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BIOTECHNOLOGICAL ASPECTS ANALYSIS OF AGRICULTURAL POULTRY MICROFLORA

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Probiotics based on normal microflora of the birds using perspective strains become increasingly popular for treatment and prophylaxis of dysbacteriosis in poultry.

The purpose of the work is the biotechnological data analysis of the composition and functions of the microflora of different birds' biotopes. One of biotechnological methods for the study of bacterial flora in the birds is a method of in vivo bacteriological control — analysis of group samples of fresh droppings. To study bird bacterial microflora the method based on vital bacteriological control (group sample study of fresh brood) is the most effective. Only 60–70% of microorganisms are identified during the analysis of bowels bird microflora. It is shown that the normal microflora of the birds has a protective function because it is colonized on epithelial intestinal area and competes for power sources, has a wider set of enzymes, and also produces a wide range of exometabolites that determine their antagonistic action on pathogenic and conditionally pathogenic transient microorganisms.

To improve modern technologies concerning cultivation of various breeds of birds with high genetic potential it needs full understanding of endogenous microflora role in a bird body. We found that as a source of probiotic strains it is better to use gastrointestinal tract laying hens and/or to make a selection of group tests of their fresh litter. Thus the best probiotic properties are characterized by microorganisms genera *Bifidobacterium* and *Lactobacillus*. The results could be used for selection of promising strains to create a acomplex probiotic.

Key words: poultry, flora, birds, microorganisms, biocenosis, probiotic.

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