BOVINE VIRUS DIARRHEA (BVD)

The disease conditions caused by Bovine Virus Diarrhea (BVD) virus have been recognized for many years. However, beginning as early as 1993 BVD virus was recognized as the cause of particularly severe outbreaks in Ontario, Canada. This year, a similarly severe outbreak of BVD has occurred in Pennsylvania. Additionally, many of the state veterinary diagnostic laboratories have reported an increase in BVD diagnosis. The California Veterinary Diagnostic Laboratory System has reported an increase in BVD-associated abortions to the USDA. The herds affected in Pennsylvania have predominately been dairy herds and the sickness and death loss have both been higher than typically expected with BVD virus. The signs have included: high fever (107 °F or higher), loss of appetite, decreased milk production, occasional diarrhea, respiratory signs, and death within as little as 48 hours. BVD can also cause severe diarrhea with oral and intestinal ulcers, as well as reproductive losses due to abortion. Needless to say, BVD can cause devastating losses in individual herds where cattle are not protected. It is too early to know if the outbreak being experienced in the eastern U.S. will spread to us in California or not. While the problems in the east have mainly been in dairy herds, the BVD virus is just as likely to replicate in beef cattle and to cause disease in range, pasture or feedlot animals.

Few producers maintain closed herds and the virus can be spread on equipment and clothing as well as by contact with infected cattle, so any herd could potentially be exposed. The BVD virus is fairly widespread and many cattle are exposed and develop immunity in the normal course of events. However, less than 15% of cow-calf operations in the U.S. vaccinate calves, cows, or replacement heifers against BVD according to USDA data from the NAHMS (National Animal Health Monitoring System) project. The number of California cattle vaccinated against BVD may be higher, but it is likely that many animals are susceptible and if infected by the strain of BVD causing severe losses in the east, similar losses could be expected here. Individual herds could be devastated. How can producers minimize the risk of BVD outbreaks? Some of methods are listed below:

*Limit the movement of cattle (maintain a closed herd to the extent possible).
*Isolate newly purchased and sick cattle.
*Avoid overcrowding, stress, and mixing of cattle.
*Discuss your vaccination program with your veterinarian, with the emphasis on BVD vaccines. Share this information about the recent BVD outbreaks in the east with your veterinarian. There are important facts regarding the types of BVD vaccines best for your herd that only your veterinarian will have access to.

Vaccination may not prevent infection with a new strain of BVD virus; however, it could help to reduce death loss and the severity of clinical disease. The USDA and other groups are working to further understand this latest strain of BVD virus to cause problems and additional information will be available.

SELENIUM UPDATE: Currently, legislation backed by the Forum for Animal Agriculture, is working its way through Congress to place a moratorium on the FDA enforcement of the lower allowable selenium (Se) levels for supplementation of cattle and other livestock. The decreased levels (1 milligram per day versus 3 milligram per day for adult cattle) are set to go into effect on September 13, 1994. A moratorium would not allow the FDA to enforce these lower levels. However, it is not clear that feed manufacturers will see this as sufficient protection against potential liability. A longer term solution to this problem is being sought as part of the 1995 Farm Bill. Several of us here at the University of California-Davis are working toward a solution to this livestock issue.

Dr. John Maas, DVM, MS
Diplomate, ACVN & ACVIM
Extension Veterinarian
School of Veterinary Medicine
University of California, Davis