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ANALYTICAL STUDY ON THE EFFECT OF
THE DIFFERENT WATER
CONDITIONERS ON THE CONSTITUENT
OF WATER USED IN AGRICULTURAL
FROM DIFFERENT SOURCESS

THESIS SUBMITTED
FOR PhD DEGREE
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EHAB HOSNY TAHA
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Title of Ph.D. Thesis: Analytical Studies On The Effect Of The Different Water Conditioners On The Constituent Of Water Used In Agriculture From Different Sources

Name of the candidate: Ehab Hosny Taha Fouda

This thesis has been approved for submission by the supervisors:

1- Prof. Dr. Barsoum Nashid Barsoum

Signature:

2- Prof. Dr. Mohamed Mamon Mwafe

Signature:

3- Assist. Prof. Ihsan Mohamed Kenawi

Signature:

Prof.Dr. Sadek El-Sayed Abdu

Chairman Of Chemistry Department.
Faculty of Science- Cairo University

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Abstract

Name: Ehab Hosny Taha Fouda

Title of Thesis: Analytical Studies On The Effect Of The Different Water Conditioners On The Constituent Of Water Used In Agriculture From Different Sources

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This work has been carried out to investigate the effect of magnetic and electrocatalytic water conditioners on the chemical and physical properties of saline irrigation water ($EC > 2500$ ppm). The results showed no clear difference when the two saline well water samples were analyzed before and after both conditioners. The conditioned and unconditioned water were used to irrigate saline-sandy and sodic-clay soil then the tested soils were analyzed after five and ten irrigation with respect to exchangeable ions, micro and microelement, SAR, PAR, ESP and EC. The results indicated some improvement in soil sections which were irrigated with conditioned rather than unconditioned water.

Finally, the conditioned and unconditioned water were used to irrigate radish and kidney bean, which have sensitivity to saline water. The chlorophyll analysis and the determination of dry and wet weigh illustrated that the use of conditioned water lead to the improvement in plants growth.

Key words: magnetic conditioner , catalytic conditioner, saline, sodic, soil, water

Supervisors: 1- Prof. Dr. Barsoum Nashid Barsoum
2-Prof. Dr. Mohamed Mamon Mwafe
3-Assist. Prof. Ihsan Mohamed Kenawi

Prof.Dr. Sadek El-Sayed Abdu

Chairman Of Chemistry Department.
Faculty OF Science- Cairo University

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