

Managing Calf Scours: The Ideal Formula



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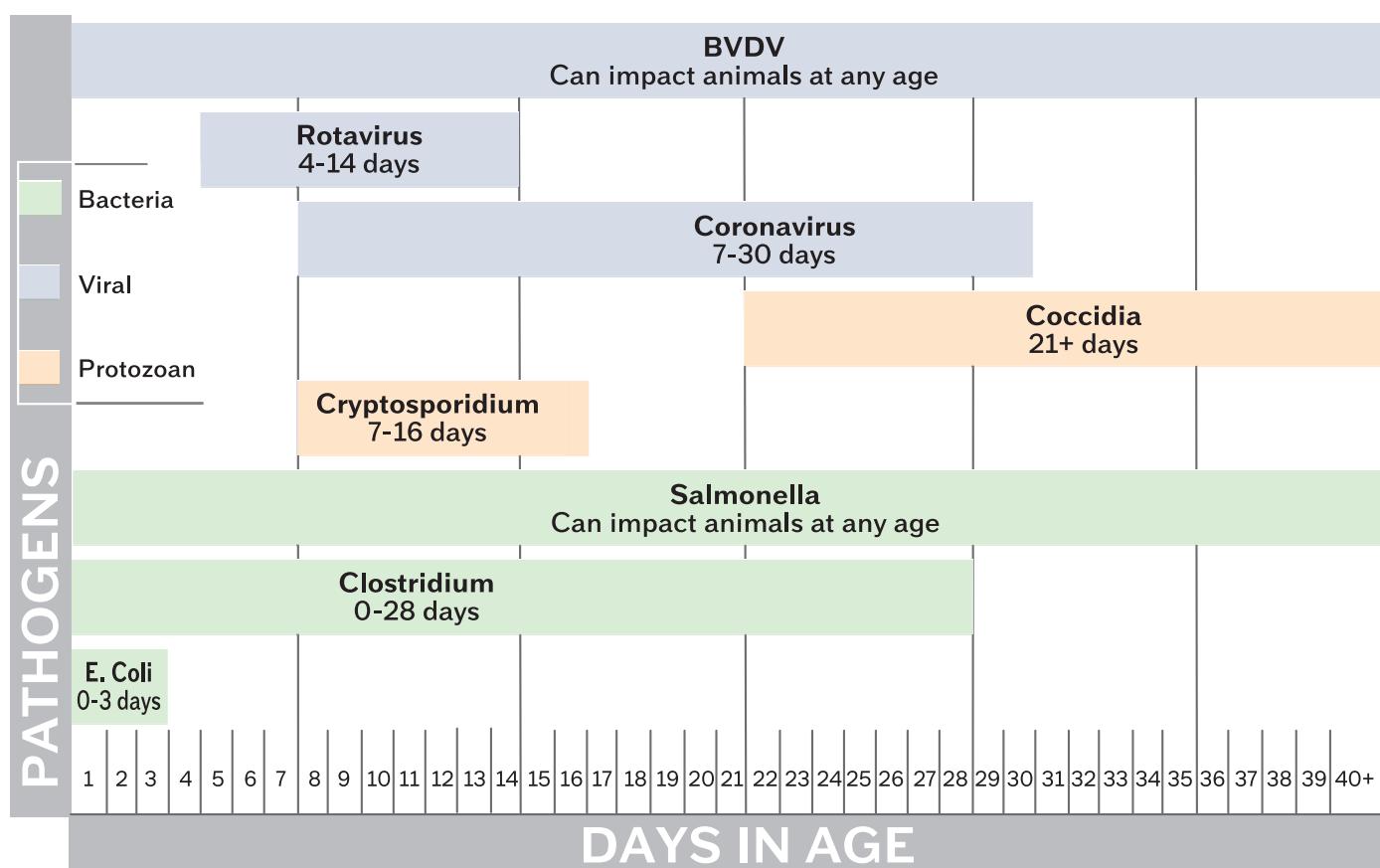
If you were to look at your calves right now, how many would be scouring? Calf scours is one of the most common problems producers and calves face; but it is manageable. First published in 1994, the National Animal Health Monitoring System (NAHMS) revealed the results of their National Dairy Heifer Evaluation Project. In this project they broke down multiple parameters for heifer performance and management. Scours accounted for 52.2% of death loss in pre-weaned heifer calves in 1994. When this project was repeated in 2007, it found that 56.5 % of death loss in pre-weaned calves resulted from scours. Clearly, managing scours is a significant challenge today. Below are some helpful tips

on managing scours in pre-weaned calves.

Keep the Calf on Milk:

New information is constantly being developed and utilized on dairies across the U.S. from robotic milking systems, pedometers, automated cow sorting gates and automated calf feeders. The old method of taking calves off milk when scouring is a practice that should be discontinued. During an episode of scours, roughly 50% of the intestines are affected; that leaves 50% capable of absorbing nutrients. Taking a calf off milk not only takes away calories and fluids that their bodies need to get over the scours, it also reduces average daily gain. It's the same principle as if you are sick with the stomach flu. You need to intake fluids to keep from becoming dehydrated and try and eat to maintain strength.

Figure 1: Causes Of Scours Based On Age Of Onset



Using Calf Age at Onset to Determine Type of Scours:

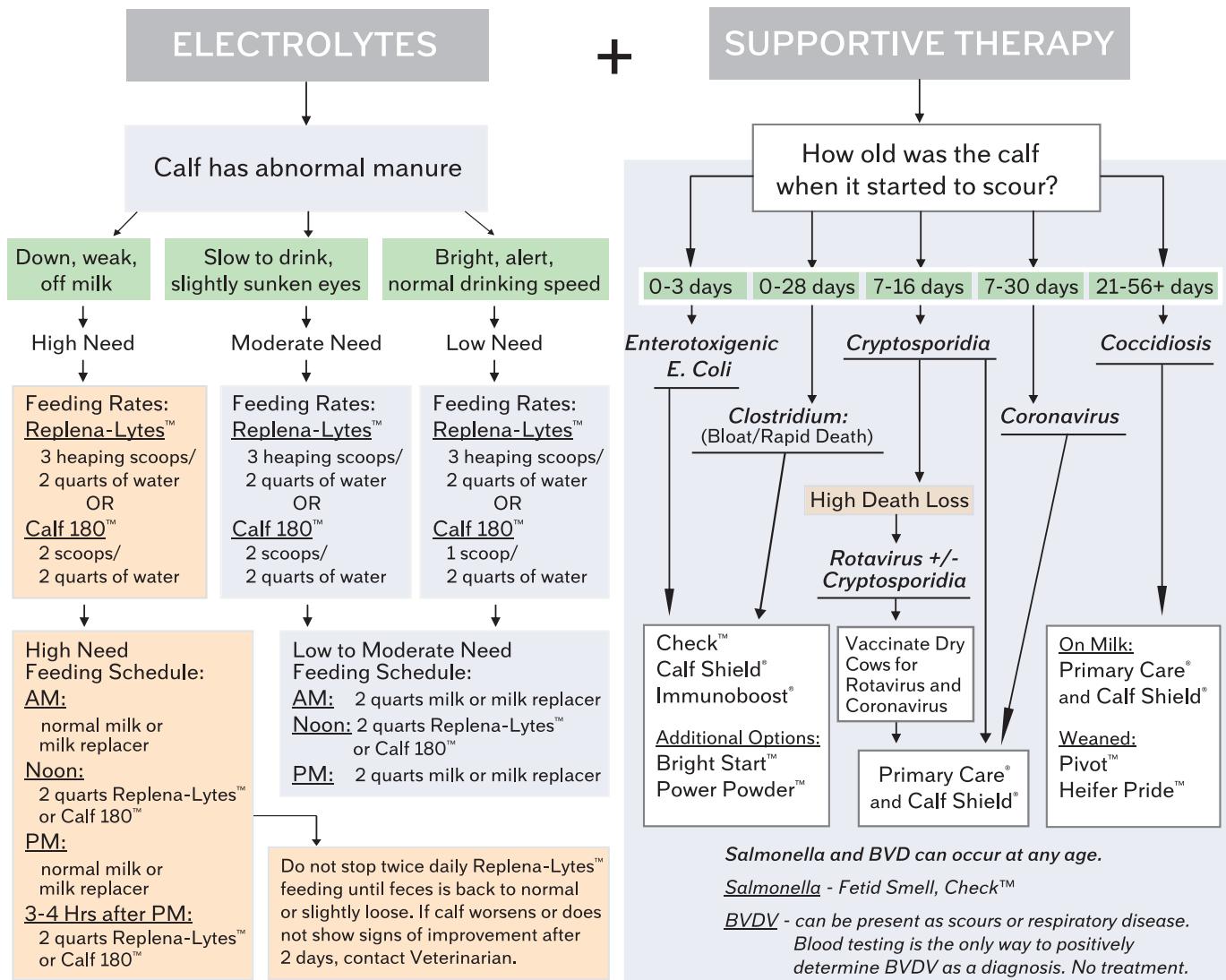
New research on pathogens has led us to use the age of the calf at the onset of scours, instead of color of the scours, when determining the potential pathogen. Each type of pathogen has a life cycle and by knowing at what part of the lifecycle the pathogen affects the calf, we can determine what is causing the scours. There are only two pathogens that do not follow the age of onset general rule, Salmonella and BVDV. Salmonella scours will produce a fetid, sulfur smelling diarrhea. See **Figure 1** for a range of ages when common pathogens cause scours.

The reason using age of onset instead of the color

of the scours as an on farm diagnostic tool for managing scours, is based on the physiology of the calf's intestines. The color of a calf's stool can be influenced by what they are eating, i.e. milk, grass, bedding, manure, medicine, etc. Color of scours also varies between calves and farms. There is one area where the color of the scours provides useful, clinically pertinent information. Calves with grayish tinted scours are suffering from a severe metabolic disturbance due to an electrolyte imbalance. When consulting **Figure 2** consider calves with grayish tinted scours to be "high need". Because dehydration and an upset in the calves' acid-base balance can be one of the causes of death in calves with scours, it's crucial to provide fluids orally to any calf that has a grayish tint to their scours.

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Figure 2: Managing Calf Scours - THE IDEAL FORMULA



Determining the When, How Much and What Type of Electrolyte and Supportive Therapy:

Maintaining electrolyte balance and hydration is one part of the equation to managing scours. By observing the Crystal Creek® feeding rates and schedules in our catalog you will see our recommendations are based on the calf's need. To better understand the calf's need, we break down visible symptoms in **Figure 2**.

Electrolytes alone are not always enough to pull a calf through a bad case of scours. The second part of the equation is to use a supportive therapy. Crystal Creek® has an excellent selection of effective products that apply to specific situations. Please note none of the products listed in the following chart are treatments for disease. They simply offer strong supportive nutrition to your calf when it is scouring; allowing its immune system to better deal with the challenges.

Determining what to do for calf scours can be a little confusing. **Figure 2**, on page 13, is a helpful guide in sorting out what to do for a scouring calf;



i.e. when to use an electrolyte and what supportive therapy to use. When using **Figure 2** look at the calf's physical symptoms to decide the need and then follow the arrows down for the appropriate electrolyte feeding rate and schedule. Second, determine the age of the calf when it first started scouring. By following the age of the calf on **Figure 1** you will see the most likely causative agent and what Crystal Creek® products are most beneficial in supporting that calf's nutritional needs. Then, apply the selected electrolyte and supportive therapy protocols for that calf's needs.

Call Crystal Creek® today to customize a simple and effective program for your calves!

“Ask the Vet and Ask the Nutritionist”



We are excited to add an **Ask the Vet and Ask the Nutritionist** section to our newsletters starting in the April 2014 edition. Producers can submit their questions regarding animal health and nutrition and selected questions will be answered in our Cow Tales newsletters. Remember, if you have a question, it is likely other farmers share the same question or are dealing with the same issue. All submissions will remain confidential. Please submit your animal health or nutrition questions in writing to:

Crystal Creek®
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