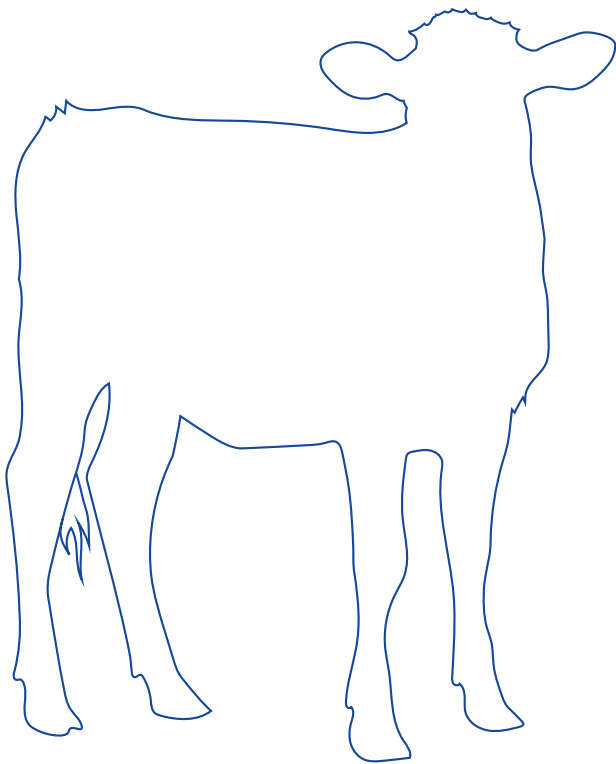


**BIOSECURITÉ**



# The basics of biosecurity in cattle farming

This leaflet sets out the main principles of biosecurity, a preventive approach to limiting the risks of introduction, circulation and spread of the main diseases that can affect cattle farms. Faced with a given risk, there are often several ways to act. It is up to the farmer, in conjunction with their GDS advisor or vet, to decide what is most appropriate for their farm.



# The basics of biosecurity

## Farm zoning

### ► The breeding zone

This is the area where the animals are kept and move around. Its access is limited to the breeder and authorized staff only.

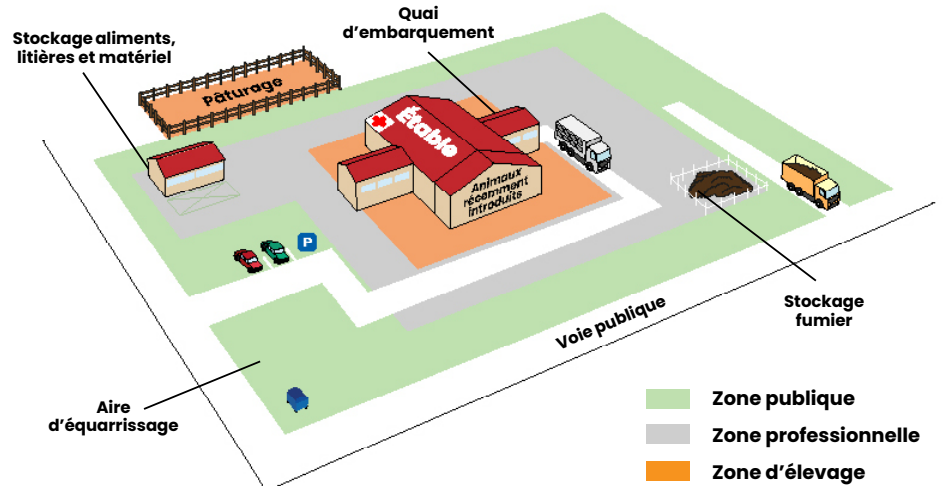
### ► The professional zone

This is the area of the farm located outside the breeding area. It is reserved for the movement of authorized people and vehicles, for the storage or transit of incoming and outgoing products and for processing workshops for farm producers.

### ► The public zone

This includes the circulation area for external vehicles, the knacker's yard, and the shop premises in the case of farmhouse production.

In practice, identify the three zones to put in place and comply with specific management and traffic measures through appropriate delimitation (chains, ropes, etc.) and signage (panels, arrows, posters) indicating which zones are accessible or inaccessible to external vehicles or people.

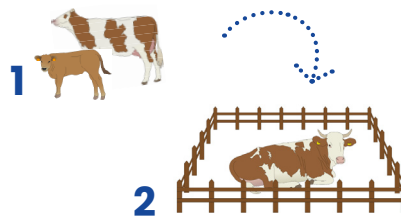


▲ Diagram based on that produced by the Institut du Porc (IFIP).



## The «forward flow» principle

Conduct «clean» maintenance activities (feeding/bedding, etc.) first, starting sectors/activities, cleaning and disinfection of hands, boots, and soiled equipment (thermometer, etc.) is required.



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## Preventing the introduction of diseases in the farm

### Management of workers involved in breeding

Those involved in breeding are likely to introduce certain diseases into the farm. In practice: **set up a water point for washing hands and boots outside the buildings or the breeding area (boot wash or foot bath)** and possibly offer boot covers as a protection measure.



### Managing the introduction of animals

Any purchase of animals represents a risk of introducing diseases. In practice, give priority to self-renewal of the herd, **limit the number of source farms as much as possible and isolate the animals as soon as they arrive, until the results of the introduction tests have been obtained**, without any direct or indirect contact with the animals on the farm, so that the introduced animals can be monitored and adapted to the host herd (microbism, husbandry, etc.).

## Managing «animal» vectors (pests, domestic animals, wildlife)

Avoid any direct or indirect contact among these animals (birds, rodents, insects, domestic or wild animals) and the farm's cattle: maintain the surroundings of the farm and the fences, avoid watering at points accessible to wild animals, implement a rat and insect control plan, prevent contact with domestic animals including dogs (except working dogs) and poultry (risk of neosporosis and botulism).



Netting must prevent birds from gaining access to "open" storage areas. The aim is to reduce certain risks, such as contamination of milk by pathogens, particularly in the case of raw milk production.

## Prevent pathogens from settling and circulating on the farm

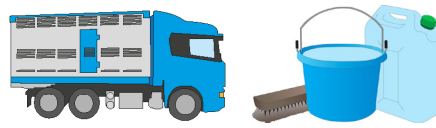
### Infirmiry

Sick animals (diarrhoea, skin lesions, slaughtered animals, respiratory problems, etc.) are very abundant sources of pathogens and are particularly at risk of spreading disease within the herd. In practice, this means **they must be isolated in a place where there is no direct contact with other animals or visitors, while maintaining visual contact with their fellow animals** («infirmiry», separate from the calving box). These animals must not be isolated with recently introduced animals or animals in quarantine.



## Shared equipment

Equipment and vehicles used collectively must be thoroughly cleaned (and ideally disinfected) before and after use and between each user.



## Preparing and storing fodder and feed

Some diseases can be introduced onto the farm through feed. Particular attention must therefore be paid to the production and storage of wet feed, particularly in the monitoring of the appearance of mould.



## Managing contact between animals from different herds or units

Do not mix units of different species and provide specific equipment for each unit unless you have compatible health statuses. Avoid contact with neighbouring herds: maintain fences, use hedges, or double fences to avoid «wire-to-wire» contact, favour alternate grazing, avoid shared watering, etc.

During events, fairs, or summer grazing, it is recommended that only animals of equivalent health statuses should be mixed, and which can be isolated upon return to the farm and that health regulations are complied with.



## Keeping animals in good health

Biosecurity is primarily based on the maintenance of the herd and on the quality of the care given to it. Keeping animals in good health therefore depends on the quality of their feed, water, and housing (hygiene and atmosphere), the implementation of appropriate preventive medical measures (vaccination, anti-parasite treatment, etc.) and the general quest for good welfare conditions.

## Calving management

Calving is a critical time. The cow is weakened, and the newborn calf has no immunity. The cow must be isolated from the herd (but in visual contact with her fellow cows) in a calving box used exclusively for this purpose. This box must be cleaned, and ideally disinfected between each calving.

The calf should quickly receive colostrum from the 1st milking, within the first 2 hours after birth. Calves should not be given colostrum from other farms or milk from cows with mastitis or on antibiotics.

## Cleaning/disinfecting

Hygiene means cleaning (scouring, sweeping, etc.), collecting and storing waste, cleaning and then, potentially, disinfecting. **Disinfection must be adapted to each situation and production context.**



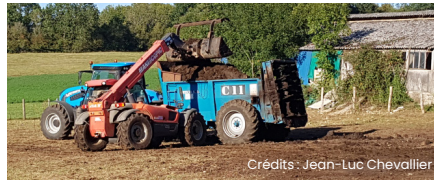


# Preventing pathogens from spreading outside the farm

## Animal movement and traceability

Monitoring of the health situation in the sector relies on the timely identification of cattle using approved markers, and the recording of their movements. For movements, it is advisable to establish the health status of the animals before they leave the farm and to encourage direct transport in a single operation.

If in doubt, and to avoid taking any risks, we recommend spreading in calm weather and burying.



## Effluent management

Effluents (manure, liquid manure) are potential sources of contamination. It is recommended that effluents be stored away from **the path taken by visitors and animals** (or, failing that, that they are covered with a tarpaulin), away from water points and on land with no slopes, and that **they be stored for a sufficiently long period** (4 months is a minimum between the last supply of manure or liquid manure and muckspreading). With regards to muckspreading: depending on the diseases present on the farm, special precautions need to be taken (Q fever, paratuberculosis, salmonellosis).

## Managing animal products

Food-borne zoonoses are caused when humans eat food contaminated with bacteria, viruses, or parasites. So it's vital to **identify animals whose meat or milk could be unfit for consumption** (milk containing residues or pathogenic germs, clinical mastitis, aborted females, sick animals, etc.) and remove them from the commercial circuit for the necessary or regulated time (withdrawal period for treatment).

## Body management

Aborted foetuses, placentas, and animal corpses must be kept away from the rest of the herd and placed in a dedicated area, away from other animals on the farm and predators. You are strongly advised to take precautions when handling these animals, including at the very least, wearing gloves. The renderer should also be informed as soon as possible. Finally, the rendering truck should be kept as far away as possible from the breeding area.



## And if you are open to the public?

To welcome the public in the best possible conditions, special precautions must be taken. In practice, the most important thing is **to anticipate how visitors will be received** and to establish movement rules between the different areas. It is advisable not to scour or spread during visits, and it is essential to provide **a hand-washing point** and provide boot covers. Finally, most visitors want to be able to touch and handle the animals, especially the calves.

It is therefore appropriate to raise **public awareness** and inform them that the youngest, most fragile and/or most at-risk animals require more care and must be protected from contact.

In farms where an outbreak of clinical Q fever is detected, it is necessary to stop receiving the public (as soon as the suspicion is raised), to vaccinate the herd and to manage effluents appropriately.



**For more information and training in biosecurity, please contact your GDS or vet:**