



# Vet Call

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## Herd biosecurity through A-RITS

*The Beef Quality Assurance Program (BQA) was initiated by several cattle producer associations in the mid-1980s to address concerns about chemical residues and injection-site lesions in retail meat products. Since that time, BQA efforts have expanded to include other aspects of producing a high-quality product, and now biosecurity is also addressed in the BQA manual funded by the beef checkoff. The BQA manual is a valuable resource for cattle producers working to produce high-quality animals and meat products.*

### A-RITS for biosecurity

Biosecurity is the attempt to protect a cow herd's health by increasing disease resistance and reducing possible contact to important disease-causing bacteria, viruses, fungi and parasites. A biosecurity plan is the set of management procedures designed to prevent the introduction of or reduce the effect of specific infectious diseases.

BQA training materials use the term "A-RITS" to serve as a reminder of the five major components of a good biosecurity program:

1. Assessment;
2. Resistance;
3. Isolation;
4. Traffic control; and
5. Sanitation.

**Assessment:** Many factors need to be considered when determining the best biosecurity program for a cattle herd. First, it is necessary to answer the question: What diseases are already present in the herd? If a disease is already present in the herd, 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?

Finally, what is the potential for the herd to come into contact with livestock from other herds, wildlife or contaminated feed? To determine the answers to these questions, herd records and consultation with your veterinarian, feed supplier and other relevant advisors will be necessary.

**Resistance:** Although it may be possible to prevent exposure of a herd to some disease-causing germs or infectious agents, it is

impossible to completely prevent exposure to all infectious disease risks. Good nutrition and minimal stress, as well as proper use of effective vaccines are important to build herd resistance.

It is important to recognize that vaccines are not available for most infectious agents that could cause disease in cattle, so other aspects of increasing resistance and maintaining good biosecurity are often more important than the vaccines used.

In general, herds that are healthy and have an effective immune system are more resistant to disastrous outcomes if the herd is exposed to new infectious agents than herds that are more debilitated and unvaccinated.

**Isolation:** Because most infectious agents cannot live very long outside or off of an animal, and because most don't travel great distances through the air, a method to keep other cattle away from a herd accomplishes the goal of keeping infectious agents away for many diseases. For cow-calf herds, 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. While it is difficult (and maybe not desirable from a production standpoint) to have a completely closed herd, it is a good practice to keep the herd as closed as possible to minimize exposure to infectious agents.

In open cow-calf herds, additions (replacement females and bulls) should only be purchased from herds where you know the health status and that have a known, effective vaccination and disease testing and

diagnosis program. Avoid purchasing animals from unknown sources or that have been mixed with other cattle prior to sale. Also, additions to the herd should be isolated from the resident herd for at least one month prior to introduction to the herd. Isolated cattle should not share feeders, waterers or airspace (distance depends on wind velocity and direction).

During the isolation period, the additions should be tested for and vaccinated against some of the common diseases identified by your veterinarian. Feedlots and other operations that have a great deal of movement of cattle into and out of the herd cannot be closed, but keeping feeding groups from mixing and minimizing contact between sick animals from different feeding groups is a good biosecurity practice.

#### Traffic control:

Equipment and animals other than cattle can carry infectious diseases. If possible, separate equipment should be used for handling feed and manure. If equipment is used to move manure or dirt, it must be thoroughly cleaned and disinfected prior to handling feed. If you borrow equipment from other farms, clean it before using it on your farm. Rodents, birds, cats and dogs should all be limited in their exposure to your cattle. 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 other pet animals away from your cattle is an important aspect of biosecurity.

People can carry infectious diseases from one cattle operation to another. Therefore, limit people's access to your cattle. Make sure visitors wear clean boots and coveralls if they have recently visited other cattle operations. Trucks that deliver animals and feed, or that pick up animals (alive or dead), should

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remain away from the herd and away from normal traffic areas.

**Sanitation:** For cattle operations, sanitation focuses on two key areas: manure and any equipment put into the mouth of cattle or used for injections. Several diseases can be moved when one animal's manure comes into contact with the mouth of another animal.

When cattle are confined, routinely removing manure from pens is one of the most important aspects of sanitation, but manure-handling equipment should not be

used to handle feed unless it is thoroughly cleaned first. Even small amounts of manure, blood, saliva or urine have the potential to carry disease agents.

Equipment placed into cattle's mouths, such as balling guns and drenching tubes, must be thoroughly cleaned between animals. Anything that could move blood from one animal to another — such as injection needles, dehorners or castrating equipment — should be cleaned between animals.

Biosecurity is an important aspect of

maintaining a healthy herd and producing quality animals and meat products. Remembering the term "A-RITS" will help focus your biosecurity efforts on assessment, resistance, isolation, traffic control and sanitation.



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