THE NATIONAL ACADEMY OF SCIENCES OF BELARUS

INMI BIOPRODUCT

Dry probiotic biopreparation

Bactomast-D

for prevention and treatment of cow mastites

Efficiency of action

Bactomast treatment of cow mamillae inhibited overall bacterial colonization (**2.4-4.8 times**), suppressed populations of pathogenic species and shiffed the balance to lactic acid bacteria, lowered the amount of somatic cells in milk. In therapeutic efficiency (**83.3%**) Bactomast is not inferior to iodomastine – basal veterinary agent

Ecological benefits

Bactomast is safe and hence it does not require special protective precautions with regard to humans and animals. Side effects, counter-indications and complications were not recorded in application practice. Cattle slaughtering is authorized irrespective of the latest date of Bactomast treatment

Application guidelines

- Bactomast preventive procedure is conducted immediately after cow milking by immersing mamillae into liquid biopreparation containing living cultures of lactic acid and bifidobacteria at the minimal cell titer $1x10^7$ CFU/cm^3. The working solution is prepared by diluting vial concentrate (about 0,5 g) in 1 liter of clean drinking water adjusted to temperature 37±1°C and holding it for 30-40 min. The contents of Bactomast package (1 g) is dissolved in 2 l of drinking water.
- Therapeutic treatment envisages sterile dilution of Bactomast vial in 400 ml of saline followed by intracisternal injection into the udder affected by subclinical mastitis at a single diurnal dose 5 cm^3 per each lobe (cell titer at least $1x10^8$ CFU/cm^3) during 3-4 days

Active ingredients

Active cultures of lactic acid bacteria and bifidobacteria. The titer of viable cells in 1 g of the product is at least $1x10^{10}$ CFU

Principle of action

Lactic acid bacteria and bifidobacteria as key Bactomast components display high antagonistic activity toward pathogenic species of genera *Staphylococcus, Streptococcus, Escherichia* responsible for inflammation of mammary gland and enhance non-specific immune response in treated animals. The constituent bacterial strains possess resistance to a series of antimicrobial agents (aminoglycoside and cephalosporine antibiotics), allowing to engage this biopreparation in complex therapy of cow mastitis

Preparative form

Bactomast-D – dry porous mass of beige to light-cream color. Its dissolution in liquid media yields suspension with faint dairy fermentation smell

Terms of storage

18 months since manufacturing date at temperatures from 0 to +8°C in place protected from direct sunray exposure and precipitation

Developed

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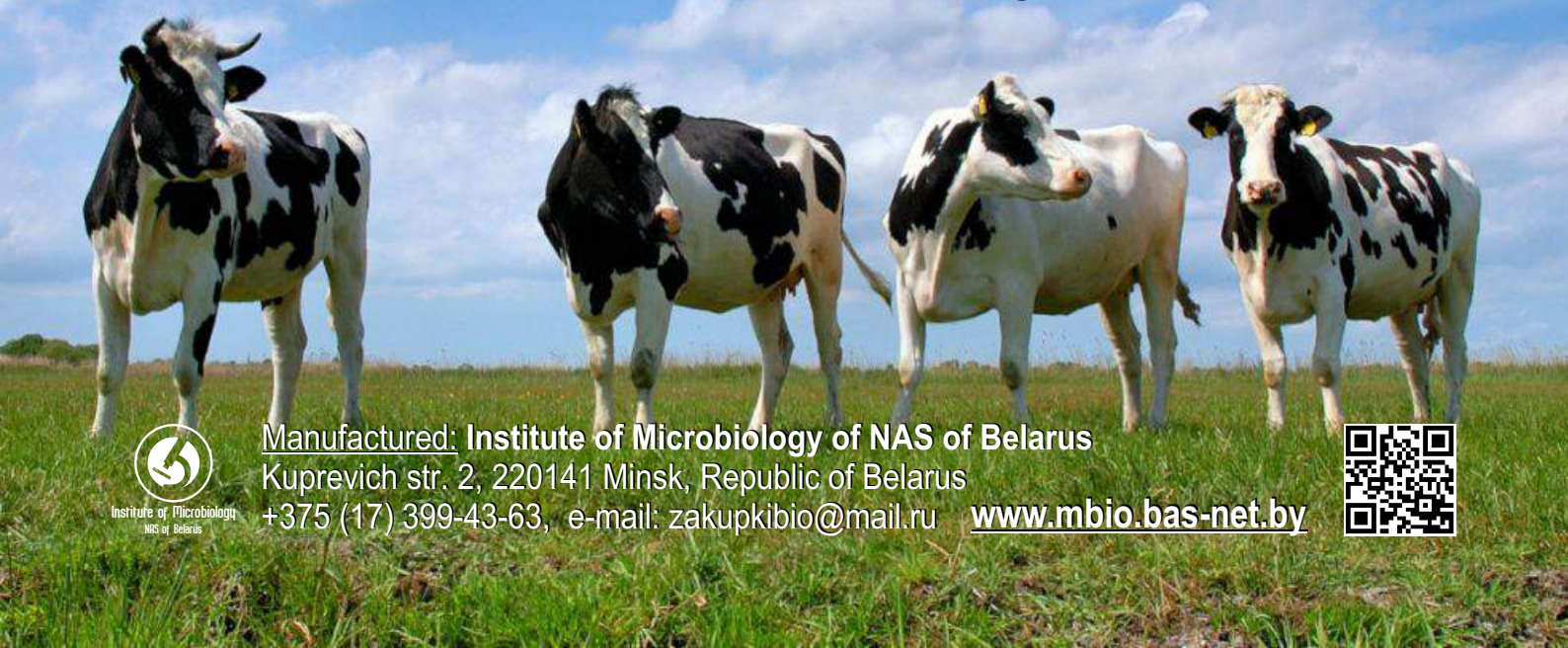

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