شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائـــــــق الاصليـــــة تالفـــة

بالرسالة صفحات لم ترد بالاصل

STUDIES ON THE PHYSIOLOGY OF SEED GERMINATION IN PHASEOLUS VULGARIS L.

Thesis

Submitted, in partial fulfilment, for the degree of
Master of Science (M.Sc.)

In

Botany (Plant Physiology)

By

Amal Zakaria Abdel-Hak Hegazi
(B.Sc., Cairo University)

Ain Shams University
Faculty of Science
Department of Botany

1999

This thesis has not been previously submitted for any degree at this or at any other university.

The references in the text will show specifically the extent to which I have availed myself of the work of other authors.

Amal Zakaria Abdel-Hak Hegazi

MASTER THESIS
OF
SCIENCE

Student's name : *Amal Zakaria Abdel-Hak Hegazi*
B.Sc. Botany

Title of thesis : Studies on the Physiology of Seed Germination in *Phaseolus vulgaris* L.

Degree : Master of Science, Ain Shams University, Department of Botany (Plant Physiology).

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ABSTRACT

The physiology of seed germination and subsequent growth of seedlings have been studied in kidney bean (*Phaseolus vulgaris* L.). Application of NaCl salinity was done as a tool to clarify further insights on the mechanisms achieved under normal conditions and their possible modificaiton under salinity stress. Germination potential of five kidney bean cultivars was evaluated and Giza 3 was selected for further experiments. Depression of growth under salinization of soil could be mainly attributed to retardation of photosynthetic performance, decrease of the activity levels of auxins, gibberellins and cytokinins as well as to enhancement of growth inhibitors, particularly abscisic acid (ABA). Consequently, further work was performed to show the effect of exogenous application of ABA and the growth retardant cycocel (CCC), known as an antigibberellin, on the protein patterns of kidney beans in absence and prevalence of NaCl salinity. This might be assumed to indicate the extent to which the regulation of gene expression is involved in the control of seed germination and seedling growth under stress conditions.

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