



# Agricultural Journals

*Research in*

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## Subscription

# Res. Agr. Eng.

## Szostková M., Vítěz T.:

# Microbial contamination of the

# sand from the wastewater treatment plants

Res. Agr. Eng., 56 (2010): 147-153

Primary treatment of domestic wastewater represents an extensive range of physical and chemical activities which directly or indirectly affect functionality of the treatment plant as a whole. The aforementioned effect might be rather significant in many respects. However, an incorrectly designed or operated primary treatment might result in an unnecessary increase of operating costs and, principally, a negative impact on the biological level or sludge treatment and disposal. The subject matter of this contribution comprises contemplations related to functionality of this level, both with respect to its relation to functionality of wastewater treatment plant and the matter of created waste in case of which disposal has become more and more expensive and complicated. The measurement results show that sewage sand from different wastewater treatment plants contains different amount of

organic material 1.19– 82%. The content of the organic material relates to the content of microorganisms which oscillated in a range of  $1.53 \times 10^4$ –  $7.34 \times 10^6$  CFU/g for coliform bacteria including *Escherichia coli*,  $5.57 \times 10^1$ –  $4.36 \times 10^4$  CFU/g for enterococci, and  $3.13 \times 10^2$ –  $2.19 \times 10^5$  CFU/g for faecal coliform bacteria.

### **Keywords:**

wastewater treatment; primary treatment; detritus tank; wastewater treatment sand; microbial contamination

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