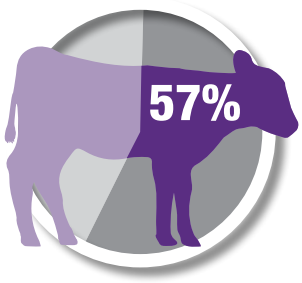
CELMANAX™

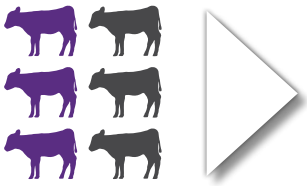
Imagine a day without scours.



57% OF CALF DEATHS ARE DUE TO DIARRHEA—OFTEN IN CALVES LESS THAN 1 MONTH OLD.[2]

DESPITE SPENDING YOUR TIME, EFFORT AND MONEY ON TREATMENTS, SCOURS REMAIN THE LEADING CAUSE OF DEATH IN CALVES.[1]

Even on the best-managed dairies the pathogens that cause scours lurk, waiting for the chance to infect vulnerable animals. The cost of treatment? It's not cheap. *If 50% of your calves have scours at 6 – 10 days of age, each case = $30 per calf + vet expenses.*[3]



$30 + VET EXPENSES EACH CASE

Did you know that 8 days of diarrhea during the first 28 days of a calf's life can lead to a loss of 13.7 lbs reduced calf body weight by 77 days of age, potentially affecting long term growth and productivity?[4]

WHAT IF YOU COULD PREVENT SCOURS BEFORE IT STARTS?

IMPROVE HEALTH.

What if you could proactively improve calf health so they can better withstand attacks, including those caused by mycotoxins?

AID PRODUCTIVITY.

What if you could add nutritional insurance to every stage of calves' lives to focus on raising healthier heifer calves that grow quickly and join the milking herd ready to contribute at a high level?

SAVE COSTS.

What if you could control calf diarrhea before an outbreak, a much more cost-efficient solution than treating sick animals?

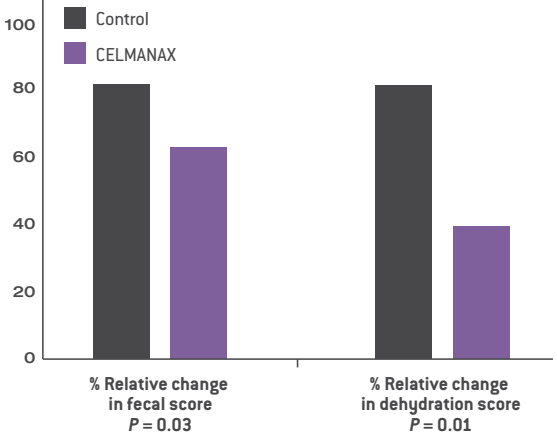
GOOD NEWS: RFCs PREPARE YOUR CALVES.

The Refined Functional Carbohydrates™ (RFCs™) in CELMANAX™:

- Help prepare the immune system ahead of a challenge so animals can respond quickly.
- Support optimal rumen fermentation and digestion.
- Help animals cope with their environmental challenges.

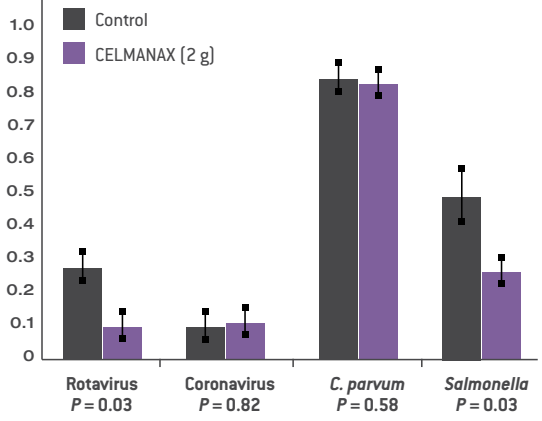
THE PROOF IS IN THE RESEARCH.

EFFECT OF CELMANAX ON CRYPTO-INFECTED CALVES.[5]



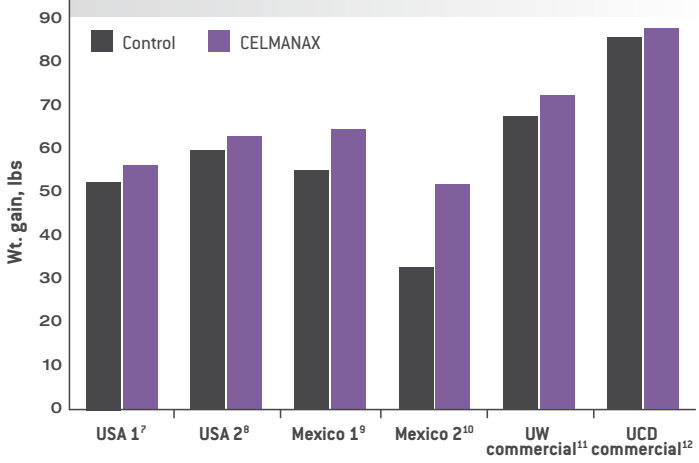
One study found when calves were supplemented with CELMANAX™ they experienced a reduction in incidence,[6] severity[5] and duration of cryptosporidiosis.[6]

PREDICTED PROBABILITY OF SHEDDING.[11]



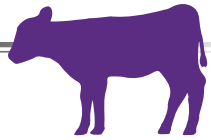
CELMANAX reduced prevalence of *Salmonella* (P=0.03) and rotavirus (P=0.03) but did not change the prevalence of *C. parvum* and coronavirus.

CELMANAX INCREASED WEIGHT GAIN IN CALVES.[7-12]



SETTING UP YOUR CALVES FOR PRODUCTIVITY AT FIRST LACTATION.

In one study, calves receiving CELMANAX supplementation in the milk replacer had reduced pathogenic *E. coli* shedding (P<0.05) and a trend for higher body weight. When followed through their first lactation, these calves produced 195 kg more milk, 13 kg more fat and 8 kg more protein compared to calves fed control milk replacer.[12]



ONLY CELMANAX GIVES YOU THE FLEXIBILITY AND CONSISTENCY.

Available in three formulations, CELMANAX gives you the flexibility to include it in diets in the way that best fits your needs.

To learn more about CELMANAX contact your nutritionist, veterinarian or ARM & HAMMER™ representative or visit AHfoodchain.com.

1 NAHMS, Morbidity and Mortality in Dairy Heifers, USDA, 2021.
2 Cho Y, Yoon K. An overview of calf diarrhea - infectious etiology, diagnosis and intervention. *J of Vet Sci* 2014;15(1):1–17.
3 Assumes $2.50 per electrolyte dose 3x for four days.
4 Renaud et al. *Journal of Dairy Science* Vol. 104 No. 2, 2021.
5 Jalukar S, Nocek JE. Evaluation of enzymatically hydrolyzed yeast in vitro and in vivo for control of *Cryptosporidium parvum* infections in dairy calves. *J Anim Sci* 2009; Vol.87, E-Suppl. 2/*J Dairy Sci* Vol. 92, E-Suppl. 1. Research Bulletin D-61.
6 Santos JEP. Prophylactic Feeding of Yeast Culture Enriched with Oligosaccharides from Cell Wall Extract in Calves Experimentally Challenged with *Cryptosporidium parvum*. University of Florida, 2008; report on file.
7 Research Bulletin D-71: CELMANAX SCP in dairy calf milk replacers.
8 Dennis R, Jalukar S. Effect of CELMANAX SCP on calf performance when fed in the milk replacer and grower phase. *J Anim Sci* 2011; Vol. 89, E-Suppl. 1/*J Dairy Sci* Vol. 94, E-Suppl. 1. Research Bulletin D-72.
9 Research Bulletin D-51: CELMANAX Liquid in dairy calf milk replacers.
10 Research Bulletin D-53: CELMANAX Liquid in dairy calf milk replacers.
11 Rabbis et al. The effect of Celmanax SCP on fecal pathogen shedding, health, and performance of preweaned Holstein dairy calves. AABP Conference, 2017.
12 Lucey et. al. JDS Vol. 104 No. 4, 2021.