CACHE VALLEY VIRUS (CVV)

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**Cache Valley Virus**

- Occasional cause of abortion outbreaks in sheep.
- Spread by mosquitoes to pregnant ewes.
- Cause of infertility, abortions, stillbirths, and multiple congenital abnormalities in sheep.
- Potentially causes congenital birth defects of lambs, mostly affecting the brain and central nervous system. The virus also affects the skeletal tissue and muscles.
WHAT TO LOOK FOR

- The most noticeable effects are stillborn lambs and the birth of live lambs with congenital abnormalities affecting the CNS and musculoskeletal system.

- Hydranencephaly, hydrocephalus, cerebral and cerebellar hypoplasia, arthrogryposis, scoliosis, torticollis, and hypoplasia of skeletal muscles are common.

- Defects can show up as fused joints, curved or twisted spines, unusually thin and underdeveloped muscles, and enlarged skulls.

- Most lambs born with these severe defects are stillborn, yet CVV also can cause the birth of lambs that act abnormal, such as acting drowsy, weak, or unsteady.
Arthrogryposis is a congenital malformation that involves the posture and function of the limbs in newborn animals and humans.
Lamb Affected By CVV
INFECTION

- At less than 28 days of gestation, the embryos usually die and are reabsorbed.

- Between 28 and 45 days of gestation, the fetuses usually develop the "A-H syndrome," resulting in various congenital abnormalities affecting the central nervous system. Ewes that are infected usually show no signs of disease and develop a good immunity that lasts for several years. Cache Valley virus is similar to Akabane Disease except that it only affects sheep.

- After 45 days of pregnancy, there are usually no adverse effects.
CACHE VALLEY VIRUS

- The virus is endemic in most parts of the USA, Canada, and Mexico. Often there are epizootics affecting sheep over a wide geographic area that can include several states.

- At the time of abortion or birth the virus is usually no longer viable, and diagnosis is by demonstration of antibodies in precolostral serum or body fluids. Vaccines are not available.
**DIAGNOSIS**

- Determining whether Cache Valley was the cause of the abortions is difficult because the virus is not viable by the time its effects are noticed.

- Diagnosis often requires the demonstration of viral antibodies in serum or body fluids.

- Ewes that have been exposed to the virus appear to have lifetime immunity.
**Prevention**

- The most effective method of protecting ewes from the Cache Valley virus is to minimize their exposure to mosquito-infested areas during and shortly after the breeding season.

- No vaccine available.

- No known treatment available.
REFERENCES

- http://www.sheep101.info/201/diseasesa-z.html
