

Neospora Caninum

What is Neospora Caninum?

Neospora caninum was identified in the late 1980's as a protozoan parasite meaning it lives and multiplies inside host cells. It is thought that this parasite lives within the central nervous system of cattle and that whilst animal to animal transmission does not occur, the dog (and possibly fox) act as the intermediate host shedding the parasitic eggs, although congenital infection from dam to calf is considered the primary route.

Maternal transmission occurs as the immune system of the dam alters the production of hormones to accommodate pregnancy and this shift creates an imbalance in the host-parasite relationship. This is still under research, but it is suggested that this may help explain the behaviour of the disease.

The disease can also be passed on through ingestion of contaminated colostrum.

Exposure to N. caninum can result in abortion, mummified calves or the birth of weak or brain damaged calves or permanently infected calves.

It has been estimated that N. caninum may be responsible for 12.5% of abortions in UK cattle, accounting for around 6000 per year.

Diagnosis

It is a good idea to test any aborted foetus for neosporosis as an infected dam may only abort once. Subsequent exposure to the disease does not necessarily trigger such a reaction.

Blood testing can be carried out on any animal to test for presence of the disease.

Treatment

At present, there is no treatment or vaccine available although research in this area is ongoing.

The most effective form of control would include a blood testing scheme whereby infected animals can be identified and either culled or bred only to beef to limit vertical transmission.

Limiting access to dogs of cattle feed and water and avoiding feeding calves contaminated milk would help minimize horizontal transmission.