

Valorification of treated wastewater by a treatment plant in agriculture

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Summary

National Institute for Research and Development on Environmental Protection is ongoing, as partner, financing contract no. 37649, which is part of the Sectoral Operational Programme "Increase of Economic Competitiveness" (SOP IEC), the direct beneficiary of the work being "Echipa Horse" society and its ultimate beneficiary is the National Authority for Scientific Research of Romania. The aim of this project is to use treated wastewater for irrigation by plant discharge in agriculture, in order of fertilization of soils, environmental protection and good management of natural resources. It was determined, from experimental research and studies performed by the NIRDEP, the advantages and efficiency of treatment plant, with treatment efficiencies of over 90% for CCOCr, BOD₅, MTS indicators, extractable substances with petroleum ether, total coliform bacteria, fecal coliform bacteria, faecal streptococci. This paper presents the results of tests performed by a team of researchers from NIRDEP on the wastewater input and output of a discharge plant. The interpretation of it is performed in accordance with the legislation in force. The paper also presents dates that were used for wastewater treatment plant exploited in agriculture.

Key words: experimental research, wastewater, treatment plant, agriculture, environmental protection