

# FARMING

DECEMBER 2009/JANUARY 2010

## review



A HAN<sup>D</sup>S-ON  
LOOK AT FEET

TOP TIPS FOR DAIRY FARMERS

# SHEEP

## FLOCK PLANNING

CASE STUDIES FROM FARM FIRST VETERINARY SOLUTIONS



# Precaution is better than cure

## Be proactive - not reactive - towards safety...

### XLVets Sterimatic Packs...

The XLVets Sterimatic needle protector and cleaning system provides ultimate operator safety along with a sterile system for multi-dose injections.

The XLVets Sterimatic system has many aspects which are extremely beneficial for both the user and livestock. These include protecting the needle from damage, whilst reducing infection and abscessing. It also reduces the chances of cross-infection of disease between livestock and most importantly reduces the risk of self-injection.

The Sterimatic system comprises of two parts; a sleeve which protects the needle to help prevent self-injection and keep the needle clean and a



'Stericap' which swabs the needle with disinfectant before and after injecting each animal.

The Stericap is proven to be effective against many viral and bacterial contaminants including; Foot and Mouth disease, Bluetongue, Staphylococcus, E.Coli and PRRSv.

The XLVets Sterimatic sleeve is compatible with most plastic multi-dose syringes. Each pack contains 1 sleeve, 5 Stericaps and 5 needles. Refill packs are also available. To order contact your XLVets practice.



XLVets Product. For more information and products please refer to the XLVets Livestock Catalogue.

For further information on XLVets and its member practices please contact the XLVets office on (01228) 711788 or e-mail [admin@xlvets.co.uk](mailto:admin@xlvets.co.uk).

**[www.xlvets.co.uk](http://www.xlvets.co.uk)**

## DECEMBER 2009/JANUARY 2010 XLVETS FARMING REVIEW

### WINTER EDITION

**XLVets** is a novel and exciting initiative conceived from within the veterinary profession. We are all independently owned, progressive veterinary practices located throughout Great Britain committed to working together for the benefit of our clients.

#### Our intentions...

Our vision is that by sharing experience, knowledge and skills we can deliver the highest standards of service and care to all our clients. As members of XLVets, we have worked hard to create a model of how veterinary practices can work together as an extended national team, sharing the latest ideas and passing on the benefits that arise to all our clients.

#### XLVets Member Practices

608 Vet Group  
 Allen and Partners  
 Alnorthumbria Veterinary Group  
 Ardene House Veterinary Hospital  
 Belmont Veterinary Centre  
 Bishopston Veterinary Group  
 Cain Vet Centre  
 Calweton Veterinary Practice  
 Castle Veterinary Surgeons  
 Chapplefield Veterinary Partnership  
 Cliffe Veterinary Group  
 Clyde Veterinary Group  
 Drove Veterinary Hospital  
 Endell Veterinary Group  
 Farm First Veterinary Services  
 Fenwold Veterinary Centre  
 Friars Moor Veterinary Clinic  
 Glenthorne Veterinary Group  
 Hook Norton Veterinary Surgeons  
 Kingfisher Veterinary Practice  
 Kingsway Veterinary Group  
 Lambert, Leonard & May  
 Larkmead Veterinary Group  
 Macpherson O'Sullivan Ltd  
 Millcroft Veterinary Group  
 Minster Veterinary Practice  
 Northvet Veterinary Group  
 Paragon Veterinary Group  
 Penbode Veterinary Group  
 Rosevean Veterinary Practice  
 Rutland Veterinary Centre  
 Scarsdale Veterinary Hospital  
 Scott Mitchell Associates  
 Shepton Veterinary Group  
 Southfield Veterinary Centre  
 St Boniface Veterinary Clinic  
 Thrums Veterinary Group  
 Tyndale Farm Veterinary Practice  
 Wensum Valley Veterinary Surgeons  
 Westmorland Veterinary Group  
 Willows Veterinary Group  
 Wright & Morten

This issue of the **XLVets farm newsletter** features several case studies from XLVets member practices; looking at specific disease issues and how they've been tackled and controlled on individual farms. We also take a look at XLVets **FarmSkills**, a new initiative that provides practical-based training courses for farmers across the country. **FarmSkills training is hands-on**, interactive, and led by trained facilitators who are vets or experts in their subject. Owen Atkinson of XLVets Lambert, Leonard & May provides readers with some useful tips for **routine hoof checking in cattle**; improving knowledge and skills in this type of area is just the sort of thing that the XLVets' FarmSkills initiative is designed to achieve.

### CONTENTS

#### FEATURES

- 21 **Farm Crisis Network (FCN):**  
 Steve Glanvill from XLVets Hook Norton Veterinary Surgeons.

#### FARM HEALTH PLANNING

- 7 **Church Farm, Northampton:**  
 Mike Thorne from XLVets Farm Veterinary Solutions reports.  
 9 **Laurels Farm, Leicestershire:**  
 Mike Thorne from XLVets Farm Veterinary Solutions reports.

#### REPORTS

- 17 **The Challenges of Milking Sheep Organically:** Report on John Ryrie, Orchid Meadow Farm in Dorset

#### TRAINING

- 11 **The Launch of FarmSkills:**  
 New Farmer Training Programmes developed by XLVets.  
 13 **A hands-on look at feet:**  
 Feature from Owen Atkinson of XLVets Lambert, Leonard & May on routine hoof checking.

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 UK livestock industry.

#### REPORT

#### Whitewater Farm DA Investigation

- 03** Report by Will Tolley looks at left displaced abomasums (LDA) in high yielding dairy herds.



#### FEATURE

#### The Roundhouse

- 15** Vet Alex Scott bought a farm in his native Scotland where he had to build housing for his suckler cows.



Metabolic disease and left displaced abomasums (LDA) are relatively COMMON PROBLEMS in high yielding dairy herds.

WILL TULLEY BVM&S CertCHP MRCVS,  
Tyndale Farm Veterinary Practice

# Whitewater Farm DA INVESTIGATION

Herds will often have between 2 and 5% of cows suffering from an LDA every year, although some do much better than this. When Gloucestershire dairy farmer Geoff Lambert had 7 cows diagnosed with LDA's in the first six months of 2009, vet Will Tulley of XLVets practice Tyndale Farm Vets carried out a nutritional investigation to identify and correct the cause of the problem. 'If we'd carried on at the same rate 14% of the herd would have had a DA this year, so we decided with Will to investigate the problem' said Mr Lambert.



Geoff Lambert, Whitewater Farm,  
Tetbury, Gloucestershire



**G**eoff and his wife Christine milk 100 high genetic merit Holsteins on a 100 acre tenanted farm in the Cotswolds. Because of the limited size of the farm Geoff runs a high input, high output system and cows average 9,700 litres at 4.6% butterfat and 3.3% protein. Feeding consists of grass silage and a protein blend fed in the trough and additional concentrates fed to yield.

In common with many high yielding herds this herd had been identified in the past as suffering from negative energy balance in freshly calved cows, leading particularly to poor fertility. This has been addressed over the last three years by the installation of out of parlour feeders to increase the amount of concentrate that can be safely fed, and more recently by the purchase of a mixer wagon. The wagon was primarily purchased to allow the incorporation of haylage and straw into the trough mix, to ensure that sufficient long fibre was fed to promote rumen health.

'DA's are a nutritional disease and the vast majority of the cases that we see occur in the first 2 weeks after calving and are associated with energy imbalances in the dry or freshly calved cow,' explains Mr Tulley. 'However, when we started to look at the problem at Geoff's it soon became apparent that this wasn't what was happening. Of the 7 DA's that had occurred this year, 5 of them were in cows between 60 and 90 days after calving. So the majority of the problems were occurring in peak yielding cows. Also these cows had tended to be unwell with a different initial problem such as lameness or mastitis and had then gone on to develop a DA. As part of our routine work we'd been monitoring individual and bulk milk constituents. Low milk protein can be a useful indicator of negative energy balance, whereas low fats can be a marker for rumen acidosis. In this case bulk milk quality was well on target. Some individual cows in early lactation did however have high

fat to protein ratios - that is high butterfat levels in the milk but low levels of protein; suggesting that they were struggling for energy and so mobilising body fat - a common precursor to metabolic disease'.

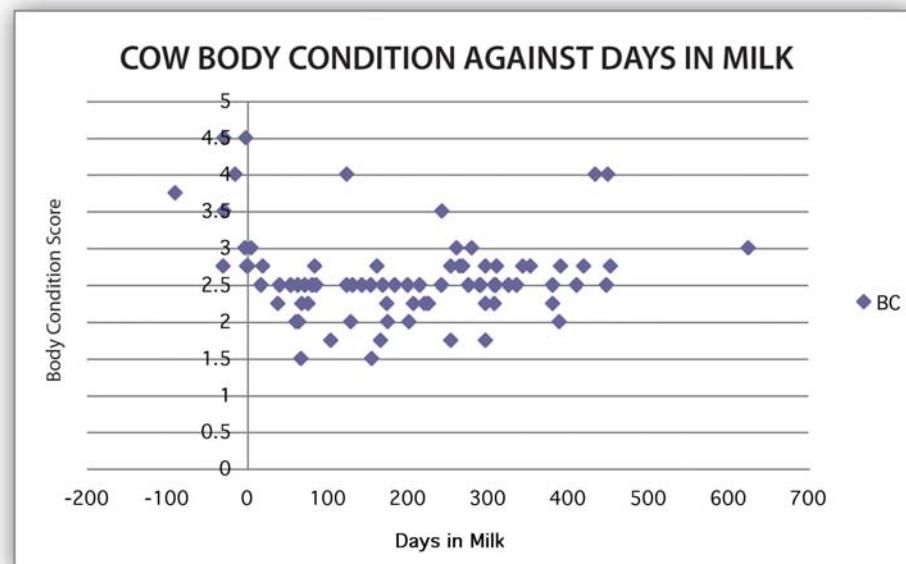
Computer analysis of the ration being fed didn't reveal any deficits in formulation, although the highest yielding cows were being fed up to 14kg of cake per day plus another 3kg of straights in the mix. On a dry matter basis this meant that cows were being fed a concentrate to forage ratio of 63:37.

The next stage was to body condition score the whole herd; to measure the cows' response to the diet they were being offered.

Control of condition score was excellent across the herd, with very few thin cows and only half a dozen fat cows in later lactation (see diagram below).

'When we looked at these individuals they all had a reason for being fat - either they were lower genetic merit animals that didn't milk as well as the rest of the herd, and so were overfed, or they'd aborted and so had very extended lactations,' explains Mr Tulley, 'so overall the cows were telling us that their energy nutrition was just right.'

Because the DA's were occurring in peak yielding animals fed high levels of concentrate, sub-acute rumen acidosis (SARA) was another possible cause,' adds Mr Tulley.



Finding undigested fibre in the cows' faeces is strongly suggestive of sub-acute acidosis.





Faecal quality is a useful measure of rumen function.



Monitor rumen fill as an indicator of feed intake.

SARA occurs when the pH in the rumen becomes too acid and can occur either with excessive concentrate feeding or with less than optimal feed management. Important factors include lack of enough long fibre, poor mixing of rations with cows sorting out the concentrate, lack of lying time or comfort to allow rumination and overeating when new feed is put out after being absent for a period of time.

Clinical signs are less dramatic than with acute acidosis as occurs after overeating cereals, but can include excessive weight loss, scours and digestive upsets, poor and variable feed intakes and subsequent infertility and lameness. 'When we examined the herd none of the clinical signs associated with SARA were evident,' said Mr Tulley. 'The cows were healthy, with good rumen fill, faeces appeared uniformly well digested and of the correct consistency. The diet was well mixed with the fibre well incorporated to stop sorting of the ration. The only area that we could fault was a slight lack of trough space, preventing all the cows eating whenever they wanted to.'

However, when we passed the faeces from a number of cows through a sieve, we found that a number of undigested grains and fibre particles greater than 1cm in length were present. This is considered to be indicative of SARA.' To confirm the diagnosis rumen fluid samples were taken from a number of freshly calved and peak yielding cows. Of the 7 cows tested, 4 had a rumen pH of 5.7 or less, along with reduced microbial activity indicating that SARA was the correct diagnosis.

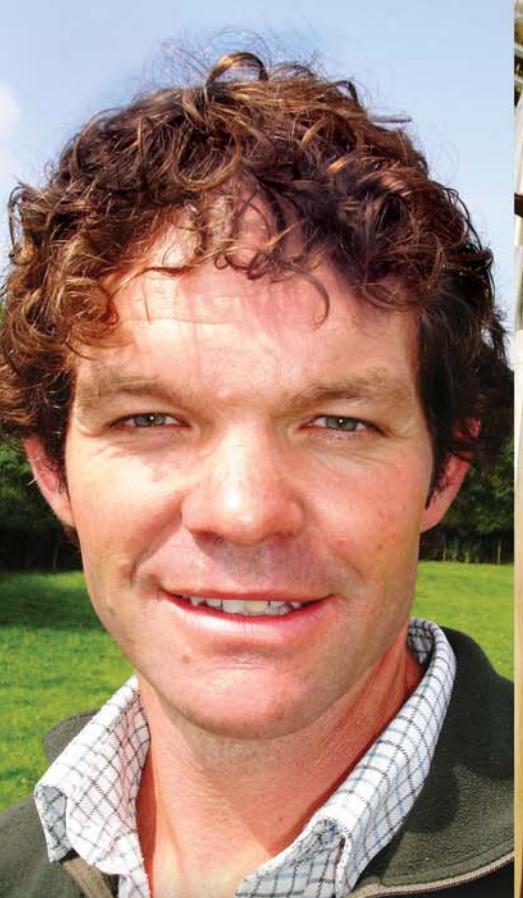
The precise link between SARA and LDA is not fully understood, but may be associated with variable feed intake, or overflow of rumen acids into the abomasum. 'In this case the herd was suffering from SARA and so when high yielding cows became ill, their feed intakes were depressed. Because the majority of concentrate was fed separate to the forage component of the diet ill cows continued to eat this rather than forage, compounded by a lack of available feed space at the trough. Ill cows weren't able to push in and compete for food, so ended up eating a very high percentage of concentrates and subsequently suffered from LDA.' Mr Tulley explains.

The challenge in this herd was to increase the effective forage component of the diet without reducing the energy intake of the cows. If we reduced the amount of energy fed cows were likely to suffer from negative energy balance - itself a precursor to LDA. Although chemical analysis showed that there was sufficient fibre, it needed to be delivered in a form that gave more scratch, and required the cows to ruminate more. Our initial solution was to incorporate an additional 1kg/cow/day of good quality straw into the ration. As the cows were grazing it was hoped that they would continue to eat the increased amount of the mix, the additional straw being consumed in

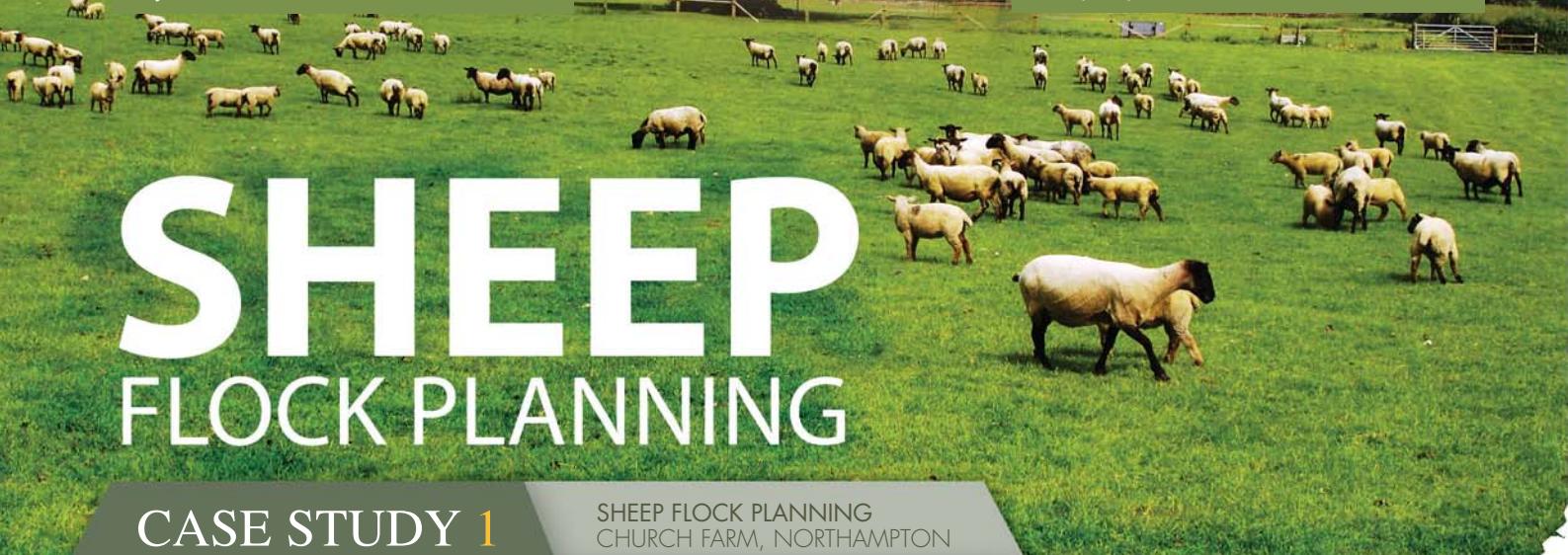
preference to grazed grass, the quantity and quality of which was deteriorating as the season progressed'. An additional feed trough has also been purchased to provide sufficient feed space and reduce competition between cows when feeding. Longer term ground has been rented to produce maize silage which will provide starch as a safer, less 'fizzy' energy source than the processed cereals used in blends and cakes.

'Although the changes we made to the diet were relatively small, the initial response has been excellent. Milk yields and quality and body condition score have been maintained, and in the 6 months since we made the changes there has only been 1 LDA.' said Mr Tulley 'This case demonstrates how finely balanced diets need to be for high yielding cows. We will now use rumen fluid sampling in this herd 4 weeks after any major diet changes to make sure that we stay on track.'





A proactive approach is proving much more cost effective than fire-brigade treatments, says Patrick Green.



# SHEEP FLOCK PLANNING

## CASE STUDY 1

SHEEP FLOCK PLANNING  
CHURCH FARM, NORTHAMPTON

Blood testing ewes and lambs as part of a sheep flock health plan pinpointed the bacteria Erysipelas which was causing hot, painful and swollen joints in PATRICK GREEN'S crop of lambs during 2007.

Erysipelas can cause severe damage to the joints of sheep, leading to arthritis and chronic infection, leading to significant production losses.

'I was unable to sell up to 40 lambs because they had serious joint issues,' says Mr Green who keeps 1,200 breeding Mule ewes and Suffolk X ewes in and around his Church Farm base at Harpole, near Northampton.

Working with XLVets' Mike Thorne, they devised a protection programme.

Infection usually enters through contaminated wounds during docking and castration or

bacteria through the navel post lambing. Signs appear 2 to 14 days after infection resulting in inflammation, swelling and fluid accumulation, thus damaging the joint surfaces and resulting in arthritis. The development of long term chronic arthritis results in poor growth rates. As well as resulting in significant economic loss, lameness is an important welfare issue.

'Maintaining a high standard of hygiene at lambing can minimise erysipelas arthritis,' explains Mike Thorne of Uppingham-based Farm Vet Solutions. It was recommended that ewes be vaccinated with Eryvac to provide passive transfer of immunity to newborn lambs

via the colostrums, and providing protection for up to 8 weeks. This approach worked resulting in a huge reduction in lameness the following lambing. Feet issues were also tackled in a separately managed flock. A relatively new disease CODD (Contagious Ovine Digital Dermatitis) was diagnosed after visual inspection.'

CODD infections differ from scald and foot rot in that the infection usually begins at the top of the hoof, rather than between the toes. Infection penetrates down behind the horn to cause severe lameness and loss of the hoof,' explains Mike.



'Animals quickly become very lame on the affected feet. It is not uncommon for the horn to separate completely leaving a raw stump.'

With no vaccines available against CODD, the Church Farm flock health plan devised a strategy that included:

- Thorough examination of all bought-in stock
- Treat ewes showing signs of lameness on sight and mark
- Foot bathing with antibiotic footbath containing lincomycin/spectinomycin

Producing lambs for different end markets at different times of the year means that Patrick Green's system, by his own admission, is complex. He splits his flock into four groups. The groups are always kept together and are put to mainly Suffolk rams at staged times and lambed indoors in the same groups.

'This allows me to focus on selling both breeding stock and fat lambs,' he says.

Lambing begins with a high input: high output system in January where lambs are creep fed from three weeks. Another portion lamb in February, while a larger group are lambed in March. Ewe lambs are the last to go through the lambing shed in April. Overall, he sells about 2,000 finished lambs each year and keeps back 200 replacements.

A consequence of this approach has led to a 12-week lambing period, which requires bought-in labour costs. His long term plan,

however, is to move to an easy care system, with the majority of ewes lambed outdoors and finished on grass to help cut labour and feed costs.

He has started using New Zealand Suffolk genetics to help breed better maternal ewes with greater natural resistance to worms as well as producing a lamb with the required carcase conformation. He's also going to focus more attention on selecting breeding stock with sound feet.

Early signs have been good, he says. The first crop of lambs out of his home-bred Mules put to New Zealand Suffolks has produced strong lambs that got up and started drinking quickly.

'I've seen a difference already with lambs thriving, compared to more traditional Suffolks. I'm pleased with the early results, but there's a long way to go,' adds Mr Green.

Alongside the commercial flock, the farm also runs a small pedigree Charollais flock for breeding and to produce some rams for sale. Mr Green has used his flock health plan to test ram lambs for the bacterial disease CLA (Caseous Lymphadenitis).

In a nationwide effort to stem the spread of CLA to other flocks, Mike Thorne suggested he take part in a CLA Monitoring Scheme run by the SAC, that certifies groups of sheep which are intended for sale. He helped train Mr Green in blood sampling for the scheme.

'CLA is characterised by abscess of the lymph glands, often around the neck. These abscesses can also act as reservoirs for the spread of bacteria to other sites within the body, most notably the lungs.'

'As there is not a vaccine for CLA in the UK at the moment, existing control of the disease depends on good management and strict quarantining of animals being brought onto farms,' says Mr Thorne.

The flock health plan at Church Farm also includes vaccination for both toxoplasmosis and enzootic

abortion following the occurrence of a number of mummified lambs in 2006. All animals also receive vaccine to protect against Bluetongue. In addition, lambs are also protected against tapeworm after feedback from an abattoir, where 20 out of 36 livers were condemned. The cause of the infection was linked to a batch of bought-in straw which had previously been fouled by dogs.

Always striving to improve flock health and improve performance, Patrick Green stresses the importance of working with his vet. 'Mike's advice and guidance has proved invaluable. A proactive approach is proving much more cost effective than fire-brigade treatments.' Furthermore, Mike Thorne helped organise a meeting with a small group of sheep producers at Church Farm to discuss sheep health issues. 'Talking to other producers is a real benefit and I learned a lot from our time together,' says Mr Green.

Mike Thorne believes that flock health plans are becoming increasingly important and play a vital role in the proactive preventative management of sheep. 'A health plan helps develop procedures to ensure the long-term health and welfare of a particular flock. It must be practical and balanced with the economics.'

#### CHURCH FARM FLOCK HEALTH PLAN

- Minimise ewe and lamb lameness
- Arthritis prevention - vaccination for Erysipelas
- CODD control strategy
- CLA testing of ram lambs
- Improved lambing shed hygiene
- Breeding natural resistance
- Toxoplasmosis and enzootic abortion
- Blue Tongue protection





# SHEEP FLOCK PLANNING

## CASE STUDY 2

SHEEP FLOCK PLANNING  
LAURELS FARM, WAKERLEY, LEICESTERSHIRE

A growing number of sudden, unexplained ewe deaths during 2007 sounded the alarm bells for Ian Roberts. Urgent investigations were taken with XLVets' Mike Thorne to establish the cause. Postmortem results made surprising reading.

Liver fluke was diagnosed, the first instance recorded in the 80 years the family have been based at Laurels Farm, Wakerley in Leicestershire despite sheep spending time on water meadows. Along with his two brothers and father Alec, they manage a 1,700 Mule ewe flock across 400 acres of permanent pasture as well as growing combinable crops on a further 700 acres. Affected sheep die suddenly from liver damage, explains Mike Thorne of Farm Vet Solutions at Uppingham. 'Usually, the first signs of a problem are sudden deaths in previously healthy sheep. In some flocks, death rates can reach 10%,

a major financial burden. Further inspection of others in the group can reveal lethargy and reduced grazing activity.'

Other indicators are rapid loss of body condition and poor fleece quality despite adequate flock nutrition. The parasite responsible for causing Liver Fluke disease in sheep in the UK is *Fasciola hepatica*. For part of its life cycle it inhabits the snail, *Limnea truncatula*. Wet and warm conditions (above 7 - 10°C) further add to the risk. Snail infestations in late spring and early summer, result in an autumn fluke challenge to sheep. After finding out the cause of ewe deaths,

Ian Roberts was keen to alert neighbouring sheep producers to the problem. 'We call one another when we first see what looks like being a major issue. It acts as a prompt to go out and double check your own stock.' Mike Thorne says working together helped tackle the problem. 'Fluke is normally associated with high annual rainfall areas in western UK. However, the disease has increased in central and eastern areas. This area has previously been considered too dry to consistently maintain adequate snail habitats. Ian's approach and that of his neighbours to pick up the phone and warn one another helped

identify further cases of liver fluke across other farms, meaning that action could be taken.'

In other flocks in the Midlands area, Mike reports that severe liver fluke infection has resulted in abortion during mid-lambing. What's more, the disease has reduced fertility by up to 14%, which has a massive effect on flock performance.

Infestations at Laurels Farm are now controlled by strategic drenching based upon advice written in a sheep flock health plan. Drench is administered in advance of the predicted challenge during October and January, using local knowledge and national disease alerts.

Furthermore, the flock is based on replacements with around 300 ewe replacements purchased each year from the same source. The Roberts have worked with Mike Thorne in developing an effective quarantine strategy for bought-in stock.



'It's important not to import fluke infection onto farms. Neither should stock be allowed to graze 'suitable snail habitats' without protection. Ewes should receive a flukicide which is effective against immature fluke. As livestock can pass fluke eggs for about three weeks post-treatment it is advisable, where practicable, keep treated imported animals on



Regular monitoring ensures at least two-thirds of all lambs make the R3L grade required for a deadweight contract.

pastures with no snail habitat or house animals for four weeks.'

The farm's Mule ewes are put to Texel X Suffolk tups and the flock is fed a standard home-grown ration prior to lambing with feed protein levels increased post-lambing to improve ewe milk quantity.

Lambing begins mid-February, indoors with the aim to finish the bulk of ewes four weeks later. To relieve building pressure, ewes and lambs are sent outside as soon as possible.

Lambs are creep fed from three weeks with a ration consisting of barley, oats, beet pulp, added protein and minerals. The farm aims to rear 1.65 lambs per ewe and all lambs are taken through to fat and sold deadweight to supermarket buyers through a local producer group. Mr Roberts estimates two-thirds of his lambs make the R3L grade required.

'I believe selling deadweight reduces stock stress. They make one journey only, straight to abattoir,' says Ian Roberts.

He says that working to a flock health plan helps remind him about the basics while still looking at all aspects of his sheep production.

'The starting point has got to be recording all losses. This may sound simple, but when things get hectic it can get overlooked. Without this information, it's impossible to act.' Other health planning measures include vaccinating ewes against the clostridial diseases four weeks before lambing. Control for enzootic and toxoplasmosis abortion and treating for twin lamb disease is routinely carried out. Joint ill in lambs has also been tackled by using a copper sulphate solution on each lamb navel. The flock is also protected against Bluetongue.

Using a mobile catching and handling system and treating ewes when drawing lambs also improves animal welfare, explains Mr Roberts. 'We go to the sheep, rather than have to walk them miles back to the farm. Planning ahead, we try to carry out several tasks at each handling, keeping disturbance to a minimum.'

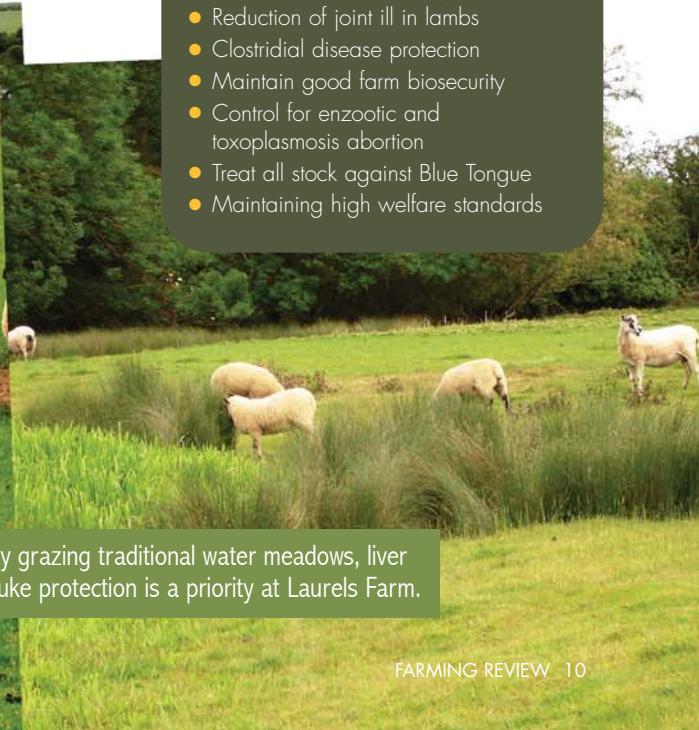
A robust culling policy signals an exit for ewes with poor teeth, persistent lameness and severe mastitis.

#### LAURELS FARM FLOCK HEALTH PLAN

- Liver fluke control strategy developed
- Reduction of joint ill in lambs
- Clostridial disease protection
- Maintain good farm biosecurity
- Control for enzootic and toxoplasmosis abortion
- Treat all stock against Blue Tongue
- Maintaining high welfare standards



By grazing traditional water meadows, liver fluke protection is a priority at Laurels Farm.





## XLVETS LAUNCHES FarmSkills



In today's increasingly competitive marketplace where time and costs are under growing pressure, being trained in the latest techniques, methods and strategies to improve fertility, animal health, lameness and nutrition as well as how to run an efficient business, must be a goal for all farmers.

A new programme called FarmSkills, launched by XLVets at the 2009 Dairy Event and Livestock Show, aims to fill this need by bringing farmers, vets and industry experts together to provide some of the solutions to the training puzzle. Developed in association with farmers, FarmSkills offers relevant, practical, farm-based training delivered by vets and industry leaders. All courses are designed to be flexible enough to cater to each farmer's different needs and experiences, but structured enough to ensure that when they leave the course, the farmers take away key learning outcomes to benefit their business and improve the health of their livestock. Farmers can also build the training up into an accredited qualification if they wish. In addition, the experts delivering FarmSkills courses have been trained in how to get their messages across in a clear and concise way.

Vet, Phil Alcock, from Bishopton Vets in Ripon, and one of the XLVets team who have developed the FarmSkills programme said: 'As a vet, I was finding that an increasing amount of my time with farmers was being spent in training them how to prevent disease and health issues

in their livestock. I was also aware that my colleagues around the country were doing the same thing, but what we lacked was a joined up, consistent approach. That's when we decided to join forces across the XLVets group and talk about training with other industry experts, levy bodies and the wider industry, to see if we could build a set of courses that farmers would find useful, and that could become a nationally recognised standard.'

FarmSkills is coming to life across the country; over 20 courses in subjects from buying the right beef bull to DIY AI, cattle foot trimming, parasite control in sheep, service and dry sow management, practical nutrition and farm staff management are running in October and November alone. Courses cost around £50 per day, depending on the funding available in each region.

One of the many courses available under FarmSkills is practical bovine foot trimming. Owen Atkinson, Chair of the FarmSkills Steering Group, has an overview of hoof care (Page 13), which might tempt you to join a course to find out more!



A GUIDE FOR FARMERS



## Routine Hoof Checking

A cow's foot is an interesting piece of architecture. It shares some similarities to our own toes and finger tips, but has evolved in time to cope admirably with a cow's normal environment.

Farming can result in a different environment and behaviour to that which animals first became adapted, and may result in pressures that the foot has not evolved to cope with.

FIGURE 1: A CROSS-SECTION THROUGH A COW'S CLAW



The triangular bone you see at the tip of the cow's foot is akin to the last bone in our fingers. Cows walk on their finger-tips - two per foot. The hoof capsule is made up of four different types of horn: wall horn, just like our finger nails;

**sole horn** - think of this like a super-hard pad of a dog's foot; white line horn: a relatively soft cement joining the wall to the sole; and heel horn: softer horn on the heel bulbs.

Wall horn is the strongest, and is designed to carry most of the weight and wear. See figure 2 below.

FIGURE 2: HEALTHY HOOF SHOWING NORMAL WEAR



Note that the wall horn and heel horn forms a more important weight-bearing surface than the sole horn. In normal circumstances (natural, earth underfoot conditions) layers of the sole horn 'flake' away, similar to layers of skin cells.

The harder tubular horn of the wall is worn away by abrasion on the floor surfaces caused by walking and normal movements. A good balance exists between growth and wear.

This hoof does not need any trimming.

FIGURE 3: A HOOF SHOWING USUAL CONCRETE WEAR



Hooves belonging to cows housed on concrete wear in a different fashion: the wall is worn away much faster and the sole horn becomes a more dominant weight bearing surface as it is level with the bottom of the wall edge.

This results in sole horn hyperplasia (more rapid production of softer, thicker horn), exacerbating pressure on the solar corium ('quick' producing sole horn).

Poor trimming, usually using grinders, can exacerbate this effect even more by grinding away the wall horn.

Wall horn should never be ground off at the sides, and it should always be remembered that the wall is the most important weight bearing structure of the hoof.

It is common for housed dairy cows to have thickened sole horn, particularly on the outer claw of the back feet, which bear more weight.

This can lead to further problems: sole bruising (often referred to as laminitis) and sole ulcers.

**FIGURE 4:** BRUISING ON THE SOLE AND THE WHITE LINE REGION OF THE OUTER CLAW.



**FIGURE 5:** HERE THE BRUISING HAS ADVANCED TO A SOLE ULCER, AGAIN ON THE OUTER CLAW.



## FIND OUT MORE...

If interested in finding out more, please call the FarmSkills Office on 07748 805497.

E-mail: [farmskills@xlvets.co.uk](mailto:farmskills@xlvets.co.uk)

Or log on to our website at: [www.farm-skills.co.uk](http://www.farm-skills.co.uk).



**FIGURE 6:** FOOT SHOWING DIGITAL DERMATITIS, HEEL HORN EROSIONS AND OVER-GROWN OUTER CLAW.



It is quite common to find dairy cows' feet with several lesions on them. The above example has a mixture of infections (heel horn erosion, also called slurry heel, and digital dermatitis), and also an over-grown outer claw with a thickened sole. When this is trimmed, it is quite probable that bruising will be seen, and possibly a sole ulcer and/or white line damage too.

Having the understanding and confidence to know how best to treat feet like this requires training and practice. A five-step foot-trimming routine (commonly called the 'Dutch method') helps the trimmer to achieve the correct foot shape and hoof balance, without running the risk of over-trimming, or making the foot worse!

One essential element of the five-step principle is to reduce the weight borne by a claw affected by sole bruising, white line disease or a sole ulcer. See figure 7:

**FIGURE 7:** The outer claw has been trimmed whilst the wall and sole of the inner claw have been preserved so that it bears relatively more weight. This will rest the damaged outer claw and allow recovery.



## SUMMARY OF HOOF TRIMMING...

Hoof trimming can be an important part of normal lameness control on dairy farms.

However, poor hoof trimming can make matters worse. A good appreciation for the types of damage that occur to cows' feet, along with proper training in trimming techniques, are very valuable skills for dairy stock persons.

Improving knowledge and skills in this type of area is just the sort of thing that the XLVets' new FarmSkills initiative is designed to achieve. FarmSkills training is hands-on, interactive, and led by trained facilitators who are vets or experts in their subject.



## THE ROUNDHOUSE

When vet **Alex Scott** bought a farm in his native Scotland with a view to retirement there he also had to build housing for his suckler cows.

After starting his veterinary career in Maybole, Ayrshire, he has spent the last 31 years with XLVets' member practice the Willows Veterinary Group based in Knutsford, Cheshire.





Alex Scott, Willows Veterinary Group, Cheshire

Becoming a partner in 1980 and subsequently specialising in equine work and lameness and corrective farriery in particular, he built the country's first bespoke equine hospital, the Ashbrook Equine Hospital, in 1991.

'I was looking towards my retirement and initially thinking about buying a house abroad when I happened to pick up a magazine and saw a farm for sale - Yonderton Farm, Dalrymple.'

'It was an opportunity to go back to my roots in Scotland. It had fishing rights on the River Doon and on the day I visited the weather was beautiful and that sold it to me,' he said.

With his knowledge of farming from large animal practice work he decided to farm the holding, previously part of an estate, with the help of manager Jane Paterson.

The 220 acre farm, which includes 20 acres of woodland, was bought in 2006 and since then a further 44 acres are rented to run the 60 suckler cows and commercial mixed flock of 300 ewes.

'There was no cattle accommodation at all and I saw the Roundhouse advertised in a magazine and what impressed me initially was the design and shape.'

I had never seen anything like it. Also for me it was the ventilation and safe handling facilities that could be used by just one person,' said Alex.

'The eight segment pens which each have access to the central collecting area make it so easy to select an individual animal or a group of animals without anyone getting hurt.'

'The pens are also useful for segregating shy feeders or poor doers. Cows can even be grouped for calving dates.'

'Foot problems have dropped dramatically because I have trimming facilities in the centre of the building. I have also used the building in the summer for routine dehorning, disbudding and dosing and vaccination.'

'As a vet, I am familiar with all the conventional types of housing and I have worked out plenty of ventilation quotients for yards in my time but the open sides and ventilation hole in the centre of the Roundhouse roof create ideal conditions for air-flow for the stock,' he added.

'We have not seen any pneumonia in calves. The cattle are dry and any moisture in the air is moved quickly through the building. The cattle are also very relaxed and content, even if strangers come to look at the building. Called the Roundhouse because of its entirely round shape, the building

concept was developed over four years by Geoff Simpson, managing director of Simpson and Allinson in Barnard Castle, County Durham, who has been involved with the manufacture of agricultural buildings for three decades. The building at Yonderton, the first Roundhouse in Scotland, with all fixtures, fittings and pens as well as site excavation cost £95,000.

A Taarup bedderfeeder is used to dispense hay or big bale silage to the troughs around the side of the building in a one-man operation as well as to bed the pens with straw. Cleaning out is easy at just a pen at a time. The system for the cattle is for the cows to put on condition at grass during the summer and to calve down in the spring with some supplementary feed in late pregnancy.

Yonderton is 500ft above sea level with winter winds at up to 100 mph driving horizontal rain so roller screens have been added to the building to keep out the weather on the prevailing wind side. Alex has also taken the opportunity to collect the roof water to use for cattle drinking which he doses with liquid minerals. 'If I was to expand the herd - or even if I was to carry out equine veterinary work at Yonderton, I would have another Roundhouse - no question about it! It's an ideal working environment and it looks good. There were no problems in getting planning permission for the building,' added Alex.



ARTICLE ON JOHN RYRIE, ORCHID MEADOW FARM, WEST MELBURY, DORSET

# The challenges of milking sheep, ORGANICALLY...

At Orchid Meadow Farm, near Shaftesbury in Dorset, farm manager John Ryrie and his team milk a 1200 ewe flock all year round, under an organic system. John's vet is David Aggett from Friars Moor Veterinary Practice in Sturminster Newton, who advises on ewe nutrition and managing milk production, as well as flock health.



## The ORCHID MEADOW FLOCK is Maedi Visna accredited and vaccinated against BLUETONGUE. Any suspect abortion is tested, and to-date the only problems have been trauma and toxoplasmosis.

**T**he main flock health challenges are: footrot, orf, Haemonchus (Barbers pole worm) and in lambs, pneumonia which increases mortality rates. Mastitis is not an issue - there's only a 0.3% rate, and all cases are culled.

### MILK PRODUCTION STRATEGIES

With a 24-aside rapid exit milking parlour, it takes John's team of three staff around three to four hours to milk 900 ewes. Orchid Meadow ewes average 350 litres of milk per lactation with some achieving 450 litres. The flock averages a lactation length of 200 days, with the best ewes lasting 230-250 days.

Around 5000 litres of fresh unpasteurised milk is sold each week, and any surplus is frozen.

To ensure milk yields are maintained in the third and fourth quarters of the year, it's essential to get ewes in lamb in the spring and summer months. This is a challenge and remains a key focus for David and John. Fortunately, ewes' milk freezes well and so surplus milk from the first 6 months of the year is frozen to even out supply. In fact, up to 24t can be kept in cold store.

The flock was originally set up with Dorset ewes put to Friesland rams: 'The rams have been imported from Holland which has government recording schemes - some flocks there are averaging over 600 litres,' explains John.

'Dorset sheep are good for meat production and breed all year round however they are not the highest of yielders. So we have bought 60 Dorset ewe lambs with New Zealand bloodlines as the strain there is rangier and more milky.' John believes there is a place for both breeds and keeps the Dorsets for lambing down in the fourth quarter.

In the past, lambing was all year round except for an organised break over Christmas. However this also led to a trough of milk production which continued through January. So now, the policy is to lamb in two blocks with no Christmas let-up. Recent scanning results show 800 ewes will lamb in December this year and the flock is on target for ten full-on months of production rather than eight. In December, tups will also be turned out with ewes for the May lambing block.

To further improve conception rates in the May-July period, John, with David's input is planning to use artificial lighting in the shed in January to simulate an approach to autumn and trick the ewes into cycling.

John explains: 'We are always mating them whilst they are in lactation. During the ewe's natural breeding season we expect to get

85% in lamb. But out-of-season in the summer months then conception rates can be as low as 20%. If we can increase the length of lactation then out-of-season breeding would not be required.'

### IMPROVED LAMB SURVIVAL RATES

Thanks to David's advice on nutrition, and changes in rearing management, John has made big strides in reducing lamb mortality rates in rearing.

David explains: 'The first month of a lamb's life is critical, and getting them off to a good start is more important than worrying about how soon to wean them.'

'First off, sheep farmers need to look at ewe nutrition in the last months of pregnancy. It pays to feed a quality sheep nut, to ensure good lamb birthweights are achieved. Small lambs or over-large lambs have lower survival rates.'

At Orchid Meadow Farm, instead of sheep nuts, pregnant ewes receive a home-grown TMR ration formulated by David to meet the nutrient requirements of the growing lamb and also to prime ewes for lactation.

The mortality rate of lambs reared is less than 10% which is better than industry averages. John explains: "Pneumonia is a problem and it's the lambs that live through the infection which then recurs at 4 months that cost us more. We have designed the rearing area to include 'snug areas' which the lambs can go and lie under to keep warm, which has proven beneficial. And we only bed up the back of the pen with straw, away from the milk feeders which keeps the bedding cleaner and drier.'





John was finding that male lamb mortality rate was higher than females, around a 70:30 ratio. So they changed from castrating at 2-3 days of age with rubber rings to using them under local anaesthetic at 2-3 weeks of age. Now male and female survival rates are equal.

Orf occurs and soon spreads amongst lambs in the rearing shed, so a homeopathic remedy is added to the water which helps reduce its effect. David and John are considering applying for a derogation to use an orf vaccine for spring-born lambs which are fed milk in the fields and seem to suffer the infection more.

David adds: 'The dry matter content of the milk replacer has also been increased from 175g to 200g per 800g of water. This has made a big improvement in survival rates in the first 2 weeks.'

'Although John has access to home-grown organic cereals and can make his own creep feed, lambs actually prefer the presentation of bought-in creep feed and so this is fed instead to ensure intakes are maximised.'

The ram lambs are finished for non-organic meat, and so are reared separately on conventional milk replacer. Dorset rams are taken to 40kg liveweight and the Friesland rams to 45kg which takes a further month.

#### FOOT PROBLEMS

When John first came to the farm, 30% of the flock had footrot. This has been brought under control thanks to regular foot-trimming and foot-bathing. Ewes would be left to stand for 30 minutes in the zinc sulphate footbath, every other day after milking but nowadays, just walk through it. The bottom of the footbath is ridged to spread the hoof, thereby increasing exposure to the solution.

#### WORM BURDEN

Haemonchus (Barbers pole worm) is the main worm concern at Orchid Meadow Farm, especially when there's been a wet summer.

'Research has shown that plantain and chicory have some anthelmintic properties. So last autumn we drilled a 20 acre field with a red clover/plantain/chicory mixture. We ran Friesland ram lambs on it and have been impressed with their weight gains.'

#### FUTURE PLANS

Going forward, the main aims are to increase production and output without increasing costs. Hence the forthcoming winter lighting experiment to improve conception rates.

John is also evaluating whether to remain in organic production. For some customers, the provenance of the milk and animal welfare are as, if not more, important than being organic.

He explains: 'If we weren't organic then we could use sponges and increase conception rates, and we could cut costs by replacing the expensive organic milk powder with conventional product.'



It's a blood-sucking parasite so ewes with a heavy worm burden look pale, lose condition and milk yields fall.

John explains: 'We can't drench when milking, and have to dry the ewe off. So now, as a matter of routine, a worm egg count is carried out at drying off. If it is high, and the ewe looks pale, we drench with a flukicide which is also active against Haemonchus. The effects of the drench persist for six weeks, so turning treated ewes out onto pasture also reduces the larvae populations and effectively cleans it up.'

**'Lambs are turned out in April onto clean grazing. Worm egg counts are monitored through the season and lambs drenched, if necessary.'**







# Farm Crisis Network (FCN)

When vets call at a farm they never know how much of their time will be spent giving support to the farmer who has called them to look at one of their beasts. This was the message given to the Oxford and Buckinghamshire county group of the Farm Crisis Network recently by Steve Glanvill the practice principal at XLVets Hook Norton Veterinary Surgeons in Oxfordshire.

Farm Crisis Network (FCN) is a national organisation, founded in 1995. It aims to relieve need, hardship and distress in the farming community by providing pastoral and practical support through periods of anxiety, stress and related problems. This may involve problems within the farm business and/or the farm household. It is a Christian organisation and exists to support people of all faiths and none.

'FCN volunteers are non judgemental about what is happening on the farms they visit,' said Glyn Evans, the central counties Regional Director of FCN, who was at the meeting with Steve Glanvill. 'The volunteer befriends - 'walks with' as we say - the farmer who has asked for support and helps them understand the issues and make appropriate decisions.'

FCN has a national helpline staffed by volunteers who are trained to listen and supported to cope with the many calls they receive. Around 300 volunteers, based in England, Wales and Northern Ireland, come largely from the farming community, related industries and from churches. 'We form area groups, roughly by county, through which referrals from the helpline and elsewhere are passed on to local volunteers with the most appropriate skills in relation to the problems,' says Hazel Scarr, who acts as co-ordinator for

Oxfordshire and North Buckinghamshire. 'We make regular opportunities for our volunteers to meet for mutual support, to keep up to date with current farming practices and problems and also to improve their own skills. This is why we invited Steve Glanvill to come and talk to us about current worries from the point of view of the vet.'

About 50% of referrals to FCN come through the Helpline; of the rest, some referrals come from people in direct contact with farmers, including vets. FCN hopes that vets who visit farms will continue to be on the alert for people who are in difficulty and signpost them to FCN for support.

FCN is not a grant making organisation but can often signpost farmers to sources of funding especially RABI (Royal Agricultural Benevolent Institution). With RABI and the ARC-Addington Fund, FCN forms a triumvirate of farming charities known collectively as Farming Help working in complementary ways to support the farming community.

FCN also aims to raise awareness of farming issues and the needs of the farming community within the churches and in the wider society. Recently FCN published Stress and Loss, a report on the impact of bTB on farmers and their families to draw attention to the emotional

effects on the farmer and the farming family when the herd is closed because of bTB (report available from [www.fcn.org.uk](http://www.fcn.org.uk)).

Volunteers surveyed 68 farmers in three hotspot areas for bTB. The report noted that 'Farmers' reactions ranged between feeling the pressure but coping, through to actual physical illness caused by stress and, in some cases, feelings of not wanting to carry on'.

Sarah Brown, the executive officer of FCN who commissioned the survey is clear that the kind of stress facing farmers over bTB is present in many other scenarios as well, 'Our volunteers have supported over 4,000 people over the last year or so,' she said, 'they encounter people for whom a wider range of issues including bTB create a great deal of stress. I often hear the response from those we have helped - what would I have done without the FCN volunteer?'

**FURTHER INFORMATION** about FCN can be found on the website at [www.fcn.org.uk](http://www.fcn.org.uk) or by calling the Helpline. To get in touch with your local FCN either phone the Helpline for information on 0845 367 9990 or contact the FCN Office on 01788 510866.



# FCN

**Farm Crisis Network**  
Helping farming people through difficult times

[www.fcn.org.uk](http://www.fcn.org.uk)

**FCN Helpline 0845 367 9990**  
7am - 11pm every day of the year

- Available to anyone in the farming community
- Listens to your concerns, whatever they may be
- Responds confidentially and quickly to requests for help
- Has volunteers with farming and pastoral understanding, ready to help you however they can
- 'Walks with' and supports you as you seek to resolve your situation

Just a **phone call** away

Registered Charity No. 1095919

# Shows & Events

AUTUMN/WINTER 2009



## DAIRY EVENT & LIVESTOCK SHOW 16 - 17TH SEPTEMBER 2009 STONELEIGH

XLVets unveiled FarmSkills at the 2009 **Dairy Event and Livestock Show** on 16th & 17th September, the event was a huge success and generated a lot of positive enquiries from farmers about the courses available.

The event also saw the climax of the XLVets charity bike ride 2009, which is raising money for two farming charities; RABI and Farm Africa. Cyclists from XLVets practices Glenthorne Veterinary Group and 608 Vet Group completed the final leg of the ride and delivered the calves safely to the Judging Ring at Stoneleigh Park. Following the arrival of the calves RABI President Lord Plumb was on hand to welcome them and receive a cheque for £10,000 from XLVets' managing director David Black.

Lord Plumb said: 'This is a great effort by XLVets staff across the country which has raised considerable awareness, as well as much needed funds, for two worthy charities. They are to be congratulated on the originality of the ride and thanked for giving their time and effort to support those in need in the farming industry.' XLVets would like to thank everybody who got involved in the bike ride for their tremendous efforts.

**SIMON ALLEN**, from XLVets Allen & Partners presenting a bottle (from the case) of wine that **PHIL DAVIES** of Ludchurch Farm won at the Dairy Event.



## 100 Years HOLSTEIN UK CLUB

BEN PEDLEY, WILLOWS VETERINARY GROUP

It was the Centenary Celebrations for the Holstein UK Club. Pictured below is one of the two farms they visited.

'It is the heifer rearing unit for the four dairy farms on the Grosvenor estate, near Chester, part of the Duke of Westminster's estate.

We are the vets for 3 of the 4 dairy units (hopefully we get the fourth!!) and this farm. There were many trade stands and around 350 visitors. Our stand was in one of the sheds used for the welcome greeting and lunch. All visitors were offered a copy of the latest XLVets newsletter for light reading on the way to the second farm!

It was pleasing to hear from several visitors, who were from all corners of the UK that their vets were members of XLVets.'



Three XLVets member practices attended this year's **South West Dairy Show**; Shepton Veterinary Group and Synergy Farm Health (Kingfisher and Southfield veterinary practices).

Below Michael Head, Shepton Veterinary Group gives us a round-up of their day at the event.

'The Shepton Veterinary Group had a stand at the recent South West Dairy Show. Being situated adjacent to the main showing ring we were busy welcoming our visitors to sample our clients' mature cheeses and sausages! Our main theme for the day was 'FarmSkills' and to this end we had a questionnaire with an attached prize draw to sign up clients for the series of monthly training meetings at the practice. All members of the farm team were present including Cathy Snook, the Farm office manager, Peter Edmondson, Paddy Gordon and the staff from our 'Daisy', herd health and production recording office, Sarah Poore and Vicky Coxon.

'The day is part of our and our clients' social calendar, a time to catch up with family members we rarely see. We had visits from Synergy and it was very nice to welcome Sophie Throup from FarmSkills. The day represented a successful way of increasing the practice's and XLVets' profile. Over 6,000 people attended the show. It appeared, thanks to a well timed deluge, that most sought cover in the main ring and kept our kettle very busy!'

A big thank you goes to the team at Shepton. The planning of the show starts some six months previously. One thing was for sure, we were very high profile shining out the flag of the practice and XLVets adorned in our bright purple sweatshirts! This was our best show ever,' concludes Michael.