Characterization of byproducts from wastewater treatment of Medea (Algeria) with a view to agricultural reuse

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ABSTRACT

It is imperative for Algeria by virtue of its arid to semiarid climate to rationalizing the use of conventional water resources. That is why the agricultural reuse of byproducts is an alternative treatment expected to preserve the water resources, the environment and the promotion of the agricultural sector. The present work aims to search for the possibility of reusing treated wastewater and sludge resulting from the treatment plant of the city of Médéa in agriculture, through the analysis of physical, chemical and bacteriological on the samples, and the continuous monitoring of the evolution of several elements. The results showed that the treated water, despite its high salinity, can be reused for irrigation of some salt-tolerant species and on well-drained soil and leached. The sewage sludge, by the relatively low amount of organic matter it contains, is considered a fertilizer, more than organic amendment.

Keywords: Sustainable development; Sewage treatment plant; Treated wastewater; Sewage sludge; Standards; Reuse; Irrigation; Spraying

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