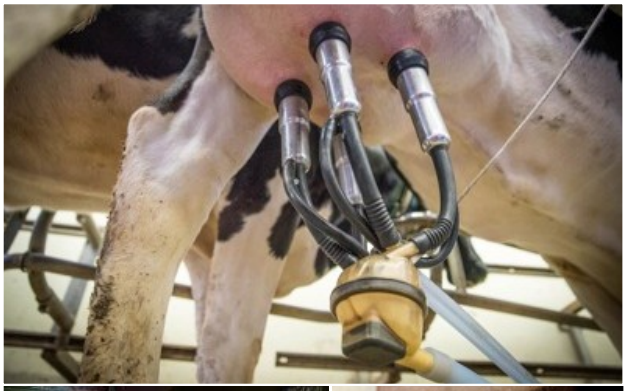
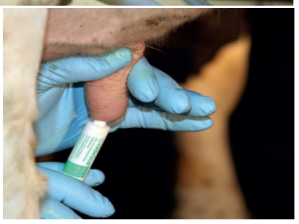
FARM ANIMAL NEWSLETTER - JUNE 2021

SOMATIC CELL COUNTS





The individual somatic cell count (SCC) is the main indicator of whether a cow is sub-clinically infected with mastitis causing bacteria. The majority of somatic cells are white blood cells which are present in milk in increasing numbers as the immune response to these bacteria grows.

- An individual cow SCC of less then 100,000 indicates an uninfected cow where there are no significant production losses due to subclinical mastitis.
- Cows with a cell count of over 200,000 are highly likely to be infected on at least 1 quarter.

The bulk milk somatic cell count (BMSCC) therefore gives and indication of what proportion of cows in the herd are likely to be sub-clinically infected with mastitis.

As a rule of thumb if the BMSCC is 200,000 approximately 5% of quarters in the herd are infected and at 300,000 10% of quarters are likely to be infected. Cows with high cell counts have a reduced milk yield – reducing the bulk milk somatic cell count from 250,000 to 150,000 is likely to result in savings of £40/cow/year mostly due to 0.5 litres/cow/day reduced production when the cell counts are raised. Cell counts tend to reflect a response to contagious mastitis pathogens.

At present when there are limited milking cow tube options for treating clinical mastitis and also increasing pressure to reduce the use of blanket antibiotic dry cow tubes on all cows at drying off (instead relying on sealants for all cows with additional antibiotic dry cow tubes for higher cell count cows) it is more important than ever to identify which cows are likely to be infected and which mastitis pathogens are prevalent in your herds.

If you are having problems with rising bulk milk somatic cell counts or high numbers of clinical cases we have the availability of some heavily subsidized tests on bulk milk samples to identify which mastitis organisms are present in your herd and/ or bacteriology on clinical mastitis cases or high cell count cows. For more information contact the surgery.

Over the next few months we shall have some follow up articles on contagious mastitis control, environmental mastitis and teat sealant and selective dry cow antibiotic treatment regimes.

GIVING DAIRY CALVES THE BEST START

Figures from a recent survey have disclosed that over 12% of newborn calves die. Reasons behind the calf mortalities vary from difficult births to neonatal infections. When a calf is born dead, there isn't anything any of us can do, but ensuring those born alive receive the best start will prevent further losses.

The calving environment will impact on a calf's health. If calves are born into a dirty environment they are faced with an overwhelming challenge from bacteria. Ensuring the calving pen is clean and dry reduces this factor. Calves umbilical cords should be sprayed with 10% iodine as soon as possible.

COLOSTRUM MANAGEMENT

Colostrum is rich in energy and contains high levels of antibodies which protect the newborn calf from the common diseases present on the farm where it is born. Antibodies are specific proteins that can only pass through the calf's gut wall during the first 24 hours of their life. So we need to beat the bugs and get plenty of quality colostrum into the calf's belly, allowing passive immunity and a protective barrier.

Newborn calves need at least 3 litres (6 pints) of quality colostrum as soon as possible after birth followed by a further 3 litres (6 pints) six hours later. This means at least 20 minutes of sucking it's mother, but research has shown that if the calf is left alone to suckle, 60% of dairy calves will not acquire sufficient antibodies. The best practice which ensures that a newborn dairy calf obtains sufficient colostrum is to milk the cow and administer three litres either via bucket, tit bucket or tubing bag. Although leaving the calf to naturally suckle the mother seems ideal, human intervention in these first hours is the easiest and cheapest method of disease prevention. In the survey, results showed that the majority of farmers underfed newborn calves (only feeding 2 litres of colostrum per feed) in the fear of causing scours. We can reassure you feeding this amount of colostrum will not cause harm to the calf, the more colostrum consumed provides better protection.

#ColostrumIsGold

Sampling colostrum using a colostrometer or refractometer measures the quality of the colostrum and the antibody content, this is another simple step to ensure your calves are receiving the best start. Another method to test the quality of colostrum is via a blood sample collected by a vet from calves in the first week of life. The blood sample is used to calculate the amount of protein that has passed from the colostrum to the calf's blood. We carry out the testing in house, so a same day result is achieved. After 6 hours after birth antibody absorption into the bloodstream significantly reduces. At approximately 12 hours after birth, the efficiency of absorption of these antibodies falls by as much as 50% and after 24 hours, absorption is towards 10% of the level achieved in the first 6 hours.

Heifers, very thin cows, recently purchased cows, or cows with mastitis will all produce poor quality colostrum. Recently purchased cows may not have antibodies in their colostrum to the diseases on your farm. Very thin cows may not have the energy to make antibody rich colostrum, often their colostrum will look thinner than normal (poor quality). If the dam's colostrum is deemed inappropriate dried or frozen colostrum may be supplemented. If using a powdered colostrum, choose one with a high Igg protein content and follow the manufacturers mixing instructions. If using colostrums which has been frozen ensure you thaw out the colostrum but do not microwave it as it leads to hot pockets where the antibodies are damaged. Colostrum should be thawed in a large bucket of hot (not boiling) water to ensure that no antibodies are damaged. Colostrum should be fed to calves once it has reached 38ºC (100ºF). A vaccine is available which can administered to pregnant cows 3-12 weeks before calving. This boosts the antibodies in the colostrum to protect the calf against the most common causes of scours.

Calf scour, joint ill, pneumonia and septicaemia are all influenced by colostrum intake, ensuring every calf gets a minimum of 6 litres of colostrum in the first 12 hours of life will protect your calves from most of the common diseases on your farm. Hygiene is also essential to minimise disease risk. Calf pens and feeding buckets should be cleaned thoroughly and kept dry to reduce the risk of illness.

For more information or if you are having issues with your calves, or would like to discuss calf health please do not hesitate to get in touch.

BLOWFLY STRIKE—ARE YOU PREPARED?

Blowfly strike in the UK results in the opportunistic invasion of living tissues by the larvae of *Lucilia sericata* (greenbottles), *Phormia terrae-novae* (blackbottles) and *Calliphora erythrocephala* (bluebottles).

The blowfly lifecycle occurs off the sheep and adult flies can travel. Adult female flies deposit eggs on dead animals or soiled fleeces. Eggs hatch into first stage larvae within about 12 hours. These larvae feed on tissue, grow and moult twice, becoming mature maggots in 3 to 10 days, depending on temperature and humidity. Third stage maggots then drop to the ground and pupate, mature flies emerging between May and September after 3 to 7 days. Flies over-winter in the soil as pupae, and emerge as soil temperatures rise during the spring. Blowfly populations are greatest during the summer months. The entire life cycle from egg to adult can occur in less than 10 days.

Primary flies including greenbottles and blackbottles can initiate strike on living sheep, while secondary flies including bluebottles only attack areas which are already struck or damaged. Maggots are active and voracious, causing skin and muscle liquefaction as they develop attracting secondary blowflies. Toxins released by decomposing tissues and ammonia secreted by the maggots are absorbed through the lesions into the sheep's blood, causing systemic illness which can cause death.

Affected sheep can be treated by plunge dipping using an organophosphate preparation but it is more usual to treat individual infested sheep with pour on (e.g. **Crovect, Dysect, Ectofly** which can be used to treat as well as prevent blowfly strike) applied directly to the struck area after first clipping away overlying wool. Dicyclanil (**Clik, Clik extra)** prevent blowfly strike but do not treat blowflystrike. Antibiotics and NSAIDs should be given to severely affected sheep .

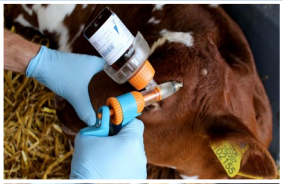
Before preventive measures using various chemicals are considered, much can be done to reduce the attraction of blowflies for example a grazing programme to prevent the massive build up of infective helminth larvae on permanent pasture during July and August (mid-summer rise) reduces diarrhoea caused by high parasite burdens. Where faecal staining of the perineum occurs this wool must be removed ("dagging" or "crutching").

	Meat Withdrawal	Approx Cost/Week For 10-20kg Lamb	June	July	August	September	October	November
CLiK EXTRA	40 Days	7p	19 Weeks					
CLiK	40 Days	6.9p	16 Weeks					
Crovect	8 Days	4.9p	6 Weeks					
Dysect	49 Days	3.8p	8 Weeks					
Ectofly 12.5 mg/ml Pour-On Solution for Sheep	8 Days	3.3p	6 Weeks					

For more information or for a quote please contact the surgery on 01729 823538

DISBUDDING OF CALVES

In the welfare codes for cattle and Red Tractor farm assurance guidelines it states that disbudding should take place before calves are two months of age and ideally as soon as you can start to see the horn bud. Disbudding should only be carried out with a heated iron, under local anaesthetic, by a trained and competent stock keeper.



Anna, our farm animal Vet Tech, offers a disbudding service for calves up to two months of age. As well as the local anaesthetic block, NSAIDs are given providing pain relief to reduce any feed checks and discomfort. Handling assistance can also be provided where needed so that you can get on with other jobs around the farm. For more information regarding our disbudding service, please contact the surgery.

COW COMFORT– MAKING TRACKS

As the warmer weather arrives and the last of the silo eaten, many of you are finally turning out. The impact this can have on lameness levels will vary greatly, one factor being your cow tracks.

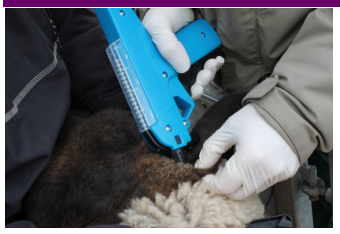
Pasture provides a good, healthy surface for cows feet – it is soft, provides good grip and harbours less bacteria than a cubicle building passageway. However, all this is wasted if a cow has to walk a long way to and from the pasture on an unsuitable track. Cow tracks should be exactly that – tracks for cows, a concrete track suitable for vehicles is an unsuitable surface for cows over a long distance, and a good cow track will be ruined if vehicles drive on it.

A good track should be shock absorbent and have a smooth surface, track material should be free from stones that can be trapped between the claws. Ensure it is wide enough for the herd size – a 200 cow herd needs a minimum track width of 4 metres. Tracks should not have sharp turns or sections that allow for bottle necks to occur to ensure a continuous flow of cattle. Consider the gradient of the track – a loose surface can only be up to a maximum of 12% but ideally no more than 8%.

Assess your track by assessing your cows – mobility scoring, which our Vet tech team can carry out for you, followed by lesion identification – will all give clues as to how your track is performing. Looking for ridges and gullies in the track as well as watching how and where the cows walk on the track can all help.

For more information on Cow Tracks, Mobility scoring or Foot Lesion identification give the practice a ring, and if you are looking to build a new Cow Track we can help you with the latest design and build specifications.

EARLY LAMBING IN EWES—REGULIN IMPLANTS



Although we are still seeing the occasional late lambing ewe requiring assistance at the surgery it is already time for early lambing flocks to start thinking of preparing ewes for the tup.

Regulin ear implants can be used to bring forward the natural breeding season by up to 2 months. In a treatment regime tups are kept away from the ewes (out of sight, sound and smell of the ewes) for at least 1 week prior to inserting the implants in the base of the ear until 5 weeks after implanting.

Peak mating takes place 60-70 days after implanting the ewes. To begin lambing at the start of February, Regulin should be administered at the start of July. We would recommend a tup:ewe ratio of 1:20 but we can also implant the tup to improve the quantity and quality of semen produced.

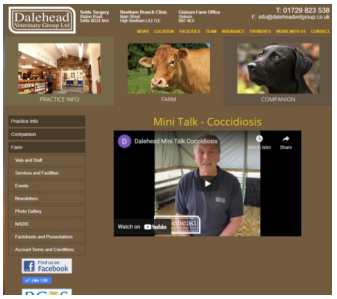
The advantages of using Regulin over sponging include:

- Conception rates are as good as to a totally natural service with no increase in multiple births
- Sheep that don't conceive to their first mating will continue to cycle normally and not return to anoestrus

For more information about Regulin please speak to one of the farm vets.

UPDATES FROM THE LAB

We have continued to receive a fantastic amount of muck samples for Faecel Egg Counts (FEC) in preparation for lambs 1st dose. These samples have revealed that Nematodirus has emerged on the many farms in the area. We have also seen high counts of what we call 'Summer Worms' (Strongyles, Strongyloides, Moniezia) as well as Cocci.



Testing before treating allows us to identify what worms are present on your farm and to what quantity. We are all aware of anthelmintic resistance so identifying if 'summer worms' are present allows us to prescribe the most effective treatment ensuring your lambs production rates are not hindered. During FEC we can also identify Coccidiosis, if at a high level additional treatment may be advised. For more information please contact the surgery or visit our website to view our recently uploaded 5 minute presentations.

Along with the lamb muck samples we have also received adult sheep samples submitted for fluke, several of which have come back positive. It is important to find out whether adult flukes are present as the eggs that they pass are the main source of fluke for this autumn. If you would like more information regarding testing your flock or herd for fluke, please contact the surgery.