Johne's disease causes huge economic loss to the national cattle industry and yet its presence goes unrecognised in many herds, says vet Nanja Verkuijl of Cliffe veterinary Group.

Johne's is a chronic disease which, after a period of scouring and weight loss, ultimately results in the animal's death.
It is caused by a bacterium, *Mycobacterium avium* subspecies *paratuberculos*is (or Map for short). Cattle can become infected with Map at any age although infection within the first few weeks or months of life is most common. Calves can even become infected before they are born.

The classic signs of Johne's disease are scouring and weight loss despite, in most cases, the affected animal remaining bright.
However, prior to clinical disease there is a reduction in productivity in the pre-clinical phase. The financial losses that result are of great significance. Fertility of bulls and cows is reduced. In fact, the breeding lifespan of Map infected animals is estimated to be approximately half that expected of uninfected animals. Milk production is also reduced so, for example, suckler calves born to infected dams are likely to show poorer than expected growth rates.

To determine whether Johne's disease is present within a herd the first step is to isolate and then test any animals showing signs consistent with the disease, i.e. poor condition and diarrhoea.

A reliable indication of the prevalence of the disease within a herd can be obtained by screening all animals that are culled. This may reveal Map-infected animals which are not yet displaying the classic signs of the disease but as a consequence of their infection, are being culled, e.g. failing to conceive during a defined serving period.

If Johne's disease is confirmed in a herd, controlling the disease to limit its impact will depend on biosecurity, strict hygiene and enlisting the vet's help to identify Map-infected animals so they can be managed differently at calving and eventually be culled thereby minimising the spread of the infectious organism in the environment.

If Johne's disease is not present in your herd, biosecurity precautions to prevent its introduction are vital. This means screening all replacement animals.
However, Johne's disease has a long incubation period, and the sensitivity of the currently available laboratory test is relatively poor. This means a single negative test on a young replacement breeding animal, whether bull or heifer, is relatively meaningless.
Of greater reassurance is evidence about the status of the herd of origin of the replacement animals. Ideally the herd of origin should be accredited free of disease with a scheme compliant with CHeCS standards. The longer such accreditation has been maintained, the greater the confidence that can be placed in it. If replacements cannot be sourced from herds with such accreditation they should at least be sourced from herds with some evidence of active surveillance for Johne's disease.

Other countries, for example Holland, are one step ahead of us.
There, the main milk buyer has taken steps to eradicate the disease by requesting from all their milk suppliers that they actively screen for Johne's. If a cow tests positive on the milk her faeces will then be tested as well. If this is positive, this animal will have to be culled in order to maintain a certain status, enabling the farm to continue delivering milk.
It will not be long before milk buyers in the UK require similar standards.