**IBR (Infectious Bovine Rhinotracheitis)**

This is caused by a herpes virus – similar to the virus that causes chicken pox. There is no crossover of the virus but in the same way that previous sufferers of chicken pox can have shingles normally at a time of stress – IBR virus can be ‘carried’ by a cow and come back at stressful times, like calving, causing further spread of disease.

**SYMPTOMS**

The Symptoms are generally respiratory signs from mild → severe → death. Can occur at any age.

- Slight conjunctivitis
- High temp
- Cough
- Reddening of nose lining
- Discharge from nose & eyes
- Difficulty breathing
- Death

**CONTROL**

Best way is to Vaccinate
**LEPTOSPIROSIS**
Lepto is caused by a bacterium spread via contaminated urine from cows, sheep and watercourses and is present in 50 – 60 % herds in Uk. Once a cow comes across the disease it causes two main syndromes before she fights it off.

Some cows become symptomless carriers – the bacteria live in the kidneys and can be shed intermittently in urine for prolonged periods.

Lepto is a zoonotic disease – i.e. it can be spread to humans, causing severe flu symptoms.

Farmers are obliged to safeguard the health of employees so it a legal obligation to act against lepto.

**Syndromes Cause**

1) **Flabby Bag**
This can occur immediately following infection. The cow has a short-lived high temperature with a sudden drop in yield. The bag looks empty; the milk turns to a thick secretion. The problem resolves. The initial infection can be subclinical - not noticeable, and symptoms can range from hardly noticeable to a practically dying cow.

2) **Abortion**
This is a sequel to the acute infection, normally 6-12 w later.

3) **Fertility**
As with any acute high temperature, early pregnancies can be resorbed, cows are less likely to get in calf.

**What to do**
Firstly establish if the disease is present or not. If not – biosecurity measures need to be put in place to prevent the disease arriving.

If present, vaccination is the best policy, best completed before turnout – the period of greatest risk.
**BVD (Bovine Viral Diarrhoea)**

BVD is a viral disease that causes diarrhoea in cattle — as the name suggests!

However, it causes other problems leading to lower productivity and increased costs. Costs have been calculated as being £55.00/cow/year on beef herds.

BVD is a widespread problem with >90% of herds in the UK been exposed to the virus. As mentioned BVD causes several other symptoms depending on the age and stage of the animal. Adult non-pregnant cattle suffer with transient, mild, mainly unnoticed diarrhoea for a few days. Their immune system react and they become immune to the disease with in a few weeks. During this period the virus weakens the immune system and the animals are more susceptible to any other bugs going – leading to pneumonia, scours, mastitis.

Adult pregnant animals are similarly affected but the virus also affects the pregnancy

- Early on in the pregnancy it can cause:
  - Early embryonic death *
  - Mummification *
  - Abortion *
  - Birth defects
  - Birth of a persistently infected calf (PI)

- Late in pregnancy it can cause:
  - Abortion
  - Premature calving

* These are not always obvious – HIDDEN COST.

**PI Calves**

These calves are born with no immunity to BVD — the immune system was so immature when the calf was infected in utero that it did not recognise the virus as foreign and never mounts to a response. Consequently the PI calves are perfect breeding grounds for BVD and they shed millions of viruses consistently. Normally those calves are very ill thirfty and die at 6 – 18 months. In the meantime they will shed high levels of virus among their cohorts leading to immunosuppression and increased disease incidence - longer finishing time, more feed etc.

BVD is another “non-osrich” disease, and health screening is recommended.

If BVD is found to be in your farm there are 3 main choices:

1. Eradicate
2. Vaccinate
3. Hunt down PI calves, then Vaccinate
Eradication can be achieved by blood sampling all bovine stock, removing any PI animals and then maintaining a high level of biosecurity to keep the disease out. This does not suit all (many) farming systems and means that you have a vulnerable herd for any biosecurity slip ups.

Vaccination will protect your herd. However, the presence of a PI will decrease the effectiveness of the vaccination due to the huge number of viruses shed by the PI. (Total protection by vaccination may take several years while the PI animals die out). This is why option 3 is the gold standard and involves the eradication of PI followed by vaccination. However there is room for any of the 3 options and the decision is farm specific.

All three options incur costs – these are offset by the reduction in losses caused by BVD.
JOHNES DISEASE

Johnes disease is caused by a bacterium from the same family as Tuberculosis, and it shares the same difficulty of diagnosis.

Despite this difficulty, we strongly recommend avoiding the “ostrich technique” - Johnes can be a costly disease and knowledge of your herd’s health status is vital.

The classic recognisable symptoms of Johnes Disease are bubbly scour from a thin, mid–old age cow and this leads to the most obvious cost – the loss of the cow.

A hidden cost is that cow’s loss of production – generally a poor performance during the lactation prior to the obvious clinical signs. Either a disappointing yield in a dairy cow or a poor calf in a beef animal. Also these Johnes cows are more likely to have had mastitis, lameness and production diseases.

Consequently, many Johnes cows are culled due to poor performance before they show the classic signs – so that you don’t realise that you have the disease on your farm.

Johnes disease is caught in the first year of life – probably in the first few hours of life when the gut is permeable to large proteins in colostrum – and probably the Johnes mycobacterium.

The risk of catching the disease decreases rapidly over time.

RISK

<table>
<thead>
<tr>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIRTH</td>
</tr>
</tbody>
</table>

It is not thought to spread cow – cow or cow-adolescent. The spread is primarily from faeces by mouth – so suckling contaminated udders, dirty calving areas etc will aid spread.

The disease can also be spread through milk – so pooling colostrum for calves can spread the disease very efficiently.

If you know your status you can put measures in place easily to reduce spread.

Sampling 30 poor performers will tell you if you have the disease or not.

If you find the disease in cows, you need to sample all animals > 2 years, male & females.
Unfortunately, cows do not go positive on a test until they are up to 18m prior to showing symptoms – so repeated testing is needed, annually on bloods in beef cattle, 3-4 monthly on milk in dairy cattle.

**HUSKVC**
Don’t forget to Husk vac your first grazing season animals.

Lungworms along with liver fluke and gut worms have had a good few seasons - the weather has suited them.

**WORM CONTROL**

The wet and washed-out weather over the past six months has seen as increase in the ever-present threat posed by worms in both cattle and sheep. Relentless rain and the absence of persistent freezing temperatures have seen more worms surviving both on the pasture and within the animals. As a result, the upcoming months represent a real challenge and will undoubtedly require effective detection and treatment protocols if we are to maintain healthy and productive stock in to the summer months.
INTRODUCTION

Throughout most of the year, adult animals generally exhibit good resistance to parasitism by worms. At lambing and calving however, the stresses of pregnancy compromise the strength of the immune system, allowing opportunity for worms to cause disease and even death.

The majority of worms in cattle and sheep follow a straightforward lifecycle. Infective larvae on pasture are eaten and develop into egg-laying adults. These eggs are passed out of infected animals in faeces, the eggs develop into larvae and the whole process is repeated. Two notable exceptions to this rule are the Liver Fluke and the Lungworm. As their names suggest, these parasites target the liver and lungs, causing a whole spectrum of problems ranging from poor growth and unthriftiness through to sudden death. As they rely on water snails to complete their life cycle, the persistent wet weather has increased the threat posed by liver fluke. Increased losses have already been felt both on the farm and at the abattoir, with further losses set to hit if action is not taken swiftly.

LIVERFLUKE

Late winter/early spring historically sees a peak in the number of animals suffering from disease caused by liver fluke. Poor growth, persistent scouring and general ill thrift are all seen as a result of damage to the liver, sustained over preceding months. As mentioned, recent weather conditions have aided the survival of large numbers of fluke overwinter. This means an increased risk of both acute losses (due to ingestion of large numbers of larvae in the current grazing season) and of chronic disease (from high burdens of adult worms) in the upcoming months.

As late winter/early Spring represents the highest risk period for fluke-related disease in both sheep and cattle, identification of thin, poor–doing individuals (particularly spring calvers) and those showing clinical signs of fluke e.g. sub-mandibular oedema (bottle jaw) is vital to ensure accurate targeting of treatment. Housed cattle and ewes at pasture can be sampled (faecal egg counts or blood sampling) to establish the need for treatment and those overwintered at pasture should be treated regardless. Reports from the abattoir are another useful aid in determining the level of fluke infection on farm and therefore guiding cost effective treatment, as is bulk milk sampling in dairy herds.

Where possible, animals should be moved to low risk grazing or housed following treatment, in order to minimise the risk of re-infection and subsequent re-treatment. Treating at-risk stock now will benefit you threefold; by preventing the progression of chronic disease, reducing contamination of pasture for the
coming months and killing any fluke already ingested this season (particularly high risk this year). It is important to note that re-treatment of ewes at a 5-6 wk interval is recommended this year, owing to the high levels of pasture contamination.

**NEMATODES**

The reduced strength of the immune system around lambing means most ewes develop high worm burdens at this time of year, with those carrying twins or triplets exhibiting the highest burdens. This in turn increase pasture contamination and thus puts lambs at greater risk when they start grazing later in the year. Ewes should therefore be wormed before being turned out, however the growing problem of resistance to wormers demands not all animals be dosed. Ewes turned out to clean pasture should only require a single dose with a short acting wormer, whereas those turned out to contaminated pasture will require a longer acting product to prevent re-infection. Treating those in poorer condition and those carrying more than one lamb whilst leaving the healthiest looking 10%, ensures both pasture contamination and development of resistance is kept to a minimum. Rotating the type of wormer used and accurate dosing for the heaviest individual are two more practices vital to a successful worming protocol. If the wet weather continues into early summer, we can expect disease levels to peak around late summer to autumn time.

At this time of year in addition to liver fluke, cattle are at risk of disease from overwintered (in the gut wall) nematodes and occasionally untreated lungworm infections. The wet previous grazing season should see a reduction in the risk posed by the first of these threats as should a comprehensive vaccination protocol for lungworm e.g. Huskvac. For dairy and suckled calves, vaccination should be completed at least two weeks before turn out and weaning respectively. For those already infected individuals exhibiting signs of respiratory disease e.g. cough labored breathing, rapid detection and treatment is required. It is also important to note that sustained release wormers e.g. boluses, should not be given until at least two weeks have passed since completing vaccination.

**COCCIDIA**

Coccidia cause scouring in young cattle typically affecting those between three weeks and six months of age. Particularly high burdens, however, may cause clinical disease in animals up to two years of age. As Coccidia require warm wet conditions for development and transmission, Spring represents a high risk period. Eggs passed in the scouring produced by coccidia are transmitted by rain and standing water when animals feed in infected areas. Overcrowding, poor hygiene and wet conditions all contribute its spread. As wormers have no effect on Coccidia, good environmental management and hygiene is imperative to minimising the risks posed by this parasite.
In addition to supplying you with the appropriate products to tackle these problems, at Park Vets we can also offer our expertise in formulating a farm-specific protocol aimed at reducing losses caused by worms now and for the foreseeable future.

Don’t forget we perform faecal egg counts for gut worms at the practice with a rapid turn around of results.

This year due to the long wet warm autumn, we are recommending a first FEC of lambs about six weeks after spring turnout.
Schmallenburg Virus (SBV) was first identified in November 2011. It was named after the German town where the virus was first identified. In early 2012, the first cases were suspected in the south and east of England. Since then, testing in our area of South Wales has confirmed its presence here.

Currently we know that the virus can infect and cause disease in sheep, cattle and goats. We would also recommend that keepers of exotic or wild ruminants, such as the camelid (alpacas, llamas) and deer are vigilant.

It is thought biting insects such as midges spreads SBV. It is likely initial introduction of the virus to the UK resulted from wind-blown insects originating in Europe. If biting insect vectors are the major route of transmission, significant spread is believed less likely during the winter period when biting insects are usually much less active.

Two clinical presentations have been observed due to Schmallenberg virus infection. In adult cows the acute infection resulted in diarrhea, fever, a reduction in milk yield, with a full and rapid recovery over several day. The second presentation of the disease is associated with abnormalities in animals born alive or dead at term or aborted following infection of the dam, affecting mainly sheep but also cattle and goats. Malformations observed include bent limbs and fixed joints (arthrogryposis), twisted neck or spine, a domed appearance to the skull, short lower jaw and brain deformities and marked damage to the spinal cord. Some animals are born with a normal outer appearance but have nervous signs also known as ‘dummy’ presentation including blindness, incoordination, inability to stand or suck and sometimes convulsions. The foetal deformities vary depending on when infection occurred during pregnancy.

Evidence has suggested that many infected animals do not show signs of disease. Typically the impact on herds is low but some individuals have suffered more significant losses. Based on behavior of similar viruses where animals develop a strong immune response after infection, which prevents further problems at subsequent pregnancies. It is hoped that SBV will behave in the same way.

Unfortunately there is no treatment or vaccine currently available for this disease. As this is a new disease further work is needed to determine what control measures may be appropriate. Malformations affecting lambs and calves exposed to the virus in pregnancy may lead to birthing
difficulties. Excessive force must not be used during the birthing process as this may risk injury to both the dam and offspring. Please contact Park in those cases, which cannot be delivered naturally.

It is important that strict hygiene measures are carried out during assisted lambing’s and calving’s. AHVLA Regional Laboratories have reported severe abnormalities in some live born lambs and calves. They are visibly distressed and unlikely to survive or thrive long term. You should consider as soon as possible, if any offspring deformities are likely to result in any immediate or long-term welfare problems during rearing. Euthanasia may be required in severely affected lambs and calves and additional support and care may be required during the rearing period for less severely affected newborns. You should also consider whether any abnormalities would affect the animals’ intended future use and fitness for transport in the long term.

It is possible that delaying the breeding, so that midge season does not overlap with early pregnancy, may reduce losses.

Since SBV is not a notifiable disease there are no movement restrictions. Control of midges is unlikely to be effective given that they are very widespread, and appear to be very effective at spreading SBV.

If you encounter problems similar to those described above please contact us at Park Vets to discuss testing and management.

Morgan Richards BVSc MRCVS

We have seen affected lambs and recently calf’s in our area.

Our best advice is to call us sooner than maybe you would normally for a difficult lambing’s/calving’s.

We will keep you posted on the availability of a vaccine.

**LEPTO-AVOID**

**Bovine Leptospirosis can affect cell counts, milk yield and fertility.**

Infection can cause abortions

The reproductive performance and hence productivity of the herd can be significantly reduced if infected with Leptospirosis.

It also has zoonotic potential i.e. can sometimes cause severe disease in people. Leptospirosis is an important public health threat. Under the Health and Safety at Work Act 1974, it is the owners responsibility to safeguard the health, safety and welfare of his/her employees and others.

A strong occupational link has been identified for many Leptospirosis sufferers. The disease can affect family members, employees, consultants or visitors coming into contact with infected cattle.
Once present, infection can persist in a herd unless action is taken, maintained by symptomless carrier cows. These then spread infection via their urine. Herds not infected with Leptospirosis are particularly vulnerable to the effects of disease should be introduced.

The most common ways that Leptospirosis is introduced into a herd is with symptomless, purchase carrier animals (usually cattle but sheep can also carry this pathogen) or via open water courses used by a mixture of animals (if an infected animal has urinated up-stream) leptospirosis can be treated with antibiotics, (Penicillin) but a much more effective means of control is vaccination of the herd.

**Ideally the course should be completed in the Spring before the main transmission season at turnout. Previously vaccinated cattle need a single annual booster dose of vaccine which is also given in the Spring.**

**HYPOMAG**

Watch out for staggers at turnout – when it eventually happens! Mag levels likely to be very low so definitely supplement – even consider Belvising adults before turnout.