# WELL-PROVEN GUT FLORA STABILIZER

MAXLAC/MR is a preparartion of *Enterococcus lactis* and *Lacticaseibacillus rhamnosus*, two probiotic lactic acid bacteria strains specifically selected for milk replacers. MAXLAC/MR protects the intestinal mucosa by creating a protective biofilm, thereby reducing the colonization by potential pathogenic bacteria. MAXLAC/MR improves the performance and strengths gut integrity in calves.

# PROBIOTIC FOR MILK REPLACER

Dietary probiotic supplementation in livestock increased over the last years to reduce antibiotics. Probiotics are key element of feeding concepts as they have regulatory and stabilizing functions in the gastrointestinal tract.

## **CHARACTERISTICS**

- Supports potential beneficial microbiota
- Inhibits unwanted bacteria
- Improves calve performance

#### **APPLICATION BENEFITS**

- Developed for milk replacer
- High stability
- Odorless, crème colored powder

Provita Supplements developed a special probiotic for young calves to boost vitality. MAXLAC/MR is a preparation of *Enterococcus lactis* and *Lacticaseibacillus rhamnosus* with a total activity of at least  $1.0 \times 10^{10}$  CFU/g product. Both bacterial strains promote each other's growth and metabolic activity. MAXLAC/MR increases potential beneficial bacteria and reduces potential pathogens in the gut, thereby supporting the immune function and animal performance.

*Enterococcus lactis* (DSM 7134) and *Lacticaseibacillus rhamnosus* (DSM 7133) (MAXLAC/MR) are naturally occurring bacterial strains. The strains do not contain antibiotic-resistant genes, and they are not harmful to humans or the environment. The powdery product is stable in milk replacer.



# 

# **BOOSTING MICROBIOTA**

Animals:Calves (n=18); age 4 d p.p.; 6-d trialTreatments:(1) Control; (2) MAXLAC/MR (1×10° CFU/kg milk replacer)Methods:real-time quantitative PCR; fecal samples (d 4 and 6 p.p.)



The gene copy numbers of *Lactobacillus* were numerically greater for MAXLAC/MR compared to Control at d 6 p.p.. For MAXLAC/MR, the gene copy numbers of *Lactobacillus* were greater at d 6 p.p. than d 4 p.p. (+78%). On d 6 p.p., *E. coli* abundance was numerically lower for MAXLAC/MR compared to Control. For MAXLAC/MR, *E. coli* abundance was lower at d 6 p.p. than d 4 p.p. (-66%). **MAXLAC/MR supports the number of potential benefical bacteria and reduces the number of potential pathogenic bacteria, thus supports gut integrity.** 

## **GREATER PERFORMANCE IN YOUNG CALVES**

Animals:	Calves (n=40; Simmental cattle; initial BW 63 kg); 3 wk of age; 56-d trial
Treatments:	(1) Control; (2) MAXLAC/MR (1×10 <sup>9</sup> CFU/kg milk replacer)
Methods:	Performance, health (diarrhea, respiratory infections)



The average daily gain was numerically greater for MAXLAC/MR compared to Control. Calves fed with MAXLAC/MR had on average 33% less days diarrhea and 54% less days respiratory infections compared to Control. MAXLAC/MR improved the performance and reduced the number of therapeutic treatments, probably by supporting gut integrity and vitality of calves.

