

# BVD Testing Could Pay Off Big

A K-State veterinarian reviews a new study about the economic value of testing calves for bovine viral diarrhea.

by **Katie Allen**, Kansas State University

The name of the disease is somewhat misleading. Although symptoms of this problematic virus — bovine viral diarrhea, or BVD — in beef herds include respiratory disease and, of course, diarrhea, it can lead to even greater problems for beef producers.

“Diarrhea is such a minor part of this disease,” says Gregg Hanzlicek, a Kansas State University (K-State) veterinarian. “On a cow-calf operation, BVD’s biggest impact is on cow reproduction. It depends when the cow is exposed during pregnancy on what’s going to happen to her or happen to her fetus.”

Cow infertility, early embryonic death within 42 days of gestation, aborted calves and calves born with skeletal abnormalities can all occur in a BVD-infected herd, he added. When BVD enters feedlots and stocker units, it can suppress the immune system of calves and result in issues with bovine respiratory disease.

Because BVD has the potential to affect all of these beef industry segments, many in the industry are paying closer attention to it and paying a premium for calves that test negative as persistently infected (PI) with BVD.

In fact, video-auction data ([www.thecattlesite.com/news/46373/new-analysis-shows-bvdpi-testing-pays-netting-producers-14-more-per-head](http://www.thecattlesite.com/news/46373/new-analysis-shows-bvdpi-testing-pays-netting-producers-14-more-per-head)) show calves marketed in 2013 that had been tested and declared PI negative brought \$2.97 more per hundredweight (cwt.), a 23% increase from 2012. This translates to an additional \$14 per head on a 600-pound (lb.) calf.

Hanzlicek says if a producer sent samples from a group of calves to the K-State Veterinary Diagnostic Laboratory for PI testing, it would cost a little more than \$2 per head, so the return more than covers the cost.



Producers can choose to send two different types of samples — tissue, such as ear notches, or blood.

“For herds that are at a high risk of having BVD, testing is economical, and it’s a good part of a biosecurity program to keep BVD out of the herd,” Hanzlicek says. “It’s not typically for whole-herd testing. Test the youngest animals first. If there are no positives, then you can be fairly comfortable there is no BVD in the herd. If you find a calf that is PI positive, then you’ll have to go back and test the dam.”

Hanzlicek recommends that producers talk with their local veterinarian, because BVD PI testing is not for every herd. Some herds are more at risk and should consider testing.

## A complicated disease

PI calves are calves that carry BVD, and they silently shed the virus to other animals in the herd, unbeknownst to the producer.

“A PI calf is a calf that was exposed to the virus while it was in the uterus its first 40 to 120 days of gestation,” Hanzlicek said. “If it’s exposed during that time, the calf does not recognize that virus as being something foreign. When it’s born, it thinks that virus is part of it. That virus keeps reproducing within the calf and makes it basically a walking virus.”

The USDA’s National Animal Health Monitoring System conducted a study ([www.bvdinfo.org/wp-content/uploads/2013/supporting-articles/](http://www.bvdinfo.org/wp-content/uploads/2013/supporting-articles/)

*Overview-NAHMS-BVDPrevalence.pdf*) in 2007-2008 and found that approximately one in 12 herds had at least one PI calf. The prevalence of PI calves within the positive herds was anywhere from 1% and 16%.

If producers decide to test their herd after discussing it with their local veterinarian, they should test the calves before weaning.

“My recommendation is to test when you’re going to ear tag them, right after birth at maybe a day to a few days of age,” he says. “You can freeze the ear notches and send them all in at the same time. We need to get those PI calves identified and out of the herd as soon as possible after birth, certainly before the breeding season starts.”

Hanzlicek said producers should not take PI-positive calves to the sale barn.

“What happens is someone who doesn’t know they are PI calves takes them home in a group of calves, and they have a bovine respiratory problem or other problems,” he says.

Instead, some options producers might need to consider would be to place the animal in a quarantine pen and feed to slaughter, or euthanize the animal.

According to the USDA’s Animal and Plant Health Inspection Service (APHIS), humans are not susceptible to BVD. Producers also can consider vaccines to protect against BVD. Learn more about BVD through APHIS ([www.aphis.usda.gov/animal\\_health/emergingissues/downloads/bvdinfosheet.pdf](http://www.aphis.usda.gov/animal_health/emergingissues/downloads/bvdinfosheet.pdf)) or by visiting [www.bvdinfo.org](http://www.bvdinfo.org).



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