

An assessment of microbiological quality criteria for reuse of treated wastewater in agricultural irrigation

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ABSTRACT

The reuse of treated wastewater is considered necessary but also effective solution in water-scarce areas of the world for the confrontation of increased water demand due to increasing population and per capita consumption. The application of treated wastewater reuse presupposes right planning based on the protection of public health and environment according to enacted specifications of wastewater treatment plant effluent quality and also gaining public acceptance. The guidelines in the USA vary from state to state. The guidelines of the State of California set more stringent criteria than those of WHO, but they are not the strictest in the world. In European level does not exist legislative regulation with regard to the reuse of treated wastewater and each country applies national or even regional directives. Therefore, it is necessary for European Union countries to legislate a directive for the encouragement but also the safe application of wastewater reuse programs. In this work, the main worldwide regulatory status for microbiological quality criteria is presented, that is applied in programs for wastewater reuse in agricultural irrigation.

Keywords: Wastewater; Reclamation; Reuse; Microbial quality; Agriculture
