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Livestock and Coronaviruses

It's very likely that you are all tired of hearing about coronavirus and all the surrounding implications. However, I have been fielding some questions about the virus from the livestock angle and I thought I'd share the information with you.

Coronavirus is not new to our world, in fact, some readers may even recall me discussing coronavirus being a cause for scours in young calves last month, before I had even heard of COVID-19. However, there's not much of a connection between this novel COVID-19 strain and the scours germ that cow-calf and dairy producers deal with.

Swine producers and their veterinarians have fought Porcine Epidemic Diarrhea Virus and other coronaviruses in the past. Companion animal veterinarians recognize Feline Infectious Peritonitis Virus as a cause of illness in cats. These are all coronaviruses. Considering all of these, it should be apparent that the vast majority of these coronaviruses stick to their own species. No human or cross-species illnesses have resulted from bovine, swine or feline coronaviruses.

The virus has a very specific molecular makeup. Picture a ball that has spikes on the surface. Each different coronavirus has its own version of the spikes. In order for viruses to cause infection, these specific spikes need to attach to very specific molecules on a body cell, like a lock-and-key. Pig cells have different surface molecules than do calf cells and human are different yet, and so on with each species. To add to this variety, respiratory cells have different surface molecules than do intestinal cells. This explains why different coronavirus strains affect specific species and body systems.

The usefulness of the different coronavirus vaccines is really variable. It's fair for bovine coronavirus and varies from good to even poor in swine coronaviruses. This also highlights the fact that our current animal coronavirus vaccines have no utility for people in the face of the COVID-19 epidemic. Severe adverse reactions can result from people using animal vaccines for themselves. Changes can occur to these viral molecules over time.

The current coronavirus causing COVID-19 hasn't yet made animals sick where human illnesses have been common. That's the good news for our animals. Swings in global financial markets have occurred due to worries about restrictions on travel and other human activity, not any perceived problem with livestock or the food supply. Milk, eggs, beef, pork…all proteins that are produced by livestock are absolutely safe to eat. People do not have to worry about those products carrying COVID-19 to the human population.

There was what they called a "weak positive" case in Hong Kong involving a dog, but experts have stated that could have been environmental. After the initial test, the animal had negative results from further tests. According to the South China Post, the 17-year-old Pomeranian died of pre-existing conditions. This case is being further investigated. Most experts say to stay away from both animals and humans if you are infected with the coronavirus.

Despite the case of the 17 year old dog in Hong Kong, infectious disease experts and multiple international and domestic human and animal health organizations agree there is no evidence at this point to indicate that pets become ill with COVID-19 or that they spread it to other animals, including people.

If you are not ill with COVID-19, you can interact with your livestock and pets as you normally would. You should continue to practice good hygiene during those interactions both personally and for your animals. This includes such practices as washing hands, as well as basic biosecurity, like separating new animals for a period of time.

If you have contracted COVID-19, ask for help with your animals and minimize interaction with livestock and pets, as well as other humans.

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