

Livestock Health Series

Vibriosis

Jeremy Powell, DVM
Extension Veterinarian

Vibriosis is a disease that leads to reproductive inefficiency in cattle. This disease is caused by the bacteria *Campylobacter fetus* ssp. *venerialis*. Vibriosis is usually introduced when an infected cow or bull is purchased and added to the herd. The disease is transmitted venereally, so once a herd bull becomes infected from a carrier, he exposes the rest of the herd.

Vibriosis tends to cause most of the performance loss during the breeding season leading to infertility and loss of early pregnancies. Typical clinical signs of this disease would include a high percentage of cows in the herd returning to heat during the breeding season. They may also show prolonged or irregular estrus periods. Then, when calving season occurs many cows will be calving later due to repeated breeding caused by infection. Infrequently, cows may abort between four and eight months from a *Campylobacter* infection.

Once an animal is infected with this organism, it localizes in the reproductive tract. In cows, the organism then creates a uterine infection called endometritis. This state can persist up to three or four months. Endometritis leads to problems with the implantation of the placenta on the uterine wall. Therefore, early pregnancies will be aborted and reabsorbed without any outward signs of illness.

Antibiotics can be infused into the uterus to help aid and accelerate recovery. After recovering from an infection, cows will be resistant to reinfection due to their natural immune response.

This disorder is more prevalent in heifers and young cows because older animals tend to gain some inherent immunity if they have been exposed. Bulls typically show no clinical signs of the disease, which allows them to spread the disease unsuspectingly through the herd. Some bulls become infected with the disease and carry it for long periods, while other bulls mount an immune response and clear the disease. Bulls can be tested for the disease by swabbing the preputial cavity or performing a sheath wash. The collected material must then be sent to a diagnostic laboratory for culture.

Control of this disease can be accomplished by vaccination. Initially, the vaccine should be administered at 60 and 30 days ahead of breeding. After the initial vaccination and booster, only a single annual injection is required. Bulls, cows and heifers can be effectively vaccinated. Bulls should receive twice the dose that is given to cows for successful immunization. For more information about vibriosis and other diseases affecting cattle, contact your county Extension office.

*Arkansas Is
Our Campus*

Visit our web site at:
<http://www.uaex.edu>

JEREMY POWELL, DVM, is Extension veterinarian with the University of Arkansas Cooperative Extension Service in Fayetteville. FSA3088-PD-2-04N

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension Service, University of Arkansas. The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Equal Opportunity Employer.

Printed by University of Arkansas Cooperative Extension Service Printing Services.