

Livestock

MATTERS

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Inside this issue:

IMPROVING FLOCK PERFORMANCE

How monitoring flock performance can help identify specific problems, leading to the most appropriate action.

COW TRANSITION

Helping to improve fertility and herd health through cow transition.





**Make your farm your
FORTRESS**

WINTER EDITION

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Livestock Matters is published by:

XLVet UK Ltd, Carlisle House
Townhead Road, Dalston
Carlisle CA5 7JF

Tel: (01228) 711788

*This publication is supplied free of charge to farm clients of XLVets member practices.

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THE EDITOR

Welcome to the 'Winter' issue of Livestock Matters

As I write, the first lamb has just been born on my parents farm, admittedly a little earlier than it should be, but a sure sign that we will soon be in the full throw of lambing time. For our sheep farmers, in this issue we look at flock performance and how the use of blood tests, worm egg counts and lameness investigation can all identify specific problems, leading to the most appropriate course of action.

We also take a look behind the scenes of this year's winner of NMR Gold Cup, Glastonbury's Michael Eavis and see how NMR Gold Cup finalists the Harveys of Drum Farm take an evidence-based approach to monitoring and managing herd performance.

As the XLVets BVD Check Tag scheme gains momentum, we see how one farmer in your region has tackled BVD and learn how important the removal of persistently infected (PI) animals from the herd is in the control of the disease. If you want to take a look at the case studies from the other XLVets regions, do visit the new farm pages on the XLVets website www.xlvets.co.uk, where all the BVD articles, and more, can be found. And, next time you're speaking with your XLVets practice, if you are not

already involved, do ask about the BVD Check Tag scheme and how it can help ensure BVD is not a problem on your farm.

Finally we have our last update from our two students in the popular Student Diaries column; it's been great following Antonia and Alice through a year of their studies and I am sure you will join me in thanking them for giving us all an insight into life as a vet student and wishing them every success with their veterinary careers.

We hope you enjoy this issue.

Joanne Sharpe XLVets



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Our final reports from veterinary students Alice McLeish and Antonia Matthews.

Success in Scotland at AgriScot 2014

AgriScot 2014 got off to a great start with a large and enthusiastic crowd descending on the Royal Highland Centre in Edinburgh for what was to be their biggest show yet.

As with all our national farm shows this year, the stand focused on our 'Make Your Farm Your Fortress' campaign giving farmers advice on how to prevent biosecurity breakdowns on farm and keeping diseases out of their stock.

Our award winning BVD Free & BVD CHECK TAG initiatives also featured heavily on the stand with many of the visitors already aware of the campaign's messages through exposure in the farming press and taking part in the RDPE funded work in England through the XLVets Training Services team.

There was also, as ever a lot of interest in our FarmSkills workshop dates, from students and farmers alike, with many asking to be kept informed of training and development opportunities in the coming year.

A huge thank you must go out to all the willing volunteers from local practices who helped out on the day and did a fantastic job of getting visitors onto the stand and educating visitors on aspects of the initiatives we are running.



Cream Awards 2014

Congratulations go to several XLVets members whose achievements were recognised at this year's Cream Awards:

Craig McAlister of Parklands took the 'highly commended' award in the Dairy Vet category. Alex McPherson, Drove Veterinary Hospital, Dan Humphries, Lambert, Leonard & May and Rose Jackson, Scarsdale Veterinary Group all received 'commended' certificates in the same category.

We are also delighted that one of Scarsdale Veterinary Group's clients, JE and EM Marshall won the health and welfare award which was very justly deserved.



JE and EM Marshall, Woodside Farm



Pictured from left to right: Dan Humphries, Lambert Leonard and May; Rose Jackson, Scarsdale Veterinary Group and Alex McPherson, Drove Veterinary Hospital

Northern Ireland Farming Awards



David Mulligan Parklands Veterinary Group

Parklands Veterinary Ltd. had a very successful night at the Northern Ireland Farming Awards held at the Ramada Hotel, Belfast on Thursday 30th October 2014.



Farm Supplier of the Year:

Winners: Parklands Veterinary Clinic
Highly Commended: Fane Valley

Farm Quality Assurance Scheme (FAQS) Farmer of the Year:

Winner: Nigel Matchett, client of Parklands Veterinary Ltd.
Highly Commended: Victor Patterson, client of Parklands Veterinary Ltd.

Beef Farmer of the Year:

Highly Commended: Nigel Matchett, client of Parklands Veterinary Ltd.

Dairy Farmer of the Year:

Shortlisted: David Irwin, client of Parklands Veterinary Ltd.



Craig McAlister Parklands Director (on right) with Nigel & Gail Matchett

XLVets at Buckingham Palace

XLVets has been presented with the RABDF Prince Philip Award Certificate of Merit by His Royal Highness at Buckingham Palace. The honour was made to the XLVets group for research and development in the field of dairy farming at the Livestock Event 2014.

'We feel honoured and privileged to win this award for our exhibit featuring 'Make your Farm your Fortress', a campaign designed to put biosecurity at the top of farmers' to-do lists,' said Stuart Gough of XLVets Calweton Veterinary Group.

'The exhibit demonstrated in detail the campaign's first aspect - BVD, which is present in over 80% of both dairy and beef herds. BVD triggers general immunosuppression, and whilst animals can be symptom-free it has a profound impact on health and productivity. White

BVD CHECK TAGS can be applied to individual animals as part of routine ear-tagging that harvest tissue for virus-testing. All those animals testing negative are introduced to a nationwide central database BVD CHECK (www.bvdcheck.co.uk) developed by XLVets, a facility which can be accessed by farmers, vets, auctioneers and processors alike.'

RABDF president, Prof David Leaver says: 'The RABDF Prince Philip Award is for innovations in the field of dairy farming and the industry benefits greatly from such

research and developments by supply companies like Genus ABS (the overall winner) and XLVets. The new products developed by these companies clearly have the potential to increase the productivity of dairy farming in the UK, and to improve our competitiveness in the global marketplace.'

Pictured below from left to right, Stuart Gough, Calweton Veterinary Group, Dan Humphries, Lambert Leonard & May and HRH Prince Philip.



XLVets at the Welsh Winter Fair

Simon Allen, Allen & Partners joined the MSD Animal Health stand to promote the XLVets BVD Check Tag scheme to visitors at the event. Read the BVD special feature in this issue to find out more about the scheme and tackling BVD on-farm.



Find out the latest news and what XLVets members are up to by following us on Twitter®, @XLVets.

Good transition management includes proactive care for twin-bearing cows



WILL SHEPPARD, ENDELL VETERINARY GROUP

Endell Vet Group's Will Sheppard has helped improve fertility and cow health for a high yielding herd by ensuring that cows transition well into milking, and by identifying twin-bearing cows so they can be managed accordingly.



(Left) Gerald Lambert, (Right) Steve Lee

Veterinary surgeon **Will Sheppard**

XLVets practice **Endell Veterinary Group**



At Darfield Dairy, near Salisbury, dairyman Steve Lee manages Gerald Lambert's 160 cow pedigree Holstein herd; yields average 11,700 litres/cow (including heifers), on twice-a-day milking. Production levels have been built up through focused efforts in breeding, together with excellent management which enhances longevity; some cows are giving 14,000 litres and are in their fourth or fifth lactations.

Will has been making fortnightly fertility visits and has instigated a number of changes over the past year.

Will explains: 'Steve now starts serving cows at 38-40 days post-calved, and non-bullers are treated at 40 days. We are also now PD-ing at 32-42 days instead of 42 and over, so we are identifying non-pregnant cows sooner. Since the herd is managed as a single group, this means we have fewer fat cows in late lactation.'

Changes have also been made in the management of twin-bearing cows and through carrying out metabolic profiling and monitoring DCAB transition ration, the issues of ketosis and milk fever have been controlled.



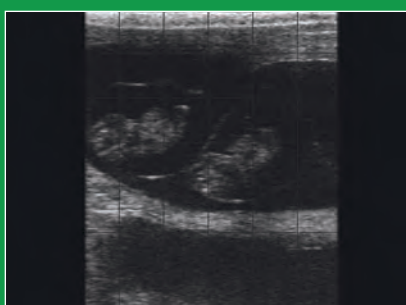
Care of twin-bearing cows

There is a high incidence of twins on the farm due to both good nutrition and high yielding genetics. Typically twin rates are around 5-8% but at Darfield Dairy they are around 8-14%.

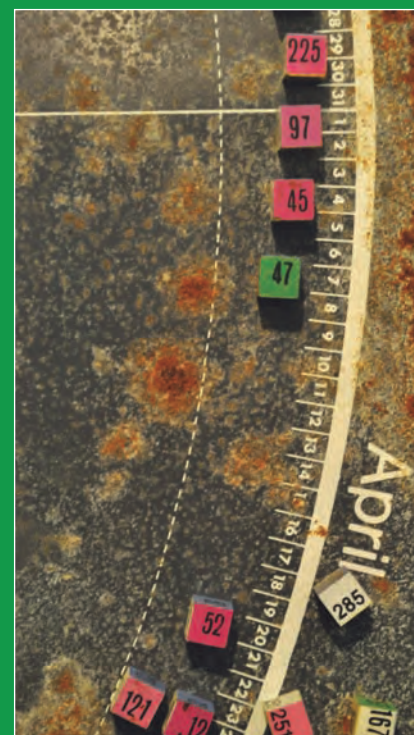
Will adds: 'One of the after-effects of a hot summer is an increase in twin rates - due to temperatures affecting hormone releases and dry matter intakes. So we are expecting even more twins to be born this spring.'

'Twin-bearing cows tend to calve early, and this can cause problems. On this farm, cows have a traditional 60 day dry period (although with selective dry cow therapy). So if they are managed the same way as other in-calf cows, they will have a shorter time on the transition diet. This can impact on their energy status and calcium metabolism making them more likely to suffer from peri-parturient diseases such as retained foetal membranes, metritis, ketosis and DAs, all of which contribute to a delayed return to service.'

'So we are actively scanning and looking for twins. Since we are now PD-ing cows earlier, we can also identify the twin carriers sooner. These cows are scanned again when three months into the pregnancy to check that they have not slipped the embryos, which is a bigger risk where twins are present.'



A scan showing how twins can be identified at 34-42 days of age



Green on Bray Board

'And on the Bray board in the parlour, any cow carrying twins is assigned a green coloured magnet to distinguish her from the others.'

'Twin-bearing cows are dried off, and moved into the transition group two to three weeks earlier than normal, to ensure that they have a full three weeks on the transition ration. They are also given a bolus when they are moved into the transition group, designed to help them better extract energy from the ration and reduce the extent of the negative energy balance.'

After calving, cows that have borne twins are given propylene glycol as an energy boost.



Dry cows

(Left) This heifer calf looks normal but she is actually one of twins, the other calf being male. This means there is a 92% chance that she is a freemartin and not suitable for breeding. Will says: 'Farmers need to keep track of such calves, as it's not uncommon for vets to come across an infertile freemartin when PD testing.'

Ration presentation problem

The herd calves all-year-round with a slight autumn peak. In the summer, true dry cows go out to grass.

Transition cows are fed a full DCAB ration, which is monitored using urine pH measurement to ensure it is working correctly, so as to prevent milk fever and secondary metabolic diseases arising.

At Darfield Dairy, urine samples from five to six cows that have been on the transition diet for 3-4 days are tested every six weeks. Steve uses a catheter to extract the samples and Will measures the urine pH as soon as he gets back to the practice where there is a calibrated pH meter. The target range is pH 6.2-6.8.

There is great attention to detail on this farm: urine pH checks of transition cows are also made whenever any changes to the ration are made, e.g. a change in maize silage.

However, in August/September of 2013, there was an increase in cases of milk fever, metritis and clinical ketosis. When Will assessed the metabolic profiles of dry cows and fresh calvers, he found NEFA levels were elevated, indicating a degree of fat mobilisation. The urine pH results in October were also too high.

The ration was not working effectively.

The transition cows were kept out on a bare paddock opposite the dairy, with some access to grass, whilst still being fed a complete transition ration. Grass can have a high DCAB value so, in consultation with the farm's nutritionist, they were brought inside and grass silage was also removed from the ration. With no grass in the diet, the urine pHs came down, and clinical milk fever cases stopped.

It is now standard practice for all transition cows to be housed in the last three-weeks prior to calving (the close-up period). The dry cow ration is now just maize silage, chopped straw, a mineral blend and DCAB salts.

However, although the average urine pH was in the target zone, the range of individual values was wide.

Will explains: 'In January 2014, although the urine pH average was 6.8, the range was 5.49 to 8.30. In March, there were more cases of ketosis and some DAs too. These clinical cases will have been just the tip of the iceberg, there will have been many cows with subclinical ketosis too.'

Will carried out more metabolic profiling and was able to pinpoint the issue as originating in the transition period.

So why was this, when on paper the diet looked fine? The problem was in the way the diet was being presented to the cows.

Steve explains: 'There had been a change in the type of straw we were using - from a brittle one to a waxy one, and it wasn't getting properly chopped in the mixer wagon. So the cattle were sorting out the straw and the bitter DCAB salts.'

The problem was solved very simply with the purchase of a straw chopper which consistently cuts the straw to a 30mm length. The whole situation changed 'overnight'. The following set of urine pH tests confirmed the problem was resolved - they ranged from 5.24 to 6.49. With the root cause identified, there is no longer any sorting and there have been no further milk fever cases.



Straw chopper investment

Post-calving care

Steve adds: 'It's important to keep an eye on the cows after calving too. We keep them on the straw yard for at least four days, and up to two weeks, depending on numbers and space. They need to get settled and be eating the ration - that's the crux of it.'

Steve looks out for subtle changes in cow behaviour that may indicate metabolic issues - a drooping head, ears forward, difficulty standing, and hard dung instead of soft working dung.

'We used to give propylene glycol to any cows which looked like they had symptoms of ketosis or if their milk yields were not increasing. But we've not needed to use it over the past year,' says Steve.

Improved fertility

At Darfield Dairy, cows are now transitioning better and this has improved fertility: the herd averages a calving to conception of 105 days, with a calving to first service of 58 days. And over the past 12 months, the calving index has reduced by 10 days to 385 days.

Further details on the effects of heat stress on the incidence of twins can be found on Endell Vet Group's farm blog at www.endellveterinarygroup.co.uk.



Ration close-up

CALWETON FARM



Veterinary surgeon **Bryony Williams**

XLVets practice **Calweton Veterinary Group**



BRYONY WILLIAMS, CALWETON VETERINARY GROUP

Poor flock performance is improving thanks to an action plan for health

Sheep farmer Tim French takes the approach; 'nothing ventured, nothing gained'. He recognised his flock was under-performing and approached his vet Bryony Williams of Calweton Veterinary Group for some help.

He was right to do so. A flock health plan was drawn up and a series of investigations have identified the causes of the poor performance, and appropriate remedies have been actioned. There are further improvements still to be made, but already Tim is appreciating the financial benefits.

Poor flock performance

Over the past five years, and in addition to a full-time job and contract-shearing, Tim has built up his own 160-ewe flock of North Country mules and Dorset mules, from scratch.

These are kept on rented land at multiple sites. Ewes are lambed down in March, and their lambs are creepfed to achieve to finish them at a target of 3-4 months of age. Tim buys in two-tooth ewes as replacements.

In the spring of 2013, Tim approached his vet Bryony for some advice.

Tim explains: 'I was disappointed with the low number of lambs born and thought there'd been too many losses. I also wanted better lamb growth rates.'



Tim French and Meg

Bryony explains: 'A lowland farm should be aiming to achieve a scanning rate of 195% and a lambing percentage of 183%, according to EBLEX targets.'

Tim's scanning percentage was only 168% (although this did include a few ewe lambs), and his lambing figure even lower.

Bryony adds: 'If Tim's flock had met the EBLEX targets, then around 70 more lambs could have been reared that year. That's worth roughly £6,000 in additional income.'

'Money will also have been lost due to the slow finish of lambs - increased feed consumption, lower lamb prices and medicines, not to mention the cost of Tim's time.'

Tim took some time out to sit down with Bryony and go through every aspect of his flock's health and performance. Bryony then drew up a flock health plan for 2013 and instigated a programme of testing to get to the root cause of some of the issues that had been identified.





Blood testing results

Blood samples were taken from the aborted ewes; four out of six ewes tested positive for the parasite *Toxoplasma gondii*.

Bryony explains: 'This parasite can cause early embryonic loss, abortions, stillbirth, mummified lambs and weak live lambs. It is shed in cat faeces and the disease is caused when the infective particles are ingested during pregnancy.'

'Its control relies on avoiding contamination of feed and increasing ewe immunity through vaccination.'

Tim says: 'Some of the fields are near residential areas and there are a lot of cats about. The vaccine looked quite expensive at first, but Bryony explained that a single injection will protect against toxoplasmosis for a number of years, and so in subsequent breeding seasons only replacements will need to be treated.'

'Last year, around 10% of my ewes were empty when we scanned them, and at lambing we had a high number of singles born - which we shouldn't be getting with mules. The cost of the blood tests was equivalent to the price of two lambs... so it should soon pay off.'

Tim's breeding ewes are now protected against *Toxoplasma* with a vaccine which is given at least three weeks prior to tupping.

All the blood samples tested negative for enzootic abortion (EAE). Bryony explains: 'The majority of EAE outbreaks are caused by buying in infected animals. Tim doesn't have a closed flock, so he ought to source replacements from EAE-free accredited flocks, or accept the fact he will need to vaccinate against the disease if it enters the flock.'

Blood was also screened for trace elements; the levels of selenium, cobalt and copper were normal, but iodine was very low.

'A lack of iodine has consequences for fertility and peri-natal lamb health; it increases the risk of still births and the lambs born live can be weak and slow to get up. There are various treatment options; iodine drenches, water supplementation and boluses. Tim opted to use a bolus which would supply iodine, selenium and cobalt and give ewes cover for six months. It was given a few weeks prior to tupping.'

Wormer effectiveness

Bryony says: 'Too many farmers are worming according to a regimented plan, or at the first sign of a dirty back-end. But over-use of wormers has been a major cause of wormer resistance; this is arguably one of the biggest problems currently facing the sheep industry.'

Worm egg count monitoring is a useful tool to decide when worming needs to be carried out.

Four weeks prior to faecal samples being taken, Tim had wormed the lambs with a white drench (benzimidazole).

However the egg count showed that this had not been fully effective and so Bryony advised that lambs be drenched again to prevent growth rates being compromised.

At the same time, samples were collected and sent off for a free analysis of coccidiosis. The coccidial oocyst count was high, but these were found to be of a non-pathogenic species and so no treatment was necessary.

Faecal samples from ewes also tested negative for presence of liver fluke eggs.

Reviewing the plan

'Ideally, flock health plans should be reviewed at least annually, in order to keep progress on track and alert to any new problems which have arisen,' says Bryony.

Due to Tim's many other commitments, Bryony hasn't managed a formal meeting however they have kept in contact over the course of the year.

In 2014, Tim reported an increase in scanning percentage to 195%, and fewer lamb losses. However, lamb growth rates were still disappointing. Tim explains: 'I'd sold a few singles at four months of age, but would have liked to have sold more, the vast majority of lambs were still on farm in October.'

Lambs had been treated with ivermectin (clear) and benzimidazole (white) wormers over the summer. Bryony came out to the flock in September and took dung and blood samples from some lambs which had been wormed a few weeks previously with a high dose of white drench.

'The egg count was a bit higher than expected considering the recent worming treatment. So there is a high possibility that these worms are resistant to benzimidazole drenches. Tim didn't need to worm them again, but further monitoring of worm egg counts is recommended.'

The dung sample sent for coccidiosis testing showed a higher presence of pathogenic species this time. Bryony explains: 'Although there had been no overt signs of black tarry scour, coccidial disease may have played a role in poor lamb performance by checking early growth. So I've recommended that Tim routinely drenches lambs at 6-8 weeks of age next spring.'

Taking the long view

'Monitoring faecal egg counts is well worth the effort,' explains Bryony. 'It may show that wormer use can be reduced, and it demonstrates the efficacy, or not, of a given wormer, highlighting resistance issues. It also gives an indication of the worm burden on different pastures which can help with decisions on pasture rotation.'

'The most profitable flocks are those that rear the highest number of lambs as efficiently as possible on their farm. But many flocks are not realising their potential. It is well worth discussing problems with a vet, so that investigations can be made into the possible causes and how best to rectify them. Drawing up a flock health plan is a good starting point.'

Tim adds: 'I always think it's best to take the long view and look at tomorrow not just today. Thanks to Bryony, I'm not going to be repeating the problems I've had, because we've found the causes and done something about it.'

In the future, I'm expecting to have faster-growing lambs and be able to cut my medicine costs right back!

Dunmuir Veterinary Group

CASTLE DOUGLAS



Veterinary surgeon **Roddy Dunse**

XLVets practice **Dunmuir Veterinary Group**



RODDY DUNSE, DUNMUIR VETERINARY GROUP

Always looking to improve and to keep monitoring progress; key success factors at Drum Farm.

Margaret Harvey and her sons John and Stuart, were amongst the finalists in the NMR-RABDF Gold Cup this year with their 315-cow herd at Drum Farm, Beeswing near Dumfries.

The Harveys receive fortnightly visits from Dunmuir Veterinary Group's vet Roddy Dunse. In recent years, the main focus has been on improving herd fertility. However the Harveys are always looking to improve all aspects of herd health and take an evidence-based approach by monitoring aspects of herd performance and the impact of any changes that are made.

The family team

The Harveys work as a team but with each person having their own responsibilities; Stuart looks after the fieldwork and feeding, Margaret cares for the calves, whilst John does the AI and oversees the general health of the herd, and is the main contact for Roddy.

The high yielding cows in the herd are milked three times a day with each family member taking on one of the milkings. The sessions are carefully spaced so that high yielders are milked every eight hours. The low yielders are milked first in the morning session and last in the evening one, just leaving the high yielders in the 11pm milking.

John explains: 'We've been on this system for about two years. We're getting more milk, and there are other benefits too; we get to see the high yielders more often, and they aren't having to carry around so much milk. This is good for udder health and also it reduces leakage of milk into their bedding - so there's less substrate for the mastitis bugs.'



Team Harvey (L-R) John, Margaret and Stuart

Monitoring energy levels

This high yielding herd is fed a DCAB diet during the transition period. Cows are body condition scored, and metabolic profiling is carried out in close-up dry cows to monitor energy levels.

In newly calved cows, a ketone stick is used to assess the scale of negative energy balance. If ketone levels are high then cows are given propylene glycol to boost their energy reserves.

John adds: 'We also check the ration is working by testing urinary pH every four to six weeks as well as ensuring the expected amount of ration is being consumed.'



Each family member does one milking a day

Sand benefits

Cow comfort is very important for all milking and dry cows which are housed in sand cubicles. By using sand saver mats and a high kerb at the rear, sand usage is minimised.

In addition, as of this year, the calving area is now also bedded with sand. This means the cows are removed from contact with any organic matter. This has helped reduce both mastitis cases and also metritis cases.

The herd mastitis rate was low - around 20 clinical cases/cow/year - but the Harveys wanted to see this reduced further. The infections were mainly occurring in the early part of lactation, indicating that it was the conditions around calving that were the root cause.

Roddy says: 'Using sand has led to even lower levels of mastitis, just 10 cases/100 cows/year.'

'Also, previously on my fertility visits, we noticed a large number of 'dirty' cows that were 20-30 days calved; treating this metritis takes up to six weeks and delays their return to service. In that time, a clean cow could already be back in calf.'

'Metritis is an inflammation of the uterus (womb). It can occur when sub-clinical levels of milk fever affect the animal's biochemistry, and when cows hold onto cleansing - as this keeps the uterine tract open so there's more chance of E.coli entering the womb. Prolonged calvings also increase this risk.'

'Metritis cases are now less than 2%; this is in part due to the sand bedding, but also because John now checks cow temperatures three days after calving, and looks for signs of metritis so that any infections can be picked up early and treated.'



Cows calve onto sand



Calf coats - new this season at Drum Farm



Inside the calf shed at Drum Farm

Calf care

The Harveys' purpose-built calf shed is designed with a forced ventilation system; fans in the roof can be switched on to draw air up through panels in the side walls, thereby ensuring that calves are never in a draught.

Colostrum management broadly mirrors the XLVets 1:2:3 system in which newly calved cows are milked within 2 hours and 3 litres of milk from this first (1st) milking is given to the calf straightaway. The calf is then topped up with as much milk as possible, in the first six hours of its life. At Drum Farm, care is taken that a cow's milk is only fed to her own offspring.

Calves are kept in single pens for the first three to four days and trained to bottle-feed thereby enabling a smooth transition onto the automatic feeders, where they each receive 7 litres/day of milk replacer. Weaning is at nine weeks of age.

As a check that calves were receiving a sufficient quantity and quality of colostrum, Roddy has taken blood samples from week-old calves for analysis of protein levels - which correlate with antibody levels and immunity. As expected, results confirmed that all was well.

Small details matter

There is a lot of attention to detail on the farm - both in management practices and facilities. Roddy adds: 'The Harveys are fastidious about setting things up correctly. The sheds are well-designed, and for example, all include tip-over troughs which make regular trough cleaning a lot easier. And there's a cluster flush system in the parlour.'

'The Harveys are great to work with - they take on board my advice and also take responsibility for their actions. For instance, the calving index slipped last summer. This was partly due to the heat detection collars - there needed to be a more disciplined replacement of worn batteries and putting on of collars. The target service period is 40-50 days post-calving, so collars need to go on at least 14 days before insemination dates else heats are missed. This hadn't been the case... but it is now!'

Another small change which can have a big impact is the identification of cows bearing twins. Roddy explains: 'The herd has a twin rate of around 11%. We know these cows tend to be more prone to metabolic problems and a higher negative energy balance, so we are deliberately taking extra time to PD each cow so we can find those with twins and manage them accordingly.'



Tip over troughs make cleaning easy

Plans going forward

Next on the list of improvements - in what is already a very well-managed herd - is a greater focus on calf growths.

John adds: 'We've picked off a lot of the 'easy bits' and now we are going to focus on heifer rearing. We've got over 100 heifers coming through the system, we need to identify those which aren't worth putting the effort into, so we can bring the age at first calving down from 26 to 24 months.'

To help them do this, the Harveys will be monitoring calf growth rates using a weigh tape. In addition, some new jackets will be put onto calves when they move from the single pens into the group pens. 'There's more chance of them getting chilled here so these will help them whilst they get established in the new environment,' explains John.

Roddy adds: 'The Harveys will get their money back on the jackets! The protection will help improve feed conversion efficiency and growth.'

Roddy's regular visits to check fertility and advice on a range of issues are helping the Harveys maintain the excellent health and performance of the herd. A change in disease control and vaccination strategy is also planned for 2015.

Herd statistics

Over the qualifying period (year ending September 2013), the herd averaged 11,779kg of milk at 4.25% fat and 3.21% protein. The average cell count was the lowest among this year's finalists at 102,000/ml. Calving interval was 401 days and margin over concentrates was £2,700/cow/year.

NMR RABDF Gold Cup Winners 2014. Left Pam Taylor, Michael Eavis and John Taylor.

This year's NMR/RABDF Gold Cup winner is Michael Eavis with his 385-cow Holstein Friesian herd at Worthy Farm, near Glastonbury in Somerset.



A look behind the scenes of this year's NMR/RABDF Gold Cup winning herd



Veterinary surgeon **Peter Edmondson**

XLVets practice **Shepton Veterinary Group**



Whilst Michael may be the public face, behind the scenes, it is dairy manager John Taylor, wife Pam and four members of staff that manage the herd. The veterinary advice and support which keeps the herd healthy and productive is provided by vets Peter Edmondson and Oliver Tilling from Shepton Vet Group.

Peter has been the farm's vet for 27 years, and the Taylors have been there for 16 years. Routine fertility visits are made weekly by either Peter or Oliver, and also provide the opportunity to discuss other herd health matters.

Peter explains: 'There are no major health concerns here - we just keep on top of everything. This is helped by John and Pam's conscientious attention to detail - which is especially vital for high yielding herds. John has a very forward-thinking approach, whilst Pam keeps the milking parlour and routines in immaculate order - it's no wonder the Bactoscan level is under 10.'

Support with herd records

John manually records all herd activities - births, inseminations, drug treatments - onto Shepton DAISY recording sheets. Information from the routine visit is added too, and Peter/Oliver take these back to the Shepton practice where the information is uploaded onto a herd management programme.

Peter explains: 'We manage the records for over 6,000 dairy cows - this includes handling passport applications, movement records, medicine records; the computer programme also produces all the farmer's management and action lists, including the list of cows we need to see at our weekly fertility visits, and it analyses herd performance so it can be compared against targets.'

'This bureau service makes life easier for John and Pam as it frees up time, so they can concentrate on the practical aspects of herd management.'



In-house calf-rearing

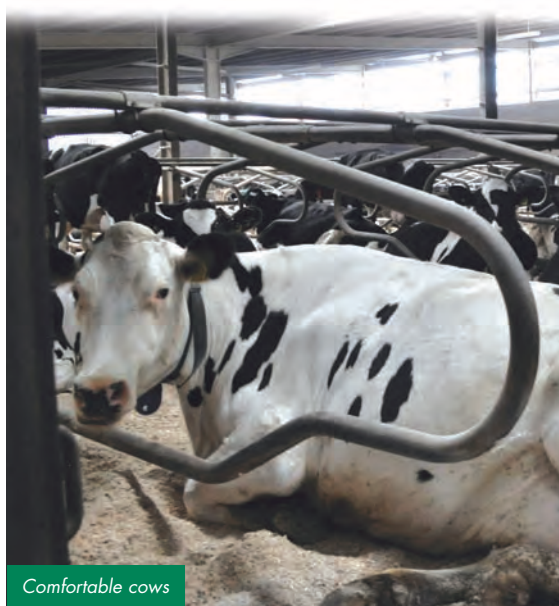
Whilst some farmers have out-sourced their heifer-rearing, John has recently brought it back in-house. He explains: 'We have always reared our calves until they are about five months old and then sent them away for rearing on. But we found it wasn't easy to keep an eye on them, and they weren't achieving the target weight gains we needed for breeding.'

When the neighbouring farm became available, including sheds and buildings, there was the opportunity to take over the whole heifer-rearing programme. A year on, John is now happy to have full control, and better growth rates are showing dividends already.

Peter adds: 'Bringing the age at first calving down to 24 months saves time and money due to a shorter rearing period, plus there's extra milk production to be gained.'

The herd's DAISY records show that in 2008, the average number of days from birth to first calving was 920 days (just over 30 months); however, in 2014, it is 824 days (27.5 months) and falling.

'It's too soon to see the full effect of bringing heifer rearing in-house, but already, there's a saving of 96 days,' explains Peter. 'With heifers averaging 40 litres/day, that's an extra 3,840 litres per animal!'



Comfortable cows



Light and airy calf shed at Worthy Farm

Better to sell as barren than cull

With more heifers coming into the herd - due to the shorter rearing period and the use of sexed semen - there's been the opportunity to sell some of the older cows as barrens.

Peter explains: 'John's an excellent stockman, he knows the herd really well. So he can look at a cow, and based on her history and current performance, assess the likelihood of problems in the next lactation. However, it's a double-edged sword, because these older cows are the 'cash cows' - they've paid off all their rearing costs and are now making money. But if kept on for too long, they will start to cost more than they can earn.'

John says: 'The temptation has been to hang onto cows for too long. But it's better to be brave and get rid of them a bit younger whilst they are still healthy. We can get around £1,000 for a barren cow - well that nearly pays for the rearing of a heifer.'

Peter adds: 'The emotional impact on farm staff, and vets, of watching a sick cow deteriorate, is often underestimated. No-one ever wants to have to shoot a cow. Selling a healthy cow is far more preferable.'



Starling-proof buildings

Like many south-west farms, starling infestations in the winter months had been a huge problem up until four years ago when the Taylors decided they had had enough! Investments in a rigid wire mesh were made and the whole cattle shed - including the parlour - has now been enclosed and made starling-proof.

'It's made a tremendous difference,' explains Peter. 'Bird droppings meant feed was spoiled, intakes depressed, and cows would suffer a variety of digestive

disorders. This all combined to reduce milk production.'

Getting the right size of mesh proved a trial with error! John explains: 'We think the starlings are slimmer at the start of the winter than they are at the end! In the autumn, they could squeeze through the mesh we'd installed! So we had to re-do the job with a finer mesh - 2.5cm by 7.5 cm. The difference has been amazing - not only is cow health so much better, but we are getting an extra 3 litres/cow/day.'



Although some of the troughs are on the outside of the building, the mesh screens have been designed to swing in, to allow feed to be deposited before they are fastened back again.

Thinking ahead

Peter says: 'John is very forward-thinking. He doesn't wait for something to break, he takes action and sorts it out beforehand. The barren cows are one example, the mattresses in the cubicles are another.'

The mattresses have been down for around 15 years and are becoming worn. John had noticed a few swollen hocks, so had ordered replacement mattresses. These will be fitted in stages over the winter; this is easily achieved as there are 50 spare cubicles. John prefers to be under-stocked than over.

John would like to expand numbers up to 500 cows, but is mindful of having the ground and buildings to be able to support this. He explains: 'We've got the land to make sufficient forage, but it would make conditions at housing too tight for the in-calf heifers and dry cow groups. So for now, we will allow herd size to increase slightly using our own replacements, until we can take on extra facilities.'

Peter adds: 'Our job, as vets, is to support John and Pam by working with them in partnership, helping them to fulfil their long term ambitions and goals.'

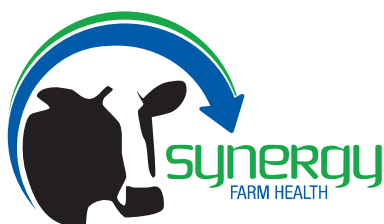
'It's not surprising that Worthy Farm won the Gold Cup. John and Pam's attention to detail and dedication have made this an outstanding dairy herd, full of happy, healthy and productive cows!'



John and Peter - good working relationship

Winning statistics

Over the qualifying period (year ending Sept 2013), the herd averaged 12,101kg of milk at 3.96% fat and 3.11% protein on twice a day milking with an average lifetime daily yield of 15.39kg. The average somatic cell count was 173,000/ml, calving interval was 398 days and margin over concentrates was £2,619 per cow.

Veterinary surgeon **Kat Bazeley**XLVets practice **Synergy Farm Health**

KAT BAZELEY, SYNERGY FARM HEALTH

Ensuring the good health and growth of calves in early life will pay dividends later

Healthy well-grown calves are, quite literally, the foundation of any dairy or beef suckler herd. There are many aspects to successful calf rearing, and XLVets' Kat Bazeley of Synergy Farm Health has been giving talks on best practice at a number of farmer meetings held in conjunction with XLVets practices. **Here are some of the key points made by Kat.**

Mortality and disease statistics

Kat says: 'Some herds have a lot of performance data, but are very poor at recording deaths. Yet mortality rate is one of the measures of overall herd performance and impacts on profitability.'

A survey carried out amongst Synergy's dairy farm clients had shown an average mortality rate of 14% for heifers which had been born live. However there was a large variation between farms with some experiencing losses of up to 29% in calves between one and six months of age, and up to 19% in animals between six months old and calving.

Kat explains: 'The level of calf mortality influences the cost of getting heifers into the herd. It's been shown that where heifers are calving down at 33 months and there's a high mortality, then the rearing costs of each heifer replacement that enters the herd are £3,000.'

In beef suckler herds, profitability depended on minimising mortality rate and maximising growth rate of calves, with both influenced by disease factors. The commonest cause of death in calves over three months of age was respiratory diseases, however the performance potential of calves that survived was also affected.

Kat explains: 'Bovine respiratory disease (BRD) damages the tissue of the lungs and, unless

treated early and successfully, this damage is irreparable. So calves that have suffered several bouts of the disease will have patches of non-functional tissue. Not only is there the immediate antibiotic cost to cure the infection, but there's also a cost in the subsequent reduction of growth rate.'

In dairy heifers, the disease outbreak will also tend to reduce cow longevity, with consequently fewer lactations and less days in milk. Kat adds: 'Statistics have shown that any heifer that has to be treated four times for pneumonia will never make a profit.'

Focus on the first two months

Kat explains: 'The first two months of a calf's life are the most important. This is when they are the most efficient at converting feed into growth; 1kg/day of feed can give 0.7kg of daily gain, whereas a two-year-old heifer eating 2kg will only put on 200g of weight.'

Getting calves off to a good start not only results in an earlier age at first calving but a faster growing calf will have better immunity and so fend off disease more easily.

Kat recommends a high level of feeding to achieve 0.7-0.8kg/day of gain over the first two months. 'Calves will need a lot of milk powder - more than 1kg/day, and this can be provided in two daily feedings totalling 3-4 litres in volume.'

She warns: 'This heavy milk feeding will mean there's a lot of fluid going into the calf, and so its bed will get wetter, and this can lead to more respiratory disease and pneumonia. So it's important that calf sheds are designed with sloping floors and bedded with plenty of straw.'

'Another effect from feeding high volumes is looser dung - this isn't the same as scour. More than 90% of scours in calves are due to bacteria - so hygiene is actually more of a factor than the volume of milk that has been fed.'



Colostrum care

The quality of colostrum will vary between cows; it will be diluted in high yielders due to the high milk volumes, whilst heifer colostrum may give lower levels of immunity because they won't have been exposed to as much bacteria or infection.

The quality of a cow's colostrum also starts to fall within the first 12 hours, so fresh calves need to be milked as soon as possible. Similarly, the ability of calves to absorb the antibodies also diminishes as time goes on, so it is important they receive early feeds of colostrum.

Colostrum quality is also affected by bacteria which soon start denaturing the proteins (and destroying the antibodies) unless milk is chilled promptly. When being frozen, colostrum is best stored in flat packs so it can be thawed easily and slowly with warm water to avoid risk of denaturing.

Farmers can check whether their calves are acquiring adequate levels of immunity from colostrum by asking their vet to take blood samples for analysis in the first week of their lives.

Weaning tactics

Kat explains: 'Calves need to be functioning ruminants before they are weaned. So they need to be eating at least 1.5kg/day of starter feed.'

'They also need to be provided with water, from day one. Cattle have four stomachs; milk goes straight through to the fourth stomach, the abomasum. Water is needed for the first stomach which is the rumen. Calves will drink 4-6 litres of water per kilogramme of feed eaten.'

'Calves fed on ad-lib milk systems won't be eating as much concentrate, so weaning needs to be managed over a longer period, ideally, ten days.'

Cold weather care

In cold weather, calves will need extra energy to maintain their body temperature. When the temperature drops below 16°C, some of the milk they drink will be used to keep them warm rather than for growth. Calf rearers should either feed more milk and/or fit calf jackets.



Calf jackets

Setting targets for growth

Research has shown that dairy heifers which calve down at 24 months of age tend to have higher milk yields in the first two lactations and better longevity. So by setting targets for growth, heifers can be monitored and managed accordingly so that they achieve the required bulling weight by 14 months of age, and can calve down at the optimum age.

Kat explains: 'By monitoring calf weights through the rearing period, it is possible to identify animals that have fallen behind target at an early stage. Investigation can then be made as to why performance is failing and get growth rates back on track.'

'Calves should have doubled their birth weight by the time they are weaned - so a Holstein calf should be 80kg at 60 days of age. If heifer growth is below targets at 3-4 months of age then they will never catch up.'

Synergy Farm Health has been providing a calf and heifer monitoring service for the past six years, and has recently launched their Calf Club which helps farmers focus on optimum rearing of dairy heifers in the crucial first six months of life.

Similar calf clubs are being run by other practices. Farmers should talk to their XLVets vet for more information and opportunities to learn about best practice in calf rearing.

Case Study

Bridget Taylor, Wright & Morten

On-farm performance monitoring



Veterinary surgeon Bridget Taylor



At Cheshire-based XLVets practice Wright & Morten, veterinary technician Vicky Mellor is helping farmers monitor youngstock performance by using weigh tape measurements to track calf weights from birth to around four months of age.

On other farms, a single visit to weigh calves provides a 'snapshot' of performance to check up on growth rates. Where changes in rearing are made, a follow-up visit can be arranged to assess progress.

Wright & Morten's vet Bridget Taylor adds: 'We've identified one farm where young calves had been growing well and were all on target, but by around 100 days of age, there was a wide spread of weights. On investigation, this was due to cases of pneumonia, stemming from inconsistent vaccine use. So Vicky is now making fortnightly visits to help ensure the data sheet recommendations for treatment timing are followed, and also lend a hand with vaccination itself.'

Wright & Morten is setting up a youngstock discussion group, and in 2015 will be holding meetings on aspects of calf rearing. Farmers can contact the practice on 0845 8330034 for more information.



Vicky Mellor measuring calf

Identify **coccidiosis** to prevent lamb production losses

Coccidiosis is one of the most common diseases causing significant production losses in lambs. As the lambing season approaches, vets and farmers are warned to be vigilant of the risk of coccidiosis to young lambs, particularly as mild conditions favour over-wintering of the disease.

Chris Woodroff, veterinary surgeon from Severn Edge Vets explains that coccidiosis is a disease that is frequently unrecognised, and as a result many farmers are not approaching their vet until clinical symptoms of the disease are seen.

'The nature of coccidiosis means that it exists on most farms at a sub clinical level, where no overt symptoms are seen,' he says.

'We commonly only see cases where lambs are showing the clinical signs of the disease, such as scouring and weight loss, by which time it's often too late to prevent production losses.'

By working with their vet to identify the disease in its early stages, farmers can pre-empt, and reduce the likelihood of the detrimental effects caused by coccidiosis taking hold.

Coccidiosis pathogen

There are 15 species of *Eimeria*, the parasite responsible for causing coccidiosis in sheep, but only two; *Eimeria crandallis* and *Eimeria ovinoidalis* are disease causing.

The main source of the disease is through the ingestion of infectious oocysts passed by previously infected animals. 'Coccidial oocysts are highly resistant to disinfectants and have the ability to survive for long periods of time in the environment,' says Chris.

'With a limited number of frosts so far this year, the build-up of coccidiosis in the pasture may be more significant than we have seen in the past, meaning young lambs may be more exposed to pathogenic coccidiosis.'

In rare instances, it can be as early as 14 to 18 days of age when clinical symptoms are seen, however, more commonly lambs are at risk from four to six weeks of age. 'Treating before this period can help prevent the disease taking hold and avoid long term consequences to growth and development,' he says.

Veterinary surgeon **Chris Woodroff**

XLVets practice **Severn Edge Veterinary Group**



Working with your vet

If coccidiosis is suspected on-farm, or there is a history of the disease, farmers are advised to contact their vet who can carry out a full investigation to establish a complete on-farm picture, and advise treatment of coccidiosis accordingly.

'As soon as farmers are seeing scouring, or other overt symptoms in lambs, and suspect coccidiosis is the cause of the problem, we would encourage them to take faecal samples from a group of at least 10 to 15 infected animals,' says Chris.

'We can then perform an oocyst count and speciation testing to identify the species of *Eimeria* present, and if it's disease causing. This will ensure we can treat infected animals effectively.'

He explains that once the species of *Eimeria* has been identified he can work with the farmer to develop a preventative programme to reduce the likelihood of the disease re-occurring in the future. 'Ideally, preventative treatment should be administered when there is enough coccidiosis in the gut to stimulate an immune response but not enough to cause damage and clinical symptoms.'

'If we can identify common times or practices when coccidiosis has been a problem in the past, or is likely to be a problem, we can administer the right treatment at the right time,' he says.



Two lambs - one treated for coccidiosis, one not



Case study

Andrew Preece is a farmer from Much Wenlock, Shropshire, who has been a client of Severn Edge Vets for the past 25 years. Running a flock of 300 Suffolk and Texel cross ewes, Mr Preece has previously had a significant problem with coccidiosis on his farm.

'Each year we were seeing a considerable number of lambs scouring and not pushing on as well as they should've been. We were treating lambs for the disease, but with little success.'

'Last year, I contacted Chris to try and get on top of the disease. He advised that I took faecal samples from scouring lambs so they could run tests to identify the root cause of the problem,' says Mr Preece.

The results of the speciation testing identified the species of *Eimeria* responsible for the coccidiosis problem on Mr Preece's

farm. As a result, Chris and Mr Preece have been able to work together to develop a preventative programme, to treat lambs at the right time to stop the disease taking hold.

'Last year was the first year I've treated lambs with a product containing toltrazuril, and I've been very happy with the results.'

'I've only had to treat lambs once, where previously I was treating batches of lambs three or four times. This has saved us time and money, and lambs have gained weight quicker, and we've not seen the growth checks that have occurred previously.'

'Working with Chris and implementing this programme means we've got on top of the disease and been able to meet the early lamb markets we want to target,' adds Mr Preece.



Burwarton Show lambs



Bayer HealthCare

XLVets would like to thank Bayer Animal Health for their support with this article.



FarmSkills

GROWING FARM BUSINESS SUCCESS

Setting the scene for a successful lambing time

A successful lambing time doesn't just begin with the birth of the season's first lamb. Taking the time to prepare and plan thoroughly for this hectic period can pay dividends for profits and stress levels for the year ahead.

Preparation and managing pregnant ewes

Early pregnancy (0-30 days)

Ewes will be very sensitive to stress during this time when fertilisation followed by implantation is taking place. Successful embryo growth is dependent on hormones.

Mid-pregnancy (30-90 days)

This is when placental growth occurs. Target Body Condition Score at this point is 2.5 - look out for scab/lice, lameness and liver fluke.

Late pregnancy (90-145 days)

Remember to keep a careful watch for lameness or foot problems. Many farmers are naturally concerned about turning over pregnant ewes; however, the recent advances in lameness suggest that it may be more appropriate to treat any lame sheep with antibiotics prescribed by the vet. This will be of minimal interference and has no ill-effect on growing lambs. Now is also the time to vaccinate ewes against clostridial and pasturella diseases (4-6 weeks pre-lambing) as these diseases often result in sudden death.

Pre-lambing problems are often caused or triggered by stress. During late pregnancy, avoid unnecessary transportation, excessive handling and disturbance, sudden changes in diet and exposure to severe weather.

Keeping watch Pre lambing diseases to look out for

During the three weeks before the first lamb is expected, carefully observe each ewe in the flock (preferably twice a day) and be prepared to take prompt action for:

- Vaginal Prolapse
- Pregnancy Toxaemia (twin lamb disease)
- Hypocalcaemia (tremblings)
- Abortion

Ewe nutrition

Good nutrition is essential in the last 4-6 weeks of pregnancy as lambs double in size during the last month, udder development occurs in the last fortnight, colostrum is produced and brown fat is laid down in the lamb.

Feed should be calculated according to condition score, litter size, forage quality and weather. Poor nutrition can lead to conditions such as twin lamb disease, hypocalcaemia, mastitis in ewes as well as hypothermia, watery mouth (rattle belly) joint/navel-ill, pneumonia and scour in lambs so it is essential to get the feed right to avoid these problems.

It is worth bearing in mind that a ewe can only consume 2-2.5% of her bodyweight in dry matter (DM), therefore all the requirements for this period of intense growth must be contained in this volume. For an 80Kg ewe, this equates to 1.6-2.0kg DM. This is complicated by a 10% reduction in dry matter intake (DMI) during the final two weeks of pregnancy. The ideal Body Condition Score (BCS) at lambing is 3.0-3.5 for lowland breeds and 2.5-3.0 for hill breeds. If ewes are in poorer condition, then supplementary feeding needs to start earlier. If in good condition, then some energy deficits can be overcome by relying on the ewe's own reserves.

Assuming all other factors listed before are correct, the make-up of the diet becomes the most important factor. The majority of farms will use a combination of grazing, forage (hay or silage) and commercial concentrates. By knowing the forage analysis, the analysis of the concentrate and calculated DMI of the ewe, the energy content of the ration can be determined. By comparing this with the known requirements, the energy excess or deficiency can be seen and any corrections made. Your vet may have a nutritional spreadsheet to help with these calculations, if required. This method can be applied to homemade diets and to a TMR.

The only accurate way to assess the diet is to test the ewes to find out how they are responding through blood samples. This is best done approximately 3-6 weeks before lambing, ideally with a minimum of ten ewes.

Preparing your shed

It is important to have your lambing facilities ready in good time. Occasionally ewes may lamb in the week before the expected date of the first lamb, so all lambing requirements should be ready and in position at least a week, if not two, before the expected date of the first lamb. Check your staff availability and decide whether the lambing is to take place outside (in which case shelter will need to be provided) or inside. Ideally, choose an area where pens can be moved on to fresh ground at weekly intervals, or less if necessary, to avoid concentration of disease. Where possible, avoid the area used in the previous lambing season.

Ideally ewes and their lambs should be housed for up to two days after giving birth so it is important to ensure that you have sufficient hurdles or straw bales to make individual pens to house 12-15% of the total flock due at any one time. Each pen should

have sufficient room to be able to assist the ewe, if necessary, and to accommodate a multiple birth - approximately 1.5-2 m² (15-20 ft²) floor area per pen.

Lambing shed checklist:

- ✓ Calcium, magnesium, glucose
- ✓ Lambing ropes and snare
- ✓ Lubricant
- ✓ Arm-length disposable gloves
- ✓ Frozen colostrum
- ✓ Lamb stomach tube
- ✓ Iodine
- ✓ Antibiotic blue spray
- ✓ Multipurpose antibiotic
- ✓ Oral antibiotic for lambs
- ✓ Needles and syringes
- ✓ Thermometer
- ✓ Disinfectant

FarmSkills practical lambing workshop

Are you looking to brush up on your lambing skills for the season ahead and keep up to date with that latest veterinary advice?

FarmSkills offers a range of practical sheep related workshops including 'Practical Lambing', which take you through the basics of preparing your flock, right through to the birth period and beyond.

Our workshops are run by our experienced farm vets and aim to give you the skills and confidence to tackle this busy period through a mix of practical techniques and up to the minute knowledge.

Delegates will learn:

- How to prepare themselves and their flock for lambing time.
- The importance of good nutritional management.
- The importance of preventing clostridial diseases using vaccination.
- The normal parturition process; when it is appropriate to intervene and when to seek veterinary advice.

- How to recognise the common perinatal problems, how to prevent them and their appropriate treatments.
- The common causes of ovine abortion and the methods for investigating and reducing their incidences.

FarmSkills workshops are practical, vet-led and held on farms so you and your staff are equipped with the skills and knowledge to implement your learning back on your own farm. All the workshops are listed on the FarmSkills website and cover a range of dairy, beef, sheep, pig and poultry topics. Visit www.farmskills.co.uk to find a workshop near you and book online today.

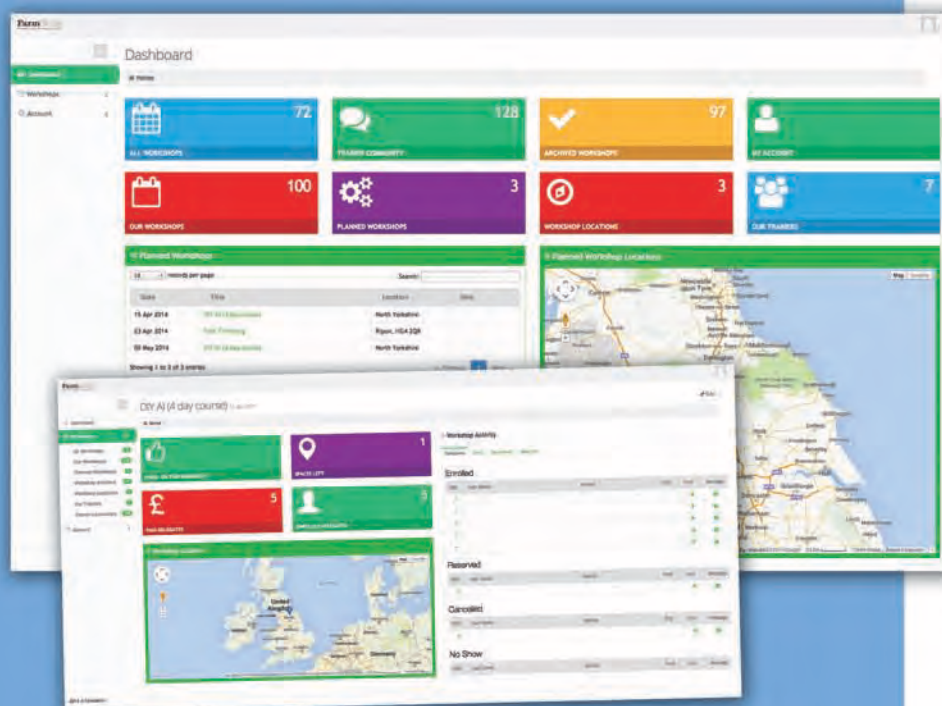


FarmSkills Farmer Portal - log on today!

The FarmSkills Farmer Portal is an innovative and interactive online tool allowing farmers to log their FarmSkills training and development. It is now fully up and running and enables farmers to download their certificates and view recommended workshops taking place in their area.

As well as acting as a useful online training tool, the Portal will also link in with wider national XLVets campaigns, including the Make Your Farm Your Fortress and BVD initiatives, giving farmers further information on what the issues are and how they can get involved on a local and national level.

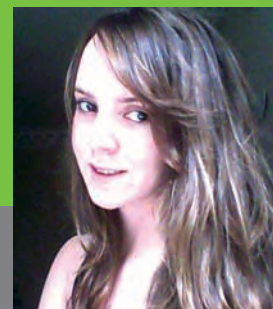
Accessing the Farmer Portal is easy, simply go to www.farmskills.co.uk/portal to log in and start using today. If you have previously attended some FarmSkills training your record and certificate library will be ready and waiting for you and if you haven't, the system will recommend workshops close to you to get you started.



STUDENT DIARY

Alice McLeish, Edinburgh

Fourth year veterinary student, Edinburgh University



Fourth year, farms... and farewell!

Writing this article, I can hardly believe how quickly the last year has gone. My friends in the year above me are all getting ready to sit their final exams, and it's terrifying that in a year's time that's going to be me - especially when I still get asked regularly on placements if I'm on school work experience...

This year however, it's been all farm animals so far which is suiting me nicely! One of our courses is the 'Farm Animal' course which covers cattle, sheep, pigs, poultry and fish farming medicine and surgery, and the other course is 'Veterinary Public Health' which has been looking at the role of vets in food safety, particularly in reference to slaughterhouses. On top of this, we've been starting to have tutorials about the business side of being a vet, which has really brought home to me how close we are to being set free on the world!

These classes have been on subjects like finances, client care and leadership, and make a nice contrast to the other practical classes we get. It's still a very lecture-heavy course at the moment, but we are starting

to be taken out on the farm hospital rounds in small groups, which is very useful for getting our clinical examination skills up to scratch, and have had a set of meat inspection and post-mortem practicals; getting to try out the stunning guns on head specimens was one of the more different ones!

Of course, every vet student is used to getting comments from others about how we just stick our arms up cows' backsides, and this year we have been able to do quite a lot of that! With rectal examinations being such an important skill, we have two sessions set aside to learn about it; the first one on an amazingly realistic 'Breed'n Betsy', an artificial simulator which allowed us to work out what we should be feeling in a real cow, and to show us calf presentations, and the second on the real

About me

Twenty-one years ago, I met my first sheep while on holiday on the Isle of Skye. My delighted parents realised they'd finally found something to keep me occupied, as I spent the whole week pressed against the window of our house, baa-ing at all the sheep that went past. Jokingly, they said I must be going to be a vet (I couldn't say 'Mummy' or 'Daddy', my vocabulary consisting entirely of animals and animal noises). Several years on, here I am in my fourth year studying to be a vet in Edinburgh, the city I grew up in, with the hope of becoming a mixed practice vet once I graduate.

cows at the University's dairy farm. I think it is testament to how used to strange things we get that when the Breed'n Betsy was sitting in the entrance hall it barely got a second glance from passing students!

This term has made me realise even more that the large animal side of veterinary medicine is where my interest lies, and I have enjoyed indulging my James Herriot side in writing this column. I have more mixed animal practice in the Highlands booked for Easter, and hopefully in 18 months or so I will be out on the farms as a fully qualified vet.



One of the calving simulators

STUDENT DIARY

Antonia Matthews BSc, South East London

Third year veterinary student, Royal Veterinary College

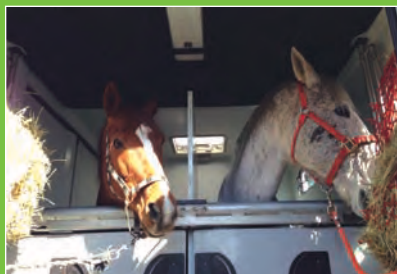


Back to vet school!

The last couple of months I have had the joys of starting the clinical part of the vet course, with more practicals, and more lectures with direct clinical relevance. So far our practicals have ranged from small animal dentals and learning to suture, to assessing dairy cows for mastitis using California Milk Tests.

Our current focus is on Population Medicine and Veterinary Public Health; it has really brought it home how entwined human and animal health is. Learning how essential it is to follow the correct protocol, such as milk withdrawal times and the enormous impact that errors for not doing so can have; both financially for the farm and the potential risk to human health. We have had it drummed into us how essential correct nutrition is in all species; with an emphasis on the importance of this in livestock, in managing body condition scores during different parts of an animal's life cycle. This is particularly important for maintaining the correct nutrient levels to reduce risks of problems such as grass tetany and milk fever. Also we have considered the importance of trying to prevent the current rise in obesity in small animals and ensuring sufficient forage for horses to reduce risks of colic and to aid correct teeth growth.

Troy Gibson, Royal Veterinary College (RVC) and Lucy Grieve, British Equine Veterinary Association (BEVA), spoke to RVC students about animal welfare during transport; providing us with an incredibly interesting comparison between the different pressures in production animal transport versus competition animal transport. Both discussed the



Princess and Lizzy - not quite at stage of transport by air just yet!

importance of design of transporters, emphasising the requirements for ventilation, stocking density and safety loading and unloading. The vet's role in the long distance transport of animals was highlighted; with the need to recognise very subtle clinical signs particularly in high level competition and breeding animals due to their requirement to perform and stay at peak physical condition. The importance of local legislation was also discussed; with the differences in EU and UK regulations highlighted including the lack of requirement in the UK to monitor the temperature of the transporter and to have a navigational tracking system, in comparison to the requirement for both in the EU. The impact inadequate transportation could have not only on the performance of a competition animal, but also on the carcass quality of meat animals was mentioned; with the duration of the journey linked to the prevalence of dark cutting beef in bulls and the shrinking of the loin area due to increased dehydration. Although very few of us could relate to the experiences of transporting animals by sea and air the lectures very much led many of us to rethink how we transport our own animals and how we have seen and helped animals being loaded and transported between fields and markets.

Outside of university I have had the joy of helping to rear the first litter of puppies from my Labrador stud dog (11 in total!) I have also spent more than enough hours fixing

About me

I am a veterinary student in my third year at the Royal Veterinary College. I grew up mostly in South East London spending every moment I could further south east in Kent, working on farms and stable yards. Having escaped living in London to enjoy the fresh air of Hertfordshire with the husband, dogs, cats, small furies, reptiles, horses and my own small herd of dairy goats.

fences and trimming goat hooves to help remind me of at least some of the hard work that goes into the joy of keeping animals.



The joys of puppies

The last few weeks have very much highlighted to me the importance of veterinarians for not only improving and maintaining animal health and welfare in a wide range of different circumstances; be that ensuring the 80,000 sheep transported from the UK by sea are free from notifiable diseases, to ensuring top breeding stallions are at minimal risk to shipping fever when travelling with the seasons between the UK and Australia, but also the importance of veterinarians in helping to prevent zoonotic disease spreading to humans.



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