

## Special Points of

April 2011

### Interest:

- Scanning is on! We've been busy pregnancy testing
- If your dogs are going into the boarding kennels, remember to make sure they are up to date on their vaccines— this includes kennel cough!
- If you have anything you would like us to discuss in the newsletters, please ring or email Kristen at [vets@vetco.co.nz](mailto:vets@vetco.co.nz)

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## Healthy Hoof

Healthy Hoof is a programme available through Dairy NZ who have trained providers throughout the country. Over the last couple of years Kristen Baxter (nee Willis) has been busy on many farms in the area investigating lameness problems. Recently we have had a second veterinary staff member; Yvonne Winn, trained to be a provider of this programme.

Lame cows are a significant cost to the dairy farm and industry through reduced milk production, loss of condition, longer calving to oestrus interval, time taken to treat them, running a separate herd and discarded milk if treated with antibiotics, as well as cost of cow replacement if the infection enters the joint and they become permanently unsound. The cost estimate per lame cow ranges from \$400-\$1000 depending on the type of



lesion and the severity. This includes figures of lost milk production which is on average halved while lame, then 5% less for the subsequent season, as well as 21 days later in calf so 21 days milk lost next season.

Aside from the cost no one likes to see lame cows in pain hobbling into the shed and left untreated they can become a significant welfare problem. When asked, farmers identified management of lame cows as one of the most significant factors affecting their farming system.

The Healthy Hoof programme involves visits to the

farm to look at the tracks and shed, and assess cow flow at milking. Recommendations are put in place in areas that are seen to be the most likely causes of lameness in the herd then further visits to the farm to teach staff about prevention and treatment of lameness take place after this initial assessment. Ongoing communication allows follow up assessment and continued involvement from the vet on farm. This follow up allows measurement of progress and tweaking of the system as lameness causes change throughout the season and ad new changes are implemented. Some of the farms we have worked with have shown very marked improvement in short periods of time, with an average for the programme being a 20-30% decrease in lameness over a year.

Please contact us if you are inter-

## Induction Paperwork

The new induction code, brought in at the beginning of the 10/11 system, has tightened requirements. This means that an individual herd cannot exceed 8% of the herds total size as induced cows. Additionally, the cows must be induced 8-12 weeks before they are due to calve. Records of aged pregnancy

testing must be used to identify cows to be induced at a consultation with the veterinarian no less than 60 days prior to induction. There must be written proof, which can be left at the clinic for audit purposes showing the ages and due dates of the induction cows as well as the number of cows in the herd.

Cows which are induced must be between 3 and 8 years old, and a BCS of 4.5 to 6.5. On farm, all induced cows must have ear tags or means of permanent identification. We intend to do induction consults at the same time as PAR or dry cow consults so please remember to bring your paperwork in then.

## Trace Elements



As preventative animal health management programmes overtake the 'ambulance at the bottom of the cliff' approach, trace element and mineral supplementation is becoming a much greater proportion of farmers' animal health spending.

Maintaining mineral and trace element levels will both minimise health problems and contribute to the overall productivity of the herd. Minerals affect fertility, hoof health, growth, and milk production along with susceptibility to disease. Appropriate and timely supplementation maximizes the benefits to the farmer and stock. Low blood or storage mineral levels without evidence of clinical disease cause severe production losses. Inappropriate or insufficient supplementation is the most common cause of this

subclinical disease.

Occasionally, mineral interaction with other elements in the soil or pasture may result in low mineral levels despite seemingly adequate supplementation. A well-known example of this is the copper/molybdenum interaction, whereby high molybdenum levels in soil will prevent adequate absorption of copper from pasture.

During the wintertime, mineral usage and need changes due to changes in feed and production. The best way to prevent productivity losses over winter is to ensure adequate levels before the risk period, by supplementing cows and ewes in May/June if required. Cattle are especially susceptible to copper deficiency over the winter period, and copper supplementation pre-winter is generally advantageous.

Cows and calves are often selenium deficient, and this can have a large impact on production. Supplementation is easy, so if your calves are not growing as expected, mineral testing may help identify a deficiency.

The only way to determine if your stock have adequate mineral levels is to check their blood or liver levels. Different minerals are best tested for at different times of the year. Each farm is unique in its mineral needs, and testing can be focused on your farm's history and areas of concern.

The minerals we concentrate most on in Southland are cobalt, copper, selenium, magnesium, and calcium. We see clinical deficiencies in each of these at different times of year and in different classes of stock. Stock off grazing for the winter are

## LEPTOWISE



As we are heading towards the end of the season and drying off, the season for leptospirosis infection is just beginning. All dairy cows, calves, heifers and bulls need to be vaccinated yearly for leptospirosis, as not only are the cows at risk, but you and your staff are as well.

Calves need two vaccinations 4-6 weeks apart, and older cattle

need a jab every twelve months. Before injecting your own cows you must come in for a Lepto consultation. This half hour chat is an important reminder of all the other factors involved in a complicated disease, and is important for the farm owner or manager to attend. Staff are also encouraged to attend to emphasise the need to take responsibility for their own

safety. Please ring Mel or Sheryll and make an appointment for your consult as soon as possible.



## BSURE Milk Testing

Remember to bring in your bulk tank milk samples for a free BSURE test. We know that adult dairy cows carry a worm burden. Although this generally does not affect them clinically, i.e. they don't get scours, they will have a production response

if drenched. The BSURE test measures the amount of antibodies to worms your cows are releasing in their milk. In older cattle this is a much more effective method than measuring eggs in their feces. If your cows antibodies are above a certain,

we can estimate the production benefit from drenching. Remember, if your cows have worms in the autumn, they will also have worms in the spring!



## Pain Management

Pain research has been evolving for the past decade, and our understanding of pain in animals has been growing by leaps and bounds. Recent research methods in dairy cows have improved dramatically, allowing measurement of physical parameters which have a strong relationship with pain responses.

This research has proved that pain responses in dairy cows are virtually the same as those in humans—ie like humans there is a range of responses, but damage to tissue can be graded mild, moderate, or severe and all humans or cows will agree with those gradings.

Since cows are a prey species, for hundreds of thousands of years they have evolved to hide pain. Predators will tend to go for the weakest members of a herd, and therefore masking pain would be of great benefit to the individual. The several thousand years that we have domesticated animals, have, if anything speeded up this evolution, with sick or injured animals being culled.

For this reason, cows do not show pain until it is severe enough that body systems are compromised. Commonly this is demonstrated on farm, since cows will first start to show clinical signs when a disease is so advanced treatment is not effective.

## Nitrate Toxicity

Nitrate toxicity will inevitably rear its ugly head again this season. Nitrate levels are quite high after dull overcast weather conditions, and brassica plants are particularly prone to building up nitrate levels. The highest concentration of nitrates are

On a practical basis, this means that any wound or disease which would be painful to us is just as painful to the cow. Very few people would allow a doctor to cut off an infected toenail without some sort of pain relief. Equally, we should be providing lame cows with pain relief. Any woman who has had mastitis will attest to the fact that it is extraordinarily sore. Equally, cows which have mastitis with red, hot, inflamed quarters should be given pain relief. In both these cases, research has proven there is a financial benefit to the farmer, as well as a welfare benefit to providing pain relief.

Options for pain relief in cattle which can be dispensed are reserved to non-steroidal anti-inflammatory drugs, or NSAIDs. These are the same family and have the same action as paracetamol. All drugs in this family actually work best if given before the inflammation begins, as they prevent the positive feedback loop which begins when tissue is damaged and racks up the pain response from there. Therefore, the best outcomes are achieved before pain is caused. For this reason, use of NSAIDs prior to treating lame cows or assisting calving leads to a more comfortable, more productive cow.

There are five NSAIDs licensed for use in cattle in New Zealand, several of which have no milk withholding period. Their mechanism of action is very similar in all cases, but the individual drug molecules are effective for different periods of time. At your PAR consult each year we discuss the appropriate choice and use of these drugs in your farming system.

Other pain relief includes local anaesthetic and alpha-2 agonist drugs. These are both controlled drugs and must be used by a veterinarian. We often use local anaesthetic to provide pre-operative pain relief when removing horns, suturing wounds or performing operations. As local anaesthetic provides only short term pain relief we will often provide NSAIDs for longer term coverage. For particularly painful or jumpy lame cows we will often provide local anaesthetic to the leg, allowing safe and effective treatment. If you have any lame cows which fit this category, we are happy to come out and treat them.

When deciding whether to provide your cow with pain relief, ask yourself if you would want your partner or child to undergo the same injury or procedure without provision for pain relief. If not, there is likely to be a welfare and production benefit for providing her with some Key.



important to move these girls off the crop, slowly, as added stress could make their symptoms more severe. There is treatment for nitrate toxicity, so please ring the clinic immediately.



## Body Condition Scoring

With the dry period looming, now is the perfect time to assess the body condition of your cows and put the appropriate steps in place to ensure the girls will be in good condition for the next season. Ideally we would like to see cows in body condition score 5.0-5.5 at calving. Cows that calve too thin take much longer to start cycling, therefore reducing the submission and conception rates.

Options to consider for increasing body condition in late lactation include manipulating the quantity and type of feed provided (i.e. high quality crops vs. additional supplementation), preferential feeding of

light conditioned cows, reduction of frequency of milking or drying off completely. Additionally, drenching light cows or heifers can be useful in increasing body weight, although there will be less of a production response expected than at calving.

Heifers need careful monitoring over the next few months as well. Getting them in calf is not enough, it is still important that they are fed well and grown out properly. Heifers need to be 30% of mature liveweight at 6 months, and 60% of mature liveweight at 15 months in order to achieve good reproductive performance. Liveweight should be

monitored every 3mths and steps put in place if they are found to be lacking. It is important to remember trace element supplementation and parasite control in this group also.

Accurate body condition scoring is an excellent skill to have. Dairy NZ produces a very user friendly guide to condition scoring and DVD on how to condition score. These can both be ordered directly from their website. Alternatively, a free copy of the guide book comes with the InCalf reference book which you can either order from the Dairy NZ website or pick up from the Edendale clinic.

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## Drying off

Duck shooting is fast approaching, so it must be time to dry the cows off!

Before drying your girls off and sending them on their winter holiday, come visit us at the clinic. If you bring your mastitis and herd testing records, along with any induction information (if applicable) we can do an analysis together of the amount and type of mastitis in your herd this season.

Having an in depth look at your herds' mastitis and herd test data

allows us to figure out not only which would be the most appropriate dry cow treatment, but also identify where and when your mastitis is most prevalent. This allows us to identify critical control points for management of the herd next season, in order to decrease your BSCC and the number of cows culled for mastitis problems.

Decreasing your herd's cell count from 350,000 to 250,000 will gain you \$69/cow/year at a

payout for \$3.20 (2009 Australian data). To go from 250 to 150 gains you \$59/cow/year.

Conscientious use of dry cow and mastitis treatments as well as appropriate culling will decrease BSCC and increase profitability. After your dry cow consult you should be clear on the methods and timing needed to improve mastitis management in your herd. If you are unclear, please ask more questions!