

ANTAGONISTIC ACTION OF PROBIOTICS CONCERNING *P. AERUGINOSA* AND THE CAUSATIVE AGENTS OF ASSOCIATED BACTERIOSIS OF THE POULTRY

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Introduction. In industrial poultry farming, it is economically advantageous to use natural origin preparations that have an effective antagonistic effect against the causative agents of infectious diseases and the ability to balance the immune response.

The aim of the research was to determine the antagonistic effect of domestic probiotics «Subtiporin», «Enteronormin» in comparison with the foreign manufacture "Lactisan Complex" in vitro and in vivo to epizootic cultures of *P. aeruginosa* and the main pathogens of associated poultry bacteriosis.

Material and methods of research. The antagonistic effects of probiotics were investigated by qualitative and quantitative methods for *P. aeruginosa* and epizootic bacterial bacteria most commonly found in the associations - *E. coli*, *P. vulgaris*, *S. aureus*, *S. typhimurium*. Quantitatively, the antagonistic activity of probiotics was determined by the method of delayed antagonism by the method of perpendicular lines, which consists in sowing test cultures in previously for 48 hours grown on a dense nutrient medium of the lines of the cultures of the probiotic preparations. For the determination in vivo antagonistic effects of probiotics, chicken broilers were infected with epizootic cultures *P. aeruginosa*, *E. coli*, *S. aureus*, *P. vulgaris*, *S. typhimurium* with the introduction of «Enteronormin», «Subtisporin» and «Lactisan Complex».

Research results. The antagonistic effect of the probiotics «Enteronormin», «Subtisporin» and «Lactisan Complex» concerning *P. aeruginosa* and causative agents of the associated bacteriosis of *E. coli*, *S. aureus*, *P. vulgaris*, *S. typhimurium* in laboratory conditions in vivo and in vitro was confirmed. The domestic probiotic «Enteronormin» exhibited antagonistic activity in 1.13 and 1.08 times higher in comparison with «Subtisporin» and «Lactisan Complex», respectively, when tested in vitro. In an experimental study in vivo of antagonistic action of probiotics when infected per os chicks with a mixt of bacterial cultures of *P. aeruginosa*, *E. coli*, *S. aureus*, *P. vulgaris*, *S. typhimurium*, the preservation of chickens at probiotics was 85-95%. The preservation of chickens with the introduction of «Enteronormin» was 10 % higher than under the conditions of other probiotics.

Keywords: ANTAGONISTIC ACTION, PROBIOTIC, P. AERUGINOSA, E. COLI, S. AUREUS, P. VULGARIS, S. TYPHIMURIUM, PSEUDOMONOSIS OF THE POULTRY, CHICKEN-BROILERS.