

Ten Top Animal Health Tips for your Dairy Herd 2020 - Spring Calving Herd

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The spring is a time where both animals and farmers are probably under the most pressure. The start of lactation for your cows and new calves brings with it huge challenges around animal health management. By focusing on these top ten areas on your farm, you can really improve animal health and performance.

1. Good nutrition

Calving time is a huge metabolic and nutritional challenge for the dairy cow. She must go through birthing and begin milking. The start of a new lactation requires huge energy and protein demands. This is where for the first number of weeks, her outputs (milk) are not met by feed intakes. For a period of weeks cows will 'milk of their backs' to bridge this gap.

This is why we spend so much time focusing on body condition scoring of cows in the dry period. Having cows fit not fat before calving. We must pay special attention to any thin cows or those having twins around calving. These ladies may be more prone to metabolic disease and ultimately infectious disease.

The feeding required for the dairy cow will be dependent on what volumes of milk she is producing. While good silage and grass can sustain a good level of production, we must match any deficits at this time with supplementary feeding of concentrates.

If you are feeding forages it is critical to know what the feeding value is (test energy and protein). Then we can more accurately supplement the herd to match their needs.

Dairy cows who lose a lot of condition around calving, will really struggle to get back in calf. This negative energy challenge will also make them more prone to womb infections (metritis) and other diseases.

So, let us help you figure out what she needs and what you have to make good nutrition decisions for your herd.

2. Calcium

Every dairy farmer will be wary of the cow down with milk fever. They present a real challenge to get right and back up milking.

The cow will have a huge demand around calving for calcium in colostrum and then in milk. If this calcium drops down in blood you can get the classic symptoms of milk fever with cows down.

This is because calcium plays a key role in muscle function. In very simple terms it is muscle weakness that contributes to the obvious symptoms we see. However we must remember calcium plays an important role also in immune function.

Anything that effects immunity can have a very big impact on your cows. We also must remember you can have low blood calcium in cows without them showing the obvious symptoms we described earlier. While down cows often need to receive urgent attention and calcium. This subclinical milk fever can really cause problems and needs to be managed.

The cow will naturally flush calcium from her bones before calving to meet the demand. This process is very important because she can't meet her demands in her diet. Magnesium plays a key role in this process. This is in very simple terms why we feed magnesium to cows precalving. It can also be complicated by some silages having high potassium (slurry/potash) which locks up magnesium.

Calcium will be your most important mineral to get right this spring.

3. Minerals

The cow around calving is going through what we call a transition period. This is a period from no production to rapid growth in her output (milk). This will put her immune system under huge stress. Minerals play some key roles in a number of areas, but are very important in immunity.

Good mineral supplementation around calving time can make a big difference to the cow and even the new born calf. Four very important minerals to focus on this spring are

- Selenium (vit E) which plays a vital role in immunity and helping the cow around calving. It can also play a role in calf health and vigour. Selenium issues have been reported in cases of increased retained placenta and weak calves.
- Magnesium is another critical mineral to get right. While it plays a very important role in calcium management. On its own a deficiency can be disastrous. As most farmers know, low magnesium levels increase the risk of grass tetany. This disease leaves us little time to act. Low magnesium (grass tetany) is a particular risk at grass. It is important to remember cows don't store magnesium and need regular daily intakes or supplementation at this time.
- Copper plays an important role in immune function and other enzyme processes in ruminants. While we can see deficiencies, it is more often associated with "lock up" with other minerals. This means where we have high molybdenum, sulphur or iron we can potentially see copper being locked up and not utilised.

We can also over supplement and cause toxicities in some farms. This is another reason to measure what's in feed and then supplement with what's needed.

- Iodine is a very important mineral for immune function and especially with young calves. It has been associated with cases of stillbirths and weak calves. Again cows may not store iodine well and require daily intakes where farms with deficiencies have been identified.
- Cobalt is also an important mineral in ruminants who are growing quickly or for cows at calving going through this metabolic challenge. It is a mineral we need to make sure we get right but deficiencies are often not reported.

With all minerals there can be big differences between farms. While a good dry cow mineral is very important in the (8-6) weeks coming up to calving. Some farms who identify deficiencies, may need to make increased supplementation of some specific minerals.

4. Colostrum

Getting colostrum management right on farm is the key ingredient to rearing healthy young calves. This liquid gold contains all the energy, immunity and hormones the young calf needs now and for their lifetime.

The cow will brew this colostrum in her udder 7-14 days before calving and her diet must have enough energy and good quality protein at this time. You can actually measure the quality of

colostrum on your farm. This simple test ensures that your calves get high quality colostrum and your dry cow's nutrition is right.

This first milk contains big proteins called immunoglobulins, which are essential for the newborn calf with little immunity of their own. It must be consumed quickly as every passing hour means less will be absorbed by the gut of the young calf.

It also must be given in adequate quantities of up to 8-10% of body weight. Every dairy farm should be aiming to get 3 litres at a minimum of warm first milk (colostrum) into their calves.

One other very important area is cleanliness. We do not want the calves first feed to be bugs and bacteria. Keep colostrum clean and regularly clean buckets and refrigerate any spare colostrum quickly (24-48 hours).

The best options for storage is freezing in containers with a large surface area. This makes thawing easier and quicker. Never put colostrum in a microwave or in water where you would not put your own hand. This excessive heat will denature these vital immunoglobulins in the liquid gold.

So focus on

- *Quality* colostrum
- Delivered *quickly*
- In the right *quantity*
- *Cleanly*

5. Feeding calves

Whether dairy calves are being fed on whole milk or replacer, it is key to get one thing right. This is consistency of feeding. Feed the right amounts to ensure adequate growth rates (0.7-1.0kg/day). Set a target growth rate for your farm and measure how effective you have been.

It is also important to be consistent with timing, volumes and temperature. Keep all feeding equipment clean and make sure everyone on farm knows what the routine is.

When using milk replacer, we must think about getting a high quality replacer made from animal based proteins. We should aim for crude protein to be (22-27%) and have fat between (18-20%). Also it is important to ensure the proteins used are animal based not vegetable based.

Again with replacer consistency and hygiene are key factors. A good target feeding rate is 3 litres twice daily or minimum 725grams a day. This means 125grams of replacer in 875mls of water to make up one litre.

Cold is another challenge for young dairy calves, one way to tackle periods of cold this spring is by increasing milk being fed. This allows calves to continue to grow and not succumb to prolonged cold stress and potential disease.

6. Housing

This is another very important area to focus on this spring. For cows indoors whether dry or milking, make sure they have space to lie down. Run scrapers regularly when cattle are indoors to help reduce the build-up of infection.

With cows get fresh air right as this helps prevent build-up of disease and keeps lying environments dry.

With calves they have a higher critical temperature. This means they can get cold easier. Avoid draughts indoors particularly with calves. Some farmers are finding calf jackets a great help when weather is colder.

A very simple tip this spring is use your own nose to check the smell in your shed. Whenever we are getting an ammonia smell, ventilation needs to be looked at. Also watch calves for huddling or signs of cold. Cobwebs in sheds can also be a crude indicator of poor airflow.

Get housing right this spring particularly for calves. Getting fresh air right can really reduce the risk of pneumonia. Make sure drainage is good in sheds, as this can dramatically reduce the build-up of moisture.

7. Hygiene

When we are talking about animal health on farm, we are always trying to maximise immunity of animals and minimise down infection. One very important part of this is good hygiene.

With our cows this means things like regularly liming cubicles and using good post teat disinfection protocols. This type of approach can really reduce down the risk and spread of disease and mastitis.

At calving time remember always to wear gloves and also clean all calving equipment regularly. Also disinfect that navel early and thoroughly after calving.

Even your calf stomach tube can be responsible for spreading unwanted infections, if it is not cleaned properly. Good shed hygiene can also play an important role in reducing down the risk or spread of infectious lameness. Footbathing cows after milking can also be good practice on farms trying to control mortellaro DD.

Clean your calving pens regularly between batches. A good cleaning routine is to use high pressure cold water (+detergent) first, then follow by steam cleaning or disinfectant applied to the cleaned surfaces.

Good hygiene practices reduce down the spread of infectious around the farm and between animals. Also focus on good disinfection points and ask all visitors to wash their boots and overalls before entry onto your farm

8. Milk quality

At the start of calving milk quality or mastitis can be an issue. There are really two areas to focus on with mastitis. There is clinical mastitis (changes in milk, the udder or the cow) and subclinical mastitis (somatic cell count).

Clinical mastitis can be a risk because the freshly calved cow is under pressure as she adapts to her new diet and work routine. This is where hygiene and good nutrition can play such an important role especially if cows are calving indoors.

We want to minimise the bugs the freshly calved cow is exposed too. Anything we can do to improve hygiene especially at housing is important. Also we need to watch the immunity of animals and remember cows with milk fever may be more prone to getting severe forms of clinical mastitis

Somatic cell count is a slightly different challenge as we won't see changes in the milk but it can have massive impacts on herd production and performance. This is why milk recording is so vital to help identify any problem cows early. Farmers should aim to have one recording done before the end of March.

Act fast if bulk tank readings (SCC) are climbing in early spring. These types of infections are spread from cow to cow. This most often occurs during milking, with cow to cow spread being aided by the machine or the milker. With cell count problems it is important to find the problem cows quickly and quarters. Then look at treatment options or possibly drying off these quarters.

Regular checks on your machine should be done in advance of calving and regularly change liners, use adequate amounts of high quality teat dip during milking.

Never accept increases of clinical mastitis or cell count issues, they have a massive impact on milk quality, herd performance and profitability.

9. Parasites

It may seem early to be talking about parasites but around calving time it is your last chance to administer any adult flukicides before cows go out to grass. It is also the beginning of another grazing season. Any farms who experienced issues with coughing cows last year should sit down and review the options around lungworm control.

Remember cryptosporidium is a parasite and can be a devastating disease on farm (scour). Work hard on hygiene and colostrum to reduce your risk. It can also be contracted by yourself to take great care around hygiene this spring.

It is also a good time to start planning a strategy for calves at turnout to manage coccidiosis and consider using pooled faecal egg counts in 1st grazers to make better treatment decisions.

10. Comfort, space and water

We often forget the simple things, one of those is adequate amounts of clean drinking water for calves and cows.

For the young calf this is really important for rumen development and general health. Have fresh clean water in pens from an early age. Also with cows ensure adequate amounts of large drinkers with good flow rates. Avoid leaking troughs, as they can add massively to the moisture in sheds and the risks of bugs and bacteria building.

Any animals indoors should have adequate space and a comfortable lie. Calves do well in deeply bedded fresh straw. Remember straw is fantastic, as it keeps them clean and warm. Make sure drainage is good in sheds also as this can dramatically reduce the build-up of moisture. Watch stocking rates and aim for 1.7 metres squared per calf in loose pens.

With cows the aim should be a cubicle per cow indoors and maximise feeding space also. While having good quality feed with energy and protein is important. Every animal must have space to feed particularly your freshly calved cows indoors.

Following these top ten tips will improve animal health and also dramatically reduce the risk of disease.