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Application of the probiotic preparation in compound feeds for a trout

Valentina Sidorova¹, Galina Dudikova¹, Anna Chizhayeva¹, Nadezhda Yanvareva¹, Saya Koyshibayeva² and Nina Badryzlova²¹Kazakh Research Institute of the Processing and Food Industry, Kazakhstan²Kazakh Research Institute of Fishery, Kazakhstan

The probiotic preparation "Biokons" contains consortium antagonistic active lactic acid bacteria: *Lactobacillus brevis*-67, *Lactobacillus casei* var. *alactosus*-22, *Lactobacillus fermentum*-104 and *Lactobacillus plantarum*-2. It possesses a wide range of antibacterial action in the relation to *Bacillus subtilis*, *Escherichia coli*, *Staphylococcus aureus*, *Salmonella readihg* and *Salmonella typhimurium*. Introduction of the preparation "Biokons" with a titer 10⁹ CFU/g in quantity of 0.5% provides with a dusting method on readymade feeds for trout and maintenance of lactic acid bacteria in compound feed in a titer 10⁶ CFU/g. Research of the fish internals digestion revealed existence of small admissible amount of the spore forming bacteria *Bacillus subtilis* and *Bacillus mesentericus*. Conditional pathogenic and pathogenic microorganisms (*Escherichia coli*, *Salmonella typhimurium*, *Proteus mirabilis*, *Staphylococcus aureus*, *Enterobacter aerogenes*, *Klebsiella pneumoniae*, *Enterococcus faecalis*) and also lactic acid bacteria, yeast and fungi in the fish's internals digestion were not revealed. In water of fish-breeding pools and water waste constructions lactic acid bacteria in a titer of 2×10⁶ CFU/g and spore forming bacteria 1×10⁶ CFU/g. Lack of lactic acid bacteria in crops of fish's internals digestion and existence of lactobacilli in water confirms the fact that the probiotic is transitory. Lactobacilli as a part of the probiotic "Biokons" possess low degree of adhesion to fish's intestinal epithelium. Lactic acid bacteria and their metabolites render the probiotic action during passing on intestines. Thus, introduction of the probiotic preparation "Biokons" to compound feeds for trout promotes normalization of intestinal microflora of fishes and improvement of sanitary indicators of water of the fish-breeding pool.

Biography

Valentina Sidorova was graduated from Dzhambul Institute of Technology in 1982. She is the leading Researcher of Laboratory of Technology of Grain Products and Compound Feeds. She has published more than 60 papers and 22 patents.

anna_chizhaeva@mail.ru

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