Johnes Disease

What should we know about it and can we prevent it?

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What is Johnes Disease?

JD is a bacterial, infectious disease of the intestines, causing a loss of weight, and leading to diarrhoea. In many cases it can result in death. It is caused by *Mycobacterium paratuberculosis*, which is closely related to the same group of bacteria that cause bovine TB.

What animals does it affect?

It affects all farmed animals, including cattle, sheep, goats and deer. It can also affect alpacas, llamas and members of the antelope species. In New Zealand it has been isolated from wildlife animals like hedgehogs, ferrets, hares, cats and gulls.

How does it spread?

The organism is not easily spread and it needs a long exposure for an animal to become affected. The bacteria multiply in the intestines and are passed in the faeces to contaminate pasture, soil, water and the skin around the udder and teats of affected females.

The bacteria can pass the uterine barrier so newborn animals can be affected via the placenta. It can also spread via milk to newborn cria.

The organism Mycobacterium can survive on the pasture for up to 12 months in good moist, shaded places, but it does not multiply in soil. It dies off on sunny pasture over 3-4 weeks.

What age animals are the most susceptible?

In alpacas the reported cases range from few months to a few years, but predominantly they are young one-two year old animals.

What are the signs of the disease?

It is important to stress that not all affected animals will show signs of the disease. The bacteria may live in the lining of the intestines for a long time and the animal may show no symptoms at all. They become the carriers, shedding low numbers of bacteria through their life without any signs of Johnes. However, a sudden stress, like transporting, unpacking, or a change of diet, may precipitate the clinical signs.

As mentioned earlier, the typical signs would include a slow weight loss with the animal still eating but slowly getting less energetic and frequently kushing. The disease can run for a few weeks and terminally we may see diarrhoea.

The diagnosis is not straight forward and a vet needs to eliminate some more common problems before being able to conclude an alpaca has Johnes Disease. The vet would review the complete history of the animal and carry out a complete clinical examination to rule out dietary, teeth or parasitic problems that could be causing the symptoms.

Are there any tests to confirm the disease?

Blood and faecal tests are very helpful and would indicate if further testing for JD should be untertaken.

New Zealand laboratories offer blood and faecal tests that can assist in making a correct diagnosis. The faecal smear test is very sensitive but not very specific. That means if the test is positive we are definitely dealing with a JD animal, but if the test is negative the animal still may carry the disease and further samples are needed .

A faecal culture is very specific and sensitive. But it takes around 12 weeks for the results and is relatively costly.

In conclusion:

The advice to alpaca owners is to have a vet check any animal that, for no apparent reason, is losing weight, has diarrhoea or is kushing more then usual. Those signs may indicate Johnes Disease, which unfortunately is not curable, but they may indicate another less serious and treatable problem.

References:

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