



# FEB 2021 DAIRY NEWSLETTER

## The Curse of Crypto- What is it?

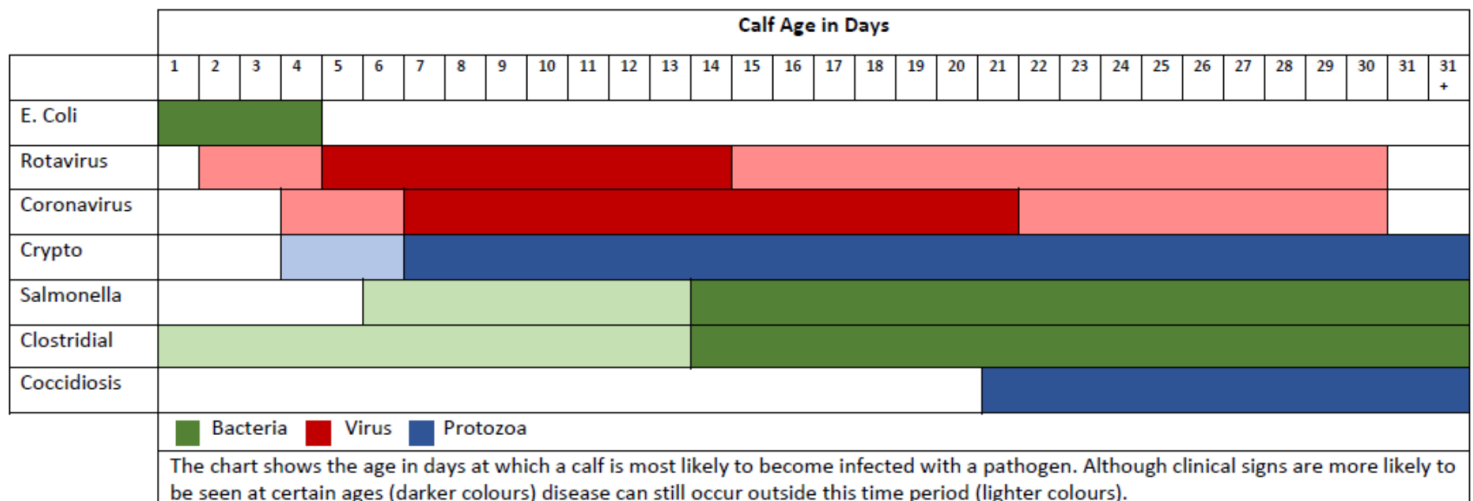
Cryptosporidium parvum is a parasite that is a common cause of scours in calves 5-10 days old. It is so common that infected calves were found on 76% of 500 farms sampled in Southwestern Ontario. Many cows will shed this protozoa in their manure, making calving pens hot spots for infection.

### *What does Crypto do?*

Calves become infected by ingesting eggs or oocysts which are shed in manure from cows or calves. Once these eggs are consumed, they will undergo development and ultimately end up causing extensive damage to the cells of the intestines. This damage results in devastating effects on the calves ability to absorb nutrients, and will also cause severe dehydration. While Crypto generally does not result in mortality, damage to the guts can be severe enough that calves may die. Additionally, the disruption to their ability to absorb nutrients can stay with them long after they recover and will affect growth and performance for life.

### *Identifying Crypto*

Unfortunately, it is impossible to identify the cause of scours based on what it looks like. There is a slight pattern of infectious agents based on the age of the calf, but as you can see below, once the calf is of a certain age you can never be sure without testing. The best way to know what bugs you are dealing with is to sample the calves who have started to scour. This can be done by asking your herd health vet to take samples, or you can bring samples into the clinic.





## Prevention

The fecal-oral route of infection is critical to remember when fighting crypto. If a calf comes into contact with the organism from the calving pen, or their hutch had a scouring calf in it before them, they will soon become sources of infection for others. Infected calves begin to spread the organism and can shed up to 10 million eggs per gram of manure. Over the course of their 6-9 day of scours, this can result in over 40 billion eggs shed into the environment! This volume of shedding along with the resilient structure of Crypto eggs truly makes it a difficult pathogen to control. Eggs have tough outer shells making them resistant to most cleaners, even bleach.

Removing calves from calving pens is critical to control crypto. Calves must then be placed into areas which have been cleaned and disinfected, especially if there was a case of scours. Chlorine dioxide and 3% hydrogen peroxide are two of the few disinfectants that can actually kill crypto eggs, and are therefore necessary to combine into your cleaning protocols. The Kirkton Vet clinic now sells chlorine dioxide tablets which can be placed into backpack sprayers to make disinfecting easier, everything from hutches to bottles and nipples.

Feeding calves a higher plane of nutrition has been shown to help in studies where calves were challenged with crypto. Calves fed  $\geq 8$  L/day showed a faster resolution of diarrhea, and improved growth and feed efficiency. Halofuginone lactate, commonly called Halocur, can also be used in calves when the crypto challenge is high. This product slows the growth of the protozoa and greatly reduces shedding. This is why Halocur on it's own will not fully control crypto on a farm if cleanliness is not addressed first.

## Take Home

Crypto is a seriously difficult pathogen to control on farm, and a common cause of scours in calves 5-10 days of age. Once you have a case it does not take long for the environment to become heavily contaminated with infective eggs which will require chlorine dioxide or 3% hydrogen peroxide to kill. Talk to your herd health vet to test for or control crypto, and remember... humans can get it too! 🤢

## Did you know?

You can enroll your farm on the calf program and get the following for only **\$25 per calf enrolled:**

- Total proteins collected on every new born calf to evaluate your colostrum program
- intranasal vaccinations, ear tagging, vitamin injections can all be done by our techs
- all calves are dehorned at 1 month and have extra teats removed
- calves are weighed at 8 weeks and their average daily gain (ADG) is calculated
- your performance is reported and your farm is ranked among the other 11 farms every 2 months