

THE EFFECT OF TREATED SEWAGE WATER ON ALHOHOPA JATROPHA PLANTS AND THEIR GROWING SOILS

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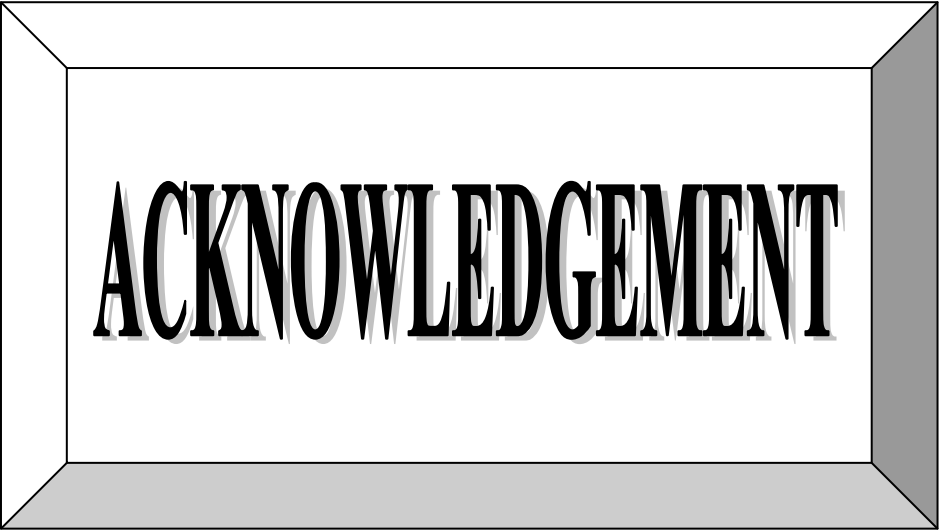
ABSTRACT

This study was conducted in El Orman Garden nursery (Agricultural Research Center) within two following seasons of 2011/2012 and 2013/2014. This research aimed to study the effect of two water types (sewage water and fresh water), three soil types (Sand, Clay, calcareous soils) and their interaction on growth characters and chemical composition of Jojoba and Jatropha plants.

The main results obtained were as follow:

Vegetative growth (plant height – number of leaves – number of flowers – fresh and dry weight) and the chemical composition (chlorophyll content, A – B, A + B, total carbohydrate, heavy metals (cd, cu, fe, pb, zn) and oil contents for both plants Jojoba and Jatropha.

The most important gained results were the use of sand soil with the treated sewage water that gave the best results in the vegetative growth and the chemical composition for both plants Jatropha and Jojoba in comparison with other used soil types and control treatment (irrigation with fresh water).



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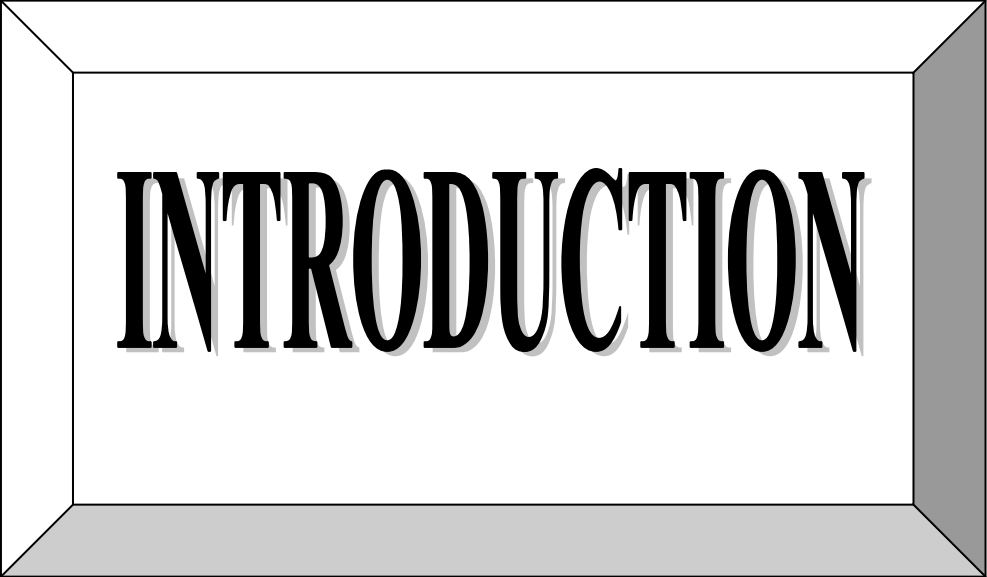
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INTRODUCTION

INTRODUCTION

Hohopa and Jatropha trees produce biodiesel. They are planted easily in deserts. They resist desertification and bear hard environmental conditions. They also bear salinity and resist soil erosion caused by wind. Hohopa and Jatropha trees are multi-beneficial. **Ebtisam *et al.* (2013)**

They can be used as biofuels and diesel oil. They also can be used as a medication for many diseases and a feed for animals. Biofuels is the magic solution for the dangers caused by the expiration of oil, gas and fossil fuels, Add to this, biofuels are clean and not dangerous to human health and to the environment in general. **(Dhyani *et al.* 2015).**

Biofuel trees can be grown in deserts without high cost of reclamation or of complex agricultural processes, experts asserted that when millions of acres of the very large desert are grown and planted scientifically and in a correct way. They can fill the food shortage and repair the deteriorating economy they can also fill the budget deficit and there will be no need to the economical aids and gifts or to produce any alternative energy.

Our deserts and the nature of the soil enable to be very good and suitable for growing many and a lot of plants and crops which have variable economical benefits. The climate is very good too; the