Inside this issue:

LAMENESS CONTROL
We investigate lameness control in dairy cows, including a guide to footbathing for the treatment of Digital Dermatitis.

Liver Fluke in cattle...
A disease that affects the livers of both sheep and cattle, we look at how to recognise clinical signs and control the disease.
EXCELLENCE IN PRACTICE

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The members of XLVets have worked hard to create what they see as a model of how practices can work together, sharing the latest ideas and passing on savings and joint expertise to clients.

The group comprises of a number of the foremost farm practices in Ireland. With many years of combined experience, it is able to give expert advice on all areas of farm livestock, health and production.

XLVets member practices are dedicated to providing a high quality, cost effective service to their clients, to support long-term growth and future prosperity within the Irish livestock industry.

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HOUSING FEATURE
09 Dosing cattle at housing: One factor to consider in preparation for the winter housing of cattle.

As winter approaches, vet Declan Ryan, Avondale Veterinary Clinics, looks at why dosing before housing is of paramount importance to control the spread of Osterotagia Type II and fluke.

Invest In Health
Don’t pay for disease!

XLVets is committed to providing comprehensive advice on all health and management issues on your farm. Contact your local XLVets member practice to discuss animal health issues such as fertility, mastitis, lameness, calf management, nutrition etc. and for information on optimal vaccination and dosing regimes to minimise disease on your farms.

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Ireland

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Lameness control in dairy cows...

Michael Baldwin milks around 100 cows near the village of Kilmacthomas in Co. Waterford. He farms with the help of his wife Sonia and their 3 young children. The local landscape is dominated by the Comeragh Mountains.

Michael operates a split calving pattern, with the majority of the cows calving from September to November. The remainder calve from January to April. The milking cows are out from late February, weather permitting. The indoor feeding regime is a combination of grass silage and Total Mixed Ration (TMR) using a tub type feeder.

The local veterinary practice, Comeragh Veterinary, based in Kilmacthomas provides the veterinary support for the farm. While most of the service revolves around provision of an efficient call-out service, there is now a greater need for herd-based advice and herd-based solutions.

Michael, like many of the dairy farmers in the locality, sometimes needs to call in the vet to deal with lameness cases on the farm. He also uses the services of the local Farm Relief to carry out routine hoofcare three times per year. At a recent visit to the farm by Ger Cusack from Comeragh Vet, five lame cows were presented. Their feet were lifted and examined and the findings recorded. Two of the cows had white line disease which required paring to remove horn and expose the affected area of the foot. Rubber shoes were nailed to the sound claws of both these cows. Shoewing gives immediate pain relief to cows such as these. Pain relief has the benefit of the cow becoming more active, grazing and feeding better, and getting back to normal levels of milk production.

Three of the cows examined had evidence of Mortellaro Infection (Digital Dermatitis) (See Figure 1). In consultation with Michael, a decision was made to put in place a control plan for Mortellaro. This plan incorporated footbathing, improving foot hygiene and the prompt treating of any cases of lameness as they arose (See Figure 2). Mortellaro spread is generally greater when cows are housed and early intervention at this time will reduce the amount of infection spread in the herd.

What is Mortellaro (Digital Dermatitis)?

Mortellaro is a contagious infection affecting the skin near the hoof. It may affect the skin in the space between the hooves or the skin just above the hoof. It causes a severe lameness and spread within the herd can be rapid. While it mainly affects dairy cows, it can also infect younger stock like replacement heifers and other cattle.

Reduce lameness by:

- Regular hoofcare of at risk cows.
- Promptly treating lame cows.
- Maintain good walking and standing surfaces whether at pasture or housed.
- Ensure feed changes, especially around calving are gradual and avoid any abrupt dietary changes.
- Footbath with formalin/copper sulphate regularly.
- Avoid aggressive handling/driving of cows. Allow cows to pick their steps.
- Good cubicle comfort (big enough cubicles, good access and exit, bright and clean).
- Keep records of lameness cases and cull chronic or repeat offenders.
- Breed for good feet.
FOOTBATHING SOP
MORTELLARO CONTROL

- Aim to use 1 litre of footbath solution per cow before changing.
- A 200 litre (c. 40 gallons) footbath will be sufficient to footbathe 65 cows three times (65 x 3 = 195 cow passages through footbath). For 100 cows it will be necessary to make up a new footbath solution after 2 daily passages. (100 x 2 = 200 passages)
- Calculate the volume of liquid in the footbath when 5 inches (12cm) deep. Most plastic footbaths hold c. 200 litres/40 gallons.
- Add the correct amount of chemical/antibiotic and mix thoroughly.
- Do not allow the footbath level to drop below 4 inches deep. Hose cows’ feet before entering footbath.
- Allow cattle to stand on clean concrete for 20 minutes after footbathing to allow absorption of chemicals.
- Aim for one well-managed effective footbath daily.
- Refill with fresh solution when the footbath becomes contaminated, the number of cows footbathed exceeds the number of litres in the footbath or every 48 hours (whichever is the soonest).

FOOTBATHING TO TREAT DIGITAL DERMATITIS
- 150g lincomycin per 200 litres or,
- 10 erythrocin sachets per 200 litres
- Walk all affected groups of cattle through footbath once daily for 3 days.
- Put any lame cattle through the footbath first.
- Start control footbathing the day after treatment finishes.

FOOTBATHING TO CONTROL DIGITAL DERMATITIS AND FOUL IN THE FOOT
- 5% formalin (5 litres per 100 litres water) or,
- 5% copper sulphate (10kg per 200 litres water)
- Footbathing to control lameness needs to be done daily for 3 days once per month (at a minimum).
- Formalin will help harden the claws and skin but is hazardous to humans.
- Hypochlorite, (parlour washings @ 1% hypochlorite) disinfectants and organic acids will help clean and disinfect the feet.
- Footbath all milking and dry cows, stock bulls and heifers.
- Minimise the amount of slurry, mud and dirty water that cows walk through on the farm. Build up and drain mucky areas on roadways. Fix leaking water troughs and build up around them. When housed, ensure cows are not standing in, or walking through slurry or dirty water in yards or passageways.

FIGURE 3
FIGURE 4

FIGURE 3: WHITE LINE DISEASE
FIGURE 4: FOOT SHOWING DIGITAL DERMATITIS
Liver Fluke in cattle...

Liver Fluke is a parasite that affects the livers of both cattle and sheep. Liver Fluke in cattle can cause heavy financial losses, reducing liveweight gain by up to 1.2 kg/week in some cases or in dairy cows 400-500 litres/cow/lactation in lost yield.

Did you know?

- Adult fluke live in the bile ducts of the liver in cattle. Each fluke has the potential to cause a loss of 0.5 ml of blood/day from its host.
- It only takes 10-12 weeks for the fluke to reach the egg laying stage after being ingested by cattle. Warm wet conditions are favourable for the fluke at every stage in its life cycle.
- The number of cases recorded by the regional veterinary laboratories has almost trebled in the last ten years. This is due to longer grazing seasons, milder winters and wetter summers.

Signs and symptoms of Liver Fluke in cattle:

- Reduced liveweight gains through reduced feed conversion efficiency
- Reduced milk yields (especially solids)
- Reduced fertility
- Poor coat
- Anaemia
- Scour
- Condemnation of livers in the abattoir
- Severe cases can result in death
- Can precipitate Salmonella and Clostridial diseases
Liver Fluke is a flat leaf-like (3cm) parasite found in the liver of grazing animals. Eggs from adult female fluke pass in the dung to contaminate pasture. When conditions are suitable i.e. damp and warm (above 10°C), the eggs evolve and hatch to form mobile larvae that seek out mud snails to complete their life cycle. The highest risk grazing is the wet areas and rutted pools of water. The larvae multiply in the snails and emerge to attach to the grass as cysts. The grazing animal ingests the cyst where it breaks out as immature fluke to make its way to the liver. The fluke tunnel through the liver where they can cause severe and permanent damage. The adult fluke live in the bile ducts of the liver where they feed on blood (up to 0.5ml/day).

Fluke diagnosis:

- Faecal sampling - can get false negatives
- Blood sampling
- Bulk milk
- Post mortem/slaughterhouse feedback is conclusive
- Ultimately diagnosis is not straightforward and needs careful interpretation

Treatment and control:

Recognising fluke and a strategic approach to treatment should be a component of your herd health plan.

- Treatment needs to be targeted to the fluke season and recognise the different stages of fluke (early immature, immature and adult).
- Bear in mind the milk withholding time which means that treatment is targeted in the dry period.
- Consult your vet to choose the most suitable product for your farm.
Pat Meehan runs a herd of 150 pedigree Aberdeen Angus cows at Pallaskenry in Co. Limerick and at Rathdowney in Co. Laois, where he originally hails from. He sells all his bulls and surplus heifers for breeding. As he works full time off-farm and his work takes him abroad frequently, he invests heavily to maximise the health of his herd.

**Biosecurity in a suckler herd**

‘Prevention is better than cure’ is Pat’s motto. Pat believes that his outlay on the periodic tests carried out on his animals and on the various vaccines that he uses, as being money well spent. ‘I do have some part time help with the feeding and at calving time but the health of my herd allows me to keep my labour costs to a minimum. As well as this it minimises my losses, maximises growth rates and allows me to sell my stock free from diseases such as BVD and Johne’s disease.’

‘Diseases such as IBR, BVD and Lepto are practically endemic in this country. When it comes to biosecurity, herds are only as clean as their closest, neighbouring herd so for the past number of years I have been vaccinating my herd against these conditions,’ says Pat.

‘All my cows have been screened for BVD virus in the past and we now screen our young stock yearly. We occasionally purchase stock of high genetic merit but these are isolated on arrival and tested for BVD and Johne’s disease. We are careful to purchase only from Johne’s free herds.’

Pat had a scare a number of years ago when he purchased a cow at a mart which showed a high reading for Johne’s on testing. She was immediately culled but it opened his eyes to the potential pitfalls of purchasing stock. ‘If we hadn’t screened this cow on purchase, given the nature of the disease, it could have become established in our herd before detection. This would have proven catastrophic for our bull and heifer sales.’

Pat Meehan and family at Ossory show
'We have never had a problem with Salmonella but all our breeding stock is vaccinated yearly for this also. The other vaccine, which I feel is crucial to the management of my farm, is the Rotavirus/Coronavirus/E. coli vaccine administered prior to calving. Given that I try to keep my labour to a minimum the last thing that I need is a load of sick and scouring calves. With this in mind also, all my young stock receive combined respiratory vaccines, covering them against IBR, RSV, P13 and Pasteurella,’ says Pat. This results in virtually no pneumonia in the herd. Calves also receive a prophylactic dose against Coccidiosis at 4 weeks of age. As a result they see little sickness in their calves. In 2010 95% of calves born were weaned.

All cows are dosed yearly for Stomach Worms and for Liver Fluke at housing. The increased rainfall over the last number of years has brought with it a new challenge in Rumen Fluke. This had been affecting performance in Pat’s herd so it is now incorporated into their dosing regime, with the cows receiving autumn and spring doses. ’The various vaccines which I use do represent a significant cost but they improve the health of my herd, reduce losses, keep labour costs to a minimum and ultimately improve the profitability of my farming enterprise,’ adds Pat.

### Three Steps to healthy animals and healthy profits...

1. **Measure**
   - Identify the impact of disease on the performance of your stock.

2. **Manage**
   - Initiate control measures for these issues.

3. **Monitor**
   - Review your progress regularly.
Dosing cattle at housing

As winter approaches and cattle are being housed and dosed, control of Ostertagia Type II and fluke is paramount.

**Ostertagia Type II**

Worm larvae eaten in autumn remain dormant in cattle over the winter. These inhibited larvae develop and emerge in early spring. This results in the disease called Type II Ostertagia. Severe damage is caused to the gut resulting in a diffuse watery diarrhoea, weight loss and death. This syndrome usually occurs in older calves, yearlings and occasionally adults.

**Fluke (Stomach and Liver)**

With our recent wet summers, fluke has become a big problem in Ireland. Mature liver fluke in cattle are present in the bile ducts from December onwards. The signs of fluke...
DOSING CATTLE

CLINICAL SIGNS OF FLUKE

- Dull
- Weight loss
- Dehydration
- Watery scour (can contain blood)
- Anaemia
- Bottle Jaw

PROCEDURES ASSOCIATED WITH DOSING

Unfortunately to control stomach fluke along with liver fluke cattle need to be dosed orally. It is like going back to the future, as we had all got used to the convenience of pour-ons and injectables. Using a head scoop at the crush gate or a hook doser along the crush makes this job much easier and safer for all involved.

CHECKLIST BEFORE DOSING:

- Care should be taken to calculate correct dose.
- Read instructions carefully to ensure that you know exactly what the product can and cannot do.
- Make sure product is effective against Ostertagia type II.
- Combination products should be used appropriately for target species.
- Be aware of, and adhere to all withholding periods.
To enter, simply answer the four questions below and complete your details on the entry form. All the answers can be found in the articles in this issue of the magazine. Details of where to send your entry can be found below.

A winner will be chosen from all the correct entries received before the closing date, Friday 28th October 2011. Winners will be revealed in the next issue of XLVets Ireland Livestock Matters.

My details

Name ____________________________
Address ____________________________
Daytime Telephone Number ____________________________
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Fleece size [please circle]  S  M  L  XL

☐ I would like to receive further information from XLVets by email
☐ I do not wish to receive further information from XLVets

Send your completed entry to: Farm Competition No.4 XLVets Ireland, Dromsally, Cappamore, Co.Limerick

Give another name for Mortellaro ____________________________
List two symptoms of Ostertagia type II ____________________________
What conditions are favourable for fluke? ____________________________
Name one product which can be used to treat Digital Dermatitis ____________________________

The editor’s decision is final and no correspondence will be entered into.
The actual fleece supplied may differ slightly from the one pictured.