

PRELIMINARY INVESTIGATIONS ON PREVALENCE OF ESBL- PRODUCTION *ESCHERICHIA COLI* STRAINS IN SWINE FROM BOTOȘANI COUNTY

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Abstract

Administration of antimicrobials to food-producing animals increases the risk of higher antimicrobial resistance in normal intestinal flora. The present preliminary study was conducted to investigate the presence of extended spectrum beta-lactamase (ESBL)-producing Escherichia coli strains in healthy swine from Botoșani County. During 2016-2018, a total of 87 samples of luminal contents of gut sections (cecal) were collected and tested. Fifty-one (51,72%) E. coli isolates were identified as ESBL-producing strains. These preliminary results reflect the selective pressure, caused by intense and less prudent use of the antimicrobials in swine production in our country. Moreover, commensal E. coli can be a reservoir for antimicrobial resistance genes, which can be transferred to pathogenic bacteria. Therefore, resistance genes transferring from farm to fork represent a public health emerging danger by the potential of producing difficult-to-treat pathogens.

Keywords: *Escherichia coli*, ESBL-producing strains, swine