Study of the fertilizing potential of the treated wastewater of the Koléa wastewater treatment plant (Algeria)

Authors Maamar Nakib, Ahmed Kettab, Ali Berreksi, Sarah Tebbal, Hanane Bouanani Publication date 2016/3/15 Journal **Desalination and Water Treatment** Volume 57 Issue 13 Pages 5946-5950 Publisher **Taylor & Francis** Description The objective of this study was to examine the wastewater of the Kolea sewage for agricultural reuse. The type of approach followed in the study of the quality of irrigation water lies generally within three broad categories: salinity, permeability, and sodium-related toxicity. Physicochemical analyses of treated water reveal conformity of the majority of the parameters of the water reuse standards in irrigation. Taking into account the Richards classification, the presence of the C3S1 class was identified at the Kolea plant. The C3S1 class relates to water that are usable without particular control for the irrigation of crops that are moderately tolerant to salt, on well-drained soils or with good permeability. This water has electrical conductivity mean values of 1,001 µS/cm, which will allow their use in a less restrictive way for irrigation. Finally, this study confirmed that this water contains significant

amounts of nutrients, helping to