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Probiotic preparation on the basis of lactic acid bacteria for feed additive

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Food probiotic preparations allow improving the existing systems of cultivation and feeding of farm animals are an important component of modern rational feeding of animals. The advantage of the probiotics containing lactobacilli is their harmlessness for a macro organism at them is absent accustoming at the long use and by-effects. As a result of selection and screening of the most active strains of lactic acid bacteria (LAB), we created 2 consortia of lactobacilli for receiving a probiotic preparation for the feed additives intended to farm animals and a bird. Consortium *Lactobacillus casei* Lts 114 and *Lb. fermentum* Ls 129 is designed on the basis of the cultures allocated from the flour environment. Consortium *Lb. acidophilus* 4Sh1, *Lb. fermentum* 3sh1 and *Lb. pontis* 9K3 consists of the cultures allocated from koumiss and shubat. Both consortia possess the biocompatibility of strains among themselves expressed by antagonistic and acid-forming activity. The nutrient medium on the basis of whey and vegetable raw materials-wheat, peas, corn and buckwheat in the form of nanopowders (according to electronic microscopy the maintenance of nanoparticles in size 20-500 nanometers-20%) for cultivation of consortia is created. This nutrient medium provides high quantity of LAB cells-1012 CFU/ml and also increases antagonistic activity of consortia-diameter of zone growth inhibition of *Bacillus subtilis* ATCC 6633-33 mm. Parameters of deep cultivation of LAB consortia on the developed nutrient medium are determined and the technological modes of the probiotic production for feed additives are fulfilled.

Biography

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

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