



## **Effect of domestic wastewater on soil salinity of Khorasgan University Lands**

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World population growth is reaching the point where available fresh water is insufficient for basic needs of mankind. The municipal wastewater account common revival source for amends water deficit, and it has been used for irrigation in agriculture section since long ago. In order to assess municipal wastewater of Khorasgan University (KHUW) on soil quality, four treatments in three replications were designed. The experiment was performed at the landscape area of Khorasgan university in 2007. The treatments included furrow irrigation with normal water (control), furrow irrigation with KHUW (FW), surface drip irrigation with KHUW (DI), subsurface drip irrigation with KHUW (SDI). The soil samples were collected through 0-15, 15-30, 30-45 and 45-60 cm in two stage (beginning and end of research period). In this research, some parameters of soil quality were estimated. The results indicate that wastewater reusing increases soil salinity. Based on these results, while the initial  $E_c$  was determined about 2.5 dS/m, this parameter increased to 3.3, 4.5, 2.7 dS/m for FW, DI, SDI respectively. In addition, maximum of  $E_c$  in soil surface was seen in DI with significant different compared to other treatments. In conclusion, SDI system because of suitable soil water distribution revealed better conditions based on EC comparison to other treatments.

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