

# Reuse of wastewater treated by electrocoagulation in irrigation of market cultivation "*Lycopersicon esculentum*"

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## Abstract

Our study conducted on the behavior of a tomato variety: *Lycopersicon esculentum* irrigated with two types of water of different origin. The first originates from water treated by activated sludge and the second comes from wastewater treated by the electrocoagulation process. For each type of treatment, 60 pots are cultivated and irrigated under the same edaphic and climatic conditions (experimental greenhouse). The results obtained on plants irrigated by water treated with electrocoagulation (WT<sub>EC</sub>) show a good development compared to plants irrigated by water treated by activated sludge. A better yield of 80% ± 2 was recorded with WT<sub>EC</sub>. The microbiological study shows the total absence of pathogens: *Salmonella* and *Staphylococcus* and alteration such as fungi in fruits from plants irrigated by the water treated by activated sludge. This irrigation has, first of all, resulted in the enrichment of the soil with nutrients and organic matter, which explains why the WT<sub>EC</sub> are rich in the elements necessary for the growth development of the tomato and its use presents no danger on the health of the consumer.

**Key words:** electrocoagulation, irrigation, *Lycopersicon esculentum*, reuse.