



*Our vision is to deliver superior animal health management solutions for our patients while providing value to our clients, a rewarding working experience for our practice team and support for our community*

*Our team is committed to delivering the highest quality of veterinary medicine and exceptional customer service with integrity, compassion and accountability. We strive to keep up to date with advances in veterinary medicine that will enable us to stay leaders in the deliverance of high quality veterinary services to our clients and their animals.*

## ***Ontario Goat's Annual General Meeting & Producer Education Day***

*February 24<sup>th</sup> 2016 @ Goff Hall in Woodstock, On.*

You may not want to miss out on an information-packed day with the following AGM Agenda Highlights:

Producer Panel Discussion: A group of goat producers will discuss how they use cost of production information to make improvements or efficiencies on their farms. Included in the discussion will be how they keep overall costs reduced by implementing best management practices and innovation on their farms.

- Dr. Bradley White will discuss the results of newly completed research on genetic resistance and susceptibility to scrapie in goats, the risk to Ontario goat herds and the importance of surveying goats in the Province as the first step in moving herds towards resistant status.
- Dr. Paula Menzies will be launching "A Guide to Udder Health for Dairy Goats", designed to educate producers and other industry personnel on how to best maintain the health of the udder in order to produce high quality milk, with a focus on mastitis and other practices designed to keep the herd healthy.
- Jillian Craig will present on the economics of raising dairy buck kids, focusing on the importance of colostrum, feeding management, and health and welfare in order to market kids successfully.

For registration details (deadline Feb 5) go to [www.ontariogoat.ca/contact-us/](http://www.ontariogoat.ca/contact-us/) or call (519)824-2942



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Recognize the signs

# Cache Valley Virus – A Cause of Birth Defects in Ontario Lambs

*Dr. Jocelyn Jansen, OMAFRA; Dr. Maria Spinato, Animal Health Laboratory; Dr. Paula Menzies OVC*

During the latter half of December 2015 and the start of 2016, the Animal Health Laboratory (AHL) received several submissions of stillborn and aborted lambs with unusual and severe birth defects. Other similar cases were also reported to OVC and OMAFRA veterinarians. The most likely cause of these birth defects is Cache Valley virus (CVV). Blood and tissue samples from fetuses, as well as blood samples from ewes, were tested for the virus and/or antibodies to CVV. On January 14, 2016, test results came back positive for CVV. CVV was previously diagnosed in Ontario flocks in 2011, 2012 and 2013.

CVV is a mosquito-borne virus. It is transmitted to sheep by infected mosquitos that previously fed on infected white tail deer, or that are offspring of infected mosquitos. Late summer and early autumn are the months when the highest amount of virus is present in the mosquito population. CVV is considered endemic in most parts of the United States, Mexico and Canada and infects a wide range of domestic and wild animals, as well as humans. Clinical disease, in the form of birth of deformed lambs is most often reported in sheep. The virus is spread by several species of mosquitos. The Schmallenberg virus that has affected ruminants in many European countries also belongs to the same family of viruses.

Lambs and non-pregnant sheep infected with CVV show no signs of disease. However, if infection occurs during the first trimester of pregnancy (up to 48 days of gestation), the virus may cross the placenta and cause damage to developing fetuses. If infection occurs during the first 28 days of gestation, the embryos usually die and are resorbed. Infection between 28 and 48 days of gestation usually result in fetal malformation. Usually these lambs are born at term, stillborn or occasionally alive, but may also be aborted. These lambs have obvious malformations of the legs, spine and brain. Malformations include underdeveloped/absent brain tissue and musculature, fluid accumulation around the brain, permanent flexing of joints, and curvature of the spine (Figures 1 and 2). It is not unusual for not all fetuses in the same litter to be affected, i.e. a normal lamb may be born co-twin to a deformed lamb. Infection after day 48 of gestation causes no harm to the fetuses. Most producers report that deformed lambs are born in late December and early January – reflecting that the infection occurred approximately 3 to 4 months earlier (August to October) when ewes were in early gestation. Lambs born after this are unaffected because mosquito populations were decreased or killed by cold weather in late October and November. Goat fetuses may also be affected by CVV but to-date, no affected goat kids have been reported in Ontario.

Diagnosing CVV as the cause of lamb malformations or pregnancy loss is difficult because the infection occurs months before the lambs are born. If CVV is suspected, have your veterinarian submit samples (fetuses, placenta, blood from ewes) to the Animal Health Laboratory in Guelph or Kemptville. As the cause of a disease outbreak (i.e. abortion, birth defect) may change from year to year, it is important that the cause be confirmed. Animals that have been exposed to CVV may have lifelong immunity which should be protective to subsequent lambings. However, infection with CVV does not protect against infection from other viruses in the same family. A 2011 study found that the prevalence of CVV in Ontario sheep flocks (based on antibody titres) was widespread. Research into the seroprevalence of CVV in the Canadian sheep flock is ongoing.

CVV is a mosquito-borne zoonosis, which means that people can also be infected through bites from infected mosquitos (the infection is not spread through contact between sheep and people). Infection usually is asymptomatic or causes a mild fever. More severe neurological signs are rare but have been reported. Antibodies to CVV were identified in 5 to 16% of West Nile suspect cases from Manitoba and Saskatchewan in a 2009 report. Disease prevention is aimed at reducing exposure to mosquito bites by eliminating mosquito breeding sites, wearing protective clothing and using insect repellants.

It is unclear as to why there has been an increase in CVV cases this year given the high prevalence of antibodies (exposure) in the Ontario sheep population. A new strain of CVV or the unusually warm autumn of 2015 allowing for increases in mosquito populations, may be reasons for the greater number of cases.

There are no vaccines or treatments available to protect livestock against CVV. Preventive measures such as using insect repellants on breeding females during the mosquito season may help decrease fetal infections, but they are often difficult to implement. Keeping sheep away from cedar bushes and from wet areas during the breeding season may help to reduce exposure to mosquitos. The study performed in 2011 showed that sheep housed in a dry lot during the autumn were more likely to be infected. This may be because of near-by breeding areas for mosquitos and the inability for sheep to move away (e.g. upwind or into shelter) when being bitten. Work with your flock veterinarian on how best to reduce the risk of fetal losses due to CVV infection.

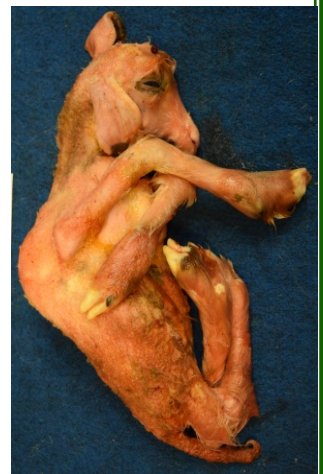


Figure 1: Lamb born with flexed joints, curvature of the spine and poorly developed musculature. (Property of AHL)

# 10 Tips for Caring for your Older Companion

Because of advances in nutrition, management and health care, horses are living longer, more useful lives. It's not uncommon to find horses and ponies living well into their 20s and 30s. While genetics play a role in determining life span, you too can have an impact.

You may think that turning your old-timer out to pasture is the kindest form of retirement. But horses are individuals. Some enjoy being idle; others prefer to be a part of the action. Whatever you do, don't ignore the horse. Proper nutrition, care and exercise will help the animal thrive. Follow these guidelines to develop a total management plan for your older horse:

1. Observe your horse on a regular basis. Watch for changes in body condition, behavior and attitude. Address problems, even seemingly minor ones, right away.
2. Feed a high quality diet. Avoid dusty and moldy feeds.
3. Feed your older horse away from younger, more aggressive ones so it won't have to compete for feed.
4. Feed at more frequent intervals so as not to upset the digestive system. 2-3 times daily is best.
5. Provide plenty of fresh, clean, tepid water. Excessively cold water reduces consumption which can lead to colic and other problems.
6. Adjust and balance rations to maintain proper body conditions. A good rule of thumb is to be able to feel the ribs but not see them.
7. Provide adequate, appropriate exercise to maintain muscle tone, flexibility and mobility.
8. Groom your horse frequently to promote circulation and skin health.
9. Be aware that older horses are prone to tumors. Look for any unusual lumps or growths from head to tail as well as beneath the tail (especially on gray horses).
10. Schedule routine checkups with your equine veterinarian. Call immediately if you suspect a problem.

A quick response to ailments, injuries or a decline in fitness can keep your older horse from having a serious or prolonged setback. That means less worry for you and a better quality of life for your old friend. For more information about caring for the older horse, ask us how we can help.

*Cited with permission from aaep.org*



# Dairy Biosecurity: *Salmonella* Dublin

A new threat has been found in Ontario – recent tests have revealed *Salmonella* Dublin in a veal calf operation. This bacteria can cause massive devastation to a herd and **is transmissible to humans** as well as other species. Frequently, this bacteria is **antibiotic-resistant**, making **heightened biosecurity measures** crucial to maintain herd health status. Producers are urged to take precautions with new or sick calves on the farm.

The bacteria are shed through feces and milk. Some animals may become lifetime carriers of the infection. With a **50% mortality rate**, *Salmonella* Dublin can cause severe devastation. Stress due to overcrowding, poor air quality, co-infections, transportation, or nutritional deficiencies can trigger the symptoms of this bacterial infection. Testing and culling is the only eradication protocol currently suggested for infected herds. With proper biosecurity measures, detailed below, the spread of *Salmonella* Dublin can be limited.

## Symptoms

Normal salmonellosis presents as a gastro-intestinal issue; however *Salmonella* Dublin most often presents as a respiratory illness. **Calves less than six months old are at the highest risk** for infection, but the whole herd is at risk.

Calves will show signs through:

- |                                  |                        |
|----------------------------------|------------------------|
| Fever                            | • Dehydration          |
| Coughing                         | • Septicemia           |
| Pneumonia                        | • Unwillingness to eat |
| Diarrhea (especially terminally) | • Abortion in cows     |

It is important to note that **carrier animals may not display any symptoms**, but continue to shed the organisms in manure and milk. This bacteria can infect humans. **Fecal-oral introduction** and **raw milk consumption are high-risk** activities. *Salmonella* Dublin in humans **can cause illness and death**. Very young or elderly people, those with weakened immune systems, and those who are pregnant have the highest risk of becoming infected.

## Protecting the Herd

Ensuring that farm visitors are not carrying the bacteria is the first step to controlling spread. Farm-associated vehicles – including milk trucks, feed trucks, livestock transporters, and deadstock vehicles – all pose the risk of introducing *Salmonella* Dublin to the farm. Disinfection of trucks, boots and clothing when moving between farms will help to keep your herd healthy.

New calves and cows should be quarantined upon arriving on the farm. Since stress often triggers this illness it is likely that the calf, if infected, will soon show symptoms. Feed and care for the quarantined animals last, and disinfect anything with fecal or oral contact after each use. This disease is not confined to veal operations. All dairy herds should be on alert and should contact their veterinarian if they are experiencing calf sickness. Prevention is key – if you would like to review your calf husbandry protocols do not hesitate to contact any member of the Cannington Vet Services Team.

<http://ontarioveal.on.ca/factsheet-salmonella-dublin/>