

*Calf electrolyte-DFM
to reduce the severity and
duration of calf scours*



**Vita Plus
Calf Program**

Growing Tomorrow's Herd

MARQUEE

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MARQUEE

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Five ways Marquee reduces severity and duration of scours

1. **Replace lost electrolytes** (sodium and potassium).
2. **Correct metabolic acidosis** caused by dehydration with a compound buffer system. Acidosis prevents the immune system from functioning efficiently.
3. **Deliver direct fed microbials** (DFM). Marquee DFMs actively inhibit growth of pathogenic organisms such as clostridium.
4. **Supply nutrients for tissue function and repair:**
 - **Amino acids:** Aid in cell repair and enhance glucose absorption.
 - **Fatty acids:** Promote intestinal mucosal integrity, have natural antimicrobial properties and aid in controlling inflammation.
 - **Glucose:** Provides energy for the calf immune system and is crucial for absorption of sodium and water.
 - **B-vitamins:** Stimulate metabolism and appetite.
 - **Vitamin C:** Valuable antioxidant to promote health.
5. **Decrease dehydration with betaine.** Betaine is a natural osmolyte that helps cells maintain normal hydration.

Easy to feed

- Marquee is a highly palatable and easy-mixing formula.
- Marquee is sold in boxes of 25 individual 85-gram packets heat-sealed to ensure the correct dose of electrolyte is delivered to each calf and to optimize freshness of ingredients.
- Mix 85 grams of Marquee into 2 quarts of warm water and feed to calves showing signs of dehydration.
- Do not mix with milk. Do not exceed 10 feedings.

Marquee formulation comparison with guidelines

	Formulated	Guidelines ¹	Comment
Strong ion difference ² (SID)	71	50-80	SID is a measure of electrolyte buffering capacity along with alkalizing agents ³
Sodium, mmol/L	98	90-130	Replaces sodium lost during scours; moderate sodium to prevent excessive osmolality
Dextrose, mmol/L	107	<200	Energy to absorb sodium
Sodium: dextrose	0.9	1:1	Maximum absorption efficiency of sodium is 1:1 ratio with dextrose
Glycine, mmol/L	71	<145	Amino acid for increased small intestine glucose absorption
Potassium, mmol/L	28	10-30	Replaces potassium lost during scours
Chloride, mmol/L	54	40-80	Replaces chloride lost during scours; low chloride to maximize SID
Osmolality, mOsm/kg	431	400-600	Prevents stall in abomasal emptying rate

¹Smith and Berchtold, 2014.

²SID is the difference between the sum of the concentration of the strong cations (sodium, potassium, calcium and magnesium) and strong anions (chloride). Electrolytes with high strong ion difference capacity have greater capacity to buffer blood during metabolic acidosis caused by dehydration.

³Alkalizing agents in Marquee: sodium acetate, sodium citrate, sodium bicarbonate and potassium citrate.