



Perspectives of use of the recycled olive-fruit processing water for olive orchards irrigation in a Mediterranean environment

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The olive-fruit processing plants in Southern Spain generate an appreciable volume of waste water, which could potentially be recycled for olive orchards irrigation in regions with seasonal rainfall and long-dry-hot summers. Therefore, a research project has been initiated to assess salt dynamics in the solution of drip-irrigated soils, with several mixtures of fresh water and recycled olive-fruit processing water.

The preliminary results indicate an increase of the electrical conductivity of the soil solution from the beginning at the middle of July 2018, with the range 1-3 dS/m, to the end of the irrigation period at the end of October 2018, with the range 3-13 dS/m. The electrical conductivity of water for irrigation varied in the range 7-13 dS/m. The accumulated rainfall was in the range 145-203 mm, and most of the events occurred in the month of October.

Although the solute concentration during the irrigation period is a cause of concern, the next rain events might dilute and leach their excess throughout the profile.

Acknowledgements: This research is being supported by Consejería de Agricultura, Pesca y Desarrollo Rural de la Junta de Andalucía – Spain, co-financed with FEADER funds [GOP3I-SE-16-0002 Project].