

Analysis of Oral Calf Electrolytes

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	Sodium (mM/L)	Amino acid	Osmolality (mOsm/L)	Alkalinizing Agent (mM/L)	Comments
Dr. Geof Smith's Recommendations	90 to 130	Glycine	400-600	Acetate 50 to 80	
Advance Arrest®	46	None	245	Bicarbonate 12 mM/L	Sodium concentration is too low and minimal alkalinizing ability. Not a good choice for calves with diarrhea
Blue Ribbon®	144	Glycine	390	None	No alkalinizing agent present - would not be a good choice for calves with diarrhea
BlueLite® Replenish^M	90	Glycine	400	Acetate 59 mM/L and Sodium Propionate 21 mM/L	Very good oral electrolyte solution for use in calves
Bovi-Mate ORS®	130	Glycine	600	Acetate 60 mM/L and Propionate 30 mM/L	Good oral electrolyte - osmolality likely too high to recommend mixing with milk
Bounce Back®	136	Glycine	573	Bicarbonate 48 mM/L	Adequate oral electrolyte for calves - better choices exist
Calf Quencher®	142	None	731	Bicarbonate 86 mM/L	Although this product could be used in calves, it has a very high osmolality (hypertonic) and may worsen diarrhea
Deliver®	67	Glycine	305	Bicarbonate 36 mM/L	Sodium concentration is very low - this product would also have a very weak alkalinizing ability. Also contains dia-line (psyllium)
Diaque®	90	Glycine	377	Bicarbonate 25 mM/L and Acetate 12 mM/L	Good oral electrolyte solution for use in calves
ElectroLife Renew®	100	None	360	Acetate 60 mM/L	Adequate oral electrolyte for calves
Entrolyte HE®	105	Glycine	739	Bicarbonate 80 mM/L	Osmolality is too high - which can worsen diarrhea. High osmolality solutions also slow stomach (abomasal) emptying and can lead to bloat.
EPIC®	92	Glycine	360	Acetate 52 mM/L	Good oral electrolyte for use in calves

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Dr. Geof Smith's Recommendations	90 to 130	Glycine	400-600	Acetate 50 to 80	
Hydrafeed®	110	Glycine	380	Bicarbonate 80 mM/L	Bicarbonate based which is not ideal - but could potentially be used in calves with diarrhea
Hydralyte®	90	Glycine	614	Acetate 75 mM/L	Good oral electrolyte for calves - the high osmolality may cause bloat in some cases - would not want to mix with milk
Land O Lakes® Base plus Add Pack	119	Glycine	455	Acetate 51 mM/L and Citrate 10 mM/L	Very good oral electrolyte for use in calves
Land O Lakes® Complete	121	Glycine	490	Bicarbonate 38 mM/L	Adequate electrolyte - acetate based products are preferred however
Resorb®	75	Glycine	315	None	Sodium concentration is too low and no alkalinizing agent present - would not be a good choice for use in calves
Revitilyte®	184	Glycine	577	Bicarbonate 110 mM/L	Sodium concentration too high - can cause Sodium toxicity in calves
VitaLyte Plus®	150	Glycine	527	Bicarbonate 80 mM/L	Sodium slightly high - may promote salt toxicity - OK electrolyte but not ideal - would not be mixable in milk

Keep the calf hydrated
and restore gut health



Providing fluids and supplementing with high quality electrolytes, and energy sources will help calves through periods of diarrhea. In addition, it is critical to fight the diarrhea causing agents and return the gut environment to better stability.

Scouring Calf Protocol



Step 1: Reduction and prevention at the first sign of scours

Harness the cleansing activity of oregano to inhibit bacteria and reduce shedding of diarrhea-causing pathogens. MOS (mannin oligosaccharide) binds pathogens to flush them from the gut and promotes growth of beneficial bacteria. Direct-Fed Microbials repopulate the gut.

Protocol Use: Give one pink gel capsule at the first sign of scours and repeat on day 2 and 3 if needed (do not exceed 3 capsules in total)



Step 2: Rehydration, electrolytes and buffer

Replacing lost fluids and buffering are critical requirements for the scouring calf. BlueLite® Replenish^M is a high quality calf electrolyte formulated based on university calf health expert's requirements for: amino acids, sodium concentration, osmolarity and preferred buffering agents, acetate and propionate.

Protocol Use: Add 4 oz. of BlueLite Replenish^M to 2 quarts of warm water and feed to calf immediately at first signs of scours. Repeat as necessary until scours is resolved. For severe dehydration, consider multiple feedings per day.



Step 3: Daily DFMs for improved immunity and performance

Supporting the microbiome of the digestive tract is an important step in optimizing gut function. Calf PreRD® provides a source of live yeast, probiotics (DFM), MOS, and Vitamins B and E to improve gut integrity and maintain a more desirable digestive environment. Calf PreRD helps make every bite count.

Protocol Use: Feed 4 grams per calf per day in milk, milk replacer or water. Offer for the next 10 days following Calf Renova.

Series of **4 protocols** to help the **challenged calf thrive.**

In developing the product line for our Scouring Calf Protocol, we worked with industry experts to innovate products to specifically meet the needs of the calf from the onset of scours through recovery.



Scouring
Calf Protocol

Dystocia, severe stress events, and disease can leave a calf weak and lethargic. Our product protocol energizes calves and provides nutrients to help them recover and thrive.



Newborn/Weak
Calf Protocol

Transporting calves can restrict their access to water and feed for extended periods of time, expose calves to potential pathogens and comingling with others of varying health status. Rehydration and digestive system preparation is the root of our protocol.



Transported
Calf Protocol

Weaning is a stressful time that causes nutrient disruption as calves are transitioned to different diets in new environments. Our protocol is designed to support digestive integrity.



Weaning Support
Calf Protocol

Call 877-466-6455 or
visit TechMixGlobal.com

TechMix, LLC
740 Bowman St, PO Box 221
Stewart, MN 55385



















TechMix

Redefining hydration
to keep animals
drinking, eating & producing.

  @techmixglobal

Supplementation Protocols

TechMix product technologies are designed to meet the specific health challenges a calf encounters—specific for each event and level of challenge. Nutrient combinations of electrolytes, energy sources, and direct fed microbials are science-designed for optimal absorption and utilization.

Product	Benefit	Protocol
	Calf Renova helps to reduce harmful bacteria, enhance intestinal microflora and encourage dry matter intake any time normal digestive health has been interrupted.	
	Provides oral rehydration with optimum buffering sources, and supplements nutrients lost during scours or that are required for persistently lethargic calves.	 
	Calf PreRD® uses live yeast, DFM, MOS, and amino acids to help improve gut integrity and promote a more desirable digestive environment.	  
	Calf Restart® One-4 contains electrolytes, amino acids, plasma proteins, beneficial bacteria, and multiple sources of energy in a readily digestible milk base.	
	Calf Perk® provides an immediate energy boost for depressed or weak calves by helping increase their ability to stand and their suckle reflex.	
	BlueLite® C is a palatable, acidified, energy-rich electrolyte designed to combat metabolic, hydration and digestive challenges.	
	Provide palatable and convenient, Liquid BlueLite® C for readily digestible energy and electrolytes any time hydration support is needed.	
	Bovine BlueLite® Pellets provides electrolytes with multiple energy sources formulated to rehydrate the stressed calf and promote a healthy digestive environment.	