

Effect of treated wastewater on strawberry

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Description

Algeria is facing a problem of water scarcity which has been increasing for decades and which is likely to worsen as a result of the global warming phenomenon. As well as, the precipitation is insufficient and irregular in time and space. Therefore, the recycling and the use of treated wastewater (TW) in irrigation is a necessity in order to protect and preserve our surface and underground water resources. However, the assessment of the effects of the reuse of TW in irrigation on the different components of crops and the agricultural environment, as well as an optimization of this reuse of TW, are only at their beginning in Algeria. In this perspective, we conducted a comparative study on a strawberry crop (Camarosa variety) irrigated with TW and conventional water (CW), at the experimental station of the Superior National Agronomic School of Algiers (ENSA-El-Harrach Alger). The results show that the effect of the waters on the crown diameter, the plants' heights, the number of fully developed leaves and the chlorophyll content were not significant, but there are statistically, very highly significant differences between fruit production of the plants depending on the irrigation water quality. In order to avoid eventual risks, the use of TW requires regular monitoring and the reuse standards must be respected.