

# Bovine News From... PERRY VET



FALL 2014

Volume 9 Issue 3

## FEATURES

Chlorine Dioxide

Perry Vet  
Warehouse  
Project

Hygiene Audit

Welcome Dr.  
Edwards

### Chlorine Dioxide

by Dave Hale DVM

Chlorine dioxide is a highly effective antimicrobial that kills bacteria, yeasts, molds, and viruses. Chemically chlorine dioxide (ClO<sub>2</sub>) exists as a gas dissolved in water. ClO<sub>2</sub> works via an oxidation reaction which kills bacteria very rapidly. ClO<sub>2</sub> is environmentally friendly as it does not form pollutants with organic material in the way elemental chlorine does. Also, ClO<sub>2</sub> is superior to bleach as a disinfectant as it remains active in the presence of organic matter.

Biofilms, Organic layers of protein and fat (milk scum) called "biofilm", develop on all surfaces that contact milk or milk replacer. Bleach (sodium hypochlorite) cannot cut through the biofilm therefore allowing bacteria to continue to grow. The oxidative reaction produced by ClO<sub>2</sub> destroys bacterial cell membranes so it rapidly kills undesirable organisms. Another benefit of ClO<sub>2</sub> is that it is one of the few disinfectants to demonstrate efficacy against cryptosporidia. Cryptosporidium is one of the most common causes of calf diarrhea. A 250 ppm ClO<sub>2</sub> solution only needs 3 – 5 minutes contact time to kill cryptosporidia (Sockett).

The on farm applications of ClO<sub>2</sub> are numerous. Whole farm water treatment systems to calf hutch cleaning/foaming/disinfecting products are available. The Perry Veterinary Clinic is pleased to meet all your ClO<sub>2</sub> needs through a partnership with CDG Environmental, manufacturers of CDG 3000. This is the only ClO<sub>2</sub> concentrate that is available in solution.

[www.cdgenvironmental.com/content/cdg-solution-3000](http://www.cdgenvironmental.com/content/cdg-solution-3000)

Contact Scott Partridge at the farm store for details on applications, availability, and pricing.

Call 585-969-9121 or email [spartridge@perryvet.com](mailto:spartridge@perryvet.com)



### Farm Store Renovation



Please excuse our mess as we finish the farm store and warehouse renovation project. The farm store entrance is temporarily located at the south west corner of the new warehouse (follow the signs). Completion of this project will allow us to continue to meet your farm supply and drug needs at the most competitive pricing.

PERRY VET  
Road Service  
3180 Route 246  
Perry, NY 14530  
P: (585) 969-9115  
F: (585) 237-5544

Hours of Operation:  
M-F: 7am-5pm  
Sat: 7am-2pm

  
PERRY VET  
KNOWLEDGE IS HEALTH.

**NOW**  **IN STOCK!**



Farm Advantage Price

Get 50% OFF 1st time  
purchase of the gun when  
purchased with a case of  
Hoof Tite glue while  
supplies last

## Sanitation Audits

Dave Hale DVM

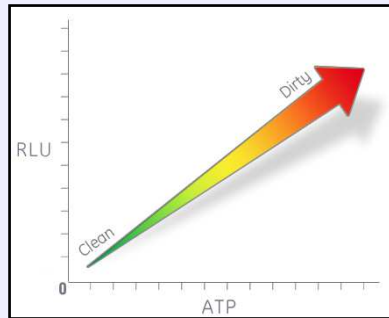
Morbidity and mortality associated with calfhood diarrhea remains a constant problem on all dairies. Physiologically baby calves (less than 21 days old) are prone to gastrointestinal disease for three reasons:

- 1 - IgA antibodies from the colostrum, the immunoglobulin which protects the gut surface, disappears between 5 and 10 days of age.
- 2 - Maximum stomach (abomasum) acidity which protects against harmful bacteria is not reached until 5 to 7 days of age.
- 3 - Adult enterocytes (gut cells), which provide a better barrier to pathogens, are not in place until 5 to 7 days of age.

Proper sanitation plays a major role in protecting young calves from disease. Diagnosis of the root cause of calf scours involves four critical areas; water hygiene, feeding equipment, environment, and biosecurity (personnel).

Sanitation audits are performed with a luminometer. The luminometer measures the cleanliness of surfaces through a bioluminescent reaction which measures the amount of light produced when cell compounds are combined with luminescent material on a special swab. The cleaner the swabbed surfaces, the fewer the bacteria present, the less light emitted. Swabbing from each of the four areas can help to pinpoint major sources of disease causing organisms.

Perry Vet Clinic is pleased to announce that Jill Kingdon LVT has completed training and is now available to conduct sanitation audits. The audits can be performed in the midst of a diarrhea outbreak or even better as a routine screening to identify pathogen source and prevent future catastrophes. Contact your herd veterinarian to set up



### Common testing points

#### Calving Area

Calving pen bedding  
Calving pen enclosure  
Esophageal feeder tubes  
Esophageal feeder tubes  
Sled  
Hot Box

#### Calf transport:

Bedding: rubber mat  
Walls  
Tailgate

#### Feeding Prep

Colostrum bottles in Fridge  
Nipple-from wire basket  
Bottles  
Pasturizer hose  
Water hose

#### Calf housing

Milk Bucket/feeder  
Grain bucket in hutch  
Grain garbage can  
Milk transport  
Milk hose-on gator  
Water bucket  
Bedding  
Inside hutch  
Fencing  
New bucket waiting for calf



**FARM SUPPLY STORE**  
LOCATED AT PERRY VET

**Store Hours:**  
Mon-Fri: 7am-5pm  
Sat: 7am-NOON

- CLOSED -  
New Years Day, Memorial Day,  
July 4th, Labor Day,  
Thanksgiving & Christmas



**PERRY VET**  
KNOWLEDGE IS HEALTH.

3180 Route 246 | Perry, NY 14530

**PLACE A FARM SUPPLY ORDER**

P: (585) 969-9120  
F: (585) 237-5544


**Current Customers**  
You can place your order by email:  
orders@perryvet.com

You will receive a confirmation email from Farm Store staff. Please include a contact name and phone number.

perryvet.com

### Welcome to Dr. Edwards!

Hailing originally from Southwestern Ontario, Canada, Dr. Kristen Edwards received her undergrad degree in Zoology from The University of Guelph, located in Ontario, Canada and earned her Doctorate in Veterinary Medicine from The Ontario Veterinary College. Her journey to becoming a veterinarian included serving as a herdsman on a dairy farm in Killenagh, Ireland, attending the Cornell Summer Dairy Institute in 2013, and studying ultrasonography with Dr. Jill Colloton. Dr. Edwards is a member of both the American Association of Bovine Practitioners and the Ontario Associate of Bovine Practitioners. In her spare time Dr. Edwards enjoys taking canoe trips, watching and playing hockey, snowboarding, and hiking through The Algonquin Provincial Park interior. Dr. Edwards shares her home with her Duck Tolling Retriever-German Shepherd cross, Kaia.



**PERRY vet**  
KNOWLEDGE IS HEALTH.

3180 Rte 246, Perry, NY 14530