TECHNICAL NOTE TN771 / May 2025

Herd biosecurity in cattle

Farm Advisory Service

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Summary

- **Animal Health & Welfare Plans are a requirement for livestock keepers from 2025**
- **Take the time to identify risks to your herd and take action against them**
- **The greatest risk is the introduction of new stock and/or stock returning to the holding**
- **Animals should be quarantined when they first arrive on, or return to the holding, or if they are suspected of having a contagious disease**

Introduction

This technical note gives an overview of how to conduct a biosecurity risk assessment with your vet and some of the mitigation strategies to consider.

Biosecurity plays an important role in preventing and managing the risk of introducing and spreading infectious and parasitic diseases within the herd. Good biosecurity practices are important for all livestock keepers, especially during new and emerging disease outbreaks, however the basic principles should be a routine part of your herd health plan.

Biosecurity has a role in:

- Improving animal health, welfare, and performance
- Reducing medicine usage, especially antimicrobials and anthelmintics
- Reducing the potential costs associated with disease outbreak.
- Reducing greenhouse gas emissions
- Reducing the impact of trade restrictions
- Reducing public health issues. Several cattle diseases are zoonotic i.e. they can infect humans.

Implementing Herd Biosecurity

Animal Health and Welfare Plans (AH&WP) are required as part of farm quality assurance schemes and from 2025 are a requirement for livestock keepers as part of the Whole Farm Plan (WFP). A key element of this is a disease risk assessment and management plan.

A risk assessment tailored to your farming systems should be carried out in conjunction with the farm vet to identify possible disease risks and develop a prevention or mitigation strategy. This should be reviewed annually as part of your health plan. Some of the elements to consider as part of this exercise are detailed below. Additional details may be required for herds participating in health schemes.

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Most Common Disease Risks

Some of the key disease risks to consider are listed in Table 1. However, this list is not comprehensive and the risk for each herd varies.

Table 1. Key cattle diseases to consider and summary of biosecurity strategies.

Disease	Summary of Herd Biosecurity Strategy
Bovine Viral Diarrhoea (BVD)	• Scotland is undertaking an industry led eradication scheme. Guidance to this scheme is available online. • Undertake mandatory annual screening. • BVD positive animals must be housed indoors separately form BVD negative animals or those of unknown status. • All holdings retaining a persistently infected (PI) animal for more than 40 days are listed on ScotEID. • Breeding herds with BVD positive animals are not permitted to bring in new cattle. • If buying in-calf females the BVD status only applies to the dam. Calves should be BVD tissue tagged at birth. • Cattle brought into Scotland from Northern Ireland born after 1st March 2016 or born on an English holding which has been CHeCS accredited for the full lifetime of the animal and has given the health scheme provider permission to publish their status, do not require testing on arrival. All other animals brought in from untested, non-breeding, BVD Not Negative or BVD positive herds must be antigen tested, and the results uploaded to ScotEID within 40 days. • Vaccines are available – discuss with your vet whether this is appropriate for your herd. • Other ruminant species, such as sheep and deer, can be a source of infection.
Infectious Bovine Rhinotracheitis (IBR)	• Vaccines are available – discuss with your vet whether this is appropriate for your herd. Marker vaccines which allow vaccinated animals to be distinguished from naturally infected ones on testing are available.
Johne's Disease	• Young calves are most susceptible to infection – reduce the amount of faecal contamination they are exposed to. • No vaccine is available for Johne's disease in cattle. • Sheep and rabbits may be potential sources of infection.
Leptospirosis	• This is a zoonotic disease. • Vaccines are available - discuss with your vet whether this is appropriate for your herd.
Neospora	• Cattle with antibodies can transmit infection to their calves. Consider culling these to eradicate infection. • Prevent dogs accessing placentas or aborted/dead calves and dog faeces contaminating feed or pastures. • No treatment or vaccine is available.
Bovine Tuberculosis (bTB)	• Scotland is Officially TB Free (OTF) but occasionally outbreaks occur. • This is a zoonotic disease. • Comply with statutory TB testing requirements. • If purchasing cattle from England or Wales do so from herds in low-risk areas that consistently test negative. A map of such holdings can be found here
Parasites	• Gut worms, liver fluke, lungworm, and external parasites e.g. lice and ticks can be introduced, and this may include resistant strains. • Review grazing history and recent veterinary treatments. • Develop quarantine testing and treatment strategy with vet.

Table 1. (continued)

Disease	Summary of Herd Biosecurity Strategy
Bluetongue Virus (BTV)	• This is a notifiable disease. Suspicion should be reported immediately to APHA. • Several strains exist in Europe including BTV-4, BTV-8 and BTV-12 but currently it is BTV-3 circulating in the UK. Further information on the BTV situation in Scotland can be found at Bluetongue: how to spot and report the disease - gov.scot • Avoid buying or moving cattle from high-risk areas. • Be aware of pre- and post-movement testing and licensing requirements. • BTV-3 vaccines have been permitted for emergency use in Scotland. Keepers using this vaccine are required to maintain a record of vaccination and log this on ScotEID by logging into your account and scrolling down to the "vaccinations" section on the navigation menu.
Schmallenberg Virus (SBV)	• No vaccine is available for SBV in the UK at present. • Animals exposed to SBV should develop antibodies that provide immunity lasting several years. • Risk management aims to allow exposure prior to breeding or reducing pregnant animals being bitten by midges as the impact of SBV is greatest when cows are infected for the first time during mid-pregnancy.

Risk Level, Prevention and Management

Ideally herds should be closed and all replacements home bred. However, for many herds this is not always possible. Therefore it's important to understand how you can best limit risk to your herd.

The Cattle Health Certification Standards (CHeCS) certifies and quality controls licensed cattle health schemes including SRUC Premium Cattle Health Scheme (PCHS) and HiHealth Herdcare. Under these health schemes farms can be classified as accredited or monitored free for BVD, IBR, or Leptospirosis and Entry Level or accredited for TB. Accredited herds hold a lower disease risk than monitored free herds. A risk level certification system is operated for Johne's and Neospora ranging from 1 (lowest risk) to 5 (highest risk) depending on the level of testing and number of positive results in the herd. Strict guidelines exist for annual testing and testing newly introduced animals for herds participating in cattle health schemes and you should consult the scheme provider for details.

Disinfection

DEFRA approved disinfectants must be used in the event of a notifiable disease outbreak. The list of DEFRA approved disinfectants details which product to use and the concentration to be used as some products can be used at different concentrations for different diseases.

Many disinfectants are ineffective on dirty surfaces, so cleaning with water +/- detergent is a crucial first step. Disinfectants should be applied for as long a contact time as possible or at least the minimum period specified by the manufacturer or DEFRA.

Identifying Risks to your Herd

The greatest risks to herd biosecurity are:

- Returning stock e.g. from wintering, summer grazing or shows where animals have mixed with or shared an airspace with other livestock.
- Buying in animals

Animals returning unsold from sales or shows should be quarantined on return and tested as necessary before rejoining the herd.

- Aim to purchase the minimum number of animals from as few herds as possible.
- Always purchase from herds where the health status is known.
- Where possible avoid buying through a market and purchase directly from a herd.
- If purchasing from a sale, read the herd health declaration within the catalogue to gauge the risk for introducing disease.
- Bulls should not be shared with other herds. Where bulls are hired these should come from a herd with a proven health status.

How To Quarantine Livestock

- An isolation facility is essential for effective quarantine. A dedicated building separate to existing stock on farm where there can be no nose-to-nose contract or sharing of air space is crucial. While a building is preferred, an isolation field may also be acceptable.
- A quarantine period of a minimum 28 days is advisable for most diseases. Discuss with your vet if specific disease control is targeted.
- During the quarantine period observe animals for signs of infectious or parasites e.g. gut worms, lungworm, lice.
- Treat and or vaccinate according to agreed health plan and/or veterinary advice.

Additional Risks

There are other risks which should still be considered and built into your biosecurity planning.

Other Animals

Vermin and farm animals can also pose a biosecurity risk, to minimise this:

- Control vermin and ensure that a pest control programme is in place.
- Prevent vermin and wildlife having access to feed.
- Ensure that farm dogs and cats are adequately controlled and routinely wormed.

People

- Where movement is required between two farm holdings it is advisable to have two sets of clothing and footwear for each of the farms, especially if one of the holdings/herds has a higher health status.
- Have a permanent designated disinfection point on the farm, with foot dipping facilities for farm workers and visitors.

Buildings & Infrastructure

- Where possible use mains water in troughs. Disease such as leptospirosis and Johne's can be spread by water contamination.
- Ensure water troughs are cleaned out regularly.
- Fence off ponds and water courses.
- Avoid sharing watercourses with animals grazing upstream.
- Ensure farm boundaries are secure and prevent nose to nose contact with neighbouring stock over walls or fences.
- Consider three metre double spaced fencing.
- For seasonal grazing consider an electric fence to create a 3m barrier and it is not advisable to graze stock in fields adjacent to cattle of an unknown health status.

Equipment & Vehicles

- Ensure that handling facilities e.g. gates and equipment e.g. injecting and dosing kit are cleaned and disinfected thoroughly if shared between separately managed cattle groups.
- Vet's surgical and injection equipment must not be shared between farms.
- Ensure vehicles have been thoroughly cleaned and disinfected. General order dilution rates must be followed for routine cleaning and disinfecting livestock transport vehicles.
- Limit and control access of vehicles to farm especially those for moving cattle.
- Consider a drop off and pick up point on farm away from other cattle.
- It is recommended that purchased animals are transported using the farm's own transport or through a reputable haulier. Animals must not be transported with or have contact with animals of unknown health status. If cattle have shared transport e.g. a haulier taking animals home from a sale, any previous health status is no longer valid. These animals should be treated as having an unknown disease status and tested in quarantine.

Manure & Slurry Spreading

- Manure and slurry from the isolation building should not be disposed onto fields which are intended for grazing cattle. Where a field is used as the designated quarantine areas, grazing is not advised for at least two months for BVD and IBR and for twelve months for Johne's Disease and TB.
- Avoid importing manure from other farms with an unknown health status.

Fallen Stock

- Ensure fallen stock is contained and not accessible by farm dogs, cats, vermin, or wildlife. Ideally this should be located on the edge of the farm allowing collection with minimal contact with other animals.

Key Take Home Messages

- Biosecurity is key to controlling the spread of infectious diseases.
- Know the health status of your own herd.
- Any animals coming onto your farm, whether purchased or returning, will increase the risk of introducing disease. Quarantine these animals and discuss what testing, vaccination and treatments may be necessary with your vet.
- Herd biosecurity allows for improved productivity and cattle health.

Further Resources

Scottish Government (2022) Biosecurity Practices for Animal Health Guidance

CHeCS (2025) Incorporating rules for Cattle Health Schemes on BVD, IBR, Leptospirosis, Johne's Disease and Neospora

CHeCS (2023) Bovine TB Technical Document - Incorporating rules for Cattle Health Schemes on Bovine Tuberculosis (TB) programmes: CHECS TB Entry Level Membership CHECS TB Herd Accreditation

Farm Advisory Service (2021) Technical Note (TN743): Johne's Disease in Cattle

Farm Advisory Service (2024) Technical Note (TN677): Treatment and Control of Liver Fluke (*fasciola hepatica*) in Sheep and Cattle

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