Novel Pneumonia Syndrome Causing Abortion and Calf Losses in North Dakota Beef Herds

In the past few years the NDSU-Veterinary Diagnostic Laboratory has investigated an increasing incidence of a novel pneumonia syndrome of abortion, stillbirths, and neonatal death in beef calves submitted for diagnostic evaluation. The age of affected calves typically ranges from mid-gestation fetuses to 1-2 day old calves.

Respiratory distress was a consistent finding in 1-2 day old calves prior to death. Typical calves were thin and poorly muscled indicating *in utero* growth restriction. The most striking abnormality was pneumonia of varying severity combined with bronchus-associated lymphoid hyperplasia (BALT hyperplasia).

Routine diagnostic testing has not identified the cause of the syndrome, although the gross and histologic findings indicate a chronic infectious insult. Cases have also been observed and reported in surrounding states, including South Dakota, Minnesota, Montana, Washington, Nebraska, and Iowa.

Although diagnostic workups have not yet identified a causative agent, it appears that affected fetuses develop an immune response supporting an infectious cause.

**ABORTION CASES – PLEASE SUBMIT FETUS AND PLACENTAS.**

Producers are responsible for the cost of routine abortion screen to determine the cause. However, in cases with chronic pneumonia and BALT hyperplasia, additional samples will be taken for more advanced testing aimed at identifying the cause. The additional workup will be provided at no cost to the client.