



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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ECOLOGICAL AND PHYTOCHEMICAL
STUDIES ON *ASTRAGALUS SPINOSUS*
(FORSSH.) MUSCHL.

B4945

By

HANONA SAMI YAECIOUB

B.Sc. of Agric. (Industrial Foods), Mansoura University 1975
Master in Environmented Sci., Ain Shams University 1998

A thesis Submitted for Doctor of Philosophy
In
Environmental Science

Department of Agricultural Science
Institute of Environmental Studies Research
Ain Shams University

2001

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ECOLOGICAL AND PHYTOCHEMICAL
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ABSTRACT

Name : Hanona Sami Yaecoub

Title : Ecological and Phytochemical Studies on *Astragalus spinosus* (Forssk.) Muschl.

Degree : Doctor of Environmental Science

Submitted to : Environmental Agriculture Science Department, Institute of Environmental Studies and Research, Ain Shams University.

This investigation includes ecological, eco-physiological, phytochemical, biological, germination and seed's cultivation studies on *Astragalus spinosus* (Forssk.) Muschl. It aimed to clarify the range of environmental conditions within which the plant can grow and adapt itself in its main habitats and the reflection effect of these environmental conditions on its chemical constituents. The plant was collected from two different habitats E. Grawla 30 km East and Fuka 82 km East of Marsa Matruh.

Key words : Ecology - Phytochemistry - Flavonoids - *Astragalus* - Leguminosae

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