

4<sup>th</sup> International Conference and Exhibition on

# Probiotics, Functional and Baby Foods

November 03-05, 2015 Valencia, Spain

## Probiotic for prevention and treatment of dysbacteriosis, colibacteriosis and a salmonellosis of farm animals and birds

Anna Chizhayeva, Galina Dudikova and Rafilbek Amanzhol

Kazakh Research Institute of the Processing and Food Industry, Kazakhstan

Probiotics are gaining attention to use as preventive agents in agriculture. We created the preparation of probiotic action on the basis of lactic acid bacteria (LAB) *Lactobacillus brevis*-67, *Lactobacillus casei* var. *alactosus*-22, *Lactobacillus fermentum*-104, *Lactobacillus plantarum* 2 possessing a wide range of antibacterial action in the relation: *B. subtilis* 720, *Escherichia coli* 113-3, *Staphylococcus aureus* 209P, *Salmonella reading*, *Salmonella* Typhimurium. The preparation is characterized by high antagonistic and immune stimulating activity; the amount of living cells of LAB in one dose of the preparation makes not less than  $1 \times 10^9$ . Antagonistic properties of the preparation are caused by synthesis by cultures of the LAB which are a part of consortium, thermostable low-molecular peptides with a molecular weight within 3500-4500 Da. The probiotic preparation can be used in veterinary science for prevention and treatment of dysbacteriosis, colibacteriosis and a salmonellosis when feeding young growth of agricultural animals and birds. Its application within 10 days promotes to decrease of death of lambs and calfs for 30%; to improvement of digestion at calfs of solid for 1.8-2.19%, a protein for 7.3-9.54%, celluloses for 2.9-5.01%; to increase in additional weights at calfs for 4.5-11.9%, at chickens for 18-23%. The way of receiving the preparation provides cultivation of LAB in one stage, allows to increase antagonistic activity of the preparation, its safety and to increase efficiency of prevention and treatment of gastrointestinal diseases of farm animals and birds.

### Biography

Anna Chizhayeva has defended her Doctoral dissertation 13 years ago at the Al-Farabi Kazakh National University. She has published more than 40 papers. Her area of its scientific interests is biology of lactic acid bacteria, probiotics and bacteriocins.

[anna\\_chizhaeva@mail.ru](mailto:anna_chizhaeva@mail.ru)

### Notes: