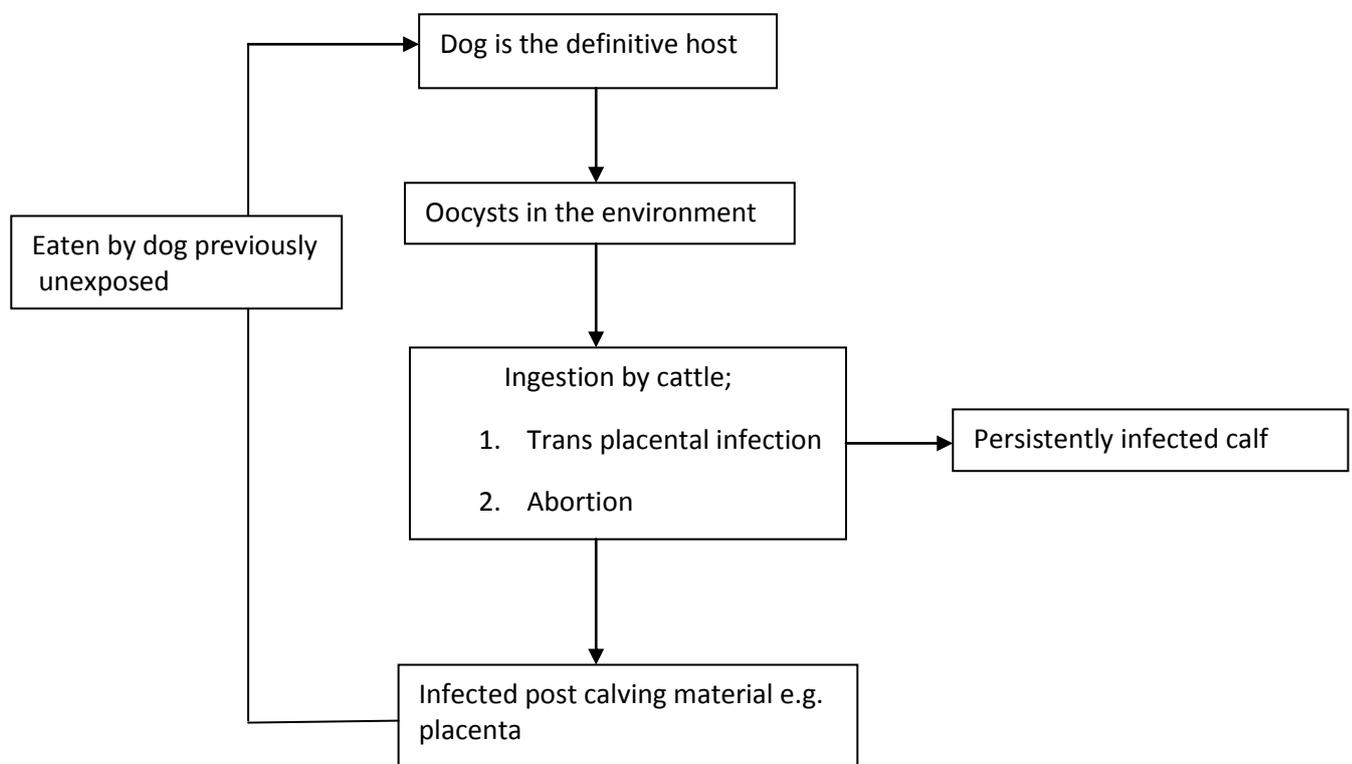


Neospora Abortion Affecting Cattle;

Neospora caninum is a protozoal parasite that requires two hosts to complete its life-cycle; The dog (definitive host) and the cow (the intermediate host). Infection will occur in dogs if they eat placenta or aborted material from infected cattle. Cows will become infected by either eating food material which has been contaminated by faeces from infected dogs but also, and more importantly, another means of infection is due to vertical transmission i.e. mother to unborn calf (transplacental infection is 50-95% effective; Reichel and Ellis 2002).



Features of infection;

1. Cattle will appear clinically normal and will frequently give birth to calves that appear normal but are infected or will carry the infection and hence will have problems as breeding animals.
2. Cattle will have a higher risk of abortion especially if they have a concurrent infection with either IBR or BVD. Abortion can occur at any stage of gestation but the majority of abortions occur at 5-6 months of gestation. In one UK study (Atkinson et al 2000) there was an increased risk of abortion by 3.5 fold compared with animals that were not infected

3. It has been shown in various studies that infected cattle will have more fertility problems i.e. more days open and will require a higher number of services per conception than those that are not infected. The greater number of serves required to conceive may indicate that early foetal loss has occurred.
4. There has been a suggestion that milk production will be reduced due to infection but this has not been supported by some studies of the disease.

Control of Infection

To control Neospora we need to know the level of herd infection. To do this accurately we will need to build up a picture, over a period of time, to determine which cows and calves are infected. If calves are blood- sampled at less than 2 weeks of age) a small task after a routine visit) then we know that they will not have had a chance to pick up infection from the environment, although we may have a number of false positives especially if these calves receive colostrums from another cow that is positive for neospora. A positive result in a calf of this age will usually mean that the mother is also positive.

Cost of blood sampling would be £5.50 per sample plus P&P. This may seem expensive but if we have a cow that aborts after 5-6 months of gestation then the likelihood is that that cow will be culled or if reserved will have a very long “tail” to its lactation which will result in a poor financial return with respect to feeding costs.

Know which animals are infected and either **cull** or **do not** breed dairy replacements from these animals, due to the high risk of infection passing from dam to calf in utero. These cows can be served using a beef straw but again care needs to be taken around the time of calving to ensure that dogs are kept under control and will not have access to any bovine material. I would advise that the calves from these animals are blood sampled again and if negative then we would assume that that cow is not persistently infected (which can occur following an environmental exposure) and could be used to breed milking replacements .

Reduce transmission from infected dogs to cattle or from infected cattle to dogs. This will mean that dogs must be kept away from post birth discharges from cattle and prevented from eating placentae. Most older farm dogs, once exposed will not shed the organism due to life- long immunity, will be fairly safe but young dogs recently introduced to a farm can shed the organism in its faeces for a period of time and care must be taken with cattle grazing/calving adjacent to public footpaths .

We will be happy to discuss control methods of Neospora infection at the next routine visit but if you have any questions then please phone the surgery and speak to one of the farm team.