## **RumaBac**<sup>®</sup>

Boost health and performance by feeding a proprietary blend of functional carbohydrates, yeast fermentation metabolites, and live multi-Bacillus strains.

SUSTAINABILITY

# **RumaBac**<sup>™</sup>

Application	Dairy cows
Application Rate	14-28 g per head per day
Min. Probiotic Concentration	5.0x10 <sup>8</sup> total <i>Bacillus</i> cfu per gram
Min. Probiotic Delivered	7 to 14 billion cfu per head per day at the application rate range
Key Ingredients	Enzyme-hydrolyzed copra meal metabolites, Saccharomyces cerevisiae culture and metabolites, Bacillus subtilis, Bacillus amyloliquefaciens, and Bacillus coagulans
Q-Biotic <sup>®</sup> <i>B. Subtilis</i> Strain	Spore-forming, gram-positive, phenotypic, and genetic consistency, high activity and stability, facultative anaerobe, oxygen scavenger, antimicrobial peptide producer
Q-Biotic <sup>®</sup> <i>B. Coagulans</i> Strain	Characteristics of both <i>Bacillus</i> and <i>Lactobacillus</i> probiotic. Spore-forming, gram-positive, phenotypic and genetic consistency, high activity and stability, anaerobe, lactic acid producer, antimicrobial peptide producer
Q-Biotic <sup>®</sup> <i>B. Amyloliquefaciens</i> Strain	Spore-forming, gram-positive, phenotypic and genetic consistency, high activity and stability, facultative anaerobe, enzymes producer, antimicrobial peptide producer



CONTACT

### Why combination of the select ingredients

High production demand on the animal, high potential for infections, rumen acidosis, diarrhea and/or mastitis, along with a complex gut environment require more than a simple intervention. A combination of a multi- and select- component feed additive provides more support through its complimentary and synergistic modes of actions to mitigate challenges impacting gut health, rumen microflora balance, digestion and absorption, and efficiency of converting nutrients to growth and meat/milk products.

#### Why combination of select Q-Biotic® Bacillus strains

While select *Bacillus* species have superior activity, stability and probiotic effects, select strains thereof have their own characteristics and abilities. The combination of select strains of Q-Biotic<sup>®</sup> *B. subtilis*, *B. amyloliquefaciens* and *B. coagulans* delivers a broader coverage of probiotic activities to boost health and performance. The combination's complementary and synergistic actions work to improve rumen fermentation through scavenging oxygen, balance rumen pH by promotion of lactic consumption bacteria, help digestion and absorption by improving gut health and enzyme production, reduce infection and disease by inhibiting pathogenic bacteria, such as Clostridia, *E. coli, Salmonella* and *Enterococcus*, decrease inflammation and oxidative stress, and enhance immune system response. The three Q-Biotic<sup>®</sup> *Bacillus* strains are capable of surviving feed processing and gut conditions, and effectively exercise their probiotic function where needed within the gut.

## Why culture & extract of Saccharomyces cerevisiae

Yeast culture and extracts provide ideal nutrition for the rumen microflora, and stimulate cellulosic bacteria activity, which can improve the animal's health and support higher milk yield. Thick cell walls rich in beta-glucans and MOS fractions resist the rumen's environment, reach the hindgut, directly inhibit pathogens such as *E. coli*, and mitigate mycotoxins.



# Intestinal Integrity

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