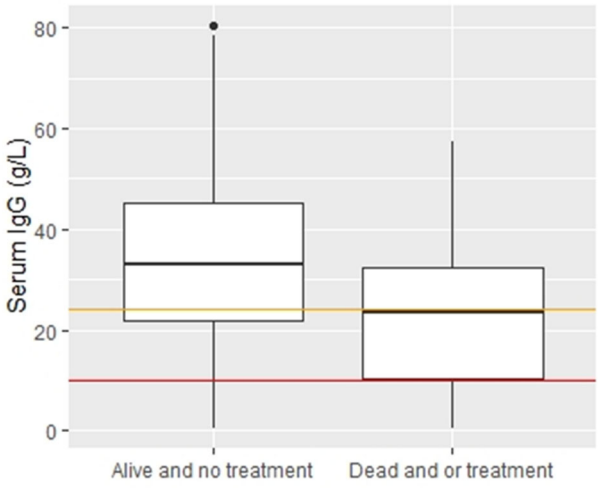
Rachel's study followed up beef calves that had been blood sampled just after birth to check on their colostrum intakes. She used a questionnaire to ask what happened to these beef calves in later life, requesting details on their health problems, mortality and growth rates. Information came back from 674 calves born on 50 commercial beef farms across Great Britain.

The average daily liveweight gain (ADLWG) of the calves in the study was 1.1 kg per day, although the farm ADLWG ranged from 0.79 to 1.36 kg per day, reflecting the wide range of breeds and management of the 50 different commercial beef farms in the study. Analyses of the ADLWG data used a number of different methods, including looking at whether the calves grew better or worse than the study ADLWG of 1.1 kg per day, and whether the calves grew better or worse than the individual farm's ADLWG. Despite all of the differences in farm management, how much colostrum the calf got after birth was a consistent predictor of ADLWG: calves that did not receive sufficient colostrum had lower growth rates compared to the study or farm ADLWG. In addition, calf sex (male calves had higher ADLWG), birthweight and whether the calf was born to a cow or heifer were also predictors of growth rates.

It should be noted that the diseases and treatments recorded in the calves were low: only 1.5% of the calves died, and only 6.4% of the calves required treatment (most of these were for diarrhoea, pneumonia or lameness). This is substantially lower than many other studies.

The risk of death and/or treatment in calves that did not receive enough colostrum (serum IgG below 10 g/l) was 15.8%, whereas it was only 6.6% in calves that did get sufficient colostrum.

Further analyses showed that whether a calf got enough colostrum after birth (see graph below), calf sex and calves that needed assistance at calving were all significant predictors as to whether a calf died and/or needed treatment. For every 5 g/L increase in antibody levels in the newborn calf, the Odds Ratio of dying and/or requiring treatment was 0.86.



Boxplot from Bragg et al (2023) Vet Record 192(6): e2587 showing colostrum antibody levels in newborn calves (serum IgG), comparing those calves that died and/or needed treatment to healthy calves. Red line = 10 g/l, indicating complete Failure of Passive Transfer. Yellow line = 24 g/L, indicating partial Failure of Passive Transfer.

These results highlight the importance of getting enough colostrum into beef calves quickly after calving. If the calf needed assistance at calving or has a weak suckle reflex, then getting 3 – 4 litres of good quality colostrum into the calf within the next couple of hours is vital. Do not delay!

RoMS mobility scoring course

We are running a RoMS accredited mobility scoring course on Tuesday 16th May at Langhill Farm, Roslin, Midlothian. To register, please contact the DHHPS office.