

## Top “must haves” in Oral Electrolytes for calves – recommendations from Dr. Geof Smith



Calf diarrhea, or scours, is a major health problem in calves less than 2 months of age (NAHMS Dairy Study). In fact, scours is responsible for 60% of the calf death loss on a dairy and a major problem for pre-weaning beef calves.

When treating calves with scours, the use of an oral rehydration product is an important tool for calf raisers. But while most oral electrolyte therapies all sound the same there are several distinct scientifically proven characteristics every producer needs to be aware of before deciding which to use.

TechMix recently hosted two calf clinics (Kentucky and Tennessee) designed to provide a wide range of dairy producers information on how oral electrolytes benefit scouring calves and what to look for in selecting an effective product. During these clinics, Geof Smith, DVM, MS, PhD, North Carolina State University, presented his list of “must haves” for the ideal calf oral electrolyte.

- Must have enough sodium (90 - 130 mM/L) to help correct extracellular fluid deficits (dehydration)
- Must have glycine (amino acid) or acetate, to help facilitate intestinal sodium absorption
- Must have an alkalinizing agent (acetate, propionate, bicarbonate) to help correct metabolic acidosis

For more information regarding this document please contact Tammy Howe, TechMix Sales and Marketing, by calling 877-466-6455 or emailing [tammyhowe@techmixglobal.com](mailto:tammyhowe@techmixglobal.com).

About TechMix: Since 1983, TechMix has been innovating, manufacturing and marketing, nutrition products designed to help improve animal health, performance and maximize profits around the world. Our portfolio of more than 70 all-natural products is specifically engineered to address the time-sensitive nutritional needs of animals when they undergo periods of stress due to life cycle, diet changes or other stressful events. Each product is validated through research to provide the right nutrition at the right time for a range of species with a special focus on swine, dairy and companion animals. Please visit our website to learn more at <http://www.techmixglobal.com>.

- Must have sufficient energy (glucose) especially if calves will be off milk for a day or two
- Must have components that will not increase the chance of bacterial infection and support a healthy gastrointestinal environment
- Must have Potassium and Chloride to replenish these key electrolytes lost to scours
- Must have an osmolality  $\leq 650$  mOsm/L (ideally between 400 - 600 mOsm/L) to ensure timely emptying of the abomasum/stomach to avoid abomasal bloat due to fermentation of products that are slow in passing due to high osmolality
- Must have a strong ion difference of at least 60 (cations relative to anions)

In addition to his list of “must haves” Geof also provided his five goals for treating calf scours:

1. Rehydration
2. Correction of acidosis
3. Correction of electrolyte abnormalities (Na, K, Cl)
4. Reversal of negative energy balance
5. Inhibit the growth of pathogenic bacteria

BlueLite<sup>®</sup> Replenish from TechMix is a liquid form, buffered calf electrolyte formulated for the severely dehydrated calf that meets each of Dr. Smith’s “must haves”. To learn more about the signs of dehydration, managing scours events, and optimum formulation of oral electrolytes, visit <https://www.techmixglobal.com/bluelite-replenish>.