

Alberta

Mortality due to *Haemophilus somnus* in calves

Mortality due to *Haemophilus somnus* infection is an increasingly important problem in Alberta feedlots. Although the most commonly known manifestation of *H. somnus* infection is infectious thromboembolic meningoencephalitis (ITEME), it appears that this organism is also directly responsible for lesions such as pleuritis, pneumonia, myocarditis, polyarthritis, laryngitis, pericarditis, and septicemia. Any combination of these pathological changes may be present in an individual case.

Preliminary results to December 31, 1988, of a study involving two Western Canadian feedlots in which recently weaned calves predominate, indicated that 66 percent of fatalities had lesions consistent with *H. somnus* infection. Of the 28,410 calves placed in the two feedlots from September through December, 1.04 percent of these animals died from manifestations

of *H. somnus* infection. Further microbiological and histopathological tests are in progress to support these observations and the results will be published in detail at a later date.

References

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Abortion due to *Ureaplasma diversum*

Ureaplasma diversum was established as the cause of abortion of a Hereford fetus at 8½ months gestation. This organism was first isolated from the stomach content of aborted fetuses in Alberta in 1975 (1). More recently, controlled experimentation has shown a causative relationship between the organism and bovine seminal vesiculitis, granular vulvitis, endometritis, salpingitis, infertility, and abortion (2). *U. diversum* has also been recovered from cultures of lung and abomasal content of stillborn calves and weak pneumonic neonates that die a short time after birth. Isolation of the organism from the bovine upper reproductive tract is significant and its effects in the gravid uterus are fairly consistent.

The severe placentitis seen grossly is characterized by multifocal to confluent generalized thickening, reddening, and yellow discoloration of the chorioallantois and amnion. Microscopically, there is edema, fibrosis, multifocal necrosis, a mixed inflammatory cell infiltrate, and mild vasculitis of both cotyledonary and intercotyledonary chorioallantois. The most prominent changes of the chronic active amnionitis observed are fibrosis, mineralization, focal necrosis, hemorrhage, and a predominantly mononuclear cell inflammation. Fetuses are generally aborted between 7½ and 8½ months gestation but abortion may occur as early as 3½ months. There are no gross lesions of the fetus. Microscopically, the most consistent finding is a bron-

chiolitis/alveolitis characterized by peribronchiolar lymphocytic cuffing, parabronchiolar lymphoid nodule formation, thickening of alveolar septae with mixed mononuclear cells, and variable numbers of macrophages and neutrophils in the alveolar lumen (3,4). All of the aforementioned macroscopic and microscopic pathological changes were observed in the fetus and placenta submitted to our laboratory and *U. diversum* was isolated from both fetal lung and placenta in the absence of other possible pathogens.

References

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