



Farm Biosecurity ... A Common Sense Guide

What is farm biosecurity?

Biosecurity refers to protecting the health of livestock by preventing the transmission of disease. Any disease that could jeopardize the health of these animals represents a threat to the economic viability of the farm and the welfare of the herd. Taking common sense precautions to prevent disease from coming on to your farm is the best investment you can make.

Infectious diseases are caused by a large number of agents. These range in size from things that we can see, like bot eggs on the legs of a horse, to submicroscopic particles, like viruses. We cannot see most infectious agents, so we cannot tell if an article is contaminated by looking at it. However, we must assume that any article that is dirty is contaminated.

Infectious diseases can be spread a number of ways. Some are spread by direct contact between animals, others can be spread by indirect contact, such as by a contaminated water bowl. Still others are spread by the wind, through insect bites, on people's contaminated clothing, in feed or water, or through contact with wildlife, including vermin. Just as there are many types of infectious agents, some are easier to destroy than others. Many will survive well in dirty, damp, dark and cool conditions. Most are eliminated in clean, dry, warm environments.

There are a number of methods for destroying disease-causing agents. These include steam cleaning, fumigation, and chemical disinfectants. Many disinfectants are in common use, each having been formulated for a specific purpose. Some products will kill bacteria, but not viruses, and most will not kill spores. **Soil and organic matter rapidly inactivate most disinfectants**, so it is important to first thoroughly clean the objects with warm water and detergent. Then apply the appropriate disinfectant. Footbaths are important, but only work properly if boots are washed before using the footbath, and by keeping the disinfectant properly replenished. Your veterinarian or provincial extension agent can advise you as to which disinfectant is most suitable for your application.

What can be done to minimize the risk of introducing disease?

Bringing new animals onto the farm poses the risk of spreading disease between the introduced and the resident farm animals. Buying a new bull, ram or boar are common practices that can potentially compromise the biosecurity of your farm.

1. Consider vaccinating your herd against the common diseases in your area. Your veterinarian can advise you as to the best choice of vaccines to use. Arrange to have new animals properly vaccinated to match your herd program.
2. Quarantine new arrivals for at least 5 days. This can be done by confining the animal to a separate pen that does not allow nose to nose contact with other animals, and does not share feed and water supplies.
3. Buyer beware! Purchase from herds with a known clean health status.
4. Livestock feed obtained off-farm should be from known, reputable sources.

Farm Visitors

Some operations, such as integrated poultry and swine barns, have a well-developed biosecurity plan designed to protect the high health status of the herd or flock. The following recommendations are directed toward smaller operations and offer practical steps for protecting the health of the herd.

Accepting visitors from countries with serious animal diseases requires special precautions. They must not be allowed contact with susceptible species on your farm for at least 48 hours after arrival in Canada.

Low risk visitors

Visitors coming from urban areas, that have no other contact with livestock pose very little risk of spreading disease to your livestock.

Recommended Precautions:

- Ask visitors to arrive on the farm with clean clothing and footwear. If anyone arrives with dirty boots, they must be cleaned and disinfected before proceeding. Or, you may provide your own clean boots or disposable footwear.
- Accompany visitors and ask them not to enter pens, or contact the animals. As the degree of contact with livestock increases, so does the risk both to the animals, and to the visitors.
- When visitors leave, ask them to wash soiled boots and hands with water and detergent.

Moderate risk visitors

People that travel from farm to farm, but have no direct contact with livestock pose a moderate risk for disease transmission. These would include salesmen, feed distributors, farm equipment mechanics, and various types of inspectors.

Recommended Precautions:

- Same precautions as above with additional requirements.
- Clean coveralls should be worn if there is any contact with feed, water, soil samples, manure or farm equipment.
- Sampling equipment should be cleaned after each use.
- When leaving the farm, dirty boots must be cleaned and disinfected, and soiled coveralls should be removed before entering the vehicle.

High risk visitors

These are visitors that travel from farm to farm and have direct, often intimate contact with livestock. These would include veterinarians, inseminators, processing crews, livestock haulers and neighbours.

Recommended Precautions:

- Same precautions as above with additional recommendations.
- Visitors should arrive with clean outerwear, boots and equipment. Vehicle interiors should be clean and be equipped with easily removable rubber floor mats. Livestock trailers should be clean prior to arrival on the farm.
- Livestock instruments and equipment such as dehorner, castrators, and syringes should be clean and sterile before use. (BUT, Do not use chemical disinfectants on syringes or needles used to deliver live vaccines!) Use disposable needles and syringes wherever possible.
- Wear disposable plastic sleeves and gloves whenever there is direct contact with body fluids, tissues, or excrement. These situations would include assisted births, inseminations, post-mortems or butchering.
- Before leaving the farm, soiled equipment and footwear must be cleaned and disinfected. Wash hands with detergent. Remove dirty coveralls before entering the vehicle.

* A Note on Neighbours:

When neighbours arrive on your farm to help, it is sometimes a delicate matter to bring up concerns about biosecurity. Ensuring that you have a few extra pairs of clean coveralls on hand, and providing convenient access to a boot washing tub will encourage your neighbour to respect your protocol. Offense can usually be avoided if you explain that you want to protect the health of your neighbour's herd as well.

*A note on the practical choice of outerwear.

Coveralls: consider purchasing nylon coveralls for use in wet, dirty conditions. Although not completely

waterproof, they are less permeable than cotton and are less apt to soak through. They are also windproof, and light, and stand up well in the washing machine. They can be damaged in the dryer but they do air dry quickly.

Coats and Jackets: it is very difficult to frequently wash parkas and insulated jackets. A good choice for outerwear is the so-called three-in-one jacket. These consist of an outer detachable shell made of nylon, and an inner liner of nylon and polypropylene. These stand up well to frequent washing.

Wildlife and Vermin

Wildlife and vermin are often very mobile and present an opportunity to spread diseases such as rabies and leptospirosis to farm animals. It is wise to take precautions to eliminate contact with these animals. Make the farmyard environment unattractive to skunks and other vermin by cleaning up old buildings, debris, and spilled grain. The mere presence of a cat or a dog will act as a deterrent to many vermin.

To summarize, you are in the best position to safeguard your herd and your pocketbook from these and other infections by following basic principles of disease control and prevention:

- maintain a closed herd/flock
- purchase from known healthy sources
- isolate purchases
- restrict visitors
- practice good biosecurity. Insist on clean footwear, clothing, and equipment
- identify all animals
- keep accurate records.

Together we can work to safeguard the health of Canada's livestock and poultry sectors. For further information on developing your biosecurity plan, contact your own veterinarian, your nearest CFIA veterinarian, or your provincial extension specialist.

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