

**UCD VET VIEWS
CALIFORNIA CATTLEMEN'S MAGAZINE
JANUARY 2004**

NEW TOOLS TO PREVENT BVD LOSSES

Recently, we have heard about new vaccines to help prevent losses due the viral disease we call Bovine Virus Diarrhea (BVD). These new vaccines include those that can be used safely in pregnant cows and those that contain both type I and type II BVD virus. This month we will review what is central to BVD prevention and what tools we have in our tool chest to combat this important cattle disease problem.

I forget—what does BVD virus cause?

This virus can cause a wide spectrum of disease problems. Disease can be fairly mild to very severe. In well cared for cattle it can cause diarrhea, with damage starting in the mouth and extending throughout the gastrointestinal tract. Hence, the name: ***Bovine Virus Diarrhea***. BVD is also a major cause of respiratory disease in young cattle going into the feedlot. It can cause abortions in cows. One of the most important problems caused by BVD is the Persistently Infected (PI) animal. These PI cattle are actually infected with the BVD virus before they are born—at about 80-100 days of gestation in most cases. Many of these calves are born and cannot develop any immune protection against the BVD virus. They are sub-optimal performers (some obvious, some not). They shed billions of virus particles every day in their saliva, urine, and feces. They act as the “typhoid Mary” for the entire herd—infecting and re-infesting other cattle in the herd.

What do we need to remember to prevent BVD?

The most important points to control and prevention of BVD are (1) adequate vaccination of young cattle and replacement cattle, (2) annual vaccination (boosters) for the adult cow herd, (3) prevent the introduction of PI cattle, and (4) elimination of any PI cattle from the herd.

What are the current recommendations for vaccinating young cattle?

It is becoming clear that young cattle should be vaccinated twice with a modified live virus vaccine before leaving the herd of origin. This can be accomplished in a number of ways, for example: (1) vaccinate calves at branding and again at weaning, or (2) a pre-weaning vaccine and another at weaning, or (3) a pre-weaning vaccine and another post-weaning. It is important to vaccinate calves when they are not highly stressed and when it fits into your routine management scheme. Before spending the time and money to vaccinate the calves, check with your veterinarian regarding the best specific vaccine and the timing of vaccination for your herd. Also, have your veterinarian review the vaccine program used on replacement cattle you plan to purchase. Don't buy someone else's problem or poor vaccine program.

When should I booster the cowherd?

This is a difficult question to answer in a general way. There are new modified live BVD vaccines that are safe for pregnant cows. However, the cows must have been vaccinated with certain products previously for this to be a safe and effective procedure. You can vaccinate the open cows before breeding with a modified live BVD virus vaccine. You can safely use most killed vaccines in pregnant cows (however, you don't get the best immune response by this method). Be sure to check with your veterinarian about this part of your control program also.

How can I prevent the introduction of PI cattle into my herd?

The old saying, "Good fences make good neighbors" is an appropriate guideline to answer this question. Avoid having your pregnant cows (particularly cows less than 4 months pregnant) come into contact with cattle from outside your herd. The stocker calves that use winter range adjacent to a spring calving herd can be a very high-risk situation. Have all new bulls and replacement females tested for PI status.

How do I eliminate PI cattle from my herd?

This is an exciting part of BVD control. There are a number of new, cost-effective tests that can be used to identify PI cattle. Once they are identified they can be culled. This will help dramatically with BVD control in all cattle herds. We can use ear notches from cows or calves to test for PI status. The UC Diagnostic Laboratory (CAHFS) in Tulare does this testing as well the University of Nebraska's lab. Also, the CAHFS lab in Davis does a test on serum (blood sample) for PI status. For about \$3,300 you can test a herd of 1,000 cows for PI status using an ear notch sample. This is the same amount you pay for a top bull each year. This is very cost effective at about \$3.30 per sample. The serum test runs about \$5-6 per sample, but is a very good test also. Be sure and check with your veterinarian about which sample would be the best for you and your herd.

In next month's column, we will detail the BVD PI tests including costs, how to take the samples, where to submit the samples. I can't overemphasize the need to discuss your BVD prevention plans with your veterinarian. You can now prevent this costly disease with the new and improved tools.

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