Focus on pneumonia vaccines
Investigating neospora
FREE TB advice with TBAS
Events and courses
News

26th Annual Dairy Event 2019
We are looking forward to attending this year’s Kivells’ Dairy Event which is taking place during the day this year on **Wednesday 13 November**. In a slightly different format to previous years, the sale of dairy cattle and class judging will take place in the morning with an afternoon programme of speakers and seminars in the Market Café. We will be offering refreshments in our market hut throughout the day and will be one of the keynote speakers.

Brookes of Beckaveans
Penbode Farm Vets were proud to be asked to support Russell Bridger and Ada Brookes of Beckaveans Farm near Jackobstow. The Beckavean herd won the Annual Truro South Devon Cattle Club Herd Competition and to celebrate welcomed scores of people to their farm for a farm walk. **Tomás James** from the Stratton branch joined them to hand out much needed refreshments!

Royal Cornwall Events Centre, Wadebridge
**Saturday 16 November**
Once again we are delighted to be sponsoring the Young Handlers’ classes at this year’s Cornish Winter Fair. Although we won’t have a stand there, Stratton vet **Lizzie Milbank** will be attending to hand out the prizes and goody bags.
We are entering the season for calf pneumonia problems. Calves with pneumonia struggle to breath due to inflammation of their airways and lungs; in severe cases it can be fatal. The biggest cost associated with calf pneumonia is the long term loss of future performance. For dairy, that includes delaying the age of first service, future lactation yields and longevity. For beef animals the reduced growth rates cause a delay in finishing and ultimately a poor quality carcase.

Symptoms
- Coughing
- Nasal discharge
- ↑ respiratory effort & rate
- Depressed appearance
- ↓ appetite
- Pyrexia >39.5°C
- Death

Treatment
- Appropriate antibiotic
- Anti-inflammatory
- improves recovery

Vaccination
- Selection depends on likely cause of the problem and when problems occur
- Not a substitution for good management

There are numerous infectious causes which is why it’s often referred to as Bovine Respiratory Disease (BRD) complex.
- Most outbreaks start with a virus.
- Viruses often cause the initial insult and make the calf feel like they have flu. They can also weaken the calf’s immunity leaving them susceptible to other problems.
- Bacteria often act as secondary invaders and cause a full blown pneumonia leading to extensive damage that is often unrepairable.

<table>
<thead>
<tr>
<th>Key Infectious Causes</th>
<th>Viral</th>
<th>Bacterial</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSV</td>
<td>Mycoplasma bovis</td>
<td></td>
</tr>
<tr>
<td>PI3</td>
<td>Histophilus somni</td>
<td></td>
</tr>
<tr>
<td>IBR</td>
<td>Pasteurella multocida</td>
<td></td>
</tr>
<tr>
<td>BVD</td>
<td>Mannheimia haemolytica</td>
<td></td>
</tr>
</tbody>
</table>

(cont'd)
Calf pneumonia vaccination. (cont’d)

Key points

- Pneumonia is a ‘perfect storm’ of bacteria / viruses, immunity and the environment.
- Healthy in-contact animals can also be affected: for every animal showing symptoms it is likely that double will have diseased lungs.
- Treatment costs of affected calves are just the tip of the iceberg. Loss of future productivity is the greatest cost by far.
- Prevention is better than cure: lung damage will affect productivity for life.
- Early treatment has the best chance of success
- The solution is not which antibiotic you buy but involving us to investigate the bigger picture to prevent problems reoccurring.

On farm investigation

1. Colostrum management – essential step if pneumonia problems in calves <1mo
   - Assess passive transfer of immunity by blood testing calves <7d old

2. Infectious agents – BRD is caused by a variety of infectious agents
   - Screen older calves for antibodies to see what they have been exposed to
   - Post mortem animals that have died acutely or put down an animal who is very sick

3. Housing
   - Too much moisture - favours bacterial/viral growth and hence disease
   - Lack of fresh air - increases survival time of airborne bugs
   - Excessive air speed (draughts) – particularly at calf level – causes energy losses, reduced growth rates and increased disease risk.
NEW OFFERS FOR THIS SEASON
Penbode Pneumonia Investigation Packages

We are now offering calf post mortems for just £35 including a FREE visit.

PMs are an essential tool in establishing an accurate diagnosis of pneumonia. We can also take vital tissue samples which can be tested for the top 8 respiratory pathogens for an extra £100, including P&P. Acutely affected calves will yield superior results than testing calves that have been chronically sick calves.

We also have our Pneumonia Blood Testing Service which is heavily subsidised by Zoetis. Up to five unvaccinated calves (from 4 months old) from each farm can be screened for four respiratory viruses for just £95, saving over £100. This price includes sampling, lab fees and postage. The results are invaluable for deciding which pneumonia vaccine is right for your farm. For an additional £10 the five calves can also be tested for exposure to Mycoplasma bovis which is a common bacterium that can cause chronic pneumonia, often with swollen joints and/or head tilts amongst other problems adult in cattle.

NEW OFFER - speak to your vet or contact your local branch

If you already purchase calf pneumonia vaccine from us or start a new protocol after an investigation you can now sign up to a 12 month calf vaccination scheme. Clients can then have the added benefit of all calf pneumonia vaccines being administered for FREE on a regular basis by our Penbode VetTechs. This means no more wasted or forgotten/missed doses resulting in the best protection possible.
Name: Bettina Asothan
Age: 25
Hometown: Born in Singapore, moved to London in 2013 for vet school.

How do you usually start your day?
Black coffee and a Jaffa cake, a bit of calisthenics and a lot of procrastination before getting ready for work!

What are your favourite aspects of the job?
Meeting farmers from all backgrounds, surgery and driving around the countryside when it's not flooded from the rain.

Anything you're not so fond of?
Short days in the winter, and of course the dreaded rain.

What do you do in your spare time?
I am a massive foodie and love cooking and baking for anyone and everyone. I also really enjoy travelling and am very close to achieving my goal of visiting every country within Europe. For sport, I play Ultimate Frisbee (yes, it is an actual sport!). So if anyone knows of a team somewhere close to Holsworthy, give me a shout!

What is your greatest achievement?
Breaking away from the mould of city life and assimilating into a completely new environment in the countryside (and dealing with all the hiccups along the way!)

What are your plans for your next holiday?
Road trip (and probably getting lost) around South Wales with my best friend from home.

Describe yourself in three words
The many cases of bovine abortion and infertility caused by neospora

By Lesley Bingham MRCVS BVM&S

Background

What is neospora?
Neospora is a parasite type organism (protozoan) which affects cattle causing abortion and infertility. It is closely related to Toxoplasma which affects sheep. The parasite requires a definitive dog host to complete its life cycle, similar to the link with cats and toxoplasma.

Neospora is the most commonly diagnosed cause of abortion in cattle. If Neospora enters a naïve herd it can cause an abortion storm with devastating effects, resulting in a large number of abortions in a short space of time.

Life cycle

The life cycle of neospora is complex and requires a definitive host (Dog) to complete.

- The definitive host produces oocysts (eggs) in their faeces which contaminate the environment. These oocysts can survive a long period of time due to their tough outer shell and can stay infective for 6 months or even longer in the right conditions.
- When a cow ingests these oocysts from contaminated water troughs or feed the parasite will quickly multiply and invade many different cells and disseminate throughout the body. At this stage it is called a tachyzoite.
- Once the cow's immune system starts to recognise this stage it becomes dormant and takes on a more cyst like form, where the cows immune system can’t fight it. Each cyst can contain hundreds of parasites which are slowly multiplying, this phase is called bradyzoite. If a definitive host (dog) eats meat containing this stage the life cycle can start over again.

contd
Neospora cont’d

This is not the only method of transfer, during pregnancy the parasites are reactivated and break out of the cysts and can migrate to the placenta causing abortion – these products of abortion also provide a source of infection for definitive hosts. In addition to this the parasite might also infect the foetus, which can cause the birth of an infected “carrier” calf. These “carrier” animals can go on with no problems until adulthood when they become pregnant themselves leading to either abortion or the birth of another infected calf. This way the parasite can survive in herds and be passed down through generations. Infected animals remain infected for life and can abort in subsequent pregnancies.

What can be done?

Testing

Antibodies in milk or blood – this will tell you if you have neospora in your herd and to what extent. Testing an individual will not tell you that neospora is the cause of that particular abortion but it will let you know that the animal has been exposed and therefore likely to be a carrier. Antibody levels can fluctuate so negative results don’t always mean the animal isn’t infected. Testing several times helps to reduce the risk of falsely identifying a negative animal.

Lab analysis of abortion products- this is the only way to confirm that a particular abortion is caused by neospora.

Control

There is no vaccine available and nothing effective to treat infected animals so the only method of controlling this disease is through management practices which limit the transmission of the parasite. The methods of reducing transmission should focus on the two parts of the life cycle when transmission occurs 1) dog to cattle and 2) cow to calf transmission.

1. Dog to cattle transmission

Oocysts are shed in the infected dog’s faeces around 3-9 days after being exposed (eating infected tissue) they will generally shed for around 2-3 weeks, after which time the dog will stop shedding and will no longer be a risk to the herd. The biggest risks are therefore from puppies and young dogs or dogs which have been exposed for the first time.

- Prevent dogs from accessing cattle areas especially where there are pregnant animals and ensuring dog faeces cannot contaminate cattle feed or drinking water.
- Dispose of cleansings and products of abortion quickly and in a way that dogs and wildlife cannot access them.
- Rodent control has also been suggested as a useful measure as rodents can potentially act as a reservoir for infection for dogs.
• Putting up signs along footpaths with public access to remind walkers of the risks of not picking up after their dogs.

We have produced these signs. If you would like some for your farm, please contact your branch.

You can test dogs for antibodies to neospora, those which are positive are likely to be less of a risk as they should have stopped shedding and be immune, it is those with no antibodies which could be a risk for your cattle as if they do pick up the infection as they are likely to shed high numbers of oocysts.

Foxes- there is some debate about whether foxes can act as a definitive host for neospora in the same way as dogs. There is currently no conclusive evidence that foxes can shed neospora oocysts, although many sources claim that they can. It would follow that only young foxes would pose a threat if they did.

2. Cow to calf transmission
90% of dams pass the parasite onto their offspring. The likely outcome of the transmission depends on the stage of gestation which the dam becomes infected/reactivated. In earlier or mid gestation foetal death/abortion is more likely, later in pregnancy the birth of a live infected “carrier” calf is more likely. While you cannot control the actual transmission you can consider which calves are kept for breeding.

• Any calf born to a neospora positive cow has a chance of being infected and therefore should not be kept as a breeding replacement.
• Putting positive cows to a terminal sire and fattening the calves is a good option to limit this impact.
• Culling positive cows will allow the herd to gain uninfected status much faster however this is not always a practical option.

3. General biosecurity
Maintain a closed herd – not buying in infected stock will reduce the chances of introducing neospora into the herd. More and more herds especially beef herds are becoming accredited neospora free, this is something to look for when bringing in breeding animals.

Summary
Neospora is a disease which can have a serious impact on a herd especially when it first enters. Control should focus on strict biosecurity especially relating to abortion produces and dogs as well as breeding programmes to reduce the number of carrier animals in a herd. Testing can be used to determine which cows should be bred for replacements and which should only be served to beef. This is by no means a straightforward disease to control so if you are concerned about neospora in your herd please speak to your vet about what steps to take.
Bovine TB

Do you want to:
• Deal with fewer TB cases?
• Have fewer TB nightmares?
• Worry and stress less?

The TB Advisory Service (TBAS) can help

Cattle farmers across the High Risk and Edge Areas of England are eligible to receive FREE, bespoke advice on practical, cost-effective measures to reduce the risks associated with TB.

Penbode Farm Vets are delighted to announce that we now have ten vets qualified to offer this advice.

The service is operated by Origin and supported by funds from the EU. This means farmers can get two hours of FREE vet time on farm to discuss how to prevent TB on their holding.

The aim is to put the control of TB back into farmers’ hands and to support and advise you each step of the way.

At each visit your vet will walk your farm with you taking a look at your farm buildings and in particular how and where you’re feeding your herd. They will then compile a report recommending where you can make changes to give you more control over TB Risks.

TB can be spread cow to cow and even farm to farm, so they will consider what precautions you’re currently taking to keep the disease out.

We will be in touch soon to set up your FREE TBAS visit!
Advice Visits - What to expect

At the visit
The adviser (in this case your Penbode Farm Vet) will ask about your farm set up, any concerns you currently have and issues you may face in the future. They will have a walk around your farm buildings and fields to better understand your current situation. At the end of the visits, the adviser will discuss with you what they have seen and what they feel you can do to improve your current TB risk.

After the visit
You will receive a bespoke report including recommendations of practical things that you can do to reduce the TB risk on your farm. You will also receive a follow up call from TBAS to get some feedback and to see how you are getting on with implementing the recommendations given in the report.

Don’t worry
The adviser is there to help and will not judge you or your farm. The recommendations are suggestions, there is no penalty if you don’t implement them. If you have any questions or concerns, just call us, we are here to help!
Mastering Medicines to Comply with New Red Tractor Guidelines
Penbode Farm Vets, North Road, EX22 6HB
All courses 9am—1pm. Breakfast is supplied.

Friday 15 November +++ Friday 29 November
Monday 2 December +++ Monday 16 December

The new Red Tractor standards require that at least one person, who is responsible for administering medicines, has undertaken training and holds a certificate of competence/attendance from training undertaken since October 2016.

£60pp (ex VAT)

Calf health and management
Hints and tips to improve early calf development

Tuesday 26 November - Holsworthy Golf Club, from 7pm
Thursday 5 December - Trethorne Leisure Farm, from 7pm

Join Penbode Farm Vets for our FREE supper talk to discuss the health of calves from new born to weaning

Suitable for all dairy and beef farmers
Topics to be covered include:
- Diseases - pneumonia, scour and other neo-natal conditions
- Colostrum management
- Housing
- Feeding

Kindly sponsored by Virbac

Call your local branch to book your seat
Bradworthy 01409 241241 | Camelford 01840 212229
Holsworthy 01409 253418 | Launceston 01566 86985 | Stratton 01288 353766

www.penbodevets.co.uk