

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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STUDIES ON TOLERANCE OF SOME PLANTS TO SALINITY AND DROUGHT



By

MOHARRAM FOUAD ATTIA MAHMOUD

B. Sc. Agric. Zagazig University

Moshtohor (1995)

A Thesis

Submitted in partial fulfillment for

the requirements of the degree of

Master of science

in

soil Science

Department of Soil and Agricultural Chemistry

Faculty of Agriculture, Moshtohor

Zagazig University

(Banha Branch)

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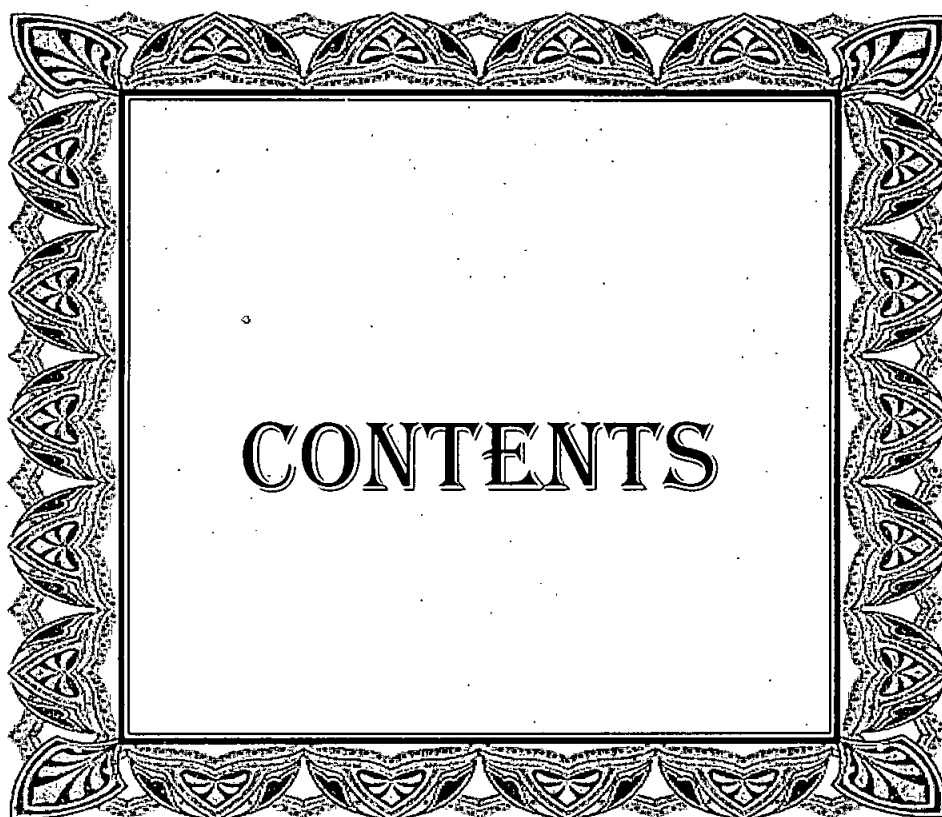
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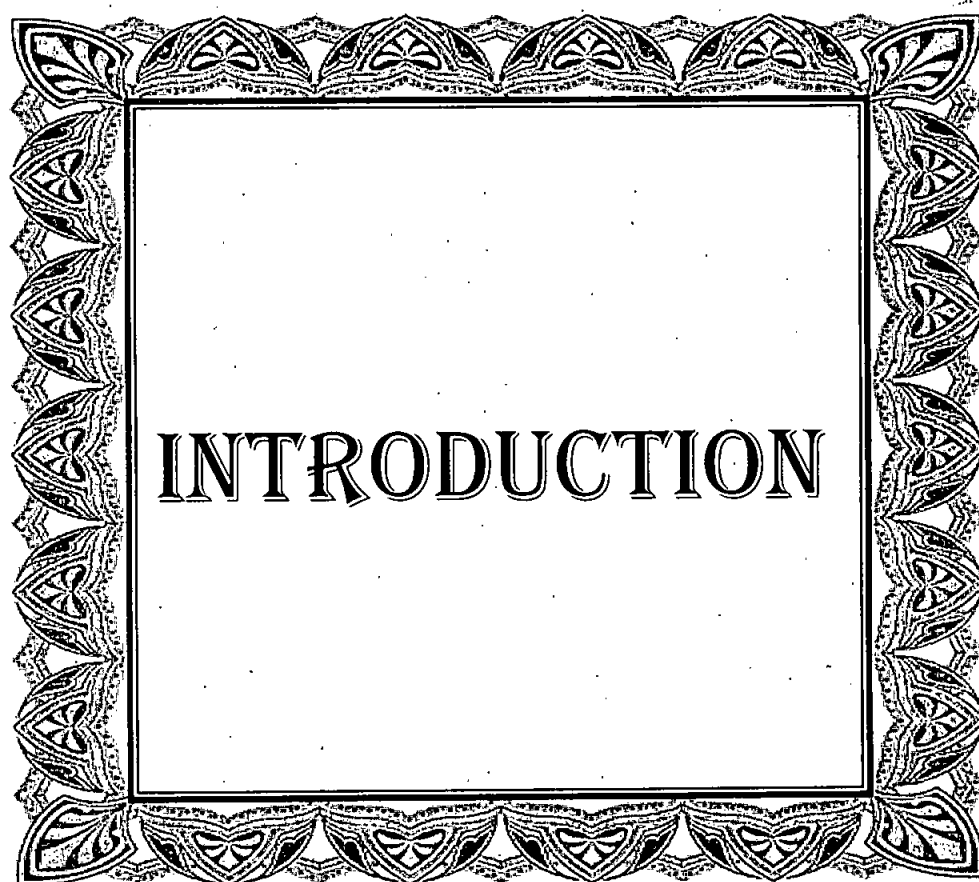


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1. - INTRODUCTION

Crop production under arid conditions is often limited due to soil salinization. The problem becomes particularly severe under irrigated agriculture. In Egypt, where the semiarid conditions are dominating vast areas particularly along the northern coast, the land use poses many difficulties since the application of ameliorative materials is very much constrained by economic and climatic factors. Although leaching of salts by irrigation water and the replacement of exchangeable sodium by calcium containing amendments could improve such soils, in practice this is not feasible because reclamation of land under such conditions is a costly problem. The alternate approach of economic utilization of saline lands as well as newly reclaimed ones is planting salt tolerant plants. Thus, such practices are confined to limited areas, where salinity and exchangeable sodium levels are not extremes, so the choice of specific plant species that can tolerate these levels is so important. The present investigation was conducted to evaluate the ability of some plant species i.e., (sorghum, barley, tomato, beans and cotton) to tolerate salinity and drought conditions through the germination, growth and periods. Chemical composition of plant species was considered also.