



DAIRY-FEED

DIRECT-FED MICROBIAL

DAIRY-FEED IS A BLEND OF VIABLE YEAST CULTURES, *SACCHAROMYCES CEREVISIAE*, *LACTOBACILLUS CASEI*, *ENTEROCOCCUS FAECIUM*, *BACILLUS SUBTILIS* MICROBIALS SCIENTIFICALLY DESIGNED TO TARGET TWO SECTIONS OF THE GASTROINTESTINAL TRACT: THE RUMEN AND THE LOWER GI TRACT.

WHY FEED BENEFICIAL BACTERIA TO DAIRY CATTLE?

Beneficial bacteria play an important role in the lower GI tract of dairy cattle by:

- Ensuring optimal pH conditions for the endogenous enzyme function, thereby facilitating an optimal environment for feed digestion;
- Producing growth factors that stimulate the growth of beneficial bacteria such as Bifidobacteria;
- Protecting the GI tract by producing antibacterial substances that inhibit the proliferation of pathogens;
- Stimulating normal gut development through the production of volatile fatty acids;
- Promoting GI health by preventing the colonization of pathogens and stimulating the development of immunity.

HOW DO THE BENEFICIAL BACTERIA IN DAIRY-FEED HELP?

Bacillus subtilis is a facultative anaerobe that contributes to the endogenous enzymes produced by the animal and other bacteria. These enzymes improve feed digestion and contribute to better feed efficiency.

Lactobacillus casei and *Enterococcus faecium* are important bacteria for the health of the lower gastrointestinal tract. These beneficial bacteria help in pH modulation of the lower gastrointestinal tract, thereby creating an optimum environment for the endogenous enzymes to process feed efficiently. They produce bacteriocins that inhibit the proliferation of *E. coli*, *Salmonella* and *Clostridia*.

A number of researchers (Block et al., Komari et al., Ware et al., Jeong et al.) have demonstrated that feeding beneficial bacteria have positive benefits on milk production and animal performance.

SPECIFICATIONS

Description	Off-white / beige, free-flowing powder
Packaging	10, 20, 50kg pails
Ingredients	Yeast cultures, <i>Saccharomyces cerevisiae</i> , <i>Lactobacillus casei</i> , <i>Enterococcus faecium</i> , <i>Bacillus subtilis</i> fermentation products, mineral oil, sodium silico aluminate and natural flavourings
Guaranteed Analysis	<i>Saccharomyces cerevisiae</i> : minimum 1,760 billion cells/kg Total Microbial Count: minimum 1,865 billion CFU/kg
Shelf Life	Up to 12 months
Storage and Handling	DO NOT FREEZE! Store in a cool dry environment out of direct sunlight. See MSDS.

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HOW DOES YEAST CULTURE AND LIVE YEAST HELP?

DAIRY-FEED contains powered yeast culture and live cell yeast. Yeast culture provides a natural food source for the rumen bacteria, while the live yeast produces metabolites that stimulate the growth of fibre and lactate-digesting bacteria. This combination of yeast culture and live yeast results in shifting rumen fermentation to improve feed digestibility, reduce metabolic disorders and improve milk production.

In a recent review of journal literature, Robinson showed that yeast culture resulted in a significant increase (3.3%) in milk production, 88% of the time together with an average increase (1.1%) in milk fat percentage, 75% of the time. Seventy five percent of the time yeast culture increased intake by 2.5%. On average, live yeast increased milk production (3.45%), 89% of the time and intake (1.39%), 60% of the time.

INSTRUCTIONS FOR USE

To be fed to:

- Mature cattle — at the rate of 28g per head per day;
- Recovering or stressed animals — at a rate of 56g per head per day;
- Heifers and calves — at a rate of 10 - 14g per head per day.

For further information on application, contact your BIONETIX technical representative.