

Crypto Prevention CRYPTOSPORIDIUM PARVUM

FOR PEOPLE IN CONTACT WITH LIVESTOCK

Cryptosporidiosis is a diarrheal disease caused by *Cryptosporidium parvum*, a microscopic parasite. Both the disease and the parasite are commonly referred to as "Crypto". This coccidian protozoan is an important pathogen in both animals and humans. While it induces a self-limiting, acute diarrheal disease in immunocompetent individuals, Crypto can cause life-threatening diarrhea in immunocompromised patients. Crypto lives in the intestines of infected animals or humans. An infected animal or person sheds Crypto parasites in their feces. Millions of Crypto organisms can be released in each bowel movement from an infected animal or human. Shedding of Crypto in the feces begins when the first symptoms (e.g. diarrhea) start and can last for

weeks after the symptoms stop. People are most often infected after accidentally ingesting the parasite. Crypto may be found in the soil, food, water, or any surfaces that have been contaminated with the feces from infected animals or humans. The domestic animal of most importance as a reservoir of Crypto is cattle. Neonatal calves are infected during the first days of life, leading to diarrheal disease. In a study of more than 1000 farms, Crypto was detected in the feces of more than 20% of the calves residing on 60% of the farms. Many calves shedding Crypto in their feces have no clinical signs of disease.

You should always assume that feces are contaminated with Crypto!

You Can Become Infected:

- By putting something in your mouth or accidentally swallowing something that has come in contact with feces of an animal or person infected with Crypto.
- By touching your mouth with contaminated hands. Hands can become contaminated through a variety of activities, such as touching surfaces (*bathroom fixtures, calf hutches, thermometers, soiled coveralls, soiled boots, etc...*) that have been contaminated by feces from an infected animal (e.g. calf) or person.
- By swallowing water, beverages, or food contaminated with feces from infected animals or humans.



You Can Protect Yourself:

- Wear protective coveralls and boots while handling all animals (*especially neonatal livestock*) and remove or clean and disinfect these garments when finished.
- Minimize contact with the feces of all animals, particularly young animals (*consider all neonatal livestock to be potentially shedding Crypto if they are \leq 3 months of age*).
- Neonatal livestock routinely have fecal matter contaminating their heads, hair coats, legs, etc. You do not have to handle the feces to become infected. When handling animals, feces, or being in contact with their living area, wear disposable gloves, and always wash hands when finished.
- Wash hands with soap and water for at least 20 seconds: before preparing or eating food, after using the toilet, after handling an animal or animal waste (e.g. *wash hands after cleaning boots and equipment*).

Prevention and Control of Crypto specific for Farm Animal Field Services:

- Do not eat, drink, or chew gum when handling animals.
- When handling animals, avoid putting anything in your mouth (*pens, syringe caps, etc...*).
- Wear disposable gloves when handling all animals.
- Handle sick or at risk calves last (*handle healthy animals first*) and change gloves immediately afterwards.
- Wear gloves while washing boots and equipment.
- Wash boots and equipment first by rinsing/spraying surfaces to remove organic materials (*soil, feces, blood, etc...*) and then by washing with disinfectants (e.g. *chlorhexidine*) for at least 20 seconds.
- Before entering the cab of Field Services trucks, remove soiled clothing, place soiled clothing in a garbage bag in the "vet box", and don clean clothing.

What should you do if you believe you might have Crypto?

- While some people with Crypto have no symptoms, the most common disease suffered by infected people is watery diarrhea. Other symptoms include stomach cramps, dehydration, nausea, vomiting, fever, and weight loss.
- Symptoms of Crypto generally begin 2 to 10 days after becoming infected and usually last 1 to 2 weeks (symptoms may be cyclical).
- If you suspect that you may have Crypto, see your health care provider and inform them of your presumed infection.
- At the time of your illness **please notify your supervising clinician, complete an incident report** (available in the Large Animal Clinical Sciences departmental office), and **contact Dr. Amy Knowles**, UTIA Occupational Health Nurse, aknowles@utk.edu.