Persistent Infection – What’s your herd’s PI status?

Calves with respiratory problems, cows that naturally terminate calves early, deformed calves and scours are just a few of the signs that a cow-calf producer may have Bovine Viral Diarrhea (BVD) circulating in the herd. Though diarrhea is part of the name, BVD presents itself in many ways. This unique virus impacts cattle of all ages, through multiple body systems, but other species will not be affected.

The major source of the virus comes from persistently infected cattle in or around the herd. Sometimes these persistently infected calves, often referred to as PIs, will appear healthy and may or may not thrive. These calves were actually infected during gestation. If the infected fetus survives to birth, they will continually shed the virus, and expose other animals. Fetal exposure happens when the pregnant cow has been in contact with a persistently infected calf. The cow may recover from the virus, but the fetus will not. Consider this scenario “infect and persist,” quite a frustrating cycle.

The other way that BVD propagates is like a “hit and run,” common with stockers or feeder calves. An infected animal will either recover or perish within about a week. If the infected animal passes the BVD virus along to another animal before recovery or death, the virus survives. Logically, if the infected calf is restricted from passing the virus during recovery, the virus dies out.

Testing for BVD is fairly simple. An ear notch sample, taken at branding or as early in the calf’s life as possible, is ideal. Using a pig ear notcher, collect about a dime size sample of the outer ear. This sample can be placed in a blood serum tube, with the calf’s ID, and frozen until arriving at a lab. There are lots of places to get these samples tested; call your local vet or extension office for details on lab locations. If you suspect Bovine Viral Diarrhea in your herd, it is important to work with a vet. All calves in the herd will be tested to start the process of protecting future generations.
When you do come across a persistently infected calf, it should be ethically disposed of. Placing these cattle back in the livestock marketing system, where they may infect other cattle, is irresponsible. Infected cattle should either be euthanized or fed in isolated pens and sent directly to slaughter.

To protect your herd from BVD, quarantine all replacement animals for at least twenty-one days to safeguard against temporary infection. During quarantine, test for PI status. Isolate all new pregnant cows until calving and test their calves at birth. It is important to test these calves before the dams are rebred to eliminate the possibility of producing more PI cattle. Vaccination can prevent or slow the “hit and run” version of the BVD virus that produces temporary disease. Vaccinating cows to prevent the infection of calves, and thus the birth of new PI cattle, is helpful but not 100 percent effective. Establish a tailored biosecurity and vaccination program, with advice from your veterinarian.

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