



**P**rotecting your herd from outside threats, both intended and unintended, has become a major issue since Sept. 11, 2001. This is particularly true regarding transmittable diseases in light of the devastating outbreak of foot-and-mouth disease (FMD) in England that same year.

“Livestock producers are becoming a lot more aware of how vulnerable they are to the threat of an outside disease being accidentally introduced into their herd,” says veterinarian Patrick Webb, adding that the threat is very real and addressing the issue directly should be a priority of all livestock producers in this country.

Webb, a nationally recognized authority on farm biosecurity, has been involved in animal disease disaster planning, education and outreach since 2001. His view is that procrastination is a farm or ranch manager’s greatest enemy, and even the most rudimentary biosecurity plan that is in force is more effective than the most comprehensive one that remains unimplemented.

“The application of biosecurity is really a management decision,” Webb says. “It is a good business decision because it prevents the spread of disease, and the healthier your animals are, the more money you are going to make.”

He adds that a large component of any biosecurity plan deals directly with

controlling access to the livestock. This applies to both human access and animal access. Part one of this two-part series will explore the human factor in biosecurity and what procedures to initiate to reduce the likelihood of introducing a disease into your herd through human activity.

#### Control that access

While bringing a new animal into an existing herd is the most obvious way to introduce a new disease, an often overlooked and more insidious route can be traced to human activity.

“There are so many ways we can unintentionally infect a herd,” Webb says. “Unless we are vigilant, we humans and our machines can easily move diseases from one farm to the next.”

For Webb, that involves understanding how diseases are spread by people and establishing protocols to curb high-risk activities. He recommends, as a first step, contacting the herd veterinarian.

“The easiest way to accomplish this is to have your veterinarian come out and do a walk-through,” he says. “No one knows your operation better than your herd vet.”

Webb adds that this should involve determining entry

procedures, selecting protocols for specific risk levels, and creating area restrictions and the appropriate accompanying signage.

Because it has been determined that human activity does pose a disease-transmission threat to beef herds, unauthorized individuals should be prohibited from moving around freely.

“It is important to establish protocols to limit the access of people who have no business being in contact with your herd,” Webb says. “The first step is to create a designated parking area away from herd activity.”

This prevents potentially contaminated vehicles from coming in contact with cattle and helps the ranch owner monitor the movement of visitors onto the site.

Webb notes that a sign-in book is another important monitoring tool. Recording the name of each individual entering the site and associating that person with a specific time will help health officials determine the source of a disease if there is a major security breach.

#### Varying degrees of risk

Individuals who are from urban areas, or others who have not been in contact with livestock and present very little risk of introducing disease to the farm should still be required to park in the designated

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parking area. If they have business in the house or office they should be kept away from the animals and their compounds.

Those touring the ranch should be asked if they have come in recent contact with other herds, then be issued clean coveralls and boots. Webb recommends purchasing three sizes of boots and coveralls and keeping several clean pairs on hand for such occasions. Disposables are also appropriate.

These visitors should not be allowed to bring outside food items onto the site. It is also advisable that they don't enter pens, walk through feed alleys, or come in direct contact with the animals.

Once the tour has ended, visitors should be supplied with sealable plastic bags in which they should place their soiled coveralls and dirty boots. Another option is to have

them deposit these clothing items in designated receptacles. Before leaving the ranch, visitors should wash their hands.

These procedures not only protect a herd from outside diseases but also help prevent visitors from contaminating their clothing and other personal items with germs from the ranch.

**Establish protocols for regulars**

For regular visitors to the ranch, such as sales people and individuals who deliver feed and fuel, Webb recommends establishing specific protocols for them to follow.

"Those folks should come on site, park in a specific place, do their business away from the livestock and leave," he says, adding that another layer of security should be added if there is any contact with feed, animals, soil

or manure.

In those situations, service people should clean their hands with a disinfectant when they arrive and be wearing clean coveralls and boots. Once they have completed their

work, their boots should be cleaned and disinfected and their used coveralls placed in a clean plastic bag or container before re-entering the vehicle. Sampling equipment should be cleaned and disinfected between uses, and the route service people use in and out of the facilities should be free of manure and other potential contaminants.

"It is important that these people arrive clean and leave clean," Webb says.

He adds that special attention should be paid to high-risk individuals who are in close contact with on-site and off-site animals. These would include processing crews, veterinarians, livestock haulers and inseminators, as well as neighbors and employees who own livestock.

First, high-risk individuals should be encouraged to leave their vehicles in the parking area rather than driving them directly to where the animals are held. If it is necessary to bring a vehicle to the animals, then it should be cleaned and disinfected prior to doing so. A power washer should be made available for that purpose.

In addition to previously mentioned precautions, high-risk individuals should be expected to arrive with clean clothing, boots and equipment. Instruments that come in direct contact with animals should be cleaned and disinfected before and after use.

Before re-entering a vehicle and leaving the ranch, all soiled clothing items should be removed, bagged or placed in the appropriate bins. Boots should be bagged for later cleaning or disinfected on site before leaving. Hands and forearms should be washed with soap or an appropriate disinfectant.

Webb notes that ranch employees who personally own livestock should be required to report to work personally clean and in clean clothes that have not been exposed to their animals. Those employees should keep separate boots and coveralls that remain exclusively on site to avoid accidental cross-contamination with their animals at home. They should be encouraged to wash themselves thoroughly before coming to work.

A similar arrangement should be made with any livestock-owning neighbors who are helping out on the ranch.

**Post appropriate signage**

For Webb, a key component to a successful biosecurity program is the posting of signs and notices that inform and enforce.

► It is important to deposit used overalls in designated receptacles.



► Above & right: "Signs are an important part of a biosecurity program. Without them, visitors would have no idea where they could and could not go," veterinarian Patrick Webb says.



► Signs can function as a reminder for employees.



“Signage is important because the average person visiting your ranch would not know where he can go and where he can’t go,” he says. “Determining the appropriate signage should be part of the overall security review that the ranch owner does with his herd veterinarian.”

Webb cites, as an example, the use of signs to limit vehicle traffic to specific areas where the risk of spreading a disease from an outside source to the ranch herd is minimal. While some signs are directed to visitors, others, such as sanitation notices, are posted for the benefit of employees.

### **Don't forget to include yourself**

While seriously committing to a biosecurity plan, it is not uncommon for ranchers to overlook themselves as potential carriers of cattle diseases.

“A producer can be his own worst enemy by not following his own biosecurity rules,” Webb says, adding that it is probably more likely for a ranch owner to bring a disease on site than it is an outsider.

He notes that anywhere livestock producers congregate, you are likely to find bovine-related germs.

“Check out any feed store frequented by livestock producers,” Webb says. “You can literally follow the manure trail in through the front doors, straight to the peanut machine, over to the popcorn and then to the bargain table.”

Similar trails can be found in the local coffee shop and sale barn, Webb says.

One of the best ways for ranch owners or managers to avoid introducing outside cattle diseases to their herds is to maintain two sets of clothes and boots — one set to work in and another set for town. Hands should be washed after leaving and before entering the work area.

While the two sets of clothes arrangement works well for the warmer months of the year, there are obvious challenges associated with cold and sometimes damp winters. Rather than wearing a single heavy parka that is difficult to keep clean, one suggestion is to dress in layers with the top garment being coated in a rubberized waterproof material that is easy to clean and disinfect.

Webb notes that a large part of developing a biosecurity plan is problem solving. “Every operation is different, each with its own individual challenges,” he says. “How we respond to those challenges will determine how secure our herds are.”

