

Health status of breeding cattle for sale

The health status of animals at sale is important for two reasons. Firstly the animal itself needs to be free from the major diseases if it is to breed successfully and have a long and productive life. Secondly these animals should be free from the major diseases so that they do not endanger either the health of the other animals at the sale or the health of the herd that they are sold in to. Control of these diseases is largely manageable through a combination of certified health programmes, before sale testing and vaccination and after sale quarantine. The following note sets out the important information that the vendor, the auctioneer and the purchaser require in order to manage the risk of these diseases.



What are the important diseases?

- **Johne's disease**
- **BVD**
- **IBR**
- **Leptospirosis - L hardjo**
- **Neosporosis**
- **Digital dermatitis**
- **Salmonellosis**
- **Tuberculosis**
- **Brucellosis**

In relation to purchasing cattle through sales and the effects the diseases have on productivity, control of Johne's disease and BVD is of the highest importance.

It is easier to manage the risk of introducing infectious disease where cattle are bought direct from the vendor's farm rather than at a sale. This simply removes the risk of animals picking up infection at the sale.

Johne's disease

- Testing individual animals before sale is of little value. Animals develop the disease usually some time after 2 years of age and tend to only test positive in the year before they begin to show signs of the disease.

- The only safeguard for this disease is whole herd testing to show the disease is not present in the herd. A health programme with certified status exists for this disease.
- The best position is to buy animals from a herd that is certified as Johne's disease Accredited or Monitored Free (equivalent status). Herds that have had at least one whole herd test without evidence of infection in the same year as the sale offer the second best option.
- If animals are vaccinated it means that the vendor's herd has had the disease and may still be infected. Vaccinated animals may break down with Johne's disease after sale.
- Some herds may be in a control programme whereby annual testing and removing positives and their offspring has been followed for several years. Depending on the state of progress the herd may now have a very low level of disease.
- Animals are extremely unlikely to be infected at the sale through contact with infected stock.

BVD

- Testing individual animals before sale is of value. Animals can be tested and shown to be free of virus (BVD antigen on some laboratory reports).
- Ideally they should also be free of antibody too. Antibody positive bulls may be infertile for periods of up to twelve weeks after they were first infected

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with the disease. There is also the risk that they may shed the virus in their semen for an extended period of time. Pregnant antibody positive cattle may be carrying a virus carrier calf and it is only possible to check the calf for this after it is born and reached four months of age.

- Certified health programmes exist for this disease. A herd certified as BVD free will produce virus negative, antibody negative young stock for sale. Adults may have antibody, but they will not be recently infected and therefore will not be a disease risk. Animals can become infected at the sale and, as discussed above, suffer infertility problems or if pregnant the calf may become a virus carrier.
- Vaccination is an effective means of control.
- Animals are at moderate risk of becoming infected at the sale through contact with infected stock.
- The ideal for breeding animals going through a sale ring is either to come from an accredited herd and to have completed a vaccination course at least 3 weeks prior to the sale, or to be tested negative for antibody and virus and then vaccinated as above. Vaccination prevents animals picking up the infection after they leave their own herds.
- The purchase of in-calf animals or cows with calves at foot is not recommended as young calves cannot be screened for the virus until they are four months of age.

IBR

- Testing individual animals before sale is of value. Once an animal has been infected it is infected for life and will test positive for life.
- Certified health programmes exist for this disease.
- Vaccination is an effective means of control. The conventional vaccines that have been used for many years offer good protection but the blood test cannot differentiate an animal vaccinated with the conventional vaccine from an animal that is infected. This may be important for pedigree breeders that wish to sell semen/embryos, or, at some time in the future, export live cattle. A marker vaccine has been available in the UK since late in 2001. There is a blood test that allows the differentiation of animals vaccinated with the

marker vaccine from those that have been infected or vaccinated with the conventional vaccine.

- This disease is highly infective and animals are at risk of becoming infected at sales.
- The best position is for animals to have either come from a certified free herd and vaccinated with the marker vaccine before sale, or tested negative before being vaccinated with the marker vaccine. The course should be completed at least 3 weeks before sale.

Leptospirosis- L hardjo

- Testing individual animals before sale is of some, but limited value. Infected animals will test positive for a short period of time after infection when one particular blood test is used (MAT), but for periods in excess of a year when the other blood test is used (ELISA test).
- Certified health programmes exist for this disease. They use the ELISA test.
- Vaccination is an effective means of control. The blood tests do not differentiate between vaccinated animals and those that are naturally infected. Vaccination does not prevent excretion of the organism in animals already infected with L. hardjo.
- Animals at sales are at low to moderate risk of becoming infected with this disease.
- The best position is for animals to have come from a certified free herd. While completion of a vaccination course three weeks prior to sale would minimise the chance of becoming infected through contact at the sale, vaccinated animals cannot enter an accredited free herd without the herd losing its status.
- Antibiotic treatment during quarantine on the instructions of your vet may be of value.

Neosporosis

- Animals mostly acquire infection from their dam before birth and while they may test positive at any time in their lives they may only produce enough antibody to test positive once they are in the later stages of pregnancy.

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- As far as is known bulls play no recognised part in the spread of the disease and therefore testing breeding bulls has no role in the control of the disease.
- No certified health programme exists for this disease.
- Animals at sales are at no risk of becoming infected.
- The best action is to screen females at purchase and then again towards the end of the first pregnancy or to have evidence that the dam of the purchased animal is test negative. This degree of assurance can be justified for high genetic merit females to prevent neospora infection becoming established in the buyer's herd.

Digital dermatitis

- No laboratory test exists for this disease
- No certified health programme exists for this disease.
- Animals at sales are at low to moderate risk of becoming infected with this disease.
- The best position is a signed declaration from the vendor's veterinary surgeon that there is no clinical evidence of the disease in the herd after a visual inspection of the adult herd.

Salmonellosis

- Laboratory tests exist for this infection, but currently the blood test is not routinely available. Screening of faeces before sale is of limited value
- No certified health programme exists for this disease.
- Animals at sales are at low to moderate risk of becoming infected with this disease.

- Quarantine of purchased stock for four weeks is recommended with screening of faeces from any animals that show signs of diarrhoea.

Tuberculosis and Brucellosis

- Control is largely the responsibility of the state veterinary service. However both diseases remain important and private testing regimes exist for these diseases. Consideration should be given to screening purchased animals for these diseases whilst in quarantine if animals come from areas where the diseases are known to be active.

Post sale quarantine

- Post sale quarantine, observation for signs of disease and testing for targeted diseases is best practice for all purchased cattle. An isolation facility is required for this but need not be elaborate to be effective. It should have a separate air space from other cattle and the drainage from the quarantine pen should drain away from other cattle. Paddocks can also be used providing nose to nose contact with other cattle can be prevented. During the quarantine period animals can be vaccinated to ensure they are in the same vaccination programme as the herd. For more information on biosecurity please see SAC Technical Notes T502 & T521.



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Disease	Risk of infection at sale	Health Programmes	Vaccination prior to sale	Screening after sale	Quarantine
Johne's Disease	Negligible	Yes	No	Of no value	Of no value
BVD	High	Yes	Yes	Effective	Advised
Leptospirosis	Moderate	Yes	Yes	Effective	Advised
IBR	High	Yes	Yes Marker Vaccination	Effective	Advised
Neosporosis	None	No	No	Effective, but second test advised for test negatives.	Of no value
Digital Dermatitis	Moderate	No	No	Clinical examination	Advised
Salmonellosis	Moderate	No	Yes	Limited use	Advised
Tuberculosis	Low	DEFRA control	No	Requires DEFRA permission	Advised
Brucellosis	Negligible	DEFRA control	No	Limited use	Limited value

The Cattle Health Certificate Standards (CHeCS) licences health scheme operators and audits them to ensure they are providing services to ISO 17025 standard or equivalent. To obtain more information on health schemes for cattle visit the PCHS website www.cattlehealth.co.uk or phone for a brochure to SAC Veterinary Services 01835 822456.

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