

Talking IBR



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What you should know before vaccinating pregnant cows

In 2005, USDA approved the first “safe for pregnant cows” claim for a modified live vaccine (MLV) containing IBR (infectious bovine rhinotracheitis) and BVD (bovine viral diarrhea). While this claim makes vaccination more convenient, it does come with risk.

Improper use of MLV IBR vaccines during pregnancy has led to an increase in the number of IBR abortions. Dr. Chris Chase, professor, department of veterinary science, South Dakota State University, reports that their diagnostic laboratory has seen nearly double the number of cases of IBR-caused abortions.¹

“At South Dakota State University Animal Disease Research and Diagnostic Lab, we typically saw one to 10 abortions/cases a year that were positive for IBR. Since the label claim of ‘safe for use in pregnant cows,’ we’ve seen the number of IBR abortions jump. We had 17 abortions from July 1, 2005, to June 30, 2006. Of these 17 IBR abortions, 11 had history of the use of an MLV in a pregnant animal. It was administered two to four weeks before the onset of IBR abortion. The history of these herds indicated that they had not vaccinated the animals with the same product within 12 months.”¹

IBR vaccines can be abortifacients

Two vaccine manufacturers have demonstrated that using an MLV in a pregnant animal is of limited risk IF it is done fully according to label directions. However, using one of these approved MLVs safely in a pregnant animal means that animal **must** have been vaccinated with the same modified live vaccine prior to breeding. Based on field evidence, it appears that this prerequisite is sometimes being missed or ignored.

“The problem comes when the label instructions are not fully followed,” says Chase. “IBR modified live vaccines are abortifacient agents. IBR virus destroys the corpus luteum. This was first reported in 1968. There have been various reports since in naïve animals and animals with unknown vaccination history.”

That’s why MLV IBR-BVD vaccines have traditionally carried a label that says “do not use in pregnant cows or in calves nursing pregnant cows.”

“Even though one might vaccinate pregnant

cows on multiple occasions and see no adverse consequences, there is always a risk that one or both of these vaccine viruses (IBR, BVD) might cause abortion,” writes Dr. Jerome Nietfeld of the Kansas State University Veterinary Diagnostic Laboratory in the *Kansas Veterinary Quarterly*.²

Nietfeld recalls a case from the spring of 1999. The Kansas State Diagnostic Laboratory received four submissions from the same herd.² Each submission had tissues from two to three aborted fetuses. The lab was able to isolate IBR from the fetal tissues. Approximately 120 cows were vaccinated with an MLV containing IBR, BVD, PI₃ and BRSV viruses. Within 45 days of the initial vaccination, more than 50 cows had aborted or given birth to stillborn or weak calves that died soon after birth.

A sounder alternative?

You don’t have to risk the investment you have in a pregnant cow to an MLV. Vira Shield® 6+VL5 HB and Vira Shield 6+L5 HB are inactivated/adjuvanted vaccines that offer a sound alternative and are indicated for use in pregnant cows and heifers.

With Vira Shield 6+VL5 HB, you can protect against up to 12 reproductive and respiratory pathogens. It’s the only inactivated vaccine containing three BVD isolates, *Lepto hardjo-bovis* – the most common U.S. strain of bovine leptospirosis and the only hardjo in the United States, vibrio and Type 2 BVD in the same bottle.

You also gain the advantages associated with vaccinating at preg-check in beef animals and at dry-off in dairy cows. Vaccination with Vira Shield before calving means that protective antibodies are present for the cow at stressful times of calving and rebreeding. Plus, antibodies in her colostrum may be maximized for better passive protection to the calf.

Vira Shield 6+VL5 HB and Vira Shield 6+L5 HB are sound options for vaccinating during pregnancy. Can you afford to risk your unborn calves to any other vaccine?



IBR modified live vaccines (MLV) can be abortifacient agents in susceptible females. Using an MLV approved for use in a pregnant animal means the animal must have been vaccinated with the same MLV prior to breeding.



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1. Daly R. Timing of vaccination in beef cattle herd. Proceedings, Applied Reproductive Strategies in Beef Cattle. 2006; Rapid City, South Dakota.
2. Nietfeld J. Vaccination of pregnant cows with modified live virus vaccine is not without risk. *Kansas State Veterinary Quarterly*. Vol. 2, No. 2; April-June 1999.