

Biosecurity – for today and for the future
By Dr. Clayton Stinson

By now, many have gone through the Biosecurity Questionnaire with their veterinarian multiple times and are starting to have the questions memorized. These questions all try to find where your operation could improve with respect to the health of your herd. Questions such as how do you bring new animals into the herd, what protocols you use for visitors, and how you manage wildlife all pertain to the external factors that can introduce new pathogens. Other questions like how you manage sick cows, reducing interaction of different groups, using new needles and cleaning and disinfecting are all helping to identify current risks of pathogen spread internally. Every year we go through the questionnaire we improve and continually reduce disease spread. When everything is running well with little disease and high quality milk, our concern level for biosecurity can sometimes decrease. We don't manage our dairies like the poultry and swine industry, so breaks in our system occur and complacency can lead to major consequences. An excellent example of multiple breaks that have spread a new developing disease across a country is the Influenza A outbreak in the United States.

Although still not completely understood, it is believed that Avian Influenza has spilled over from migratory birds to cattle and has now infected multiple farms in the United States. Many of these were caused by shipping cattle from infected herds to naïve herds, thereby spreading the disease across the country. Reducing spread within a herd has been a challenge as well, with separation of the sick either being delayed or not performed. With the development of 2 workers becoming infected, it is a stark reminder that biosecurity not only pertains to our livestock but to ourselves, our family and our employees as well.

The introduction of new animals tends to be one of the most common external breaks in biosecurity on farms, bringing diseases such as pneumonia, ringworm, digital dermatitis, and ectoparasites like lice and mange. We must also be wary of unconventional ways that pathogens can access our herds, such as a case I have recently experienced.

A well vaccinated tie stall herd needed new pasture mats and believed they were purchasing brand new mats that have never been outside the warehouse. When they unravelled them, there was some straw in the roll, but they thought nothing of it. Fast forward 2 weeks and suddenly 5 heifers and 2 cows have a moderate fever, increased respiratory rate, and lower feed intake. The next day, 3 more cows, and 7 more heifers. This spread of the pathogen lasted 4 weeks until every animal had experienced it and recovered. After investigation, it was determined the mats were the most likely source of infection; an unconventional finding but one that can help us to think of other possible breaks in our protocols.

This is one example of how continued vigilance is the name of the game when it comes to the health of our herds. Washing, disinfecting, quarantining, isolating, vaccinating and other strategies all help to mitigate the effects of pathogens. And as we see around the world, not just with new emerging diseases like Influenza A in cattle but with foot and mouth disease re-emerging in South Korea and the first Q fever case in the Netherlands since 2016, these practices are critical to stem the spread of known diseases now and new diseases in the future.