University of California Cooperative Extension ■ Tulare County

Beef Roundup

March 2001

Neosporosis (Protozoa Abortion)

During the past 10 to 15 years, protozoa abortion has become a major reproductive disease in cattle throughout the world. The disease was recognized in California in 1984. Protozoa abortion is probably not a new disease, but a new recognized one.

There are no signs of clinical illness in cows that abort due to the *Neospora canimum* (a protozoa). The aborted fetuses usually show no gross lesions and placentas are not retained. Abortion may occur throughout the year in both heifers and cows. The majority of protozoa abortions occur during the fourth to sixth month of pregnancy. It has not been established whether *Neospora* infection can cause reproductive problems in the earliest stages of pregnancy, but death and three month mummified fetuses have been associated with protozoa abortion outbreaks.

Protozoa abortion infections have been reported in both dairy and beef cattle, but there are more reports of this type of abortions in dairy cattle, particularly those in drylot.

The cow's blood can be tested for *Neospora canimum*. Cows that carry the protozoa will be what is called a seropositive. The percent of cows that are seropositive can vary greatly between herds. In a California study, pregnant seropositive cows had a 7.4 increase of abortion in their first pregnancy. The risk in the second pregnancy was considerably lower, though this may have been influenced by selective culling of aborting cows after the first pregnancy.

There are two ways the disease can be transmitted, vertical and horizontal. Vertical transmission usually occurs at a 10-17% abortion rate. In this type of transmission, the cow is infected and she infects her calf. If the calf is a heifer, she will probably abort her first calf. The second calf will usually be born normal, but highly likely to be infected. Once the disease is in a herd, it can remain in the herd indefinitely, without a new introduction of the disease.

Horizontal transmission usually is associated with abortion storms, with the loss of 30% of the calves over a short period of time. The disease is thought to be introduced into the herd from dog feces or other unknown sources. The horizontal transmission usually converts to a vertical transmission.

There is no treatment or proven vaccination for protozoa abortion. The best tool we have today is management. Managing the aborted fetuses and afterbirth can be a big help. Identifying the cause of abortion in the herd can be a big tool in developing a management plan. Pick up the fetuses and put them where dogs or other animals cannot eat them. Keep dogs away from feeding areas. Also, a culling program based on cows that have aborted from protozoa abortion can help control this disease.

Some of the management suggestions may be expensive or time consuming. A producer has to balance the cost of management against the loss from protozoa abortion.

Taken in part from an article in *Animal Reproduction Science* by M. L. Anderson, et al. and comments by Dr. John Kirk, Vet. Med Ext., UC Davis and Tulare County.

AGRICULTURAL BLDG., COUNTY CIVIC CENTER • 2500 W. BURREL AVENUE, VISALIA, CA 93291-4584 • TEL (559) 733-6363 • FAX (559) 733-6720
U.S. Department of Agriculture, University of California, Tulare County Cooperating

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Tenth Annual
Beef Cattle Health Symposium

Saturday, March 24, 2001
California Mid State Fair Special Events Center
Paso Robles, California

Tentative Program

8:30 a.m. Registration

Topics

- **Bull Fertility, Use of Breeding Soundness Exam**
- **How to Interpret the Results of Breeding Soundness Exam**
- **Early Signs of Bull Infertility, Causes of Infertility and Intervention Strategies**
- **Non-reproductive Diseases That Can Reduce Fertility**

Lunch

- **Selection and Management of Bulls to Maximize Reproductive Function - Producer Panel**
- **Disease Surveillance**

For more information, contact:
Wayne Jensen
Santa Barbara County
(805) 934-6240

Ralph L. Phillips
Range/Natural Resources & Livestock Farm Advisor
Kern and Tulare Counties