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XLVETS - EXCELLENCE IN PRACTICE

# FARMING

review

SEPTEMBER 2008  
FARM HEALTH PLANNING

## feeding+

DAIRYCO'S CAMPAIGN

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## FARM HEALTH PLANNING

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HERD HEALTH PLANNING IS AN INVESTMENT IN HEALTH WHICH EVERY FARM SHOULD BE MAKING

# FARM HEALTH PLANNING PROJECTS

## Proactive health planning and teamwork improves herd performance

Better fertility and more calves, better housing and less pneumonia and mastitis, better biosecurity and less disease - these are just some examples of what has been achieved on the beef and dairy farms which took part in the Defra-funded Herd Health Planning initiatives, organised by XLVets.

A whole series of projects have been running around the country and in this magazine we have included an update on 6 of these projects.

### Beef Health Planning Project

Steve Borsberry 608 Veterinary Group  
Richard Maundrell Farmer

### Dairy Health Planning Project

Chris Parker Scarsdale Veterinary Group  
Michael Brown Dairy Farmer

### Beef Health Planning Project

Tony Kemble Wensum Valley Veterinary Surgeons  
James Woodhouse Suckler Cow Producer

### Dairy Health Planning Project

Bruce Richards/Kath Aplin Paragon Veterinary Group  
Trevor & John Whitfield Dairy Farmers

### Beef Health Planning Project

Keith Cutler Endell Veterinary Group  
Bruce & Lucy Waight Farmers

### Dairy Health Planning Project

Tim O'Sullivan MacPherson O'Sullivan LLP  
Andy Dale Dairy Farmer

SPEAK TO YOUR XLVET ABOUT ANY ASPECTS OF FARM HEALTH PLANNING ON YOUR FARM.

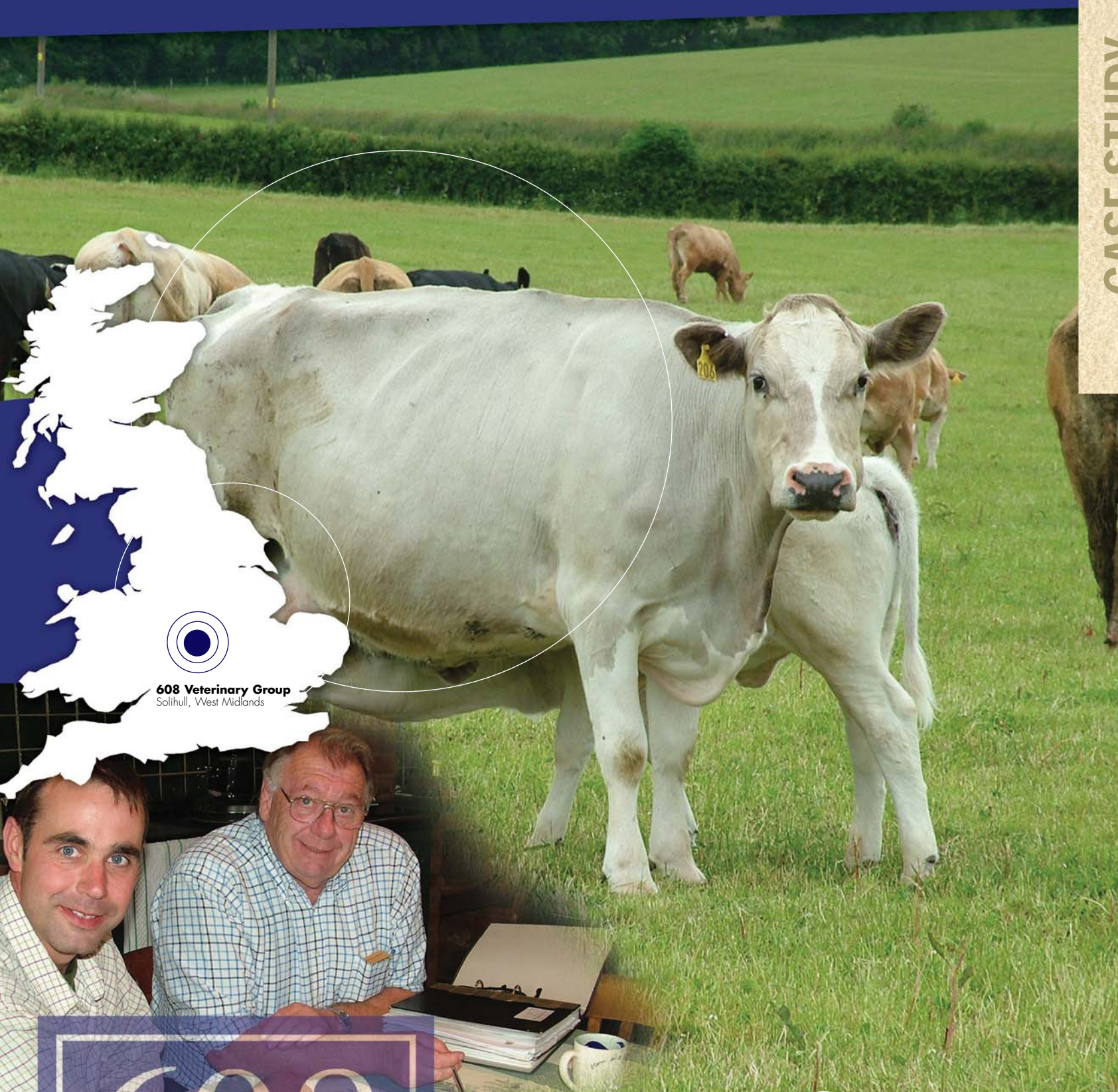


**Farm  
Health  
Planning**

**Healthy Animals  
Healthy Profits**

# the PROJECTS





608

VETERINARY  
- GROUP -

# Beef HP

**Beef HP Project** 608's Steve Borsberry and farmer Richard Maundrell

Warwickshire beef farmer Richard Maundrell has culled cows to tighten the calving pattern in his suckler cow herd and together with management and nutritional changes, will be benefiting from more uniform batches of earlier-born calves which will be ready for slaughter 3-4 months earlier than previously. These changes will make life easier, and the herd more profitable.

Richard has been working with his vet Steve Borsberry from the 608 Vet Group in Solihull for several years now, and through proactive planning have ensured many health issues are already under control. However, through the XLVet's herd health planning project, additional focus has been made on some key aspects.

## Stepping up disease control

Apart from new bulls, Richard keeps a closed herd at Gattax Farm near Redditch. However, since his land borders other livestock farms and biosecurity cannot be guaranteed, all cattle are vaccinated against BVD and leptospirosis as an insurance policy. An improvement in fertility was seen when this regime was first introduced.

At the start of the project, Richard and Steve were discussing whether or not to vaccinate against IBR. Cattle were blood-tested for IBR, and although no active infection was found, some cows did show evidence of exposure to the virus. So now a vaccination programme which targets the bulls and breeding cows has been instigated.

## Tightening the calving pattern

One of the key focuses for Richard during the project has been the tightening up of the calving period. Over time this had extended to the point where some calves were born in the autumn.

This was creating some management headaches both with winter housing an uneven batch of calves, some still on their dams who would require extra feed to support them, and 18 months later a lack of uniformity complicating selection for slaughter.

'In addition, running the bull with a herd in which some heifer calves would be sexually mature, had caused some unwanted pregnancies.'

So two changes were made. Firstly, Richard made the conscious decision to either pull the bull out earlier to save aggravation, or to run the bull separately from any heifer calves.

More significantly, Richard had been wanting to reduce herd numbers to make management easier and so culled out 14 cows. He explains: 'These cows were selected because they were out of synch with their calving patterns and rather than hold them on for 6 months to get them back to a spring calving pattern, they were culled out. However, they were not selected just for their breeding pattern,

there had to be a second factor, for example an aggressive temperament or old age.'

Two older cows also lost their calves and rather than running them on unproductively for another year, they were fattened up and sold. This coincided with a time when cull cow prices were at a peak and one cow made over £1000.

This spring, out of 86 cows, 80 will calve over a 9 week period. A further 6 will calve slightly later, but Richard says he can cope with six out of season breeders, and as these cows are in their prime he does not want to get rid of them yet.

Steve sums it up: 'Actually, 85% of the calvings will take place in the first 6 weeks of the calving period, and 15% in final 3 weeks. This is excellent, and the benefits will be seen clearly at housing as calves will be older and also more uniform. This should carry through to an earlier finishing, and could mean they can be sent for slaughter by Christmas 2009, at 18-21 months of age. This would have the great advantage of freeing up time for Richard,

ahead of the next batch of spring calves arriving.

## Bull management

On Steve's advice, Richard has only purchased bulls off-farm rather than through sales. This allows him to see the bulls under genuine farm conditions and so get a good assessment of their temperament. It also allows the health status of the source farm to be known.

'Temperament is a very important trait when selecting cattle,' says Steve.

'Farmers should visit the premises where they are coming from as temperament is down to both the genetics and the environment in which the animal is raised.

**Aggressive animals are not safe to have on a farm and that includes cows, too.'**

Richard has recently bought-in an 18 month old Blonde d'Aquitaine bull. It had been tested for disease on the farm from which it came, and on joining the herd at Gattax Farm was put onto the farm's vaccination regime.





Beef HP Project 608's Steve Borsberry and farmer Richard Maundrell Continued...

Improving handling facilities

At the start of the project Richard has been thinking about improving the handling facilities at the farm. Currently, when there is any handling to be done, the crush is moved and hurdles assembled as pens. This takes time and is not as ideal as having a permanent site.

Plans have now been drawn up, but a lack of time is now holding this improvement back. A new workshop shed is to be constructed and then the redundant machinery shed used to house the new handling facilities. The race and crush will be under cover, and a series of pens leading to the race can double up as calving boxes or as holding pens for finished cattle prior to loading. This square gate system will save time and make the job safer and more pleasant for Richard and his part-time stockman.

Steve adds: 'Once Richard has some better handling facilities, I'd like to see him clipping out the backs of his cattle at housing. This helps animals manage their own body heat better, and helps prevent pneumonia. Although having said that, Richard is very vigilant with his stock and

despite calves not being vaccinated for pneumonia, there was only one case here last winter.'

Creep feeding for faster growth

Discussions at the December open day at the farm had raised the issue of creep feeding youngstock to help achieve an earlier finish. So Richard has been looking at the cost of creep versus the potential benefit in liveweight gain that could be achieved. Calf growth rates had generally been satisfactory except for one recent batch of calves.

Steve comments: 'On blood testing some of the barren cows going for slaughter a marginal deficiency in selenium was found. These cows had not been receiving any supplementary feed. So it was highly probable that since the calves were also raised only on grass during the summer that they too could be lacking in selenium. This was the deciding factor for Richard who will now creep feed all youngstock.'

Ongoing advice

Steve is always ready to give advice on herd health and management and Richard admits he often uses Steve as a sounding board. Recent discussions have covered

whether to sell some cattle as stores if prices look good, and practicalities of clipping out animals' back at housing. Richard says: 'As a vet, Steve goes onto lots of farms and sees how things are done differently, and how successful they are. I need practical advice as well as technical information to help me improve herd performance and profits. Although often my issue is lack of time and energy to implement everything! I know what I should be doing, it's cramming everything in.'

Steve adds: 'It's easy for breeding, feeding and day-to-day management to swallow up time. But farmers who neglect cattle health do so at their peril. Dealing with disease outbreaks and resolving poor health takes up time and costs more than taking steps to prevent it.'

'Herd management and health was already pretty good at Gattax Farm. However, through the XLVets project Richard has been able to focus on some specific herd health issues and should now find he has more time to get on with the bigger projects like the new handling yard. The other major benefit of course is that a good health status allows animals to perform to their potential, and that's ultimately what determines profit.'



85%  
Of cows will calve  
in a 6-week period

SHARING KNOWLEDGE - FHP RESULTS...

A farm meeting was held at Gattax Farm to showcase the changes and herd improvements that had been made. Independent beef advisor Basil Lowman was guest speaker at the December meeting and emphasised the importance of shortening the calving interval. He also related experiences of Scottish farmers who outwintered their cattle, and reminded farmers to regularly weigh cattle in the finishing yards so that they could be sent to the abattoirs as soon as possible rather than remaining to eat away their profit. Dairy farmers were also amongst the visitors and gained in particular from the advice on buying in of bulls as well as disease control and management.

Gattax Farm Facts	Results of Farm Health Planning
<ul style="list-style-type: none"><li>240 acres of grassland</li><li>32 acres of maize</li><li>50 acres of wheat</li><li>6 acres of Countryside Stewardship</li><li>92 Blonde d'Aquitaine and Simmental cross suckler cows</li><li>Finished at 20-26 months and sold deadweight</li></ul>	<ul style="list-style-type: none"><li>Tighter calving pattern</li><li>Better overall herd temperament</li><li>Calf nutrition improved</li><li>Strategic IBR protection</li><li>Predicted faster finishing of more uniform cattle</li><li>Reduced workload, freeing up time</li></ul>



Too many new cases of mastitis were arising, believed Michael and his staff, and existing cases were proving hard to clear. A new 'swingover' milking parlour was thought to be aggravating the problem.

**CHRIS PARKER** SCARSDALE VETERINARY GROUP **MICHAEL BROWN** DAIRY FARMER

#### ALTERING THE PARLOUR SET-UP

Through the XLVets' project, ADAS consultant Brian Pocknee was brought in to inspect the parlour and highlight areas for improvement.

Michael had installed the parlour only 18 months previously, and assumed that, being new, no improvements would be needed. However, following inspection, a number of problem areas were identified which were affecting mastitis incidence.

'First of all the swing arms were not aligned properly and so cluster units were not hanging down squarely on the udder,' explains Chris. 'This was putting pressure on one side of the teats, and over time, contributing to damage to the teats. The ACR cords were also too long - so there was a delay between the finishing of milking and actual removal of the cluster from the teats.'

Dynamic and static tests revealed air leaks, and the vacuum gauge needed adjusting to read properly. So Michael made a number of changes to the parlour settings, and made repairs.

It was also recommended that liners should be changed more frequently. Michael admits he had taken the thrifty approach of changing liners just twice a year. However now these are being changed every 2,500 milkings, equating to every 4 months for the 320

milking cow herd. Teat damage is a factor in mastitis and cell count problems. To gain an objective measurement of the situation at the start of the project, some teat scoring was carried out. This served as a benchmark against which to measure the effects of the changes made by the end of the project. Chris adds: 'Teat scoring is not a routine, but it is useful to do when first called in to sort out a mastitis problem.'

'By the end of the project, through altering the parlour set-up, the number of teats scored as 'moderate' or 'severely damaged' had decreased from 26% to 11%.'

'Teat scoring will be carried out twice each year,' says Chris. 'And we will pay particular attention to the teats of the heifers next year - if damage still occurs then this indicates the parlour set-up still needs some adjustment.'

'Not only are damaged teats more susceptible to infection, but this infection is also a threat to the next cow being milked with those clusters.'

#### IMPROVING THE MILKING ROUTINE

Changes were also recommended, and made, to the milking routine itself. 'Consistent teat preparation is essential for good milk let down and optimal milk flow rates,' explains Chris. 'Cleaning and pre-dipping is all part of stimulating the cow to achieve this.'

Pre-dipping was introduced, and cows are prepared in batches of six.

The aim is to have an interval of 60-90 seconds between first touching the udder to clean and pre-dip it, and applying the cluster unit.

As part of the ongoing campaign against mastitis, cows are also stripped out to check for milk clots prior to cluster attachment.

During the project, Chris persuaded staff to start using the teat sealant Orbesal, in addition to their normal dry cow antibiotic tubes. He also showed them the correct technique for inserting these, as it differs from the method of tubing with conventional intramammary antibiotics.

A tougher approach was also taken on treating mastitis cases in lactation, with the addition of an antibiotic injection as well as intramammary treatment. This would help achieve a better bacteriological cure, and so reduce cell count.

#### MASTITIS COSTS REDUCED

Reducing mastitis and its associated costs was achieved at Coton Hall Farm through tackling several key areas - the parlour, the milking routine and the regimes for drying off cows and treating lactating cows.



# DAIRY HEALTH PLANNING PROJECT

Through the XLVet's dairy health planning project, Derbyshire dairy farmer Michael Brown and his vets, Chris Parker and Rose Jackson of Scarsdale Vet Practice, have focused on reducing mastitis costs and improving herd health at Coton Hall Farm, in Coton in the Clay.



**LEFT** CHRIS PARKER  
VETERINARY SURGEON

**RIGHT** MICHAEL BROWN  
DAIRY FARMER





'...there is a still a focus on reducing mastitis and cell counts. The emphasis has now moved to reducing the chronic high cell count cases which have remained high through the duration of the project, and which will be acting as a source of infection for the rest of the herd. Michael's options are to cull them, or try to cure them by drying them off earlier so that they have a longer dry period for the infection to resolve.'

Using NMR data to compare cell counts at the start and end of the project, provided evidence of the following achievements: cows with cell counts of over 200,000 fell from 38% to 20%; new cases dropped from 26/month to 8 in March 2008.

A review of tube usage, using Scarsdale's veterinary records, showed a reduction in mastitis cases of 26% at the end of the project.

'By the end of the project, an annual saving of £8,200 had been achieved through less mastitis and reduced tube usage,' says Chris. 'These figures will further improve as time goes on and as the focus continues.'

IMPROVING FERTILITY

Many factors affect cow fertility including lameness, nutrition, management, heat (oestrus) detection. At Coton Hall Farm, another focus of attention during the project was to improve oestrus detection. This was managed by Chris' colleague Rose Jackson.

Pedometers and scratch cards were used, and all observed heats were recorded. Chris explains: 'The bulling cow is more restless, and so fixing pedometers to cows post-calving records their movements, and the readings transmitted back to the computer suggest which cows are on-heat. All this data is entered onto the NMR Inter-herd programme, and can be monitored daily. Fixing scratch cards onto the backs of cows was an added signal of bulling activity.'

Oestrus detection efficiency at the start of the project was 30%. There were also a number of services at irregular inter-oestrus intervals indicating that some cows were being served at the wrong time. By the end of the project, the efficiency had improved to 37% and there were also less 'incorrect' services.

Chris comments: 'This improved heat detection, equates to an annual saving of over £17,000 for the herd.'

'There is still scope to improve fertility on this farm. Other aspects on which to focus are on improving the calving to first service interval, and calving to conception interval. An action plan has been drawn up to carry out more post-calving checks, and to identify and treat problems like metritis all the sooner.'

REDUCING LAMENESS

Chris explains: 'Lame cows are in pain - consequently, they show a less intense display of oestrus, and the stress affects fertility hormone release and interferes with ovulation. So a lame cow can take an average extra 40 days to get in calf.'

Lameness scoring was carried out at the start of the project using a 4-point scale with a score of 0 given for a normal gait, and 1 to 3 for increasing degrees of lameness.

At Coton Hall Farm, 45% of the herd were lame (scoring 1-3), largely due to the prevalence of digital dermatitis in the herd. So a footbathing protocol has been instigated in which cows walk through a formalin solution for several consecutive days every month. After 6 months this had brought the overall lameness score down to 31%.

DISEASE CONTROL

Prior to the XLVets health planning project, Michael was only vaccinating his heifers for BVD, but not his milking herd.

Chris explains: 'Certainly, the heifers are the most vulnerable group - as they have never been exposed to BVD or stressed, so if they did encounter disease, then they would be more severely affected.'

'However, you only get rid of a disease in a herd when it has nowhere to go. Vaccination, even of the whole herd, isn't really enough - farmers need to be tracking down the persistently infected animals in the herd which shed the virus throughout their lives. These should then be culled from the herd to remove the source of infection.'

Although the farm was monitored for BVD fairly regularly, there were no real control measures in place. A high positive bulk milk antibody reading taken at the start of the project indicated that there was active or recent infection within the herd. So, a vaccination programme for all breeding stock from 12 months of age was instigated.

Blood tests have failed to identify any animals that are persistently infected (PI). A bulk milk antigen test has also demonstrated no PI animals present in the milking herd. So a strategy has been put in place to continue to

monitor the herd using the bulk milk and if any test shows evidence of the disease, to test individual animals.

Another fact revealed from the bulk tank and blood testing was that although the herd had originally tested negative for leptospirosis, this disease was now present. It is thought that it could have been brought onto the premises by sheep which are winter-grazed. A vaccination programme is now planned.

FUTURE PLANS FOR HEALTH IMPROVEMENTS

'As with any project,' explains Chris, 'activities are still ongoing, and improvements are continuing.'

'For instance, there is a still a focus on reducing mastitis and cell counts. The emphasis has now moved to reducing the chronic high cell count cases which have remained high through the duration of the project, and which will be acting as a source of infection for the rest of the herd. Michael's options are to cull them, or try to cure them by drying them off earlier so that they have a longer dry period for the infection to resolve.'

Michael comments: 'The changes that can be made to improve herd health are not necessarily expensive ones. In fact, once they are pointed out, they can be relatively easy and cheap.'

Chris adds: 'Finding a physical measure of an aspect of health is important so that you can get a handle on how good or bad the situation is, and benchmark it against similar farms. That's why we carried out lameness and teat scoring and used NMR data, and our own practice records. It also provides a reference point for any changes that are made, so the degree of improvement and its value can be calculated.'

Both agree, teamwork is what has made the project successful. Michael has been open to new ideas and advice, and altered his mindset on aspects like vaccination and equipment servicing.

Chris Parker and Rose Jackson from Scarsdale Vet Practice make fortnightly routine visits to the farm, providing management advice as well as veterinary health care.

SHARING KNOWLEDGE - FHP RESULTS...

Two farmer meetings were held: the first discussed the problems identified by the project farm team that were costing the farm money. The second meeting demonstrated to the farmers and others with an interest in herd health - nutritional advisors, consultants, even local bank managers - that considerable financial benefits could be achieved by reasonably simple means. This included the use of simple heat detection measures such as Estratect scratch cards, proper application of dry cow therapy, and complete control of a disease both by vaccination and elimination of the carrier animals.

Coton Hall Farm Facts

- Pedigree Holstein herd
- 320 milking cows
- Average 8,500 litre yield/cow
- 480 acres of grassland, 95 acres of maize, 70 acres of wheat

Herd Health Planning Benefits

- Less mastitis
- Less lameness
- Improved fertility
- Improved milking routine
- Better parlour set up

£8,200  
Saved by reducing mastitis

Improved heat detection  
saved over  
£17,000



# FARM HEALTH PLANNING

**FHP Project** Tony Kemble and James Woodhouse

## Investigation into the worrying fall in fertility - James Woodhouse.

When Norfolk suckler cow producer James Woodhouse embarked on a Defra-funded Farm Health Plan project in 2007, fertility level in his Simmental X herd was running at 85%. Almost 14 months on, and figures show that 98% of cows put to the bull were in-calf.



**Wensum Valley Veterinary Surgeons**  
Fakenham, Norfolk

Discussions between Mr Woodhouse and XLVets' Wensum Valley Veterinary Surgeons, near Fakenham - started a detailed investigation into the worrying fall in fertility. Results of blood samples taken from five calves revealed Bovine Virus Diarrhoea (BVD) infection - a widespread cattle disease of major economic importance.

James Woodhouse farms 430 acres at Hill House Farm, Walsingham and also carries out contracting work on neighbouring farms. His cattle graze around 70 acres of unimproved permanent pasture which are classed as water meadows. These are low input grass land and managed under a Higher Level Stewardship (HLS) agreement for the benefit of farmland birds like snipe and lapwing.

The herd now numbers 60-head with plans to increase this to 70 cows by renting more ground from local farms. Day-to-day management is shared between Mr Woodhouse and a stockman who is employed part-time.

The spring calving herd has evolved over time. Hereford X Friesian cows have been replaced predominantly by Simmental breeding cows while there are some Aberdeen Angus and Welsh Black X animals. Simmental and Welsh Black bulls are rotated within the herd.

## Tackling BVD

Prior to embarking on the Farm Health Plan project, Hill House farm kept detailed herd records, notes XLVets' Toby Kemble.

'From these we were able to track fertility. From a high of 98% of in-calf cows put to the bull in 1999, results showed fertility levels dropped to around 85% in 2004 which was of major economic importance to James,' says Mr Kemble.

Furthermore, several abortions and an empty cow started an investigation into the possible causes. Blood samples revealed BVD with two calves showing persistent infection (PI). These animals were later culled.

'The existence of a PI animal within the herd is the main risk factor for BVD infection. The PI animal constantly excretes the virus. They will rapidly infect other cattle that are in close contact,' advises Mr Kemble.

'Left uncontrolled, PI calves excrete virus continuously for the rest of their lives. If a PI cow breeds successfully she will always produce a PI calf.'

'BVD contributes to infertility. The risk is greatest where cows become infected in the first half of pregnancy.'

'The foetus can die and be reabsorbed or can be aborted,' adds Mr Kemble.

Wensum Vets put together a vaccination programme with all cows and bulls vaccinated between calving and serving.

Prevention of the infection is also achieved by applying strict biosecurity procedures. All new stock arriving at Hill House Farm are isolated and tested for BVD.

The combined approach helped raise fertility levels to 98%. Annual blood testing of calves will continue in order to maintain a BVD free herd and high fertility rates.

## Planning pays off

Tackling and controlling BVD infection has been the most satisfying aspect of the Farm Health Plan project, admits Mr Woodhouse.

'I've been very pleased with the outcome. Farm Health Planning is very worthwhile and extremely useful. It has highlighted the key issues and how to tackle them.'

'It's time and money well invested. Planning with Toby to identify how to prevent health problems rather than having to use fire brigade treatments is helping improve the health status of the herd and achieve the cattle outputs required to make the suckler cow enterprise viable,' he adds.

Toby Kemble agrees. 'The best Farm Health Plans are those which involve ongoing discussions between the vet and farmer. Once drawn up the document shouldn't sit on a shelf gathering dust. It needs to be an open document to refer to and look back on.'

'At Hill House Farm, we prioritised key issues, rather than make a whole host of changes.'

## Neospora infection

Blood tests of one aborted cow also revealed Neospora infection which is spread by dogs eating placentae and foetal fluids and then contaminating cattle feed with faeces.

Biosecurity was stepped up to clear away all afterbirths and foetal remnants and the farm dog, the most likely cause, was restricted from animal buildings.

## Compact calving period

Improved fertility and limiting the time bulls spend with the herd to 10 weeks has helped tighten up the spring calving period, with the vast majority of calves born in the first six weeks of calving. Subsequently, this has improved management of the young stock, says Mr Woodhouse.

'Calves are weaned at housing and we are able to batch rear calves in separate buildings,' he adds.

Mr Woodhouse also used a nutritionist to formulate rations for the herd. Fattening animals are fed rations of silage, straw, malt nuts and sugar beet pulp.

Cows receive a diet consisting of pressed pulp, protein mix, rolled wheat and minerals.

Through dietary management cow condition scores are monitored so that breeding females reach 2.5 at calving, and achieve a condition score of 3 when calves are weaned.

Toby Kemble explains that the condition of the animal at weaning is crucial. 'Spring calving cows slowly lose condition during the winter housing period but should not lose more than 0.5 kg per day. They need to be no less than 2.0 when going to the bull at turn out to improve conception rates.'

## Bull management

Breeding decisions are based on what 'works well' across the low-input grassland system. What's more, customers to the farm shop prefer a fat covering on their meat, according to Mr Woodhouse.

'We aim for a traditional carcass and find both the Simmental and Welsh Black breeds meet our needs. We switched from using a Blonde d'Aquitaine because calves needed a lot of feed to put on condition,' says Mr Woodhouse.

Before entering the herd, new bulls are given a full check over. Both current bulls came from known sources and were BVD free.

Bulls are 'half the herd', explains Toby Kemble, therefore we check all aspects of its health and condition. 'Bulls will also be tested annually to check for defaults. Past tests revealed that the Blonde d'Aquitaine wasn't performing as it should, which was another reason why it was replaced.'



**Top** Farm Health Planning is very worthwhile and extremely useful, says James Woodhouse.

**Above** Store cattle are taken through to 24 months.

**Far Right** Increased numbers of calves reared are improving profitability.

VETERINARY  
**WENSUM VALLEY**  
SURGEONS





# PREMIUM PRODUCT

Increasing the number of calves born, successfully reared and achieving a high deadweight is crucial to remain viable, notes James Woodhouse.

‘All the finished cattle are killed locally and sold through the farm shop. We aim to use one animal each week, utilising each part of the carcass, with some cuts used to prepare pies and other value-added products. This means we get a premium price and this makes it more economic.’

‘I couldn't see how we could continue producing cattle for large retailers at the prices we used to receive.’

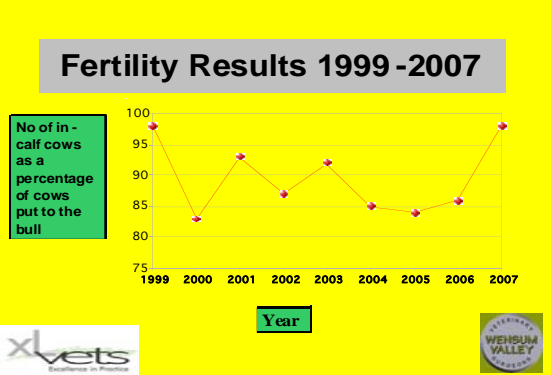
About three years ago work began converting a redundant grain store, a traditional building adjacent to an Anglican Shrine in Little Walsingham. The village on the north Norfolk coast has been a place of pilgrimage since at

least the eleventh century and therefore attracts large numbers of visitors every year. Summer trade is also boosted by a high volume of holidaymakers.

The Walsingham Farms Shop Partnership employs around 20 full and part-time staff. Products sourced from Norfolk include fruit and vegetables, several different types of eggs, crisps, cheese, venison, lamb, mutton, pork, beef and poultry.

The Partnership also run a fish and chip shop and 40-seat restaurant, providing a further outlet for sausages, pies and other meat products made in the farm shop.

**‘Prioritise rather than make wholesale changes advises XLVets’**  
**Toby Kemble** Wensum Valley Veterinary Surgeons



**13%**  
The increased fertility rate at Hill House Farm.

## SHARING KNOWLEDGE - FHP RESULTS...

As a part of the project, an XLVets' organised open day was held at Hill House Farm. Local farmers had the opportunity to hear about and see the benefits of farm health planning and how it had resulted in improved health and profitability of the herd. And most importantly of all, they were able to taste the output of the herd at the restaurant associated with the farm shop, bringing into sharp perspective the real output of effective farm health planning.

**Top** Reduced food miles. The farm shops sells products sourced from Norfolk.

**Far Left** The Walsingham Farms Shop Partnership employs around 20 full and part-time staff.

**Left** Customers like good presentation and information about where and how their meat is produced.

### Hill House Farm Facts

- 360 acres combinable crops and sugar beet
- 70 acres permanent pasture
- Pasture managed under Higher Level Scheme
- 60-head Simmental X suckler herd
- All calves reared for farm shop and restaurant

### Results of Farm Health Planning

- Improved fertility rates
- Successfully tackled BVD
- Compact calving pattern
- Better bull selection and maintenance
- Biosecurity stepped up

The Farm Health Plan has helped increase fertility levels by 13%. BVD infection was responsible for the dips in fertility at Hill House Farm.



# FARM ANIMAL HEALTH ACTION PLAN

at Woodhouses Farm

PARAGON VETERINARY GROUP TREVOR AND JOHN WHITFIELD DAIRY FARMERS



Improving the health of their 150-cow pedigree Holstein Friesian herd has led to far greater job satisfaction, according to owners Trevor and John Whitfield.

The brothers farm 260-acres at Woodhouses Farm, Great Orton near Carlisle and have implemented a Defra-funded Farm Animal Health action plan. This was devised by several specialists and has led to significant improvements in terms of animal health, increased outputs, reduced treatment costs and job fulfilment.

The year-round calving Garnet herd averages 9,000 litres at 3.2% protein and 4.4% butterfat. Cows are fed on a Total Mixed Ration of grass silage, maize, wholecrop wheat and protein blend. While in the eight standing auto tandem parlour they receive a 20% protein concentrate.

The health advisory team led by XLVets' Paragon Veterinary Group, based at Dalston, Carlisle also comprised Richard Vecqueray, a nutritionist with Evidence Based Veterinary Consultancy and Ian Ohnstad, a consultant with The Dairy Group.

Working with the Whitfield's, the team identified a number of core health problems that included a high incidence of milk fever, increases in mastitis rate and Somatic Cell Counts (SCC), cattle lameness and rising bulk tank Bovine Virus Diarrhoea (BVD) antibody levels which would impact fertility.

## BVD

A calving interval of 413 days and a 10% fall in conception rates saw Paragon Veterinary Group's Bruce Richards perform further cohort milk tests and random blood sampling. He compared the results with existing data captured by the practice from the Garnet herd.

'BVD was suspected as having a major influence on fertility,' he says.

'Using industry standard cost calculators, the effects of the disease was costing Trevor and John around £12k or 0.9ppl so a vaccination programme was implemented to significantly reduce losses. This won't totally eradicate the disease but it will give a return of about £3,200 or 0.24ppl in the first year,' suggests Mr Richards.

## LAMENESS

Locomotion scoring - a visual assessment of a cow's ability to walk properly - of the entire herd conducted by Kath Aplin of Paragon Veterinary Group revealed that almost a third of cows showed some form of lameness.

She explains that it takes a few seconds per cow to produce a locomotion score. 'Cows are scored on a scale of 1.0 to

5.0, where a score of 1.0 reflects a cow that walks normally and a score of 5.0 reflects a cow that is three-legged lame.'

'It's virtually impossible to have no lameness in a herd. But it is possible to eliminate clinical lameness - cows showing a locomotion score of 4.0 and 5.0. A score of 3.0 or higher indicates that the cow should be examined to determine the reason for the lameness,' she adds.

Mrs Aplin was able to calculate a financial cost of £190 per case to the Garnet herd through lameness and consequential lower milk yields. On the day of the first scoring this amounted to £5,500.

A robust foot care programme was initiated to achieve a maximum target of 10% lameness in herd after 12 months. Lamé feet are now treated more promptly. Cows also receive corrective trims twice each year and cow tracks will be improved over time. Rubber mats will also be placed on passageways from the milking parlour where cows have to make a number of right angled turns. While planned improvements to cubicles will also reduce cow lameness.



**Left** Working to a robust farm health plan has led to far greater job satisfaction says Trevor and John Whitfield.

**Right** Farm Health Plans should be practical, working documents says XLVets' Bruce Richards and Kath Aplin.

**Below** Improving the health of the Garnet herd is showing in the bulk tank.





CASE STUDY WOODHOUSES FARM CONTINUED...

Minimising or eliminating mastitis caused by contagious organisms is best accomplished by a rigid programme of pre-milking teat wiping with individual wipes. The use of medicated wipes as well as disinfecting hands and clusters in between milking cows with known infection and high cell counts, were some of suggestions made by The Dairy Group's Ian Ohnstad.

MASTITIS CONTROL

This triggered a direct response with mastitis cases falling by 28 per 100 cows over a three month period. Furthermore, bulk tank SCC more than halved in the same period, down from 252,000 to 120,000 cells/ml.

Monitoring also found that there were fewer repeats and the team calculated that reducing mastitis and improving milk quality would effectively add a further £4,000 per year (£28 per cow) to the bottom line.

Bruce Richards comments that clinical mastitis is both a frustrating and expensive problem. 'Understanding potential causes and proactively taking action to minimise them will help limit the problem.'

Longer-term ambitions to minimise mastitis at Woodhouses Farm include making alterations to buildings. Cubicle head rails will be removed to improve cow comfort when lying down and the ventilation within buildings will be improved by replacing cladding with space boarding and lifting ridge tiles.

MILK FEVER

A 14% incidence in milk fever - low blood calcium - has been halved following improvements to the herd's diet brought about by the Farm Health Plan recommendations.

Blood and urine were collected from transition cows to analyse their acid-base balance, their macromineral excretion and their energy status pre-calving - a major contributor to fat mobilisation pre and post calving.

High levels of sodium and potassium in the blood, sourced from grass silage and brought about by the over-use of potash fertiliser and slurry applications were interfering with calcium mobilisation.

Changes were made to the dry cow diets by EBVC's Richard Vecqueray to dilute the grass silage content of the diet. This had increased because of a previous wholecrop shortage on the farm. He recommended greater quantities of whole-crop silage, maize meal and chopped straw.

The new feeding regime is being monitored by regular measurements of blood ketones (BHB) and body scoring freshly calved cows. Transition cows are now also either housed or buffer fed off 'tight' grazing paddocks to reduce the milk fever risk.

As well as decreasing milk fever cases, feeding improvements have also been responsible for higher conception rates and higher quality milk yields.

Bruce Richards of Paragon Veterinary Group says that while milk fever is fairly easy to treat using intravenous calcium injection, the real problem is that metabolic disorder predisposes cows to other health problems including, retained placenta, ketosis displaced abomasum, and mastitis.

He estimates that the average cost of each milk fever case is £207, which doesn't take into account cow replacement costs. Therefore, reducing milk fever cases down to 7% with no fatalities at Woodhouses Farm has potentially saved £10,000 over a 12-month period.

Trevor and John Whitfield say the results of the Farm Health Plan have given them added job satisfaction. 'Reducing the number of milk fever cases and lowering our mastitis incidence has helped massively in the day to day management of the herd. There's no fun in having to react to problems while coping with the every day issues.'

'Devising a plan and sticking to it is a far better policy. It means we prioritise on the

key concerns. We're already seeing a benefit in the bulk tank through higher milk yields and improved quality. This will help us re-invest in altering the structure of buildings, passageways and farm tracks,' they add.

Bruce Richards agrees. 'The Farm Health Plan project provided a real opportunity to have a thorough look at all the issues on the farm.'

'As a group, we've been able to measure, monitor and act and it has demonstrated the real value in investing in animal health.'

'Trevor and John were already doing a very good job of monitoring so knew of some areas that needed tackling before the project began. Because of this we knew they would benefit greatly from the initiative.'

He states that a Farm Health Plan is completely different from farm assurance or cross compliance form filling. We've produced a 'working' document that is continually referred to. This is not a 'tick box' exercise.'

Mr Richards admits that the Paragon Group has also improved the way it records farmer discussions.

'Improvements can only be made through monitoring. It's surprising how much is discussed each time a vet visits a farm. We've got better at noting these conversations for future discussions to assess what's worked.'

**Below** Cladding will be replaced with space boarding to improve air flow and ventilation.

**Right** Cubicle head rails will be removed to improve cow comfort when lying down.

**Far Right** Better feeding has led to fewer milk fever cases, improved fertility and produced higher quality milk yields.

SHARING KNOWLEDGE  
- FHP RESULTS...

A large number of advisors and allied suppliers attended an open meeting, held in conjunction with Millcroft Veterinary Group, Cockermouth. This created a lively discussion and most left with a far clearer understanding of Farm Health Plans and the role they can play with farmers to improve health, welfare and productivity.

Paragon Veterinary Group also held two farm open days, which discussed the Plan devised for Woodhouses Farm. It also highlighted the vast benefits of investing in animal disease prevention. Both meetings stimulated proactive discussion and comment and the feedback from those attending was extremely positive.

Additionally, Paragon has also mailed out a summary report based on the findings at Woodhouses Farm to all of its dairy farmers to help motivate other farmers into preparing practical Farm Animal Health plans.

Woodhouses Farm Facts

- Pedigree Garnet herd
- Milking 150 cows calving all year
- 260 acres including maize and wholecrop
- 9,000 litre yield
- TMR fed

Herd Health Planning Results

- Major treatment and replacement cost savings
- Reduced milk fever cases
- Better dry cow management
- Improved SCC
- Lameness being tackled
- BVD under control

£270

The average cost of each milk fever case

£3,200

The return in the first year from effective BVD control

£28/cow

The financial benefit of mastitis control

£190/case

How much lameness can cost a business



'The Farm Health Plan project provided a real opportunity to have a thorough look at all the issues on the farm. As a group, we've been able to measure, monitor and act and it has demonstrated the real value in investing in animal health.' Bruce Richards





Endell Veterinary Group  
Salisbury, Wiltshire



# FARM HEALTH PLANNING *at Compton Farm*

Greater suckler cow outputs at Compton Farm have been achieved through elimination and control of contagious diseases, careful management of stock bulls and a more compact calving period. The improvements are the result of a proactive herd health management plan which is improving margins for Wiltshire producers Bruce and Lucy Waight who are in the second year of organic conversion.

Whilst they have been taking part in a Defra-funded Farm Health Planning initiative over the past 12 months, their dedicated approach to assessing and adjusting their system actually started back in 2000. This was developed with XLVets' Keith Cutler of Salisbury-based Endell Veterinary Group.

The Waight's 9,000 acre, mostly grassland, unit runs around 400 Hereford X suckler breeding dams put to a team of Charolais bulls. The herd is split into groups of about 80 to 90 at a bull to cow ratio of 1:30, depending on bull maturity. All replacement heifers are put to Angus bulls. The farm has housing for the 300 autumn calving cows, while spring calvers are outwintered.

An advantage of the system is its simplicity - the majority of youngstock are sold at weaning (around eight months) thereby allowing breeding female numbers to almost triple over the past eight years. A small number of youngstock are kept on the farm for up to 14 months and sold as stores.

The number of heifers bought as replacements is gradually declining. The aim is to have a totally closed herd within two years.

## Extensive system

Farming 8,000 acres of grass across Salisbury plain has its challenges, admit the Wights. Compton Farm is owned by the Ministry of Defence (MOD) and much of the land is used for military training. Cattle are excluded from areas when active training takes place, which requires forward planning with the MOD.

What's more, the farm sits within an area of international importance. The chalk downland on the plain contains one of the largest remaining areas of calcareous grassland in north-west Europe. Calcareous grasslands contain an exceptional diversity of rare plants and are affected by changes in land

management, particularly grazing. Using their cattle, the Wights work in partnership with the MOD to protect and enhance species rich habitats.

'Both under and over grazing can adversely affect species-richness,' says Mr Waight. 'Ours is an extensive system and cattle are moved across the plain as required'.

'We can't always graze where we would like and sometimes miss out on the better grazing areas. We work around this by extending grazing using miles of temporary electric fences.'

Mr Cutler decided the Wights would benefit from the Farm Health Planning initiative because they keep accurate records and are prepared to look at new ideas.

'The only way to measure responses in changes to herd management is by recording,' he stresses.

## Disease diagnosis

Campylobacter was identified as the biggest problem facing the herd. 'This disease is the largest cause of fertility problems in suckler herds. Hired bulls pose the biggest threat,' explains Mr Cutler.

'The campylobacter organism can cause delayed return to heat, sporadic abortion and very low pregnancy rates'.

'In most cases the source of infection is an infected mature bull bought on to the farm. Younger bulls and breeding females are less

common sources of infection but any animal that has been previously mated is a potential source.'

Mr Cutler says operating a closed herd is a good line of defence. 'There are no authorised vaccines available in the UK so prevention is based on maximising biosecurity. This is particularly important for organic herds, like the Wights. When purchasing animals, buying virgin heifers and young bulls is the preferred policy to prevent campylobacter.'

## Improved fertility

Fertility is crucial for profitable suckler herds and this herd has seen major improvements since farm health planning began, explains Mr Cutler.

'Improved fertility has dramatically improved the calving pattern of the herd. In 2000, typically just 30% of cows calved in the first month and the calving period extended to 12 weeks. Now, almost 70% of cows calve within the first four weeks and all are finished by week 9'.

'This has had considerable benefits in terms of output production costs and ease of management. The herd has fewer calving difficulties and with more calves at a similar age, it makes husbandry management simpler. Calves grow faster and are heavier at weaning which has improved their value. Late born calves are at greater risk of calf health problems. We've been able to reduce calf illness and mortality. The number of calves weaned has risen from 90 to 95% over eight years.'





KEITH CUTLER ENDELL VETERINARY GROUP BRUCE AND LUCY WAIGHT COMPTON FARM

Late born calves are at greater risk of calf health problems. We've been able to reduce calf illness and mortality. The number of calves weaned has risen from 90 to 95% over eight years. **Keith Cutler - Endell Veterinary Group, Wiltshire**

Earlier calving has led to an improved breeding cycle. For a cow to produce a calf every 12 months she must rebreed within 80 days of calving.

'Early calving improves the rate of uterine involution - a period when the womb shrinks and tissue is repaired. The cow's reproductive abilities are put on hold while this occurs so that her body can build up enough energy reserves to allow her to become reproductively active again'.

'This is also the period of highest nutrient demand. We've designed the system so that cows are at a body condition score of 2.5 at calving. At this condition, post-calving they eat more grass and provide the calf with more milk,' adds Mr Cutler.

The Waights also aim for the majority of cows to start the winter period at 3 or above knowing that animals on their extensive system steadily lose condition to reach 2.5 before the next calf is born. Scores are made through regular visual assessments.

Due to the scale of Compton Farm, cattle are often kept long distances from the farm and therefore cattle handling is kept to a minimum.

Keith Cutler stresses that the full impact of herd health planning in suckler herds takes a number of years to show.

'Farm health plans are working documents and are adapted to fit the current situation as assessed in on-going discussions. Working with the Waights, we have made a plan and

then continued to monitor progress and made tweaks along the way'.

'It's about common sense and seeing what works on your farm. But having the right attitude is crucial to the success of farm health planning. Bruce and Lucy have been prepared to try new methods and challenge the norm. They're seeing the value of investing in health planning'.

Bruce Waight adds: 'Working closely with Keith to look at ways of improving animal health has been hugely worthwhile. It's important to be open-minded and invest in preventative treatments'.

'Thankfully the occasions when a vet has to come and 'fix' a problem are now very rare'.

It's common sense and seeing what works on your farm. But having the right attitude is crucial to the success of farm health planning. Working closely with Keith to look at the ways of improving animal health has been hugely worthwhile. **Bruce Waight**

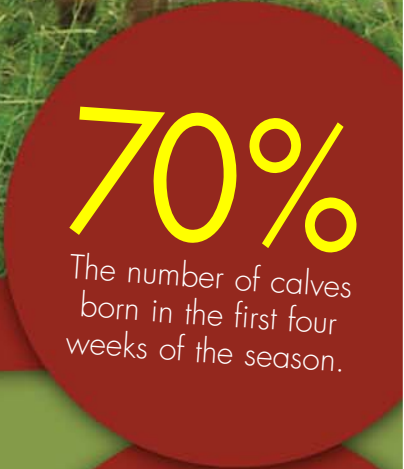


Above Bruce and Lucy Waight - Compton Hill

SHARING KNOWLEDGE - FHP RESULTS...

Keith Cutler stresses that the full impact of herd health planning in suckler herds takes a number of years to show. Farm Health plans are working documents...

Hill House Farm Facts	Farm Health Planning 2000 - 2008
<ul style="list-style-type: none"><li>● 9,000 acre MOD tenanted farm</li><li>● 400 head Hereford X suckler herd</li><li>● Extensive grazing system</li><li>● Selling 8-month old weaned calves</li><li>● Moving towards a closed herd status</li><li>● Currently in organic conversion</li></ul>	<ul style="list-style-type: none"><li>● Major fertility improvements</li><li>● Earlier and easier calving</li><li>● 95% calves now weaned</li><li>● Campylobacter infection eliminated</li><li>● BVD under control</li><li>● Thorough bull health screening</li></ul>







at Newnham Farm

DAIRY

## HEALTH PLANNING PROJECT

Tim O'Sullivan Macpherson O'Sullivan LLP, Shropshire



Prior to participating in the XLVet's dairy health planning project Andy only used to call in his vet, Tim O'Sullivan of Macpherson and O'Sullivan, on an ad hoc basis when veterinary intervention was needed.

Through working more closely with his vet, Shropshire dairy farmer Andy Dale has already saved far more than his annual vet bill, and is on track to make further savings through better herd health and performance. Improvements achieved include better fertility and a shorter calving interval, less mastitis and better heifer management and nutrition. The project kicked off with a planning meeting where it was agreed that Tim would make routine monthly visits to Newnham Farm. It was also decided to bring in some external consultants to advise on nutrition and how the milking routine could be altered to reduce mastitis incidence, both of which were key areas to assess.

### IMPROVING HEIFER HEALTH

In the meantime, Tim set about investigating the causes behind the poor performance of the heifer cohort that was calving down at the beginning of the project (July 2007).

Tim explains: 'Blood sampling some of the heifers revealed deficiencies in both iodine and vitamin E and selenium. In the short term the affected group was treated with a selenium/Vitamin E injection, and supplemented with iodine in the water. Then a new regime was put in place to prevent a recurrence by providing minerals to the in-calf heifers during the last couple of months prior to their joining the dry cow group.'

'The heifers were also wormed - they had not been dosed since the previous housing period. Metritis was also identified in many of these animals, probably due in part to their mineral status, and this was treated with antibiotics and hormones.'

'Improvements of up to two body condition scores were seen in these same animals just a couple of months later, and their average daily milk yield increased across the summer whereas their older cohorts actually dropped yield when bad weather affected forage availability.'

However, a mineral shortfall was just part of the picture. Andy explains: 'In the spring of

2007, before we started the project, 80% of the DAs on the farm were in heifers. They were struggling to adjust to their situation after calving.'

With advice from nutritionist Richard Vecqueray of Evidence-based Veterinary Consultancy, changes were made to heifer management and nutrition. To reduce the stress for heifers after calving, they were to be run with the dry cows prior to calving to give them time to get used to the new social group.

The dry period was shortened to 5-6 weeks and a single dry cow ration was fed. This ensured adequate mineral uptake by the heifers as well as reducing stress.

Andy adds: 'Heifers are brought in to join the dry cow group when they are four weeks from calving, or sooner if there is space. They are now coming into lactation much better and holding their own.'

### IMPROVED HERD NUTRITION

The monthly planning visits were also used to monitor the performance of the diet over the late dry and early lactation phases. Body condition score was monitored. Also blood samples were taken from 6-12 cattle each month and analysed for evidence of raised BHB or Nefa values, key indicators of excessive fat breakdown. The re-formulated dry cow ration has also reduced the number of

milk fever cases to a third of previous level in the Newdale herd. 'This has been a major improvement both economically and also in terms of labour which has generated very positive feedback from the herdsmen,' adds Tim.

Other changes have been made to herd nutrition management. Andy explains: 'We used to have energy problems in the summer with the high yielders, as we sometimes ran short of grass. But now we are pre-empting this situation and buffer feeding with a mix of maize and grass silages, a blend, Megalac and minerals.'

'Taking the pressure off the grass has also allowed us to manage it better. We are now also back fencing the strip-grazing.'

'Taking into account the costs of treating an LDA - the lost milk, vet bill, delayed conception, and the average costs incurred in a milk fever case, then I reckon at least £3000 has already been saved, apart from the knock-on fertility effects.'

Andy comments: 'Cow dung is still looser than we would like - which impacts on incidence of environmental mastitis. So we are still using nutritional advice to make adjustments to feed rations and get a better consistency of muck, and also to test for sub-acute ruminal acidosis.'





‘Herd fertility has improved substantially over the length of the project,’ says Andy. ‘From a calving to first service average of about 70 days we are now down to about 55 days. The calving interval at the end of the project was 404 days from a starting point of 418.’

IMPROVED FERTILITY

‘Herd fertility has improved substantially over the length of the project,’ says Andy. ‘From a calving to first service average of about 70 days we are now down to about 55 days. The calving interval at the end of the project was 404 days from a starting point of 418.’

A number of measures were taken to improve the calving index: the introduction of teaser bulls, a sweeper bull, and regular fertility visits by Tim.

Tim explains: ‘Fertility visits were made every three weeks: cows were PDed at 35 days post-service, and cows just calved were also examined to check for discharge. What has made a big impact on reducing the calving index is that instead of letting cows slip to 85-90 days without bulling before taking any action, Andy is now ensuring that these are examined at 60 days post-calving.’

‘When a cow fails to come on heat after calving, veterinary investigation can identify whether it’s simply due to a womb infection which antibiotics can clear up, or cows showing quiet heats can be synchronised with Estrumate or PRIDS to kick-start heats. Where cystic ovaries are diagnosed as the problem then receptol or PRIDs can be used.’

Two of Andy’s Angus cross beef calves were vasectomised and are being run with the high yielding cows to help aid heat detection. This should increase the number of cows receiving AI rather than natural service. A Belgian Blue sweeper bull is used for low yielders.

Tim explains: ‘Every extra day in the calving interval is costing Andy around £3/cow. So having reduced this over the period of the project by 14 days, amounts to a saving of £12,600. However, this does not tell the whole story. The predicted calving interval of all cows calved since the project began is 376 days. That’s a predicted saving of £37,800 per year. The challenge is to maintain this, as well as increasing productivity.’

CUTTING MASTITIS CASES

The parlour at Newnham Farm is a 28 internal rotary. An inspection of the parlour and milking

routine was carried out by Ian Ohnstad of The Dairy Group. Static and dynamic tests showed the pulsation ratios needed changing and rubberware needed replacing. So Andy arranged for a parlour service the next week.

Following the inspection, it was recommended that two people not one, were present at milking. This would ensure adequate teat preparation and that every cow received post-milking teat disinfection. Andy started to advertise for another person but unfortunately, reflecting the national situation, this did not prove easy and it was only in March 2008 that an additional member of staff was recruited.

Taking the 8 month period from May 2006 to February 2007, the herd suffered 150 cases of mastitis, 1310 mastitis tubes were used, and there was a 28% recurrence rate of mastitis. At an average cost of £150/case, mastitis was costing £22,500. This level of mastitis was much higher than we would hope to tolerate and gave scope for improvement. An ideal target is 35 cases per 100 cows per year.

Milk sampling of both high cell count and clinical cases of mastitis revealed a mixed picture. Environmental pathogens - E.coli and Strep.uberis as well as contagious pathogen Staph. aureus were present indicating there would be no single solution to the high number of mastitis cases.

In a bid to reduce the recurrence rate, a tougher approach was taken on mastitis infections: the milking cow antibiotic was changed and additional antibiotic injections were to be given at the same time. This brought the recurrence rate down to 10%.

To combat the contagious bacterial pathogens, liners are now disinfected in-between cows to stop cross-contamination.

To reduce challenges from environmental mastitis pathogens, cows are now bedded down every day with sawdust and lime, instead of only on alternate days.

Tim says: ‘One year on, the May to February mastitis treatment figures are very different: 104 cases of mastitis and only 882 tubes

used. That’s a saving of £6,900 on the same period in the previous year. Now the new member of staff is in place, these figures should improve further and we will monitor them every 3-6 months to track any problems.’

FUTURE PLANS

Despite the huge savings already achieved, Andy wants to do more, he says: ‘There wasn’t time to fully tackle lameness as a problem, and this is something I want to get on top of. Digital dermatitis, especially during housing, is the culprit here and we have started to footbath cows every three weeks. We have been using a portable footbath and testing to see where the best place to site it is, so that it does not interfere with cow flow leaving the parlour. I’d like to get a permanent one concreted down, eventually. A lameness scoring system is also needed.’

‘In the parlour, an ADF - automatic dipping and flushing- cluster has just been installed, which may mean staffing could go back down to just one person for milking. Another change is a diverter for the parlour washings every milking, for use in daily foot-bathing.’

Andy adds: ‘We also need to increase the loafing space for newly calved cows so that they are more comfortable, and increase feed trough access and improve cow flow.’

‘We have concentrated on the important things which drive profit - fertility being a specific priority. Health planning has been very beneficial. It’s also made me pay attention to the detail and that’s where the profit can be made.’

Tim is now making fortnightly visits to Newnham Farm as a matter of routine. After all, the savings made through better herd health during the 12-month project are far greater than the cost of the annual vet bill.



SHARING KNOWLEDGE  
- FHP RESULTS...

Farm walks and talks were held over the duration of the project. In October 2007 a meeting was held for stakeholders e.g. representatives from drug companies, banks, breeding and feed companies, so that they could understand more about the key issues on the farm. This was followed by two farmer meetings, in December and April.

Tim adds: ‘There was a lot of farmer interest in using vasectomised bulls as teasers. And the farm visits were an opportunity to show the savings that are achievable when paying more attention to the detail.’

Via the farm meetings, and also through the Practice’s monthly newsletter, over 300 farmers and interested parties followed the project.

Newnham Farm Facts

- Pedigree Holstein dairy herd
- 300 milking cows, 180 followers
- Average yield 8,500litres
- 260 acres of grassland, 80 acres of maize, and 100 acres of wheat

Herd Health Planning Benefits

- Less mastitis and lower treatment costs
- Shorter calving index
- Less LDA's
- Less milk fever

Savings in Mastitis of  
**£6,900**

Potential savings of  
**£37,800**  
through improved fertility



Andy Dale Dairy Farmer, Newnham Farm

‘We have concentrated on the important things which drive profit - fertility being a specific priority. Health planning has been very beneficial. It’s also made me pay attention to the detail and that’s where the profit can be made.’



# SIGN UP to *feeding+*

Save up to 2ppl through more efficient feeding and nutrition. DairyCo's new *feeding+* campaign, designed and written by four highly respected nutrition specialists for DairyCo, will be unveiled at this year's Dairy Event in September.

*feeding+* will be delivered via a range of tools such as farm walks, a folder, workshops and group work.

The programme is split into various modules and farmers can either take part in all of it or join in the module they feel will benefit them best. Modules will appeal to a wide range of abilities and will enable farmers to take home information spanning from simple tips to complex solutions. All of which could have a positive effect on the profitability of the business.

*feeding+* builds on research undertaken by DairyCo's economics team (Datum) and covers all aspects of feeding and nutrition. The team analysed every cost that goes into producing a litre of milk for UK dairy farmers.

This work highlighted that the area where the greatest savings can be made to the dairy business is in feed efficiency. It showed a marked difference in feeding costs between the most and least efficient producers and highlighted that many dairy farmers could make significant savings.

Adam Clay, DairyCo extension officer and feeding specialist says: 'With *feeding+* DairyCo wants to engage with as many dairy farmers as possible with the aim of helping them achieve a real and significant improvement in their feed efficiency by the end of the campaign.'

*feeding+* will be launched with a series of 11 regional meetings where farmers will be given an overview from feed specialists and vets of what they can learn when they join the campaign. Each meeting will feature two key note speakers. They are a chance to demonstrate the benefits of the programme and to show how the vet, farmer and nutritionist can work together to increase feed efficiency.

## DATES AND LOCATIONS ARE AS FOLLOWS:

Sept	23	<i>feeding+</i> Lanarkshire	Sept
Sept	25	<i>feeding+</i> Cumbria	24
Sept	25	<i>feeding+</i> Lancashire	Sept
October	08	<i>feeding+</i> Yorkshire	02
October	08	<i>feeding+</i> Staffordshire	October
October	15	<i>feeding+</i> Truro	14
October	15	<i>feeding+</i> Bristol	October
October	28	<i>feeding+</i> Hampshire	22
October	28	<i>feeding+</i> Gloucestershire	October
October	30	<i>feeding+</i> North Wales Cheshire	29
October	30	<i>feeding+</i> South Wales	October

Farmers can sign up for *feeding+* by contacting Alix Bridges on 01285 646540, contacting their local extension officers or coming to visit DairyCo at the Dairy Event and Livestock Show, 17 September - 18 September 2008, at Stoneleigh.

There will plenty of other information and things to see at the Dairy Event. Access to the new Dairy Wizard will be available on a suite of computers with staff on hand to help you.

We will have a library on the stand so you can order all our latest publications, while you relax with a coffee from the café area. There will be information about future research and development projects as well as information relating to our breeding+ programme.

### MODULE 1:

#### Understanding nutrition and ration formulation

This module looks at poor rumen function. Feed intake and utilisation are key to achieving a consistently balanced diet and this practical meeting will give you a better understanding of rumen function and the ability to do a quick 'ration check' to make new feeds balance correctly.

### MODULE 2:

#### Practical feed management and feeding systems

Feeding systems can have a significant effect on feed conversion efficiency - moving from 1.2l/kg DM to 1.3l/kg DM can increase a cow's yield of 8000 litres by 8.5%. From this module, you will take away invaluable information about how to maximise yield through feed.

### MODULE 3:

#### Grazing and grassland management

Grass is still the cheapest feed available - this meeting will take you through the management practices to maximize milk from grass and help avoid the common problems associated with grazing cows.

### MODULE 4:

#### Making use of quality forages and alternative crops

Here, we will look at the potential of cheaper feeds while meeting nutritional requirements. It will show how by out wintering dry cows or heifers on alternative forages or root crops, for example, can reduce rearing costs.

### MODULE 5:

#### Dry cow management

Every day of an increasing calving index over your targeted index can cost £2.30/head/day or 2.35p/litre over a 100 cow herd. In this area of the business, *feeding+* will show how effective feeding and nutrition can minimise the impact of the transition period on early lactation and performance.

### MODULE 6:

#### Heifer rearing and youngstock management

You can make sure you are taking advantage of the highest feed conversion efficiency of a cow's life by taking this module. Reducing age at first calving to 24 months can improve conception to 1st service by 6.1%.



# Guide to... Calf Rearing Systems

Have you reviewed your calf rearing system in the last couple of years?

Neil Laing Clyde Veterinary Group, Lanark

Farmers have an array of calf rearing systems to choose from - individual pens or hutches fed by buckets, or groups fed by machines, according to XL Vets' Neil Laing of the Clyde Veterinary Group. 'It's a case of selecting the system which fits your own bespoke action plan for your farm.'

Mr Laing offers the following Guide to calf rearing systems.

## 1. Individual pens or hutches: for example, buckets, buckets with teats

### The pros

- Calves get individual attention and feeding.
- Feeding can be controlled very precisely with measured amounts given in one or more daily feeds. Problems are evident if milk feeds are not taken.
- Exposure to infections, particularly those causing scours, are vastly reduced as mixing is minimal.

### The cons

- Individual pens are very labour intensive and require a large area for relatively small numbers of calves.
- Socialisation of calves is limited; contact is normally over a gate or solid partition.
- Calf exercise is also limited.
- Feed is often restricted which could limit growth rates.

## 2. Group rearing: for example, Milkbar, ad-lib systems

### The pros

- Far less labour intensive and more calves can be kept on the same floor space.
- Calves can either be fed in troughs at defined intervals, often following on from individual pens, or from a machine where feeding is on an ad-lib basis rather than at set times, thereby more likely representing the calf's natural feeding pattern.
- Calves can socialise more easily and exercise more freely.

### The cons

- Infection spread is easier in larger groups, particularly scours and pneumonias.
- Unless transponder collars are used, it can be harder to check individual calves are taking the correct amount of milk or have stopped drinking which may indicate an infection.
- If calves do become ill, they should be separated during any treatment which then requires individual penning.
- The feeding machine needs to be kept clean to limit spread of infection between calves, and ensure the tubes don't get blocked.

- Ad-lib systems pose difficulties in controlling amounts of milk taken by calves because they feed as often as they like. This can lead to nutritional scours when calves take too much milk and make weaning harder as it can be difficult to reduce intake of milk and encourage concentrate feeding.

## 3. Group Rearing (programmed feeding): for example, computerised feeders

### The pros

- Far less labour intensive and more calves can be kept on the same floor space.
- Calves can socialise more easily and exercise more freely.
- Calf collars or covers over tags with microchips identify calves individually and control feeding levels precisely. The systems prevent overfeeding - the machine stops delivering milk to calves that have already had their programmed daily ration of milk.
- Computerised feeding systems identify calves that don't take in their daily amount and alert the stockman to investigate that particular calf.
- Computerised feeding systems can deliver all the benefits of machine feeding with some of the individual management benefits of an individual rearing system.

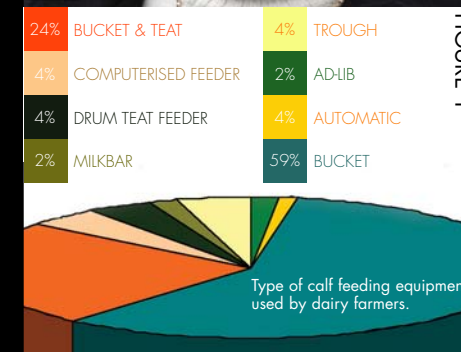
### The cons

- Infection spread is easier in larger groups, particularly scours and pneumonias.
- The feeding machine needs to be kept very clean to limit spread of infection between calves, and ensure the tubes don't get blocked.

**Mr Laing adds:** 'There are two basic ways of delivering milk to a calf either through a teat or straight from a bucket, which requires training the calf to properly suckle milk. There are benefits of teaching a calf to suck milk as it will stimulate the oesophageal groove reflex in the stomach ensuring the milk passes straight into the abomasum, or true stomach. If calves do not suckle milk, it can enter the rumen where it is not properly digested and you'll find yourself with so called 'rumenal drinkers' which fail to thrive until weaned.'

**If you are interested in reviewing your systems, please speak with your XL Vet.**

## Guide to Calf Rearing Systems



'It's essential to regularly review your calf rearing system, ideally every year, simply because great investments have been made in cattle genetics during the last decade, and yet calf feeding and management practices have remained largely unchanged, which may in turn be preventing animals from achieving their true genetic potential,' says Volac International's calf milk replacer and feeding equipment specialist Maggie Gould.

The continuing use of traditional feeding systems was reflected in a survey of 297 dairy producers carried out by Volac International earlier this year.

**See figure 1 (Above): Type of calf feeding equipment used by dairy farmers.**

'We were surprised to find that over 80% of farmers continue to use bucket systems,' says Mrs Gould. 'Whilst traditional calf rearing systems can be cost-effective, the practice of feeding once or twice a day, and limiting calf milk replacer intake to weaning, results in restricted early growth and requires calves to catch up later,' she says. 'This practice has a low cost per kilo daily liveweight gain to weaning, however it also leads to low liveweight gains in the first few months and may not be the most cost effective solution overall'.

She adds: 'This is particularly important if rearing a high genetic merit calf, which must be viewed from the moment it is born as the high performing cow of the future. Build a feeding system and management plan to maximise its performance potential.'