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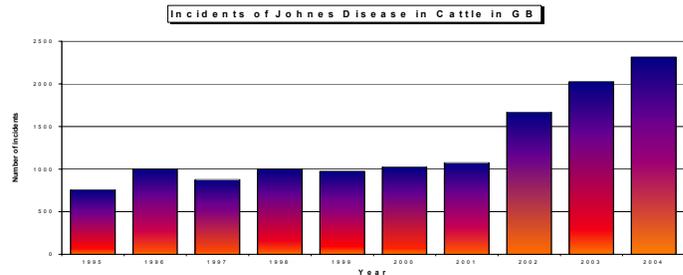
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Johne's Disease- the old disease won't go away

2007 was a year of plagues- foot and mouth disease, bluetongue and avian influenza. The old diseases are still around though

In the 1950's a farmer survey revealed Johne's disease as the most important disease of adult cattle. The current situation is not as bad, but Johne's is becoming more important again.

It is caused by a similar bug to TB, and its other name is paratuberculosis.



Johne's (pronounced by me at least, yoaniz!) is a disease everyone has heard of- causing untreatable scour and wasting in young adult cows (3-5yrs mainly). It also causes weight loss and disease in sheep and goats.

We recently had a big turn out at a farmer meeting on Johne's disease. It was held in conjunction with other local practices and the high attendance showed the importance of the disease. The meeting was part of the DEFRA funded national herd health planning project.

The incidence in our practice is 20-25% of our farm clients. Nationally it is thought that up to 50% of herds can be affected.

If you have a closed herd and have definitely had no cases then your herd is probably free. The aim should be to keep it that way!

Buying in animals increases the risk, and at least half of our affected herds have bought it in with restocking.

There is a high incidence in northern Europe and lots of Holsteins have been imported from there. The other breed with a high incidence is a certain French beef breed.

Johne's doesn't just cause the obvious scour and weight loss. This is the 'tip of the iceberg'. In a herd with a high incidence, one cow with disease can mean 10-15 incubating it. Cattle carrying the bug have a higher incidence of mastitis, twisted stomachs, and a much higher than average culling rate even before seeing obvious scour.

How does it spread?

It is mainly spread by faeces from carrier or diseased cows. Calves are most at risk, and become infected in the first 30 days of life, usually from faeces from their mother.

One of three things happens- the calf becomes immune and throws off the infection; the calf becomes immune but remains a carrier; the calf develops some immunity but the infection wins and the young adult cow goes down with the disease.

The disease can also spread via colostrum, but faeces carry a lot more of the organism.

How can it be detected?

This is the tricky one. There is no reliable way of detecting Johne's before the cow goes down with the disease. This caused some controversy at our meeting! Pre movement blood tests for Johne's are almost a waste of time. A positive blood test means an infected animal. A negative blood test does not necessarily mean an uninfected animal. New tests are becoming available, but the main one is still the blood test.

Bulk milk can be tested, but again negative results are unreliable in low incidence herds.

Any suspicious cows should be blood tested. The test becomes positive shortly before disease starts.

It is important to identify the disease if it is there so that you can implement control strategies. Bulk milk is a useful starting point.

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How can I prevent infection coming in?

This is very important in a clean herd.

If possible buy cattle from an accredited Johne's free herd. There are hardly any dairy herds accredited, but there are some pedigree beef herds.

Get the health history of the herd you are purchasing from. If the owner isn't open about it and doesn't want your vet to contact his vet, then don't buy! We were involved with this a lot for restocking, but sadly rarely get asked about the health status of herds for trading purposes.

How can I prevent infection spreading?

Infection can't be treated so prevention of spread is the most important thing.

The main principle is to **avoid adult cow faeces contacting young calves.**

1) Hygiene

In suckler herds this is difficult especially if calving indoors. If your herd has a problem, be radical and change your calving pattern to calve outside. This is a much cleaner environment- cow teats are cleaner and animals are spread out more. If you have to calve indoors, use loads of clean dry bedding and keep things as clean as possible.

In dairy herds, if you have a problem, remove the calf at birth. Clean hygienic calving pens and calf pens should be used. Keep young cattle completely separate from adults for the first year of life.

2) Colostrum

Feed the calf with its mother's colostrum, or at least a single cow's colostrum. **DO NOT POOL COLOSTRUM.** Pooling colostrum is an effective way of spreading Johne's!

Stomach tube the calf with 3L colostrum, in the first 6 hours of life, repeat after 6 hours. A good idea on a busy farm to avoid hand milking the mother in the calving pen is to use colostrum stored from the last cow which calved.

Waste milk should not be fed to calves

3) Identify and remove infected cows.

Blood test any suspicious cows, and cull positives as soon as possible. Don't keep offspring from positive cattle for breeding.

4) Other measures- there are lots but they are less important than the above:-

E.g. Clean mains water; fence off stagnant water; spread slurry onto arable land or if grassland, don't graze for a year; don't graze with sheep; rabbit control (rabbits can be carriers);

5) Vaccination

A vaccine can be imported and can be very useful in a bad situation. It reduces the amount of disease, but infection remains. Vaccination makes the blood test useless. The new vaccine should not interfere with TB testing.

6) Test and cull health schemes

These are based on annual blood testing of animals over 2 years and culling positive cattle. This can be done through an official scheme, or through your own practice. It is important that this is linked to management changes as discussed.

Well done if you've got this far- it is difficult to write a short article on this subject.

Don't get too depressed- the main means of control are good management principles anyway, and if you feed colostrum as advised, as a bonus you will reduce your calf scour and pneumonia incidence drastically!

Have a chat with your own vet about how best to control Johne's disease in your herd.

You can always contact me, so long as you don't mention Preston North End's plight – it's too painful!

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