

## Scours in Your Herd

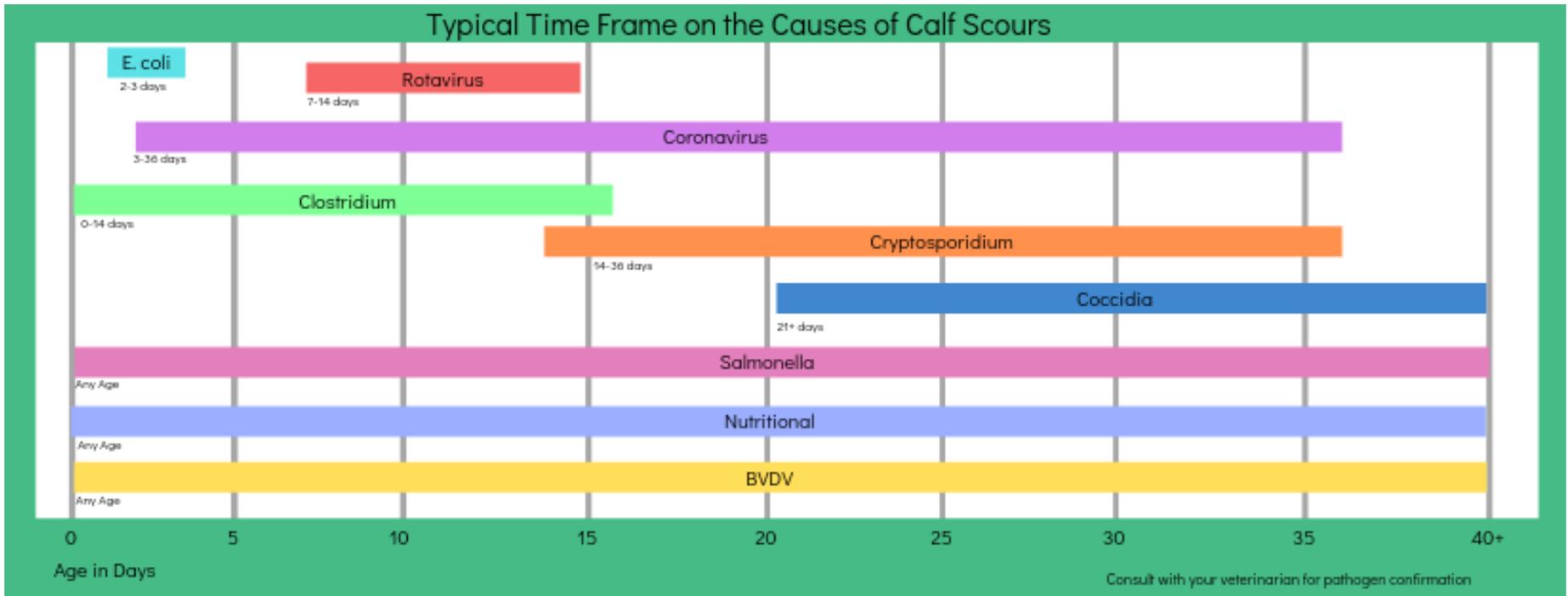
Scours – a health problem to any herd. Scours can occur in any age cattle, but typically most cases are calf scours which occur in the first month of life. The primary cause of death in calves from 2 to 30 days of age is calf scours. Scours is one of several management diseases where prevention protocols and attention to details in multiple areas can lead to success. Advances in scours treatment may bring improved survival rates, but the economic benefit of improved preventative protocols exceeds the benefit of treatment.

Scours is not a single disease; it is a clinical sign associated with several diseases and digestive conditions. Common signs of calf scours are watery stools, weak and depressed calves, dryness to mouth and nostrils, sunken eyes and calves that stagger or sway as they walk. Most pathogens do their damage to the calf's intestinal tract which prevents the absorption of fluids from the intestines. The scouring calf loses fluids and rapidly dehydrates which is the loss of essential body chemicals (electrolytes) and the buildup of acid. Death from scours is usually from dehydration, acidosis and loss of electrolytes.

The known causes of scours are grouped into two categories: [1] **infectious causes** and [2] **noninfectious causes**.

**Infectious causes** are classified as bacterial causes, viral causes, or as a protozoan parasite causes.

- **Bacterial Causes:** *E.coli, Salmonella, Clostridium Perfringens and other bacteria*
- **Viral Causes:** *Rotavirus, Coronavirus, BVD virus, and IBR virus*
- **Protozoan Parasite Causes:** *Cryptosporidium, Coccidia, Yeast and Molds*



#### Bacterial Causes:

*Escherichia Coli (E. coli)* – Most important cause of bacterial scours in calves. Calves have the chance to pick up *E. coli* infections from the environment, particularly when sanitation is marginal. Usually affects calves 2-3 days old – they will experience diarrhea, depression, coma.

*Salmonella* – Produces a potent toxin within its own cells. Calves are usually affected at six days of age or older. Calves will experience diarrhea with blood and fibrin, depression and fever.

*Clostridium Perfringens* – Commonly known as enterotoxemia; fatal and caused by toxins released by various types of B, C, and D. Associated with a change in weather, change in feed of the cows, or management practices that cause the

calf to not nurse for a longer period than usual. May include strain, kicking at abdomen, foul-smelling diarrhea containing blood.

### **Viral Causes:**

*Rotavirus* – Disrupts the cells which line the small intestine causing diarrhea and dehydration. Calves will experience watery brown to light green diarrhea with blood mucus.

*Coronavirus* – Disrupts the cells which line the small intestine causing diarrhea and dehydration. Calves will experience profuse, watery and yellow diarrhea.

*Bovine Viral Diarrhea Virus (BVDV)* – Exposure to BVDV will cause the calves to have ulcers on the tongue, lips and mouth. Very liquid feces that are yellowish brown to grayish green and may become yellowish gray containing blood and fibrin.

### **Protozoan Parasite Causes:**

*Cryptosporidium* – Protozoan parasite is much smaller than coccidia. Adheres to the cells which line the small intestine and damage the microvilli. Calves will experience watery brown to light green diarrhea with blood mucus.

*Coccidia* – Most outbreaks are associated with stress, poor sanitation, over-crowding or sudden changes in feed. Tarry and often bloody scours occur.

**Noninfectious causes** are flaws in management which could be:

- **Inadequate nutrition of the pregnant dam** - quality and quantity of colostrum are adversely affected and also deficiencies in vitamins A & E
- **Inadequate environment** - muddy lots, crowding, contaminated lots, calving heifers and cows together, wintering and calving in same area, storms, heavy snow or rainfall, etc.

- **Insufficient attention to the newborn calf** - in difficult birthing or adverse weather conditions
- **A combination of issues**

*Scours prevention is the most important and cost-effective area to invest your time.*

### Prevention of Calf Scours

| Cow                    | Calf  |
|------------------------|---|
| Bovine Pili Shield + C | Bar-Guard-99  |
| Guardian               | Bovilis Coronavirus                                 |
| Scour Bos 4            | Calf-Guard  |
| Scour Bos 9            | First Defense Boluses                               |
| ScourGuard 4K          | First Defense Technology<br>Newborn Calf Supplement |
| ScourGuard 4KC         |   |

### Supportives that Target Calf Scours

|   |                              |
|---|------------------------------|
| Achieve Pro                             | Fight Strong for Calf Stress |
| BoviCare-cp                             | HydroPak                     |
| Calf Restart One-4                      | Intervene                    |
| CryptoPro                               | Last Stand                   |
| DuraZyme Maximum Strength<br>Calf Paste | Neonorm Calf Boluses         |
| EPIC Calf Scour Defense                 | One Day Response             |
| First Arrival                           | Tri-Pectate Calf Supplement  |

## Treatment of Calf Scours

|                                   |                           |
|-----------------------------------|---------------------------|
| Albon Boluses                     | CORID 9.6% Solution       |
| AmproMed for Calves Oral Solution | Deccox-M                  |
| Anti-Diarrheal Cattle Boluses     | Intesti-Sorb Cattle Bolus |
| Bismusol Anti-Diarrheal           | Kao-Pec                   |
| Bolisorb Jr. Boluses              | Kaolin Pectin Solution    |
| Calf & Foal Scour Boluses         | Maxi-Sorb Boluses         |
| Calf Pro                          | Oxy 500 Calf Boluses      |
| Calf Scour Boluses                | Pro-Bac-C                 |
| CORID 1.25% Crumbles              | Terramycin Scour Tablets  |
| CORID 1.25% Pellet                | Toxi-Sorb Boluses         |
| CORID 20% Soluble Powder          |                           |

## Electrolytes/Rehydration for Calves

|                                 |  |
|---------------------------------|--|
| Advance Arrest                  | EPIC Calf Electrolyte                  |
| Blue Ribbon Calf Electrolyte    | Hydrafeed                              |
| BlueLite C                      | Hydra-Lyte                             |
| BlueLite Replenish M for Calves | Oxford Ag Electrolyte Premium Solution |
| Bounce Back                     | Re-Sorb                                |
| Diaque                          | Revitilyte Basic Oral Electrolyte      |
| Electrolytes Plus               | Revitilyte Gelling Oral Electrolyte    |
| Entrolyte H.E                   | Sx Oral Electrolyte                    |

## Supplies You May Need to Treat Calf Scours

|                                  |                                    |
|----------------------------------|------------------------------------|
| Bovine Easy Drencher             | Oral Bottle Feeder (MAI, Inc.)     |
| Calf Drencher                    | Oral Bottle Feeder (Merrick's)     |
| Calf Blanket                     | Oral Calf Feeder (Coburn)          |
| Deltatrack Digital Thermometer   | Oral Calf Feeder (MAI, Inc.)       |
| Digital Thermometer              | Plastic Balling Gun – Small, Large |
| Disposable IV Set                | Plastic Balling Gun -Medium        |
| Eco-Fast Digital Thermometer     | Pro Calf Blanket                   |
| Fluidfeeder                      | Simplex IV Set                     |
| Intravenous Sets                 | Winter Calf Coat                   |
| Large Animal Digital Thermometer | Vet Thermometer                    |
| Mercury-Free Thermometer         |                                    |