



7 – 9 June 2016

22nd annual International Scientific Conference
ENGINEERING FOR ENVIROMENT PROTECTION
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TOP 2016 PROCEEDINGS OF ABSTRACT



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SLOVAK UNIVERSITY OF
TECHNOLOGY IN BRATISLAVA
FACULTY OF MECHANICAL
ENGINEERING

stupem dle ČSN EN
vliv konstrukčních
emovými změnami
přirodního hrubého
běhu karbonatace
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316 je technicky
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rcím při porovnání
fuzního odporu a
ně nemění, vlákna
betonů se během
výrazného snížení
u vápenatého.

onů po 9 měsících
cích uložení v 98%
rních vláken, avšak
korelační závislost
hodnotí pórovou
iskány na základě
výsledků je patrné,
osti betonu jsou i
m spektru betonů

ymerních vláken a
fuzního odporu v
ých vláknobetonů
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E. COLI ISOLATES ANTIMICROBIAL SUSCEPTIBILITY TO SELECTED ANTIBIOTICS, CASE STUDY IN VOJVODINA REGION

STOŠIĆ Milena¹, ČUČAK Dragana², KOVAČEVIĆ Srđan¹, PEROVIĆ Marija³, RADONIĆ Jelena¹,
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Abstract

E. coli is ubiquitously present microorganism which potential resistance to commonly used antibiotics can have a great adverse impact on human and animal health. *E. coli* is especially existent in wastewater derived from meat processing industry and abattoir operations which make up an important part of agricultural production in Vojvodina region, republic of Serbia. The main problem with this type of waste water in Serbia is lack of its treatment and their direct discharge into sewer and surface receiving waters which can lead to the release of resistant microorganisms into the environment. *This study consisted of four sampling campaigns, during four seasons in 2013 and 2014. Wastewater was collected from three meat processing plants in the Province of Vojvodina.* The aim of this research was to determine the possible resistance of isolated 37 strains of *E. coli* to 9 different antibiotics. From a total of 37 strains of *E. coli*, a moderate degree of resistance was shown to tetracycline (37.83%); low degree of resistance to ampicillin (21.62%), streptomycin (24.32%), trimethoprim-sulfamethoxazol (18.92%) and nalidixic acid (16.22%); a very low to: chloramphenicol (13.51%), ciprofloxacin (2.7%), gentamicin and cefotaxime (0.0%). Ten of the tested *E. coli* strains (18.92%) were multidrug-resistant. Considering the consequences of mass appearance of multi-resistant bacterial strains in the environment, there is an imperative need for pre-treatment of wastewater from meat industry before it's discharged in the sewer, as well as the implementation of EU legislation in Serbia which prohibits the use of antibiotics as growth promoters on animal farms.

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