UK dairy farmers continue to face considerable business pressures in an increasingly technically complex industry. There can be no doubt that the skills of all involved must be made attractive to new entrants if individuals of the right calibre are to seek a future in dairy farming.

While a wide range of organisations are currently involved in training and skills development provision, a recent report commissioned by the Milk Development Council (MDC) identified a number of industry shortfalls. Most notably the report titled ‘Training & Skills development opportunities for dairy farming’ highlighted the following:

- There is no national approach to training delivery with most training providers acting in isolation.
- There is no clear framework for training and development.
- Training and development is not actively promoted.
- There is no accreditation of training delivery.

In order to address the opportunities identified in the report and to encourage increased uptake of training and development among all levels of staff working on dairy farms, the MDC has commissioned Stockmen UK, the Association of Professional Herdsmen, to develop, implement and subsequently operate a national, co-ordinated training and development scheme. This scheme is being supported by Lantra with their online competency framework which helps herdsmen identify the training most appropriate to their needs. The XLVet member practices already deliver a wide range of training for herdsmen, and so XLVets will be pleased to support Stockmen UK with this project which will provide a one-stop shop for training from April this year. More information will be available from your XLVet practice or www.stockmenuk.com.
**Mastitis?**

**Peter Edmondson - Shepton Veterinary Group, Somerset**

Peter Edmondson is one of seven dairy vets from Shepton Veterinary Group in Somerset, a member of XLVets. He has a special interest in mastitis and is a RCVS Specialist in Cattle Health and Production.

Clinical mastitis is a real headache for a variety of reasons. It costs money, there is the milk that is discarded but the real problem is that it takes up so much time and distracts from milking. We have made significant progress in reducing cell counts, but have had little impact on clinical mastitis over the past 10 years.

We have seen many farmers improve housing, upgrade or replace their milking equipment, start to predip etc and these have resulted in some improvements, but clinical mastitis still remains at unacceptable levels.

Few achieve the target of 30 cases per 100 cows per year, and there are many herds where this figure is well over 50. For many herds, the incidence has increased.

**So what else can we do?**

It’s now almost two years since we advised our clients to use dry cow therapy and an internal teat sealant on all cows at drying off. There is only one internal teat seal in the UK market and it’s called Orbiseal.

Dry cow therapy contains antibiotics which kills the bugs in the udder at the end of lactation and helps to maintain a low cell count. Orbiseal seals the end of the teat throughout the dry period, but what’s the benefit is this a sales con, or does it really make a difference?

About five years ago two mastitis researchers from Bristol University, Bradley and Green, carried out a major study that showed that coliform bacteria could enter the udder in the dry period, hibernate and cause clinical mastitis in the next lactation. Coliform bacteria are responsible for half of all clinical cases in the UK, especially the toxic ones that we see post calving.

If this is the case why don’t we get problems with mastitis in the dry period? The reason is simple; mastitis bugs need iron to grow and in the dry udder there is no iron available as an enzyme called lactoferrin binds it all up. Once the cow starts to top up again, the iron becomes available again and the bugs can decide to grow, or not, at any time they choose. It’s like going into a bar asking for a drink but the bar is closed and the shutters are down. This is like the bacteria entering the udder in the dry period where they just wait. Around calving, the shutters lift and you can get a drink, the bacteria having access to iron again and they can start to multiply. This may happen any time around calving or lactation, or some bugs may not multiply at all.

**Figure 1** shows the findings of a New Zealand study where they found that half of all cow teats were open ten days after dry off. If they could draw the teat and milk came out the end most likely the teat was discarded as an open teat. The experiment was repeated at six and eight weeks where they found that one in five teats were open. Of course, this work was carried out in New Zealand where the yield of their cows is much lower than the UK. The higher the yield, the more open the teat canal. I think UK cows will have far more open teat ends in the dry period as they are higher yielders.
Almost half of our clients now use Orbeseal in combination with antibiotic dry cow therapy at dry off and they all have the same comment, it reduces mastitis. I have yet to meet a farmer anywhere who used Orbeseal and tells me that it hasn’t made a real difference.

**CASE STUDY 1**

Two years ago, one of our clients kept his dry cows on an outfarm where they would calve. They were brought back to the farm several days after calving. Around the time of calving he had major problems with toxic E. coli mastitis. Cows were leaking milk before calving and the bulls got into the calving area. A lot of these cows had expensive medicines on them. We advised him to use Orbeseal with his antibiotic dry cow therapy at dry off, and the result was quite spectacular; cows did not leak milk and toxic mastitis stopped dead. A real success for everyone, the farmer and his cows.

**CASE STUDY 2**

In the summer of 2005, one of our clients wanted to reduce his mastitis levels. This is a 350 cow herd which calves all year round with an average yield of 7,000 litres. The cell count runs at 150,000, so he has good control of contagious mastitis.

**Mastitis rates**

- He was getting 46 cases per 100 cows per year, which was above the national average.
- We assessed his mastitis management and recommended two changes, predipping and to use Orbeseal with his antibiotic dry cow therapy. Our client was very sceptical about Orbeseal; he had heard about all sorts of products claiming success, but he was cautiously prepared to give it a go. The good thing about Orbeseal is that it’s so easy to measure and see success or failure. It’s far more difficult to assess the advantages from vaccinating the herd against leptospirosis.

One year later, I analysed his mastitis records to see the effects of these changes and was quite staggered by the results. To fully analyse the effects of Orbeseal, we excluded mastitis cases from hens, as these never received Orbeseal.

**Figure 2** shows that his overall level of clinical mastitis has halved by 60% from 46 to 18 cases per 100 cows per year, well below the target of 30!

**Figure 3** shows that in the 10 months before calving, cows started calving down with Orbeseal. He had 10 cows with mastitis within 14 days of calving. In the 10 months after it was cut, this had fallen to 2.

**Figure 4** shows that the amount of mastitis in the housed period had reduced from 31 per 100 cows down to 8, a 74% reduction.

So, was this reduction due to predipping or the Orbeseal? The answer is it’s a bit of both, but it’s my view that the greatest reduction was from Orbeseal. My reasons for this are that in figure 2 we see the reduction in all clinical cases.

**If predipping was the main factor in the bull we should see the same pattern in figure 3. However, this shows a far greater reduction and this is the Orbeseal effect. Calving pattern is not an issue as the herd calves all year round.**

We wanted to look at the economics as well as the clinical effects. First, we assessed the clinical impact of using both products. The cost/benefit for both products was 840%.

**Part of this was from predipping, and we estimated that, at most, predipping accounted for 40% of the drop. It still meant that there was a payback of 500% from using Orbeseal with antibiotic dry cow therapy.**

Our client pointed out that these figures were not quite correct. He said that as there was a massive reduction in post calving mastitis, which are the most expensive cases, the payback was really far greater than 500%.

Orbeseal is not the magic bullet; if you have problems with housing, the milking machine, poor udder preparation etc then you will still have more problems and these must be addressed. Orbeseal is a very good tool in stopping new infections entering the udder during the dry period, but cows still need to be kept in clean housing.

A grass, uninfected cattle are suddenly exposed to the urine of infected animals that may be shedding leptospires. Cows become infected through urine splashing into their eyes, mouth or a cut in their skin. Most grass is also a relatively favourable environment for leptospirosis and these organisms generally survive for longer outside the host in mild spring conditions. That’s why the spring is such a peak time for disease transmission.

According to Alistair Macpherson, it’s crucial that all cattle are protected for turnout.

**About LEPTOSPIROSIS**

‘Losses from leptospirosis are definitely costly, but not necessarily highly visible,’ Alistair points out. ‘Whilst the catastrophic face of the disease - abortion storms...’

**CASE STUDY 1**

For those vaccinating for the first time it is important to plan ahead as a primary course of two Leptospirosis injections four to six weeks apart, with the second treatment recommended to be carried out at least two weeks before turnout. In subsequent years only the new crop of yearlings will need two vaccinations so the first course can be done in advance so that the second can coincide with the main herd booster vaccination. It is also important to include any stock bulls and animals bought in during the year should be given a primary course when they join the herd and can then be included in the annual booster vaccination programme.

**CASE STUDY 2**

Almost half of our clients now use Orbeseal in combination with antibiotic dry cow therapy at dry off and they all have the same comment, it reduces mastitis. I have yet to meet a farmer anywhere who used Orbeseal and tells me that it hasn’t made a real difference.

**Let’s take two farm examples from our clients.**

**CASE STUDY 1**

Almost half of our clients now use Orbeseal in combination with antibiotic dry cow therapy at dry off and they all have the same comment, it reduces mastitis. I have yet to meet a farmer anywhere who used Orbeseal and tells me that it hasn’t made a real difference.

**CASE STUDY 2**

Two years ago, one of our clients kept his dry cows on an outfarm where they would calve. They were brought back to the farm several days after calving. Around the time of calving he had major problems with toxic E. coli mastitis. Cows were leaking milk before calving and the bulls got into the calving area. A lot of these cows had expensive medicines on them. We advised him to use Orbeseal with his antibiotic dry cow therapy at dry off, and the result was quite spectacular; cows did not leak milk and toxic mastitis stopped dead. A real success for everyone, the farmer and his cows.
The BVD virus is now widely recognised as a significant cause of disease and financial loss on farms throughout the world. So much so, that many countries have set up control and eradication schemes. In the UK, farmers who vaccinate their heifers against the BVD virus see improvements in herd health and production. For some of them, the aim is now to totally eradicate BVD infection from the herd, and make further performance improvements.

**Step 1:** Herd is untested and unprotected
When a farm begins, step 1 involves running a free screening test to check for BVD. If a farm results are positive, it will have either an infected (PI) animal or be BVD-free. It’s essential that all farms are tested because the disease is a contagious respiratory disease that can spread quietly among herds, especially in youngstock. This step helps to identify and remove any virus-shedding animals from the herd.

**Step 2:** Herd has just been tested
Depending on the results of the bulk milk test and/or blood tests, and your herd health objectives, your XLVets member can advise whether you take step 3 or go straight to step 4.

**Step 3:** Heifer-only vaccination
If PI animals have been present in the main herd, then cows will have built up some immunity to the disease. However, heifers may be at risk, so vaccinating all the heifers will protect them from the virus and safeguard their fertility. It also prevents the creation of any new PI animals. So far, vaccinating heifers has been the most cost-effective way to prevent the spread of BVD in herds.

**Step 4:** Whole herd vaccination
By vaccinating the whole herd, all animals are protected. However, PI animals may still be present in the herd and so a Herd Health Plan will be recommended. However, the unvaccinated cows in the herd could still suffer reproductive losses and reduced performance, and produce further PI animals. Since this approach fails to protect the bulk of the herd, and the level of immunity is unpredictable, step 4 is the recommended approach.

**Step 5:** PI bull hunt
As a persistently infected (PI) animal - it will have been infected with the disease via its mother, in early pregnancy. Once born it will shed the virus persistently and expose its fellow herdmates to the disease. PI bulls are a real threat. Not only do they continually shed the virus, but their semen is also a source of the BVD virus. Always blood test new bulls before they come into the herd.

**Total eradication of BVD**
The BVD virus has been totally eradicated from Sweden and Norway. As a consequence, vaccination has been able to cease. Crucial to this BVD-free status are stringent biosecurity measures, ensuring no reintroduction of the virus into the national herds. BVD has also been totally eradicated from the Shetland Islands. Here again, the geography is a major plus in preventing re-entry of the disease. The Orkney Islands is on track to be BVD-free too.

**But what about the rest of the UK?**
**National strategy**
Three BVD control and eradication schemes exist in the UK, operated under the guidance and regulation of the Cattle Health Certification Standards (CHCS). These schemes serve to accredit herds with a BVD status and require adherence of a specific programme of biosecurity and testing to ensure freedom from the virus.

In 2005, the possibilities of a national BVD Control and Eradication Campaign were discussed by a group of industry bodies including DEFRA, the NFU, EBLEX, breed societies and animal health companies. It was led by Professor Joe Brownlie of the Royal Veterinary College, a UK leading authority on the BVD virus.

It was agreed that a national strategy was ultimately the way forward, but that it needed the involvement of both vets and their clients. Also, that eradication should focus on getting a specific area of the country clear - reducing the risk of the disease re-entering.

**Eradicating BVD in East Anglia**
Stemming from the meetings on national strategy - a new BVD eradication scheme has now been launched by the regional Holstein Club in Norfolk and Suffolk, headed up by Professor Brownlie. The aim is to eradicate BVD from participating herds and also prevent them from re-infection.

Already 30 farms have signed up for the scheme and a third of them have initiated blood testing.

Professor Brownlie and his RVC team will be collecting data throughout the trial to assess the cost-benefit to participating herds, and identify and quantify the secondary benefits of being a BVD-free herd.

**Pathways to performance/steps to success**

**Step 1:** Herd is untested and unprotected
When a farm begins, step 1 involves running a free screening test to check for BVD. If a farm results are positive, it will have either an infected (PI) animal or be BVD-free. It’s essential that all farms are tested because the disease is a contagious respiratory disease that can spread quietly among herds, especially in youngstock. This step helps to identify and remove any virus-shedding animals from the herd.

**Step 2:** Herd has just been tested
Depending on the results of the bulk milk test and/or blood tests, and your herd health objectives, your XLVets member can advise whether you take step 3 or go straight to step 4.

**Step 3:** Heifer-only vaccination
If PI animals have been present in the main herd, then cows will have built up some immunity to the disease. However, heifers and youngstock will usually have been reared away from the herd and could be naive - never having had exposure to the virus. A first encounter with the BVD virus can be very detrimental to health and fertility. It fact experiments have shown that heifer fertility can drop from around 75% conception rates down to about 30% if animals are exposed to the BVD virus during the first 21 days of pregnancy. This loss is not always recognised on-farm because the embryo is re-absorbed and the heifer returns to service. So vaccinating all the heifers will protect them from the virus and safeguard their fertility. It also prevents the creation of any new PI animals.

**Step 4:** Whole herd vaccination
By vaccinating the whole herd, all animals are protected. However, PI animals may still be present in the herd and so a Herd Health Plan will be recommended. However, the unvaccinated cows in the herd could still suffer reproductive losses and reduced performance, and produce further PI animals.

Since this approach fails to protect the bulk of the herd, and the level of immunity is unpredictable, step 4 is the recommended approach.

**Step 5:** PI bull hunt
As a persistently infected (PI) animal - it will have been infected with the disease via its mother, in early pregnancy. Once born it will shed the virus persistently and expose its fellow herdmates to the disease. PI bulls are a real threat. Not only do they continually shed the virus, but their semen is also a source of the BVD virus. Always blood test new bulls before they come into the herd.
Eradication plans in Somerset
The relatively low and dispersed cattle population of East Anglia, means that biosecurity is easier to manage than in the more densely stocked areas of the south west. XLVet Geoff Singleton of the Kingfisher Vet Practice in Crewkerne says: ‘In cattle dense areas, it can be hard to achieve total biosecurity, as it’s not just a case of quarantining and testing new arrivals of cattle. The BVD virus can be spread by infected cows having nose to nose contact over the fence with neighbouring herds, and by people visiting from farm to farm. Sheep and deer can spread it too."

So maintaining whole herd vaccination in conjunction with eradication should be the way forward. XLVet Paddy Gordon of Shapton Veterinary Group in Shapton Mallet has just started working with the Royal Veterinary College on a three year research programme which aims to eradicate the Pi animals from herds. In collaboration with the RVC, it will also assess a whole range of health and disease levels on 30 of the practice’s farms, including fertility problems and abortions.

Immunosuppression is another one of the effects of the BVD virus,” explains Paddy. “This means cattle can have a lowered immune system and therefore be more prone to, for example, pneumonia, or TB. So the programme also includes measurements of mastitis levels, calf diseases, and respiratory disease. ‘Most of our dairy farming clients are already vaccinating against BVD. They are seeing fewer Pi calves, mucosal disease and poor does than ten years ago, before BVD vaccines became available. Also very apparent is the reduction in abortions and stillbirths. One farmer used to have one or two abortions per month - that’s all now stopped thanks to vaccination’.

‘Clearly vaccination has already proved effective on these farms. However, we are now looking to see whether we can improve things further, by identifying and removing any Pi animals’. ‘On one farm we blood tested all 1000 youngstock, and found 2% amongst them. These have now been removed. If left in the herd, they would have continued to shed the virus and increased the disease challenge levels that their fellow herdmates were being exposed to’.

‘In this high-density cattle area, eradication of Pi needs to go hand in hand with vigilant biosecurity.’

PI hunting
If you are already vaccinating but think you’d like to make further improvements to herd health, by getting rid of the Persistently Infected animals from your herd, then discuss it with your XLVet member.

Hunting down a PI requires a methodical -step-by-step approach to home in on the guilty animals. An initial bulk milk test will give an indication of whether there may be PI cows in the milking herd. Blood testing will be needed for youngstock and bulls. Your vet can then advise the next step.

TAKE ACTION!

The starting point for action is to talk to your XLVet vet. No doubt, discussions on BVD have already been a part of your herd health planning. An action plan can be drawn up to eradicate BVD from your herd.

BVD action plan
1. Find out what levels of BVD infection and/or exposure your herd has now. This involves bulk milk sampling and blood sampling as advised by your vet.
2. Depending on your individual herd situation - make plans to vaccinate naïve animals, eradicate the persistently infected animals and devise biosecurity measures which protect your herd from the virus coming in.
3. Regularly review your situation with bulk milk and/or blood sampling.
4. Maintain immunity in vaccinated animals with an annual BVD booster vaccination.

Make BVD vaccination easier
- Talk to your vet and work out how much vaccine you need and which animals to target.
- Arrange BVD vaccinations to coincide with leptospirosis vaccinations and save time.
- Use an automated syringe gun which relieves vaccine and makes the job quicker.

Pi hunting

BVD: What are you doing about it? - continued...

Here in Somerset, total eradication of the disease in a herd and then ceasing vaccination is just too risky at the moment.
Geoff Singleton - Kingfisher Veterinary Practice, Crewkerne

PREVENTION...
...is better than cure!

Barlow (NV/AV Clear) makes it easy to remember from one year to the next. For example if avermectin drench ML was used in 2006 then a white drench BZ should be used this year and so on.

Now is the time to plan ahead
- Confirm your wormer group for 2007.
- Request a worm egg count testing kit and know how and when it is to be used.
- Clean your drenching equipment and check the calibration by dosing into a 20ml syringe.
- Select the appropriate anthelmintics for your ewes and lambs. For example nematodirus, tape or fluke may need special consideration.
- Ask your XLVet’s advice to protect against specific worms.

Preserving susceptible worms
There is a particular SCOPS recommendation which may be difficult to implement. ‘Clean’ pastures allow resistant worms to breed more easily. Worms susceptible to anthelmintics must be preserved on the pasture. One of the easiest ways to make this work is to treat and move the sheep back to their original pasture for a couple of days. The animals will have picked up some susceptible worm larvae during this time and will spread these after moving to the better ‘clean’ grazing.

Ask your XLVet
Gone are the days when we could reach out for any wormer off the shelf. Planning ahead today will make the job better for tomorrow.

Late winter and spring 2007
Following SCOPS recommendation, the main considerations for this time of year are to quarantine treat new incoming sheep (low wintered pasture) and treat ewes around the period of lambing when their immunity levels are low. In the case of quarantine treatments the guidelines are quite specific and include the concurrent use of a levamisole (LM) and an avermectin (NV) wormer, keep sheep off pasture for 24-48 hours and then turn onto ‘dirty’ pasture for the quarantine period of 21 days.

In the case of treating ewes consider whether to incorporate a flukicide for the control of fluke.

Plan ahead with your XLVet
Preserving the range of anthelmintics is based on using an annual rotation through all three groups. A calendar rotation by following the groups Benzimidazole (BZ Yellow) then Macrocyclic lactone (NV/AV Clear) then Levamisole (LM Yellow) then Macrocylic.

PROTECTION...
Traditional, the time to start considering husk prevention is just before turnout. Given that reported cases are up on previous years, and some people will already be planning for turnout, this could act as a timely reminder.

In one herd in Scotland, milk yield had dropped and more than half the herd had a persistent cough. A lungworm outbreak was diagnosed by the vet, and action taken although the farm would have already lost significant income through lost milk sales. What is more, in cases in adult animals, faecal samples repeatedly fail to show long-lived larvae, making diagnosis difficult. Nevertheless, being aware of the outcome of infection is important.

Main signs of lungworm infection
- Ranges from mild cough and slightly increased breathing rate to severe and persistent coughing and difficulty breathing
- Reduced weight gain (or weight loss)
- Milk yield drop

Husk infestation occurs as a result of infection with the worm Dictyocaulus viviparus. Cattle develop it after eating forage contaminated with infective larvae. Once in the gut, the larvae migrate through the wall and a few weeks later they reach the lungs where they begin laying eggs.

Historically, it has been most commonly associated with youngstock but, now, a large number of reported cases are in adult animals which could have a very significant impact on the profitability of a herd.

The vaccine produces a very good immune response against disease but it does not prevent all worms from natural infections completing their life cycle. This means that on pasture grazed by vaccinated cattle, there may be a very low level of larvae on the pasture. If not all youngstock are vaccinated, larvae numbers can increase very rapidly, particularly if the weather is wet and warm, which will lead to an outbreak of disease in the unvaccinated animals.

Contact your XLVet practice to discuss lungworm prevention options, or to order Bovilis® Huskvac vaccine.

Upgrade your Colostrum
Infectious call scours is a widespread and costly problem for UK dairy and beef producers. Farmers recently estimated the cost of infectious call scours to be as much as £100 per affected calf once all direct costs and labour are taken into account.

There are many causes of infectious call scours but prevention is always better than cure. The viral causes of scour, rotavirus and coronavirus, cannot be treated with antibiotics - they must be prevented through vaccination and husbandry. Colostrum is an essential source of fluid, nutrients and antibodies to calves. Antibodies protect against disease such as infectious scour. Without adequate colostrum, the vaccine is a live vaccine, made from irradiated larvae which are incapable of causing disease for diary calves, vaccination should be completed at least two weeks before the calves are turned out to grass, for suckled calves it should finish two weeks before the calves begin to eat significant amounts of grass. Sustained-release vaccines should not be given until two weeks after the final dose of vaccine.

The vaccine protects calves by stimulating the immune system. It is given as a single subcutaneous injection, and is not only given to the calf, but also to the dam at calving time. The vaccine produces a very good immune response against disease but it does not prevent all worms from natural infections completing their life cycle. This means that on pasture grazed by vaccinated cattle, there may be a very low level of larvae on the pasture. If not all youngstock are vaccinated, larvae numbers can increase very rapidly, particularly if the weather is wet and warm, which will lead to an outbreak of disease in the unvaccinated animals.

Contact your XLVet practice to discuss lungworm prevention options, or to order Bovilis® Huskvac vaccine.

ACT NOW...

Prevent Lungworm Problems later this season
Reports in the veterinary press have highlighted an above average incidence rate of husk (lungworm) outbreaks and infection in the last few months, possibly due to the relatively warm and wet weather during late autumn and early winter.

Good businesses do not occur by chance. They are built on solid plans, and in farming enterprises planning for health is the cornerstone of good business. Depending on the type of herd and enterprise, these plans may take many forms, such as management programmes as well as providing input into various national and international working groups. There are many reasons why The Dairy Group may be invited to assist with immediate problems such as poor milk quality, mastitis control or inadequate milking equipment operation. XLVets are pleased to be working in conjunction with a number of partnership organisations to make this happen. One of these organisations is The Dairy Group.

Working Partnerships and Mutual Benefits
by Ian Powell, Director, The Dairy Group

As the number of registered dairy producers continues to decline, many of the farmers who remain in business have become understandably more demanding in the quality and sources of advice they seek and accept. There appears to be a growing acceptance within the industry that it is unrealistic to expect single individuals to have detailed answers to all the questions posed and therefore, we see the emergence of specialists, with a wide understanding of the dairy industry, but specialist expertise in particular areas.

In partnership with Schering-Plough Animal Health, XLVets are now providing a colostrum testing service. We will use a colostrometer to measure the amount of antibodies in a colostrum sample. To find out how good your colostrum is simply bring a 250ml sample of colostrum into the practice. Good businesses do not occur by chance. They are built on solid plans, and in farming enterprises planning for health is the cornerstone of good business. Depending on the type of herd and enterprise, these plans may take many forms, such as management programmes as well as providing input into various national and international working groups. There are many reasons why The Dairy Group may be invited to assist with immediate problems such as poor milk quality, mastitis control or inadequate milking equipment operation.

Whatever the reason for the involvement, for any consultant to make a significant impact, it is critical that they have all the relevant information at their fingertips. Offering advice in isolation is unlikely to be entirely successful and at all times we encourage the client to embrace a team approach with all his expert’s liaising and communicating regularly. The Dairy Group is committed to being the leading source of independent dairy consultancy. We believe that we can add value to our clients businesses and help them to make the right decisions in this challenging industry. By working closely with the farm veterinary surgeon, we believe that the client gains a greater benefit from their combined expertise.