

Livestock

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MATTERS

Inside this issue:

FARMERS WEEKLY AWARDS

We visit three of the 2010 Farmers Weekly Award winners and look how they have benefited by working together with their local XLVets practice.

WORMER RESISTANCE IN SHEEP

Polly Gratwick of Penbode Veterinary Group reports on her pre and post treatment faecal testing of sheep to try to build up a picture of what level of problems are around.



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THE EDITOR

Welcome to the 'Spring' issue of Livestock Matters...

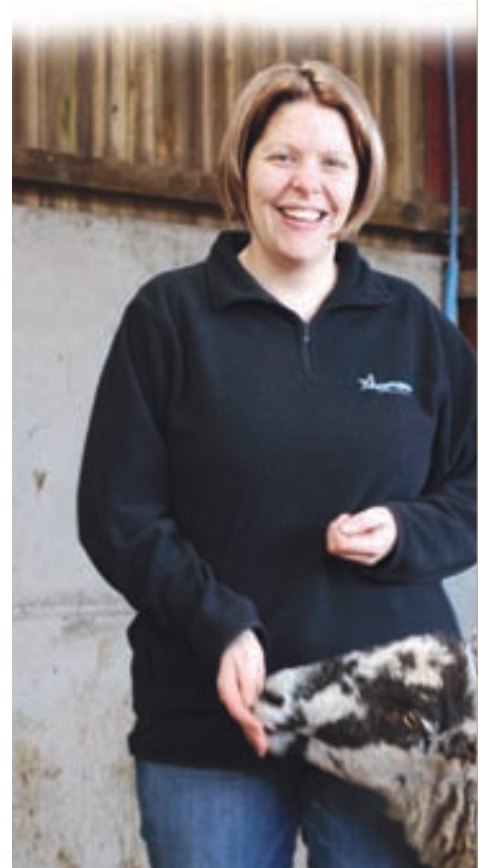
It's spring, the lambs have arrived (for most!) and now is the time to focus on grassland management to get the most out of pasture for grazing stock during the coming months.

In this issue Penbode Veterinary Group provides us with an interesting insight into monitoring worm egg counts and the effectiveness of worming treatments, from a recent case study they undertook with their farmers. We also have a write-up from a farm walk held in conjunction with Friars Moor and EBLEX.

Following on from the Gold Cup, we celebrate the recent successes of XLVet members and their farm clients at the recent Farmers Weekly Awards and go behind the scenes with each of the winners.

We have the last New Zealand report from Amy Avery before she finishes her placement in New Zealand and also Mark Spilman gives us an overview of the time he spent there on his XLVets scholarship. It has been interesting to see how different farming is in New Zealand and we hope you have enjoyed reading the reports over the last 12 months.

Joanne Dodgson XLVets



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SPRING FEATURE

07

Wormer resistance in sheep

Polly Gratwick of Penbode Veterinary Group reports on her pre and post treatment faecal testing of sheep to try to build up a picture of what level of problems are around.





Forty sheep and beef farmers gathered at Mount Pleasant Farm in Dorset for a grassland management day. Mike Miller farms Mount Pleasant with a Hereford x Friesian suckler herd together with a pedigree Polled Dorset sheep flock. Mike was keen to get some advice on managing the grassland effectively on the farm, and invited two grassland enthusiasts Charlie Morgan and Dr Liz Genever from EBLEX to organise a farm walk.

Grassland Management

Lucy Gill Friars Moor Veterinary Clinic

Charlie and Liz started by having a thorough look at the farm's productivity. Mike took over the family farm three years ago, and converted the farm to organic. Currently, there are 40 suckler cows which are put to an Aberdeen Angus bull, to calve in June and July. The calving period is tight with 78% of cows calving within six weeks, and all cows within a nine week period. The calves are weaned at the end of the winter, and are finished off on grass at an average of 22 months. The herd is a closed herd, and the first home bred heifers will calve in spring. The Polled Dorset flock lamb in November, and lambs are finished off on concentrates and hay.

- Roots should extend to 30cm in healthy, well structured soil.
- The number and appearance of earthworms in the soil section gives a good indication of soil health. There should be 10-15 earthworms in a spadeful.
- Smell the soil, and look at the colour, if waterlogging occurs, the soil will become rusty and mottled, with a foul smell.
- Look for signs of compaction in the soil.



Charlie explained that compaction can be caused by machinery and a high stocking density. Rectifying compaction with an aerator or sward lifter can significantly improve grass growth, as roots can then extend deeper into the soil. It is important to use the correct machinery at the right time of year to deal with compaction effectively. These visual clues to the soil should be used in conjunction with soil sampling for pH, phosphorus and potassium.



Veterinary Surgeon	Lucy Gill
XLVets Practice	Friars Moor, Dorset

Charlie and Liz conducted a farm walk and started off by digging a hole in the first field to explain how to assess soil:



LUCY GILL

Well managed grassland provides the most economic feed throughout the year, either as grazing or conserved forage...



After a hearty lunch, Liz and Charlie led a discussion with the group of whether the current farming system was maximising the farm's grazing and forage options.

- The calving period is tight for the herd with 78% calving within 6 weeks. The group felt that it would be beneficial to bring the calving period back to the spring, to maximise utilisation of spring grass. This is feasible; heifers will calve for the first time in spring 2011, and the calving period could be brought back from early summer.
- One problem with the traditional breeds at Mount Pleasant Farm is that cattle fail to make the heavier weights at the correct conformation. Most of the cattle grade at O+4L, but soon put on too much fat if left to get heavier. Due to the clover rich leys for silage and the clover in permanent pasture, the forage quality is too good for feeding this traditional breed of cattle. One option would be to consider using a different maternal breed such as a Simmental, so that finished cattle would definitely make heavier weights. Changing the beef breed would increase the farm options; continental x stores would be worth more in the market, and if the farm sold stores, it could carry more head of cattle. One option would be to consider doing AI on some cows to introduce some continental x replacements. AI would need to be done to observed heats rather than a synchrony programme, because of the restrictions on hormone drug usage in the organic system.
- The farm is not suited to a large sheep flock. The ground is quite wet, and being a former dairy farm, the fencing is more suited to cattle. Sheep could certainly be utilised in the autumn to tidy up pastures, but rather than run a flock to do this, sheep can be brought in from Mike's hill flock enterprise as needed.



With sward sticks in hand, Charlie and Liz explained how to make the most out of grazing a field with respect to the sward height. Using EBLEX guidelines, suckler cows with calves at foot should be put into a field when grass is at 12-15cm, and moved on when the sward height drops to 8-9cm. The sward should be measured by walking the field in a 'W' shape, taking multiple leaf top readings, and calculating an average.

The farmers then all headed to the opposite end of the farm to look at a red clover ley. Clovers can replace bagged nitrogen in conventional and organic swards, and produce a high protein and palatable crop. Charlie talked about the benefits of red clover in a ley, in terms of increasing the dry matter yield at the

2nd and 3rd cut. Red clover silage will have a crude protein level of up to 19%, which makes it a good forage for finishing cattle.

Clover has huge potential for fixing nitrogen, saving the conventional farmer on the fertiliser bill, and being ideal for the organic system. The threat of disease sclerotinia to red clover means that between subsequent red clover lays there must be a gap of 5 years to avoid transmission from one ley to the next.

Liz and Charlie talked about the importance of using a seed from the recommended list of seeds that is published by EBLEX in order to make sure that the seed is good quality, and that you know the growing characteristics of what you invest in.

Well managed grassland provides the most economic feed throughout the year, either as grazing or conserved forage. All too often grassland underperforms. Inadequate crop nutrition, soil compaction, weed infestation and many other factors will all result in reduced performance. On hearing advice from Liz and Charlie with the focus on Mount Pleasant Farm, and with contributions from the group, farmers who attended the event had ideas to take back to their own farms.

On behalf of Friars Moor Veterinary Clinic, I'd like to thank Liz Genever and Charlie Morgan for hosting the event. If farmers in other areas of the country are keen to know more about grassland management then contact the Better Returns Programme at EBLEX for more information (www.eblex.org.uk).





Adapting veterinary advice and support to ever-changing herd situations

Farmers Weekly Livestock Advisor of the Year 2010

Mark Burnell Synergy Farm Health



XLivets' Mark Burnell, vet and director of Synergy Farm Health in Dorset, was awarded Livestock Advisor of the Year in the Farmers Weekly 2010 Awards. Mark has been working in veterinary practice for the past 26 years. He is one of the founding directors of Synergy Farm Health, formed by bringing together the two veterinary practices: Southfield Veterinary Centre and Kingfisher Veterinary Practice.

Amongst Mark's clients are dairy farmer Tim Cox and his son Simon of Northbrook Farm, near Dorchester. Mark has been providing veterinary advice and support on the farm since 1991. He has also instigated herd health planning initiatives, including the protocols for controlling infectious diseases, lameness scoring, fertility and mastitis monitoring.

'Now, Tim has a system which automatically collects a lot of useful data, and we need to review the records and look at the disease pattern afresh. For example, when in the lactation are mastitis problems occurring? We need to pinpoint the problem again so we can act.

'We also need to repeat the risk assessment, as it's a different set of conditions.'

The whole herd has recently been locomotion scored, and the main types of foot lesions identified. Now Mark and Tim can address the problem areas.



Tim Cox

Last November, Tim invested in two DeLaval automatic milking machines for the 120-cow herd which averages yields of 10,700 litres/year.

Mark Burnell explains: 'Heavy yielding cows need milking more often. So automatic milking systems reduce the stress and also encourage more milk to be produced.

'However, this new combination of straw yards and robotic milkers flags up a new set of challenges for us: the control of mastitis and reducing lameness will now need fresh attention.

'With the old milking parlour, keeping mastitis under control had been achieved by checking the milking routine protocol was followed, and using Dairyco's risk assessment plan and the monthly NMR milk records which identified problem cows so appropriate action could be taken.



Cow waiting to be milked



Veterinary Surgeon	Mark Burnell
XLivets Practice	Synergy Farm Health, Evershot, Dorset



Mark Burnell

The herd is vaccinated against BVD, and although there is no leptospirosis infection present currently, the situation is monitored with bulk milk samples taken every three months. 'Tim's farm is downstream of several dairy herds which could potentially be infected and so this is a worthwhile precaution.'

A screening test for Johnes disease will also be carried out, as requested by the milk buyer. Mark adds: 'Although milk powder, rather than cows' milk, is fed to calves, the infection could potentially spread in the calving yard. However, there has been no evidence of the disease in suspect clinical cases tested so far.'



FERTILITY

Mark visits on a fortnightly basis to PD cows and inspect those not seen bulling after 65 days. He has also shown Tim how and when to check for retained placentas, so that any problems can be resolved sooner.

Tim would like to improve herd fertility, and reduce the calving index down from the current 400 days.

Mark explains: 'This is certainly an aspiration, but Tim has to accept that with such a high yielding herd, we have to be realistic as to how achievable this is.'

'The presentation and tracking of problem fertility cows used to be a bit ad hoc. But now, with the new software that comes with the robots, we will be able to be

more disciplined as to which cows are presented and when. This should help "tighten up the system" considerably.'

Tim adds: 'I can rely on Mark to keep up with the latest information on new animal health products and initiatives in the industry. He understands the set-up here, and the challenges we face, and I'm happy to follow his advice.'

'He's able to stand back and put some outside perspective on how we do things. For instance, now we no longer have a herdsman, and there's just myself and Simon, Mark's identified the need for some training on hoof care. So it's not just herd health we get advice on it's all the management aspects that ultimately will benefit animal welfare and performance.'



Mark Burnell and Tim Cox





Wormer resistance in sheep

Polly Gratwick Penbode Veterinary Group

With the arrival of the new wormer Zolvix™, there has been a lot more discussion of wormer resistance with clients - and it's difficult to give accurate advice without knowing just what the local situation is. Very few of our clients have any idea of their resistance status. With this in mind I decided to offer free pre and post treatment faecal testing to our sheep clients to try to build up a picture of what levels of problems are around.



POLLY GRATWICK

Most farmers get their worming advice from the merchants where they buy their wormer, rather than asking their vet, so often we are only approached if they perceive that the wormer 'hasn't worked'.



We've got around 150 sheep clients in the practice area ranging from a few pet sheep, to flocks with 2,000 ewes. Clients were mailed with invitations to participate (I followed this by hassling any I saw over the next few months!) and 30 took part over this year. Although only a relatively small number were involved, they ranged from small flocks of 15-30 ewes up to the largest with 1,400 - so hopefully were a good representation of the sheep flocks in our area. In total 41 groups of sheep were sampled. All the clients taking part were sent a pack with instructions for the sampling intervals, sample pots and a questionnaire about their usual worming practices.

This wasn't being done strictly scientifically - I asked farmers to weigh the heaviest sheep (where they had the facilities) and to dose the group for that weight and I also asked them to check the calibration of the dosing gun (but not all did). The idea was to get a rough impression of how effective their wormer was. Some clients marked the sheep that they sampled so that they could sample the same ones post treatment. When examining the faeces I repeated the test to ensure a good flock average. To allow for any inaccuracy I considered a 75% egg reduction to be adequate efficacy (for the purposes of this study).

The faeces were examined under a microscope using the standard McMaster flotation technique, which should give a sensitivity of 50 epg (worm eggs per gram of faeces). When examining the faeces I classified the eggs into three groups: Strongyle type eggs, Strongyloide eggs and Nematodirus eggs. I also noted down any other findings e.g. coccidia, tapeworm eggs/segments and lungworm larvae.



Veterinary Surgeon	Polly Gratwick
XLVets Practice	Penbode Veterinary Group, Devon

OVERALL RESULTS

Overall egg reduction (of all three egg types):

Benzimidazole (15 treatments)

- 73% had less than 50% reduction
- 20% had over 75% reduction

Levamisole (10 treatments)

- 30% had less than 50% reduction
- 60% had over 75% reduction

Avermectin (16 treatments)

- 25% had less than 50% reduction
- 50% had over 75% reduction

There has been little or no reported evidence of resistance in the *Nematodirus* species and I found no evidence in the samples I examined. *Strongyloides* spp. are not generally thought to be very clinically significant and unless we

find large numbers associated with a scour we don't specifically recommend treating. I bear in mind that a strongyloides count can be much more unreliable as there may have been larval hatching. I therefore decided to look at the results specifically relating to the strongyle counts as these have much more clinical importance.



Samples were examined under the microscope in our own laboratory

STRONGYLE TYPE EGG REDUCTION

Benzimidazole

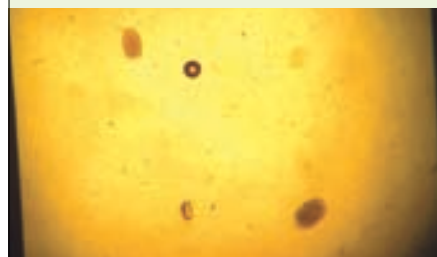
- 46% less than 50% reduction
- 40% over 75% reduction

Levamisole

- 40% less than 50% reduction
- 50% over 75% reduction

Avermectin

- 25% less than 50% reduction
- 63% over 75% reduction



Strongyle type eggs - the main cause of PGE in sheep

I was expecting to find evidence of white drench resistance as historically we have been told this has been around for a long time - and I was mindful that there has been triple resistance found in North Devon. What concerned me most was that on 9 groups of sheep the post treatment worm egg count was unchanged or higher than the pre treatment sample - sometimes considerably higher.

One particular farm with a flock of around 700 ewes has three distinct groups of sheep. This farmer marked the sheep that he sampled so that he could take the second sample from the same animals. In two out of three groups the egg count increased after treatment with an avermectin. The third group had only a 43% reduction. He was advised to change his wormer! Later in the season he brought a faeces sample from lambs dosed three weeks previously with a levamisole; this had an egg count over 2,000 epg. I would be reasonably sure that this farm is likely to have triple resistance.

Looking at the responses to the questionnaire - it's not surprising that there is so much resistance around. About half the farmers quarantine dose incoming sheep, but generally it is not being done according to SCOPS (Sustainable Control of Parasites in Sheep) recommendations. Several of the worm egg counts early in the season were low and the flocks did not require dosing. Very few farmers (other than organic farms) regularly have faecal egg counts done to determine if dosing is needed and most are treating their ewes more than once a year, which in the majority of cases is not necessary.

In total, only half the flocks sampled achieved over 75% egg reduction after dosing and more worryingly a third are getting less than 50% egg reduction. If this applies to all flocks in the area that's a lot of resistant worms! On the whole SCOPS principles are not being followed in full on the majority of farms. A lack of effective quarantine dosing and over-treatment seems to be allowing resistance to continue to spread. Most farmers also get their worming advice from the merchants where they buy their wormer, rather than asking their vet, so often we are only approached if they perceive that the wormer 'hasn't worked'. Now I've got some idea of the resistance levels in our area hopefully I can encourage our clients to involve us in their worming management plans.



These store lambs purchased at market were carrying a high worm burden



Mark Burnell of Synergy Farm Health comments 'Digital dermatitis was a major issue'

Farmers Weekly Beef Farmer of the Year 2010: John Hoskin

Mark Burnell Synergy Farm Health

PREVENTING DISEASE AND MANAGING HEALTH ACROSS DIFFERENT BEEF ENTERPRISES

Winner of the Beef Farmer of the Year and also overall Champion Farmer in the Farmers Weekly 2010 Awards was John Hoskin of John Hoskin and Sons, Maiden Castle Farm near Dorchester.

In fact, John, together with his son Richard, runs three separate beef enterprises - bull beef finishing, a suckler cow herd and finishing of heifer stores. Helping him to manage the health and productivity of these varied enterprises is vet Mark Burnell of Synergy Farm Health, and his fellow veterinary colleagues.



THE BULL BEEF ENTERPRISE

Six years ago, John made the conscious decision to replace his dairy herd with an alternative livestock enterprise, one which would similarly provide a regular monthly income.

He signed up to a beef finishing contract with Blade Farming: 14-week-old dairy-bred bull calves are brought onto the farm in batches of 30, on a monthly basis. These are then ad-lib fed a barley ration and slaughtered to achieve target carcase weights of 255-300kg.

'With cattle coming onto the farm from over 100 herds around the area, we know that disease is going to be brought in,' explains Mark. 'So we need to manage the hazard, to prevent disease. This is achieved by ongoing health monitoring and appropriate vaccination and protection, where the length of the animal's life justifies it.'

'For instance the risk of Blackleg infection is high - the intensive feeding and rapid growth, plus the boisterous behaviour of the cattle can predispose animals to such clostridial infections. So cattle are vaccinated a month after arriving. It's a low cost vaccine so well worth taking the preventative action.'

One health issue that did arise was lameness. 'Digital dermatitis was a major issue,' explains Mark. 'It was depressing growth rates and even causing death.'

'It's impossible to eliminate as there is always going to be a background level of infection in the environment. Typically I'd recommend formalin or copper sulphate in footbaths but bulls get stressed with lots of handling. In fact, they can actually lose weight just due to being handled to put through a footbath.'

Instead, bulls are put through a double footbath every six weeks - the first one to wash their feet clean and the next contains an antibiotic prescribed by Mark.

'By using an antibiotic solution, the disease is hit harder, extending the time period between footbaths.' John adds: 'I expected the problem in dairy cows, but was quite shocked at the extent to which it affected the bulls. The footbathing works well and if it prevents the loss of just one animal's life each year, then it has paid off to do it.'

Bulls are finished on an ad-lib barley/protein blend with limestone flour added to prevent acidosis, and to which they have 24 hour access. Chopped straw is no longer included as it caused bridging in the troughs, however bulls do pick at the straw bedding.

SUCKLER COW HERD

A recent new enterprise is a herd of 25 South Devon suckler cows. John is to supply quality meat for local high class restaurants under the brand Casterbridge Beef.

John explains: 'The South Devon is an under-rated breed that performs well off-grass and is hardy; so we can outwinter the cows. We also chose it for the temperament and our family's past experience of the breed.'

The cows all came from one source and were of a known high health status. However, due to the many other animals

on the farm, all have been vaccinated for BVD and leptospirosis and will be tested on a 12 month basis.

An Aberdeen Angus bull was purchased, selected for calving ease. 'We went to a closed high health status herd - accredited free of the four main infectious diseases,' says John. 'This was just as well as, due to TB test results we had a 60-day delay before we could bring the bull onto the farm. With a target calving date of 1 April, there was no time for a quarantine period!! We just turned the bull straight out with the cows as soon as he arrived.'



HEIFER FINISHING

Through the year store heifers and steers are purchased from Frome market, and finished on a simple ration of grass and maize silage. With no history of their worming status, they are drenched on arrival, and in the autumn also receive a flukicide.

Each of the three enterprises poses different challenges to maintaining good animal health and performance. Mark and John have tailored their attentions to each.

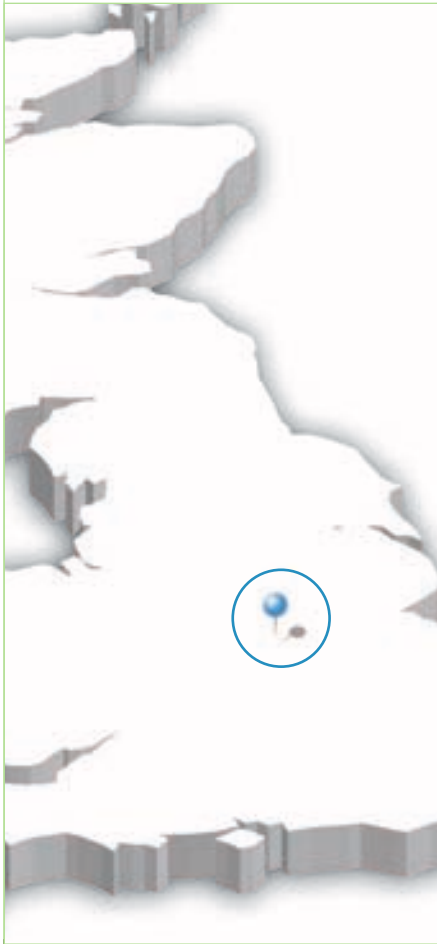
The bull beef enterprise has been the main focus, and is now a fine-tuned system with which both John and Mark are pleased.

John spent £10,000 to convert the dairy sheds to the existing bull beef facilities which include motorway crash barriers around each pen. Improving ventilation was the only other change needed after a smoke test using a wheelbarrow of lit straw. So air flow has been improved by raising part of the roof line and removing the tops of the sides of the walls.

Mark adds: 'John's success with all his enterprises can be put down to good husbandry and sensitive management, by him and his staff. It also demonstrates that you don't always need new buildings for new ventures.'

Bull beef enterprise at Maiden Castle Farm





Andrew Rees believes cows need to be able to look out for themselves when they go out to grass

Farmers Weekly Young Farmer of the Year 2010: Andrew Rees

Mike Thorne Farm Veterinary Solutions

...Attention to detail keeps herd on track

The key to success for Andrew Rees, the 2010 Farmers Weekly Young Farmer of the Year, is his attention to detail, believes his vet Mike Thorne of Farm Vet Solutions in Rutland.



Andrew Rees

Andrew milks 130 cows at Gaulby Lodge Farm, near Leicester, with yields averaging between 8,500 and 9,000 litres/cow, and no plans to push for more.

Since higher yield is not a goal, then any 'extreme angular' Holstein-Friesian cows in the herd are AI'd to Swedish Reds. Andrew explains: 'These cows need to be able to look out for themselves when they go out to grass. So just one generation of cross-breeding gives them a more balanced conformation, and then their offspring are put back to Holstein semen again.'

The herd is closed, except for stock bulls which have been bought-in as required, but only from a local farm with a known herd health status.

A new 12:24 swingover parlour was installed in 2008, and at the same time the heat detection system Heattime was adopted. This has reduced the number of involuntary culls

due to infertility - last year's culling rate was only 13%. It has also reduced the calving interval from 420 days down to 410. It is, Andrew believes, one of the best changes he has made.

So pregnancy diagnosis is made, albeit indirectly, by the Heattime system as all heats are reliably identified so an absence of oestrus therefore signals conception. So, unlike many progressive dairy farmers, Andrew bucks the trend in not receiving routine fertility visits by his vet.

Instead, Andrew utilises the services of Mike Thorne and his fellow vets at Farm Vet Solutions to help monitor the overall health and production of his herd. An annual cost review is also carried out by Mike in which the cost of medicines through the year is analysed, to ensure that the focus is on preventative and not fire-fighting treatment of disease.

MIKE THORNE

Andrew is quick to get on the phone to me if there is a problem. Good communication is an important part of a good farmer-vet working relationship...



in the back left teat. This meant cow-to-cow cross-infection was occurring, and has now stopped thanks to the cluster cleaning.'

Mike adds: 'The cows also get a lot of fuss here, and always come over to see what you are doing.'

'Andrew is quick to get on the phone to me if there is a problem. Good communication is an important part of a good farmer-vet working relationship.'

With herd health well under control, Andrew's next focus for improvement is grazing and forage supplies. He would like to install cow tracks and more water troughs, and build a bigger silage clamp to cut back on bought-in feeds.



For example, cows are blood-tested each spring for evidence of exposure to infectious diseases. The herd is naïve to the BVD virus, and has a low circulation of the IBR virus so these diseases are monitored for, but not vaccinated against. Johnes disease testing has not revealed any carriers in the herd either. However, a vaccination strategy is in place for leptospirosis.

Andrew is a great advocate of straw yards, and the positive impact on comfort and health for his cows which typically stay housed for 6 months of the year. He explains: 'Loose housing is more of a management challenge than cubicles. We put up a new shed four winters ago and have controlled mastitis well with only 30 cases per 100 cows, and cell counts below 200,000.'

The system is also beneficial in reducing lameness incidence. Andrew's herd has been part of an ongoing Bristol University study for the past three years and has one of the lowest levels of lameness recorded.

Mike Thorne adds: 'Andrew manages the herd very well, and pays a lot of attention to the detail. The stocking rate in the straw yards is good, and cows are bedded up well enough to prevent cell counts rising from environmental pathogens like *Streptococcus uberis*.

'Another example of Andrew's perfectionist approach is in the milking routine. The pre and post milking protocol is strictly adhered to. In addition, he has been flushing out the clusters in between cows for the past five years, after noticing mastitis cases tended to always arise

*Cows are bedded up well enough to prevent cell counts rising from environmental pathogens like *Streptococcus uberis**





Mark Burnell Synergy Farm Health

A little under a year ago, I helped Intervet/Schering-Plough to develop the UK's first ever National Fertility Survey run by Dairy Farmer magazine and supported by Metricure®. With around 500 participating farmers and a total of over 85,000 cows represented, the survey revealed some interesting facts and also some widespread misconceptions.

Findings from the UK's first National Fertility Survey



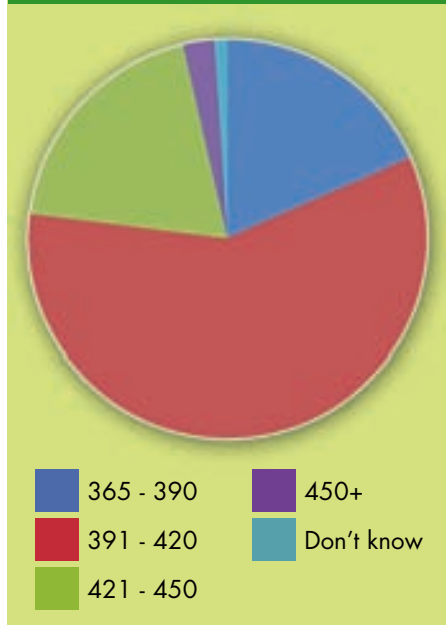
The average herd size in the survey was 178, slightly above national average, and average yield was 7,900 litres, again slightly above the national average. From the sample, 66% were Holstein Friesian, with Friesians being next most popular. A few crossbred herds were represented and further studies will investigate whether there is a link between crossbred herds and fertility performance. 84% of the herds were year round calving, and 96% bred their own replacements.

Measurements

Calving interval (CI), perhaps the most common measurement of fertility performance, was disappointing. Only 19% of participating herds had a CI of between 365-390 days (see Figure 1).

It is not entirely bad news however - 53% of participating farmers said that they wanted to improve their herd's fertility performance.

Figure 1: Calving intervals recorded from National Fertility Survey



Vet intervention

Getting the vet involved regularly and setting targets are essential steps for anyone wanting to improve fertility. Two thirds of farms had regular vet fertility visits - mostly monthly - but 24% of farms did not set specific fertility targets which seemed at odds with the fact that the majority of units wanted to improve performance!

Year round calving herds would ideally have the vet on the farm fortnightly, or at least every month to assist in identifying problems that may explain poor submission rates and give advice on ensuring successful conceptions go on to develop into pregnancies and the birth of a healthy calf.

Veterinary Surgeon **Mark Burnell**
 XLVets Practice **Synergy Farm Health, Evershot, Dorset**



Mark Burnell

Targets for culling due to fertility-related issues are usually around 5-7% but, of the respondents, only 36% were achieving this, with some units seemingly having a culling rate of between 15-25% due to poor fertility.

Post-calving uterine infections are often a reason behind fertility issues, as they can delay signs of heat and lead to less viable eggs being released by the cow. In fact, it is thought that the vast majority (80-90%) of intensively housed cattle undergo a bacterial contamination of some sort at, or soon after calving.

Not all of these contaminations will lead to infection. But certain risk factors can be identified - particularly metabolic problems such as milk fever, retained cleansings and ketosis - which increase the likelihood of infection persisting and adversely affecting herd fertility.

Understanding uterine health

The survey tried to identify whether farms considered endometritis or metritis to be the main post-calving problem. The answer to this was unclear, perhaps because respondents were unsure of the difference between the two conditions.

Around 40% of dairy cows develop metritis within the first week post-calving and 20% go on to develop clinical endometritis (whites), with sub-clinical (unseen) endometritis being even more common. And while everyone is familiar with the problem of whites, studies have shown that as many as 50% of cases could be being missed.

Having procedures in place to detect endometritis is very important. Ideally all cows are examined in good time before the breeding is due to start, but at least those with a high risk of endometritis, to ensure as many affected cows as possible are picked. Early treatment with Metricure® (the only licensed antibiotic treatment for endometritis) is advisable but hormonal treatments are also invaluable and your vet will be best placed to decide on the treatments for individual cows.

IN SUMMARY

The findings of this survey have a very clear list of actions for dairy farmers throughout the country - don't just accept the performance of your herd, set targets and work out how to improve performance.

Although there may be a cost involved, work with your vet, and you will soon see a payback as CI reduces, empty days are cut, there are fewer repeat services and a lower level of post-calving problems.





Sophie Throup FarmSkills Manager

FarmSkills

GROWING FARM BUSINESS SUCCESS

In Autumn last year, we let you know very briefly about the new FarmSkills Dairy Herd Health Certificate we will be running in association with Harper Adams University College. This was officially launched in February and we're now ready to accept our first delegates on to the programme.

FarmSkills Dairy Herd Health Certificate...

...What is it all about?

FarmSkills has always been driven by the needs of farmers (as employers and staff) - so when a group of our farmer representatives told us a year ago that they would like to see their achievements, and the achievements of their staff recognised with a certificate that awarded a pass, merit or fail, we wanted to do something for them. To answer this need as effectively as possible, FarmSkills and XLVets teamed up with Harper Adams University College, who are leaders in the field of agricultural training, to help us develop this part of the FarmSkills programme.

Our main core of FarmSkills workshops will still continue to run as they do now - practical workshops, run in small groups, on farm and delivered by local vets - however, for those

farmers who would like a recognised qualification, this is now possible.

The new Foundation Certificate in Dairy Herd Health will still be taught on farms and in local practices, by XLVets' vets and will still be very practical and 'hands-on' in its delivery. However, through various assessments, which purely test that each delegate understands what they've learned on the workshop, we will be able to work with you to build up credits for a qualification that's the equivalent of doing your first year at university. BUT - there are no exams, masses of written work or revising to be done - the whole programme is put together to help you get the most out of a FarmSkills workshop in as enjoyable and relaxed a way as possible.



The Harper/FarmSkills team launch at Harper Adams





Training workshops taking place

WHAT'S COVERED?

At the moment, the Certificate just covers the dairy sector, however, we are hoping to develop qualifications for other livestock areas before summer 2011.

The Dairy Herd Health Certificate includes modules in the following subjects:

- DIY AI
- Lameness prevention and foot trimming
- Mastitis control
- Improving herd fertility
- Management of the pregnant and calving cow
- Rearing dairy replacements
- Bovine nutrition

These can all be studied as one off modules, which will still receive an awarding certificate from Harper Adams, or can be put together over a 2 year period to build into the full foundation certificate qualification.

HOW LONG DOES IT TAKE TO STUDY THE WHOLE PROGRAMME?

You can study the programme within a 2 year period - starting from the first time you do a module with us. Please talk to us if you have studied a DIY AI module during 2010 with us as it may be possible to use this towards your certificate.

The modules each last between 2 and 4 days - some are taught in one block and others taught as one day a week or month. So, across a 2 year period, there will be around 20 days of training.

WHEN CAN YOU START?

Workshops will start in April 2011 and to begin, will run at the following locations:

- North West (Lancs/Cumbria)
- Yorkshire
- West Midlands (Manchester/Shropshire/Herefordshire)
- South West (Devon/Dorset)

We will look to develop into other areas of the country over 2011 and as demand from our farmers builds.

Please contact Sophie or Mina in the FarmSkills Office to talk about the qualifications - or about any of the FarmSkills workshops we are running - and see what we can help organise for you.



Find out more...

Get in touch to find out more or talk about courses we can tailor make for you.

FarmSkills, Mill Farm, Studley Road, Ripon HG4 2QR

www.farm-skills.co.uk
Telephone 01765 645893 e-mail farmskills@xlvets.co.uk



Farmer, Chris Simmons from Gloucester says: "After just one workshop on FarmSkills milking routines, everybody is now in the same routine and milking exactly as I want them to." - positive benefits from practical courses.

Many FarmSkills workshops are funded by LandSkills, which is managed by Lantra, in the North East, Yorkshire and Humber, East and West Midlands as part of the Rural Development Programme for England.

Courses coming up include:

	21-23 & 25 March DIY AI	Holsworthy
	22-25 March DIY AI	Norfolk
	23 March Supervising the safe use and storage of medicines	Ripon
	23 March Corrective foot trimming	Preston
	23 March Sheep husbandry and lambing management	Salisbury
	24 March Mastitis control	Kendal
	24 March Condition scoring and sheep lameness	Orkney Islands
	24 March Calving	Dundee
	24 March Selecting your best lambs for sale	Ayrwick
	29-31 March Foot trimming	Dumfries
	30 March Practical fertility and obstetrics	Derby
	30 March DIY AI refresher	Holsworthy
	4-7 April DIY AI	Shropshire
	6 April Controlling cell counts	Shepton Mallet
	11-14 April DIY AI	Warwickshire
	12-15 April DIY AI	Macclesfield
	13 April Sheep parasite control	Ripon
	14 April DIY AI	York
	14 April Practical foot trimming	Ripon
	18-20 April DIY AI	Ripon
	20 April Practical foot trimming	Bolton
	27 April Heifer health: from birth to weaning	Derby
	April Backyard poultry keeping	Dundee
	April Calf disbudding	Dundee
	April Environmental mastitis prevention	Cockermouth
	3 May Staff management for farmers	Ripon
	9-12 May Professional foot trimming	Cheshire
	10-13 May DIY AI	S Wales
	10 May BVD control for the beef herd	Ripon
	12 May Practical foot trimming (part 2)	Stockport
	24-27 May DIY AI	Carlisle
	May Sheep keeping skills	Barnard Castle

www.farm-skills.co.uk

Telephone 07748 805497 e-mail farmskills@xl vets.co.uk
XLVet UK Ltd, Carlisle House, Townhead Road, Dalston, Carlisle CA5 7JF



PULL OUT & KEEP



05 ARTIFICIAL INSEMINATION

Bishopton Veterinary Group

When you have a safe place ready to inseminate your cow; it's the right time to serve her, and you have separated your cow ready to inseminate her, make sure you have everything ready BEFORE you start.





ARTIFICIAL INSEMINATION

AI CHECKLIST

- Thermometer
- Thermos flask (water at 35°C)
- Forceps
- Scissors
- Paper towels
- Lubricant
- Arm length glove
- Insemination gun
- Plastic sheaths

THE GOLDEN RULES OF TIME

- Cows seen bulling in the morning, need to be served the following evening.
- Cows seen bulling in the evening, need to be served the following morning

THE GOLDEN RULES OF AI-ing

- Slow and steady wins the day
- If you think your cow might be pregnant, consult your vet.



AI - 21 STEPS TO SUCCESS

THAW THE STRAW

1. Check water temperature in flask is at 35°C
2. Remove straw from nitrogen with forceps and submerge in water for 20-30 seconds (follow manufacturer's instructions for sexed semen)

LOAD THE GUN

3. Remove straw, wipe dry and place in pre-warmed gun
4. Cut crimped end of straw at 90°
5. Slide on plastic sheath and secure with collar
6. Hold gun vertically and prime until you see semen come to top of straw
7. Put gun with warmed straw in warm place until ready

PREPARE YOURSELF

8. Make sure sleeves are rolled up, and all jewellery is removed
9. Put arm length glove on left arm
10. Lubricate gloved arm

PREPARE THE COW

11. Clean vulva with paper towel
12. Move tail aside with right arm
13. Insert left arm smoothly into rectum, coning the fingers
14. Flip tail over left arm with right hand
15. Remove excess dung with left hand, taking care not to let air into cow's rectum
16. Locate the cervix with the left hand

INSERT THE GUN

17. Apply slight downward pressure with left arm to part vulval lips
18. Wipe vulval lips with paper towel
19. Insert gun through vestibule, into vagina until reaching cervix
20. Pass gun through cervical canal, working folds back over the tip of the gun

DEPOSIT THE SEMEN

21. When your left hand feels the tip of gun poke through cervical canal, deposit semen slowly. (If rod will not pass through cervix, settle for cervical insemination instead).



XLVets New Zealand - the final season

Amy Avery Endell Veterinary Group

I can't believe my first year in New Zealand is almost up! Finally I am beginning to feel I have some idea of how farming works out here, and actually am surprised at how different certain aspects of it are from dairy farming at home.

Herd size (1,000 vs 200 cows), management setups (corporate/shareholders vs family owned), grazing all year round (vs housed cows) and cow genetics (Friesian vs Holsteins) all add to the differences between farming in New Zealand and the UK. These affect animal health in many ways; economic priorities often are different, for example, preserving pasture and cow condition are more important than milk sold in times of feed shortage. Cows yield far less and are more robust genetically so appear far less susceptible to many production diseases we see every day in the UK, but exposure of cows to all weathers can leave them very susceptible to other conditions such as metabolic problems after calving or heat stress in summer.

The last few months here have mainly revolved around mating programmes. From what I have seen feed seems to be the crucial factor here, and getting condition back on cows post calving is essential. However this is often not easy because weather, and therefore pasture growth in spring can be very unpredictable and it is one of the times of year where supplement feed here can be really important.

Following calving, for many herds, we would metricheck routinely during milking. This is where we check for uterine infections to hopefully enable us to treat the majority of them before mating starts. Most herds would aim for around 70% of cows to be cycling by the time they start mating. Many farms will monitor this by tail painting cows 4 weeks before the start of mating. This allows them

time to deal with the non-cycling cows if necessary. Some will separate non-cyclers and thin cows at this time and try to feed them preferentially. Others will use hormonal treatments and get them cycling more quickly. Interestingly there are differences between how cows in different systems, in different parts of the world, respond to different fertility treatments. Perhaps due to sheer cow numbers needing treatment at one time, most farmers prefer us to use a blanket treatment on all their non-cyclers rather than have us examine the cows' ovaries and treat accordingly. One of the more commonly used programmes involves two injections and a progesterone implant followed by fixed time AI at the end. The earlier the non-cyclers are treated, usually the better chance they have of getting in calf in time.



Tail painting weekly can also be used to short cycle cows with the aim of serving most of the herd in the first 10 days of mating. This may mean cows get the chance of an extra service before the mating cut off date. However it also means they will have a very concentrated calving and the risk of a feed shortage following a bad winter.

For most, mating would run for anything from 9 weeks up to 16 weeks, but this year with the change in induction code most have brought it down to 12. Usually there will be around 6 weeks of AI followed by bull mating, although each farm differs slightly. Few farmers do their own AI as most are busy enough as it is and there are two large companies which do the majority of it out here. Then a new set of young bulls, usually 2-3 year olds, will be put out each year to finish. It will be interesting to see how all the different mating practices have fared at scanning time in a couple of months!

Over the last year I have learnt a huge amount about New Zealand dairy farming and have really enjoyed the work. I'd like to thank XLVets for their support and sponsorship towards this. I hope you've enjoyed my articles.



Injecting prostaglandins



Metricheck device



Tail painted cows



XLVets in New Zealand

...the new enthusiastic 'Pommy' vet



Mark Spilman Bishopton Veterinary Group

As a new graduate at Bishopton when XLVets was in its infancy, the benefits of being a member were being discussed at a meeting and the possibility of exchange schemes in the future was mentioned. This immediately appealed to me and I was therefore delighted when my application for one of the New Zealand scholarships was successful.

It was soon obvious how the seasonality of the Kiwi system can mean a very varied workload for vets. I was initially in the South Auckland/North Waikato region in early August for calving but good early spring weather combined with a very poor forecast for the milk price meant that there was not a lot of work for the new enthusiastic 'Pommy' vet to do! This meant that my stay here only lasted a few weeks but through the Exchange network I soon had a new job lined up in the south of North Island. Calving was slightly later here and by this time the forecast payout had improved so we were busy enough!

Along with the usual emergency work spring also involved monitoring cows for macro element and trace element levels, and adjusting supplementation accordingly. Supplementation with magnesium was achieved in a number of ways, either via dosatron in water, dusted on pasture, in the Maize/Palm Kernel supplement or in the parlour drench! Trace elements were often via dosatron into the drinking water.

The end of calving meant the start of the Metrichecking season! Post-natal checking on a herd scale using a metal device with a rubber 'scoop' on the end! This was also my introduction to the 'trolleys' that we used to skate along the pit whilst examining cows in the parlour. In most herds the incidence of 'whites' was 15-20% and the majority treated with Metricure (which can be tricky when trying to do this as cows go past on a rotary platform!)

The end of the mating season is the quietest time for the Kiwi vets before pregnancy testing starts and this provided a good opportunity to explore more parts of New Zealand and Australia. I spent some time visiting farms on the South Island including a 1,200 cow dairy unit, a 20,000 head beef feedlot and some more typical beef and sheep farms. The landscape of the Canterbury plains was dominated by huge centre pivot irrigation systems that had enabled the stock carrying and

production capacity to be increased considerably, especially in recent years as more sheep farms have been converted to dairy.



The scanning season awaited on my return from my travels. The only difference being that instead of holding the scanner in your hand it is encased in an introducer, which took a short while to get used to but proved an invaluable arm saving device as well as

being quick! Whole herds were scanned with empty rates anywhere between 0 and 25%!

Experiencing pasture based dairying first hand was a big reason for my trip and this is certainly an area I gained a deal of knowledge and experience whilst over there. You soon learn to talk in terms of 'clicks on the platometer', paddocks, residuals, rotations etc and realise that the key to dairy farming in New Zealand is managing the grass primarily, and if that is done well then the milk production will follow.

The grass growth in the late season persisted so well whilst I was there that the biggest dilemma affecting most farms was what to do with the surplus of feed. Most farms grow a late summer crop of turnips, which usually coincides with a fall in pasture growth rates. However this dip did not occur so there was a surplus of grass and/or turnips, with a lot of guys having already made more than their



fair share of silage! Needless to say the grazing round was very fast with plenty of topping post-grazing and turnips were strip grazed as quickly as possible so that paddocks could have new grass leys sown for the following season.

Working in a couple of clinics turned out to be of benefit in terms of seeing different aspects of Kiwi practices. The approach to a 'herd health' aspect of veterinary work often seemed reactive on the back of health issues, rather than a more proactive 'health planning' setup. The main reason for this I feel was that the seasonality of the work meant that when times were busy, they were extremely busy, and getting through the work was the main focus of the day! There also tended to be a larger number of farms/cows per vet and no organised system in terms of herd responsibility making planning and preventative medicine slightly ad hoc.

The XLVets New Zealand exchange programme is a great idea and I feel I benefited massively from the experience. I would recommend it to any vet who is keen to learn new skills, experience new systems, meet some great people and see an amazing part of the world!





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



XLVets Sterimatic Packs
AVAILABLE NOW

'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.

www.xlvets.co.uk