



Summers here!

Well it seems we are approaching the halfway point of another year already – as always we are left wondering how the time keeps disappearing so quickly! What a difference a year makes. This time last year we were all desperate for rain and with pumps frantically running round the clock we'd probably all be ready for a dry spell now.

So far though this year has been kind to us, and it's been great to see herds pushing on and making the most of the current conditions. As we gradually enter summer it's also a busy show season – good luck to those showing cows, and to everyone attending we hope to see you there.

In this edition of the newsletter we take a look at what cow management factors influence colostrum quality, how we can maintain that

quality during processing, and how best to keep your herd on its feet. There's also the usual round up of what else has been keeping us busy and how we are doing dairy differently.

So, get a cup of tea (or other beverage of your choice) sit back and read on!

All the best and lets hope the rains stop soon!!

Dan, Dave and Mark



BVD Stamp it out update

This important national initiative continues to gather pace as we have previously reported. Having completed the initial phase of visits we are reaching completion with many farms but there is still time to get involved and access the fully funded testing a consultancy available through the scheme. We will be running another enrolment meeting in the next couple of months so if you missed out last time round but want to get involved let us know and we will add you to the list.

Producing and maintaining good colostrum

Introduction

Colostrum is one of the most talked about subjects in livestock health. Much of the time we focus on the role of colostrum from the calf's point of view. We can however sometimes forget that the dam has a significant role to play in this process – there's colostrum and there's colostrum!

components of the immune system are concentrated in the colostrum which when provided at adequate levels should provide the calf with a good starting immune system. Additionally, molecules with a nutritional value such as fats, sugars and proteins provide important food for the newborn.

colostrum from heifers is often of lesser quality.

In addition, there are a number of important factors that drive colostrum quality and quantity that are within our control. We know that dry period length is critical as the udder starts the process of colostrum provision as much as 5 weeks prior to calving. Not surprisingly, general body condition is associated with successful colostrum provision. For example, thin cows will struggle to meet colostrum targets. These individuals may well be affected by poor health, lameness, age or inappropriate nutrition e.g inadequate by-pass protein. Stress also plays a significant role and can be due to a range of factors such as inappropriate dry period

What can go wrong?

When the whole process goes well, the results can be excellent however it's not easy to do well and takes significant effort and attention to

detail. At the front end of the process is the dam's colostrum provision which should be measured in both quality or quantity. When either or both of these fall short, it's clearly very difficult if not impossible to meet the needs of the newborn calf.

Several factors determine the success of the dam to produce colostrum to good quality and quantity. Some of these are due to innate factors such as breed and age. We know that high yielding breeds such as the Holstein have on average lower quality colostrum and that

accommodation or again nutrition. Indeed, the stress for new arrivals and heifers that haven't been through the system before could well have a significant negative effect.



Poor colostrum quality is often blamed on breed genetics and this certainly isn't always the case.

What is colostrum and what's in it?

As we all know colostrum is good stuff and that provision of the right quantity of good quality colostrum gives calves a good start in life. Consequently, these healthier calves use less antibiotics and have better growth rates. The colostrum itself is produced from the mammary gland during the dry period largely through filtration of the dam's blood. Through this process, antibodies and other



How can we help dams produce good quality colostrum

If we consider the topics discussed above, there are a few areas that we can work on to have a significant positive bearing on colostrum production.

Maintain appropriate body conditions.

Provide good and importantly consistent feed to dry cows to include appropriate protein, energy and mineral levels.

Utilise vaccines such as calf scour vaccines to boost protective antibodies in the colostrum. Vaccine choice should be driven by the pathogens present in the herd and that play a negative role in calf health and so please take advice from your vet to tailor the correct vaccines for your herd. Correct handling of vaccines and timing of administration is also critical to optimise vaccine derived antibody

Maintaining colostrum quality

Sometimes we see perfectly good colostrum produced by the cow however this good work can be easily undone dur-



ing the harvesting and storage process. Colostrum must be collected, processed, stored and administered hygienically as bacterial contamination has a dramatic negative effect on successful

colostrum transfer to the calf. Teats that are poorly prepared prior to harvesting can result in significant faecal contamination of the colostrum. Furthermore, it only takes a

tiny amount of faeces to

have a massive impact on colostrum quality, due to the capability of bacteria to multiply rapidly.

Unfortunately we sometimes see poor practice as outlined in the photo below. This colostrum may well have started out with a high quality however this has been quickly deteriorated while it was being 'stored' on the parlour floor, through the action of bacteria resident in the bucket's biofilm, together with those in the contaminants which included faeces and flies!

The situation below is completely different. Here we see a spotless bucket with a lid to reduce the chance of contamination. The colostrum isn't sitting around and has been processed right immediately after collection.

Other more sinister organisms such as mycobacterium avian paratuberculosis (MAP) which is responsible for Johnes Disease may also be present in colostrum contaminated with faeces. Where pooling of colostrum is practiced, the risk of these infectious contaminants spreading is increased dramatically.

The other major source of contamination is through biofilms on buckets. These are breeding grounds for bacteria and



content in colostrum.



are not always obvious to the naked eye, therefore just because equipment look clean, it often isn't. Rinsing out alone isn't enough and so good daily cleaning and disinfection of all equipment that comes into contact with colostrum is critical.

Maintenance of colostrum quality through good storage practice has been made significantly simpler by the availability of packs from several manufacturers. These packs can be filled and stored for use at a later date. Once colostrum has been harvested it should either be fed immediately or stored in sealed containers in a well-maintained fridge or freezer. It should not be set aside in an open bucket at ambient temperature to become a bacterial soup for use at some point in the coming hours and days. Clearly the speed at which colostrum quality deteriorates is highly dependent on the degree of bacterial contamination. As a rule of thumb to ensure colostrum is in the best condition, I like to use colostrum that has been stored in the fridge or freezer within 2 days and 6 months respectively. Importantly, never thaw colostrum water that's too hot or in the microwave as this quite literally cooks it. A temperature of no more than 50°C is safe to thaw colostrum.

So how good is your cows' colostrum?

Colostrum quality should be monitored closely. Those that are most successful in terms of rearing high-quality calves, monitor and record both the quality and quantity from every cow whilst also considering other health factors such as Johnes. Quality can be measured through densitometry or refractometry with volumes measured using measuring jugs or equivalent. By doing this, the best colostrum can be selected for use and stor-

age. This data is also important for your vet to use when assessing how well cows are transitioning.

Summary

Colostrum is free and is a cornerstone of youngstock health in our herds. We therefore should exploit it as much as possible. If done successfully, we can reduce both calf morbidity and mortality thus reducing medicine usage and spend. Furthermore, healthy youngstock develop into more productive and profitable cows.



Improving mobility in your herd

It's well known that poor mobility or lameness can have major negative impacts on both the welfare and profitability of your herd. The prevalence of lameness in the national herd is estimated at more than 20% and at an estimated cost of £200 per case, it's not difficult to see how its financial impact can mount up. Several excellent sources of detailed information on dairy cow lameness and mobility are available such as the AHDB. Their website is well worth a look.

We recognise that each farm is different, with diverse risk factors and so we're not going to focus on the details of each lesion type and how to deal with them specifically. This should be done for each farm individually. We are however going to discuss some areas of risk to look at to hopefully reduce both the severity and prevalence of lameness within the herd.

Firstly, it's critical to understand mobility across the herd and what the target should be. Routine scoring and recording ideally on a quarterly basis provides data to allow us to assess changes in mobility over time thus hopefully avoiding potential mobility disasters. It also provides a mechanism for benchmarking against similar herds. This mobility scoring should be done by suitably trained individuals with the data reviewed by your veterinary surgeon.

We know that to achieve

good treatment outcomes for lame cows, prompt recognition and treatment is critical. It is therefore important that these animals are identified and treated early in the disease process, so all farm personnel should be watching out for and reporting these. So, relying on the next time that the mobility scoring will be carried out or when the hoof trimmer is going to visit is not responsive enough. Instead, personnel on farm should be trained to recognise the early signs of lameness which can then be reported to the appropriate foot-trimmer and dealt with in a speedy fashion.

Good quality maintenance foot trimming at appropriate frequencies together with good foot bathing regimens are both important for the maintenance of good foot health. Feet that are of good conformation, are maintained well and are cleaned appropriately are far less likely to succumb to many conditions that lead to lameness.

Standing/walking surface quality has a huge bearing on mobility. Areas on which cows stand or walk require some focus.

For grazers this may be track surface quality whereas animals that remain inside are at the mercy of their concrete floors.

One area common for all milking animals is the collecting yard. This is a major risk area and longer standing times are associated with an increased risk of lameness. The surfaces per se should not be considered in isolation as it's important to understand how the cow interacts with these surfaces. Good cow flow and particularly patience when moving cows over these surfaces has a major bearing on any potential damage.

In addition to the importance of environmental factors, both nutrition and in particular, genetics and cleanliness have major roles to play. Many of the risks above can be reduced, often by making some relatively simple changes. It's very worthwhile reviewing your mobility with your vet as in most cases there is some room for improvement. Additionally, some training to add to or review existing maintenance and remedial skills of those that carry out foot trimming is often advantageous. In conclusion, it is worth speaking to your vet to review foot health on your farm.



What else have we been up to this month

Despite the hectic spring period we've still been busy with a number of projects. We were privileged to be asked to contribute to AHDB's new fertility guide which will be published later this year. It's always great to be involved in projects like this, exchanging ideas on fertility management with various experts in the field. The process also challenges you to reflect on current strategies and reconsider the fertility programmes we deliver on farm, hopefully bringing improvements to the practice and the farms we work with.

Training has also been a key focus for us whether

it be Mark running in house training sessions, Dave talking to a number of discussion groups or Dan continuing his international road trip focusing on parlour management. Not only is engaging with passionate dairy farmers rewarding but every day's a school day and again this has

yielded some fantastic ideas for the future.

Last but not least there are a lot of firsts when you start a new business and this month saw us tick off another with Dan's wedding. Thankfully the rain held off, the cows crossed their legs and everyone had a great day!



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Medicines update -

Each month we begin this section with the hopeful thought of talking about positive news and new product launches but somehow seem mired in reporting stock out and supply issues that seem to plague the industry. As we write the national issues with local anaesthetic continue. Adrenacaine remains unavailable due to manufacturing issues and there is currently no date for its return. Fortunately we have been able to import an alternative anaesthetic as a stop gap so if you have calves awaiting disbudding speak to one of us about options.

Unfortunately after a brief return to normality, Orbeseal is once more out of stock due to a supply problem. We are doing our best to maintain continuity for all clients but if you know you will need teat sealant in then near future it would be very helpful if you could alert one of us as soon as possible as the waves created by the loss of Orbeseal will likely impact the availability of the alternatives as well.