



# The Veterinary Link

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## Consider a biosecurity plan for your farm or ranch

Biosecurity is the attempt to keep infectious agents from a herd, a state or a country. In this column, a “biosecurity program” will refer to those planned procedures followed by herd, farm or ranch personnel to reduce or to prevent the introduction of specific infectious diseases.

Many factors need to be considered when determining the best biosecurity program for a cattle farm. First, it is necessary to answer the question, “What diseases are already present in the herd?” This can be difficult to determine because many diseases are present in a silent or subclinical state and will not become visible until environmental happenings, management decisions or normal physiologic events (for example, calving) stress the animal.

If a disease already is present, it may or may not be practical to adopt measures to prevent new animals with the disease from entering the herd.

Another question that must be answered is, “What will the disease cost in lost production if it enters the herd or if the number of infected animals in the herd increases?” Also, “What will it cost to keep the disease out of the herd?”

### Data helpful

To determine the answers to these questions, you must have herd production records that allow you to determine your herd’s pregnancy, calving and weaning rates and weaning weights. Records from several years are more valuable than from one year, but a long journey must start with a single step.

You also need input from your veterinarian, who is knowledgeable in the biology of diseases — incubation periods, clinical signs, transmission, diagnosis and accuracy of the tests, effectiveness of available vaccines, and length of time the causative agents remain infective in the environment (soil, water, feed, barns).

### Closed herds

Because most infectious agents cannot live long outside or off an animal, and because most don’t travel great distances through the air, keeping other animals and people away from the herd keeps away infectious agents for many diseases. Keeping a closed herd is one method of biosecurity. A closed herd is one where no cattle enter the farm and no cattle on the farm have contact with cattle from other farms.

A herd is *not* closed if

- Cattle share a fence with cattle from a different farm;
- Cattle (bulls, replacement heifers, replacement cows, stockers) are purchased;
- Cattle return to the herd after being at a performance evaluation (for example, a bull-test station) or a show;
- Bulls are borrowed or loaned; or
- Cattle are transported in a vehicle that has transported other cattle.

Using this definition, you can see that it is difficult (and maybe not desirable from a production standpoint) to have a completely closed herd.

However, it is a good practice to keep the herd as closed as possible to minimize exposure to infectious agents.

### Open herds

In open herds, additions (replacement females and bulls) should be purchased only from herds whose health status you know and that have a known, effective vaccination and disease-diagnosis program. Avoid purchasing animals from unknown sources or that have been mixed with other cattle prior to sale.

Additions to the herd should be isolated from the resident herd for at least one month. Isolated cattle should not share feeders, waterers or airspace (the distance depends on wind velocity and direction). During the isolation period, the additions should be tested for and vaccinated against transmissible diseases.

### Pets and people

Equipment and animals other than cattle can carry infectious diseases. If you borrow equipment from other farms, clean it before using it on your farm. Limit your herd’s exposure to rodents, birds, cats and dogs. Rodents and birds are primarily a problem when cattle are confined, and professional exterminators may be needed to devise an effective control plan.

Although it seems extreme, because of salmonellosis, cryptosporidiosis and other diseases that can be passed by dogs and cats, keeping your own and others’ pets away from your cattle is an important aspect of biosecurity.

People can carry infectious diseases in their respiratory, urinary or digestive tracts, as well as on their skin or clothing. Therefore, limit people’s access to your cattle. Make sure visitors wear clean boots and coveralls if they recently have visited other cattle operations. Have trucks that deliver animals and feed or that pick up animals (alive or dead) remain away from the herd and away from normal traffic areas.

These strict biosecurity measures are possible on many cow-calf farms. For backgrounding or stocker operations or feedlots, the restrictions on closing the herd or not bringing in mixed or unknown cattle are not feasible. However, other aspects of biosecurity — such as segregating groups of cattle and controlling the presence of visitors, rodents, pets and trucks — are done routinely to decrease the risk of infectious disease.

