CASTLE VET GROUP

# WINTER NEWSLETTER!

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*Welcome to the January/February issue of Farming News!*

*This time we take a look at Selective Dry Cow therapy vs. Antibiotic Dry Cow Therapy and how it can benefit your herd and your pocket.*

*We also investigate hypocalcaemia (Milk Fever). We cover what causes it, what the signs are and how to prevent your cows from having a lazy metabolism when it comes to producing calcium.*

*We'd love to hear from you about what is happening on your farm and any comments you have about what we've covered this time. Drop us an email at castlewellan@castlevetgroup.co.uk or downpatrick@castlevetgroup.co.uk*

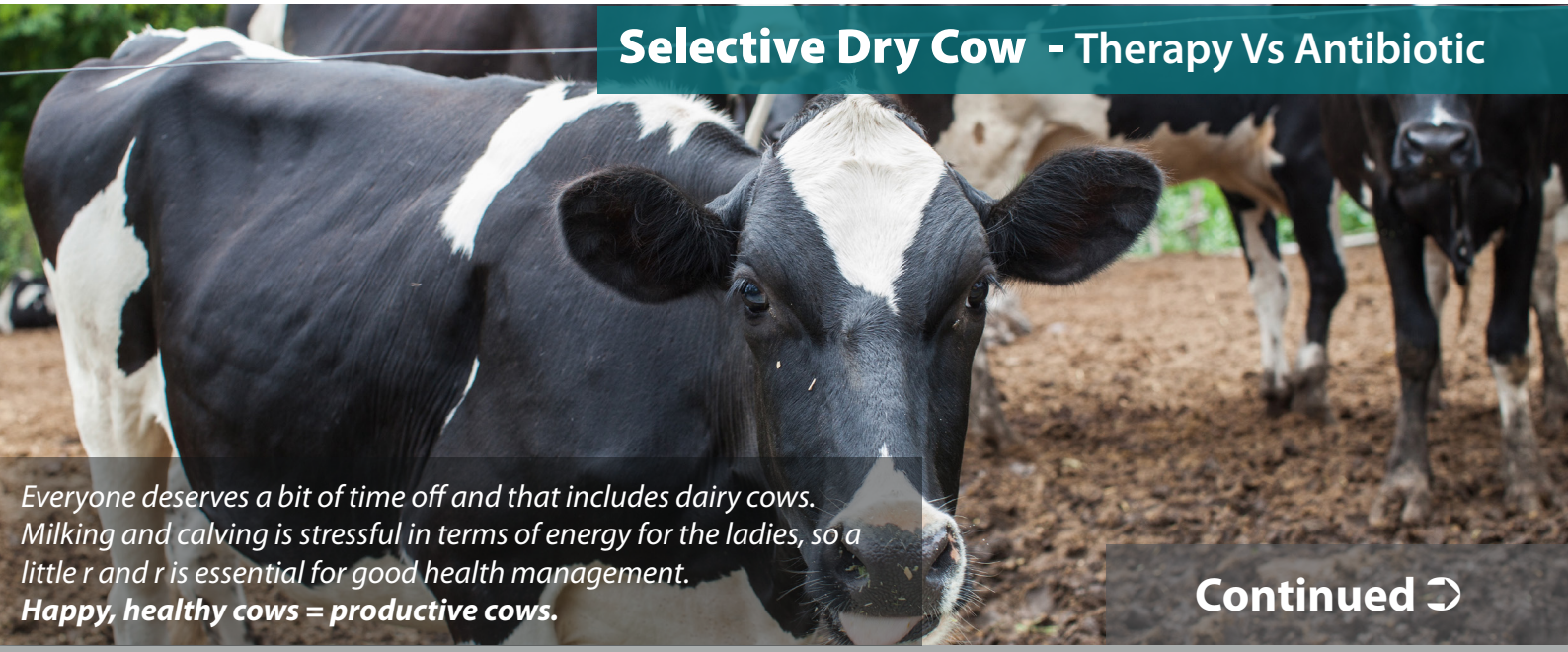
*Best wishes,*

*The Team at Castle Veterinary Group*

## In this issue:



## Selective Dry Cow - Therapy Vs Antibiotic



*Everyone deserves a bit of time off and that includes dairy cows. Milking and calving is stressful in terms of energy for the ladies, so a little r and r is essential for good health management.*
***Happy, healthy cows = productive cows.***

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The drying off period, at the beginning of the lactation cycle, is the dairy cow's chance to recoup the energy needed for the rest of the year. It gives her a couple of months where she is not producing milk or being milked. However, the dry period comes with its own challenges in terms of managing possible udder infections. New infections can occur during this period and not become evident until later in the next lactation therefore management in this period should not be neglected.

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## Antibiotic Dry Cow Therapy

Since 1950, ADCT (antibiotic dry cow therapy) has been a popular way of ensuring the herd doesn't suffer with infection when they are not lactating. Antibiotics and teat sealants are used to fight any existing infections and prevent more being introduced.

At the beginning of the dry period, when the cow's body realises milk production is no longer required, a plug is naturally formed in each teat to prevent infection getting in. Not all cows are able to naturally form this plug and so a teat sealant is used. With ADCT, antibiotic tubes are inserted into the quarters which contain a high concentration of antibiotic in a slow release base. ADCT is about fighting existing infections and preventing new infections in the dry period.

However, blanket use of antibiotics, regardless of whether the cow has an infection or not, is now being discouraged by the government, vets and milk buyers. Worldwide concern about antibiotic resistance within animals and the possible transfer from the animals to humans means that best practice, when it comes to antibiotics and your herd, is 'use them as little as possible and as much as necessary'. Some studies have also shown that using antibiotics on quarters that have no infection increases the risk of E.coli mastitis during the next lactation cycle.

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## SDCT Enters Centre Stage

The key word here is 'selective'. Selective Dry Cow Therapy does exactly what it says on the tin. All cows being 'dried off' receive teat sealants but, only those cows above an agreed somatic cell count are 'selected' to receive the antibiotic tubes, cutting down on the use of antibiotics in those cows that don't need them.

Don't worry about the cows that don't get antibiotics. The use of a teat sealant alone has been shown to be as good as, if not better than, antibiotic dry cow therapy at preventing new infections.

## Nothing Is Ever Easy

That said, SDCT is not easy. It takes planning and preparation. Three essential requirements are:

- Accurate records of herd bulk, cell counts and previous mastitis cases
- Vet involvement
- Operator training

This is outweighed by the benefits of SDCT to your herd, your farm and your bottom line, as well as ensuring your farm is leading the way in the reduction of antibiotic use.

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A good place to start is by having a chat with your vet about what is involved. They will be able to help you decide whether it's feasible for your herd to begin SCDT at their next dry off by looking at herd cell counts and clinical mastitis cases. They'll also be able to help you create a protocol for SDCT as operator training and strict hygiene protocols are of the highest importance for success.

Mike Bardsley (B. Vet Med. Cert CHP. MRCVS.), RCVS Advanced Practitioner in Cattle Health and Production and Farm Animal Lead Project Manager at Independent Vetcare, says,

*'The use of antibiotics in food producing animals especially for preventative reasons has come under intense scrutiny from consumers, retailers, governments and pressure groups. Selective Dry Cow Therapy and reduction in antibiotic use generally is no longer an option but a necessity for dairy farmers.'*

There is no doubt that there is a move away from antibiotic dry cow therapy as selective dry cow therapy becomes the norm. All the major milk buyers are very engaged in this and see the benefit in enrolling their farms in SDCT.

**Give your vet a call to arrange a chat about implementing Selective Dry Cow Therapy in your herd.**

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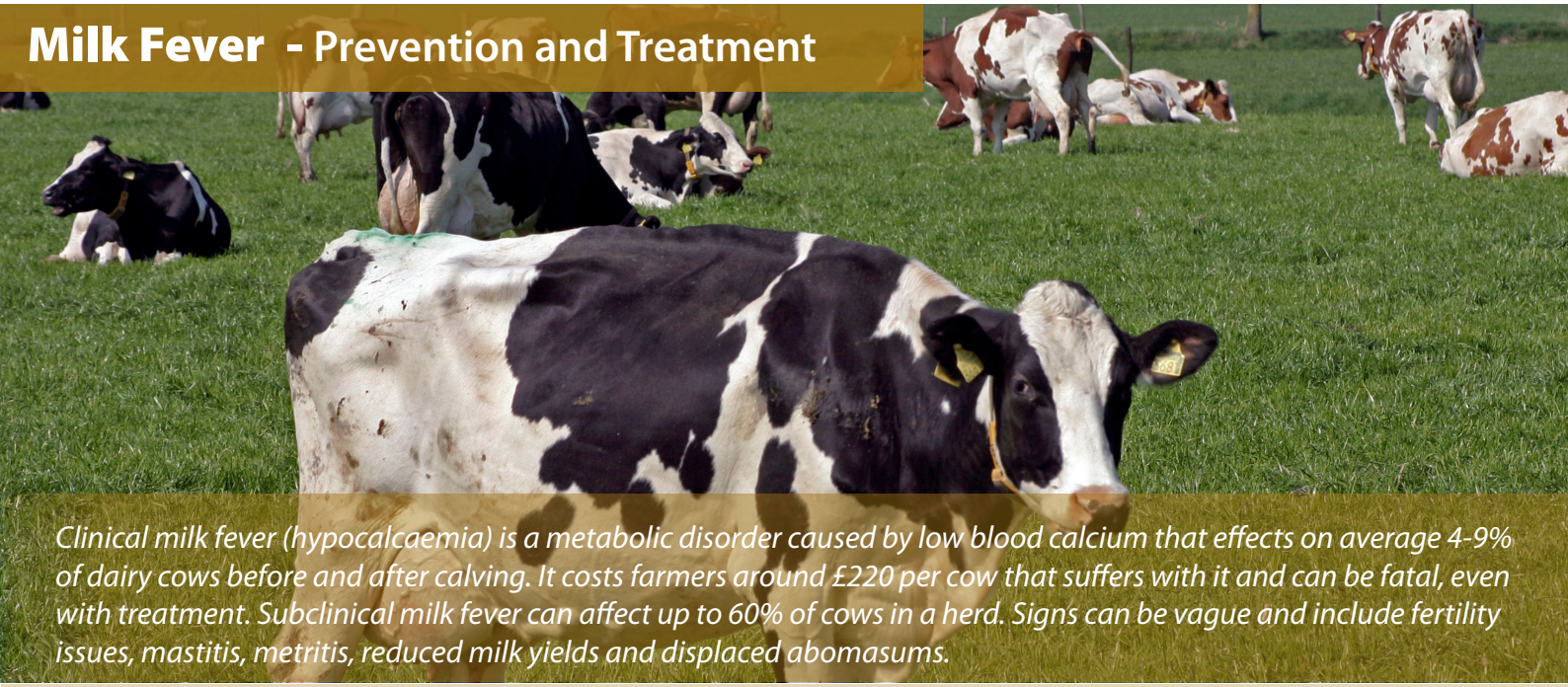
# Milk Fever - Prevention and Treatment



*Clinical milk fever (hypocalcaemia) is a metabolic disorder caused by low blood calcium that effects on average 4-9% of dairy cows before and after calving. It costs farmers around £220 per cow that suffers with it and can be fatal, even with treatment. Subclinical milk fever can affect up to 60% of cows in a herd. Signs can be vague and include fertility issues, mastitis, metritis, reduced milk yields and displaced abomasums.*

Shortly before giving birth, cows mobilise calcium from their body reserves, in for example bones, to supply the increasing demands of their body. They need large amounts of calcium to produce the colostrum – calcium levels in colostrum are 8-10 times greater than that in the blood supply. Needing this amount of calcium from a standing start puts the body under pressure and calcium levels in the blood can fall dangerously low.

High yield cows, Channel Island breeds and cows entering their third lactation are more susceptible to milk fever but heifers are rarely affected.

Fat cows are also more susceptible because their feed and calcium intakes are higher and they normally have a high milk yield. It may seem counterintuitive but feeding a high calcium diet in the two weeks before calving can contribute to milk fever. This is because a cows' metabolism can become lazy and fail to mobilise the calcium from the stores around the body. Cows can gather more calcium from their stores than they can from feed. At calving the huge demands of milk production can take her metabolism by surprise leading to milk fever.

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## Symptoms

In most cases, the cow may seem excitable and twitchy. There may be tremors on the skin along the flanks, head and triceps.

This excitability rapidly changes to being dull and the cow may become unable to stand. Quite often they will stagger as if drunk and go down into a sitting position with a 'kink' in the neck.

The cow may have a dry nose, be staring into the distance with cold ears and legs. Her heart rate may seem weaker and faster and her body temperature may drop, especially in cold, wet and windy weather.

Finally, she may lie flat on her side. This is the last stage of symptoms, after which she may suffer from complete circulatory failure, slip into a coma and die.

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## Lasting Effects

1 in 20 cows with milk fever will die. Cows that have had milk fever are more susceptible – 1 in 3 cows that have had it in the past will get it again.

It can also cause infertility, mastitis, metritis and issues with milk yield in the future.

For every case of clinical milk fever, there are 3-6 cases of subclinical milk fever.

*Speak to your vet to come up with the best strategy for you and your herd to make sure they don't suffer with milk fever.*

## Treatment

Immediate help is needed to correct the cow's blood calcium levels. As soon as you notice the signs described above, call your vet.

They will administer a slow intravenous infusion of calcium that has been warmed up to body temperature so as not to shock the system.

It's good practice to sit her up in a sternal recumbent position and turn her so she is on the opposite side to the side she was found on and turn her every two hours to try to combat other complications such as bloat and muscle necrosis

Making sure she is protected from weather conditions is important and has access to water. In severe cases, your vet will suggest removing the calf.

## Strategy

Prevention is better than cure so, doing everything you can beforehand to prevent milk fever is the best strategy.

- Avoid breeding from cows with a history of milk fever.
- Prevent your cows from getting over-fat and make sure they get plenty of exercise.
- Make sure her diet is sufficient in magnesium, >40g per day, in late pregnancy with long fibre included throughout.
- Her calcium intake needs to be less than 50g a day during her dry period. That way the system for maintaining calcium will be on full alert and kick in when there is trouble.
- Avoid stressing her.
- Manipulation of dietary cation-anion balance (DCAB) in the dry cow diet is key.
- Speak to your vet to come up with the best strategy for you and your herd to make sure they don't suffer with milk fever.