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*We will provide industry-leading, reliable, knowledgeable service, in a friendly, courteous and timely manner, to benefit our clients and the communities we serve.*

St Clements Clinic Hours: Mon-Fri 7am to 5pm Open Saturday 7am-12pm

Hwy 89 Clinic Hours: Mon-Sat 7am to 1 pm

CLINICS ARE CLOSED SUNDAY and NO DELIVERY SERVICE SATURDAYS AND HOLIDAYS

Orders for Delivery: Please, call BEFORE 9:30 am, for same day local delivery Monday to Friday

24 Hour Emergency Vet Service - call 519-698-2610 519-323-9002 519-699-0404 1-800-663-2941

## **DECEMBER 2024 NEWSLETTER**



### **Postal Service Interruption**

Please let us know if you have a cheque to pick up at next farm visit, or on delivery.

We also accept credit card payments over the phone, payments through online banking with all the major banks and the credit unions, and cash. (*Not e-transfers.*) You can also pay by cash or cheques by visiting us in St. Clements or Mount Forest. If you are receiving this by email, and normally get by post, we will send out the package when service resumes. Call if you have any questions!

If you are receiving this from one of our team in person, **we would love it if you send us an email!** If you have an email address, and we don't have it, please share it by email. [linwoodvet@linwoodvet.ca](mailto:linwoodvet@linwoodvet.ca)

### **Winter Wonderland and Holidays**

**Christmas Day & Boxing Day (Dec 25<sup>th</sup> & 26<sup>th</sup>):** There will be no delivery service either Christmas or Boxing Day. Both the St. Clements and Hwy 89 clinics will be closed. The on-call vet will be available for emergencies.

**New Year's Day (Jan 1<sup>st</sup>, 2025):** There will be no delivery service on New Year's Day. Both the St. Clements and Hwy 89 clinics will be closed. The on-call vet will be available for emergencies.

**Holidays and Weather Interruptions:** Please plan ahead for your essential needs, as unpredictable weather and holiday shutdowns can delay or disrupt product availability.

Keeping the laneways and entrances as free of snow and ice as possible will help ensure vets and staff can get in to see you and your animals, and deliver the medicines you need. *Thank You!*

**CALF JACKETS – ON SALE WHILE SUPPLIES LAST – \$25 APIECE**  
**FOR ALL SIZES! (Med, L, XL)**

## Salmonella Dublin

### **What is it?**

*Salmonella* Dublin is a strain of *Salmonella* bacteria. It is host-adapted to cattle, but can spread to people too. It most often presents as pneumonia and sudden death in calves and is very difficult to treat, as it is often resistant to a large variety of antibiotics. *S. Dublin* is an emerging disease in Ontario which has become more common over the last few years. In one 2023 study, 100 dairies in Ontario were sampled and *S. Dublin* was present on 25% of them. Since treatment is difficult and usually unrewarding, prevention is very important to control the spread of this disease. These recommendations will focus mainly on dairy farms, but this disease is relevant to veal and beef operations as well!

### **Typical presentation**

As prior mentioned, an *S. Dublin* outbreak will present as sudden onset of pneumonia and high mortality in calves. Affected calves can range anywhere from one week to 8 months of age, and the calves with pneumonia usually do not respond to treatment. Other, less common presentations can include fever and/or scours followed by sudden death, or sometimes seizures. Adult cows usually do not show clinical signs, but sometimes abortion will occur.

### **Transmission**

There are three main sources of *Salmonella* Dublin in an infected herd: sub-clinically affected “carrier” cows, clinically ill calves, and the environment.

1. Carrier cows: These are animals that have been infected with *S. Dublin* at some point in their lives, but instead of getting sick and recovering they simply stay infected without showing any clinical signs of sickness. These animals can shed *S. Dublin* bacteria to other animals in the herd through their feces, milk, and even to their calves in utero – meaning calves from dams who are carriers can be infected before they’re even born. **Identifying cows in your herd that are carriers and culling them is the most crucial step to controlling disease!**
2. Clinically ill calves: Calves that are infected with *S. Dublin* will shed high levels of the bacteria in their manure, which can then infect the other calves in their pen. During an outbreak, this is the main way the disease is transmitted.
3. Environment: *S. Dublin* can multiply in warm, moist environments (such as damp or soiled bedding) and can survive for months even in dry feces and soil.

### **Diagnosis**

There are a few tests available for detecting *Salmonella* Dublin in a herd, and all have their benefits and drawbacks. The simplest test when trying to see if *S. Dublin* is present in your herd is to: collect a milk sample from the bulk tank. However, this test is not very sensitive and positive herds can easily be missed.

Another common testing method is to collect blood from individual animals and run an ELISA test for antibodies, which tells you whether the animals have been exposed to the disease in the past but **cannot** tell you which animals are *currently* infected. This ELISA test is how carrier animals are identified – to be considered a carrier, an animal must have three positive ELISA blood tests, each one taken two months apart. This shows that the animal is maintaining high levels of antibodies against *S. Dublin* that are not decreasing with time, suggesting they are a carrier of the disease. This test works best on animals that are 100-300 days of age.

If you are experiencing an outbreak of pneumonia and calf mortality and suspect *S. Dublin*, the best way to diagnose this is to have your veterinarian perform a post-mortem exam on one or more of the (recently) dead calves. Your veterinarian will take samples of different organs and tissues during the postmortem and can send them to the diagnostic lab to be cultured for *S. Dublin*.

### **Prevention and control**

As discussed above, *Salmonella* Dublin is a very frustrating disease to deal with, as it is usually not responsive to antibiotic treatment. Because of this, preventing the disease and controlling its spread once it is on the farm are key. Identifying and culling carriers is crucial, but there are also other important steps that should be taken as well:

- Having a closed herd (no new animals arriving on the farm or current animals leaving and returning to the farm) is most ideal for preventing the introduction of *S. Dublin* in a herd.

- If you do have new arrivals coming to the farm, or animals that left the farm and are returning (ex. livestock show, embryo transfer facility, etc.), they should receive an ELISA test for *S. Dublin* prior to reintroducing them to the other animals in the herd.
- The calving area should be clean, dry, and well-bedded, with 3 or less animals in the pen at a time. Bedding should be added to the calving area at least once a week.
- The calving pen should not be used to house sick animals.
- Calves should be removed from the calving area as soon as possible after birth.
- Identify sick calves and separate them from the other calves as quickly as possible, to prevent transmission of disease from sick calves to healthy calves.
- When cleaning and disinfecting pens and equipment contaminated with manure, avoid powerwashing as this can aerosolize *S. Dublin* particles, spreading it through the barn.

### **Risk to human health**

While thankfully transmission to humans is rare in Ontario, *S. Dublin* can cause severe disease in people. A high proportion of people infected with *S. Dublin* develop a bloodstream infection (septicemia) and require hospitalization. Populations such as young children, immunocompromised, and elderly people are at a higher risk for disease. *S. Dublin* can be spread to people by consuming raw milk from infected animals, or by having direct contact with infected animals or their manure, bedding, or contaminated equipment. To reduce your risk of disease, always wash your hands thoroughly after being in the barn, especially before eating or touching your eyes, mouth, or nose. Wearing gloves when handling sick cattle is also a good general practice. If you know you have *S. Dublin* present on your farm or your herd is high-risk for getting *S. Dublin* (for example, if you have an open herd), avoid consuming raw milk from your bulk tank.

If you have any questions, your herd veterinarian would be happy to talk further with you about testing, prevention, and control of *S. Dublin*!

### More information:

- “What is *Salmonella* Dublin?” factsheet, CalfCare.ca  
<https://calfcare.ca/wp-content/uploads/2021/06/What-is-Salmonella-Dublin-FINAL.pdf>
- *Salmonella* Dublin Fact Sheet for Animal Owners, OMAFRA  
<https://www.oahn.ca/resources/factsheet-salmonella-dublin/>
- Perry, K.V. et al. “Risk factors for *Salmonella* Dublin on dairy farms in Ontario, Canada.” *Journal of Dairy Science*, vol 106, issue 12, 9426 – 9439. Dec 2023, [https://www.journalofdairyscience.org/article/S0022-0302\(23\)00565-9/fulltext](https://www.journalofdairyscience.org/article/S0022-0302(23)00565-9/fulltext)



**A VERY MERRY AND SAFE CHRISTMAS  
AND HAPPY NEW YEAR WISHES  
FROM ALL YOUR VETERINARIANS AND  
STAFF AT  
HWY 89 AND LINWOOD  
VETERINARY SERVICES!**