



The BUZZ Word: Cattle Biosecurity

Lori Weddle-Schott, University of Minnesota Beef Team

As Minnesota's livestock industry is well aware, bovine tuberculosis and other infectious diseases can have an economic impact on livestock producers. Many producers have developed excellent management plans that encompass good animal husbandry practices and nutrition, but stop short when including biosecurity practices that can help to reduce disease losses and even prevent infection altogether. Producers can easily implement a biosecurity plan when they look at breaking it down into three major components. They are isolation, traffic control and sanitation. When effectively managed, these components meet the principle biosecurity objectives of preventing or minimizing cross contamination of body fluids (feces and urine) between animals, animals to feed and animals to equipment.

Isolation prevents contact between animals within a controlled environment. The most important step in disease control is to minimize commingling and movement of cattle. This includes isolation of new purchases for at least 3 weeks as well as commingling between established groups of cattle. Always isolate sick cattle and return them to their original group when they've recovered. Clean and disinfect facilities appropriately between groups. It also means isolating higher risk cattle, like purchased feedlot cattle, from lower risk cattle, like the breeding herd and young calves. Contact can occur through the fence, same handling facilities, or drainage from the feedlot through the pasture.

Traffic control includes traffic and visitors onto your operation and traffic patterns within your operation. It is important to understand that traffic includes more than vehicles. All animals including dogs, cats, wildlife, horses, birds, rodents and people must be considered. People spread contamination material directly by boots, shoes, and hands and clothing. Disease can be spread indirectly by truck tires, farm machinery, hair clippers and other equipment passing between farms.

Sanitation is the third component of a biosecurity plan. Beware of using instruments and equipment on healthy animals following their use on sick or infected animals. Avoid using common syringes and needles for vaccinating, blood testing or administering animal health products. Isolate sick animals, especially animals with unfamiliar symptoms or those that don't get better with the usual treatment.

Improving an animal's disease resistance is at the heart of disease prevention and herd health programs and must be considered in the standard operating procedures of all livestock production management. However, improving disease resistance is not possible for many of the diseases that can affect livestock health and production. Therefore an understanding of biosecurity basics is essential for a properly designed disease resistance health program.

A commitment to a biosecurity plan is a vital step toward control of infectious disease. Keeping pathogens out of

a herd improves production efficiency, lowers costs and reduces risk to family and employees.

Biosecurity Practices for Controlling Disease

Vaccinate the herd against all endemic diseases.

Use low stress management practices during movement and processing.

Isolate all sick animals- designate a hospital pen.

Work from younger or healthier animals to older higher risk animals.

Maintain a closed herd, if possible.

Know the health history of incoming animals.

Purchase feed from reputable sources.

Minimize fence line contact with neighboring animals.

Do not place cattle of different ages in the same pen.

Keep records of all disease occurrences and treatments.

Limit access to your farm.

Maintain fences to keep your animals in and others out.

Minimize visitors and traffic on your farm.

Post signs at the farm entrance to inform visitors of procedures to follow.

Educate yourself and employees to recognize and report diseases.

Maintain a written biosecurity plan and update it regularly.

Prevent off-farm vehicles from driving in areas where animals travel.

Individually identify every animal and keep movement records.

Monitor and inspect animals daily for signs of illness.

Clean equipment, boots and change clothing between animal groups with different health status.

Promptly euthanize animals that are not going to recover.

Have your vet necropsy animals that die from unknown causes.

Promptly remove dead animals from your operation.

Place animal delivery and load-out facilities on the perimeter of your farm.

There are also a number of biosecurity practices that have been identified to decrease the risk of bovine TB infection, particularly in areas where the need has arisen to avoid the potential of contact with deer. These additional measures may include:

Reducing the chance for deer to gain access to pasture or any pond or stream in the pasture where cattle graze or spend time.

Protecting stored feed from exposure to deer and other wildlife.

Improving overall herd health to increase resistance, should exposure to TB occur.

Producers are encouraged to work with their veterinarian, nutritionist, and extension educators to establish a biosecurity plan for their operation. This would be a prudent step for producers in northwestern Minnesota, particularly in the small area known to have TB infected deer. For more information on biosecurity practices or bovine TB visit the University of Minnesota Beef Industry Center at www.extension.umn.edu/beef.