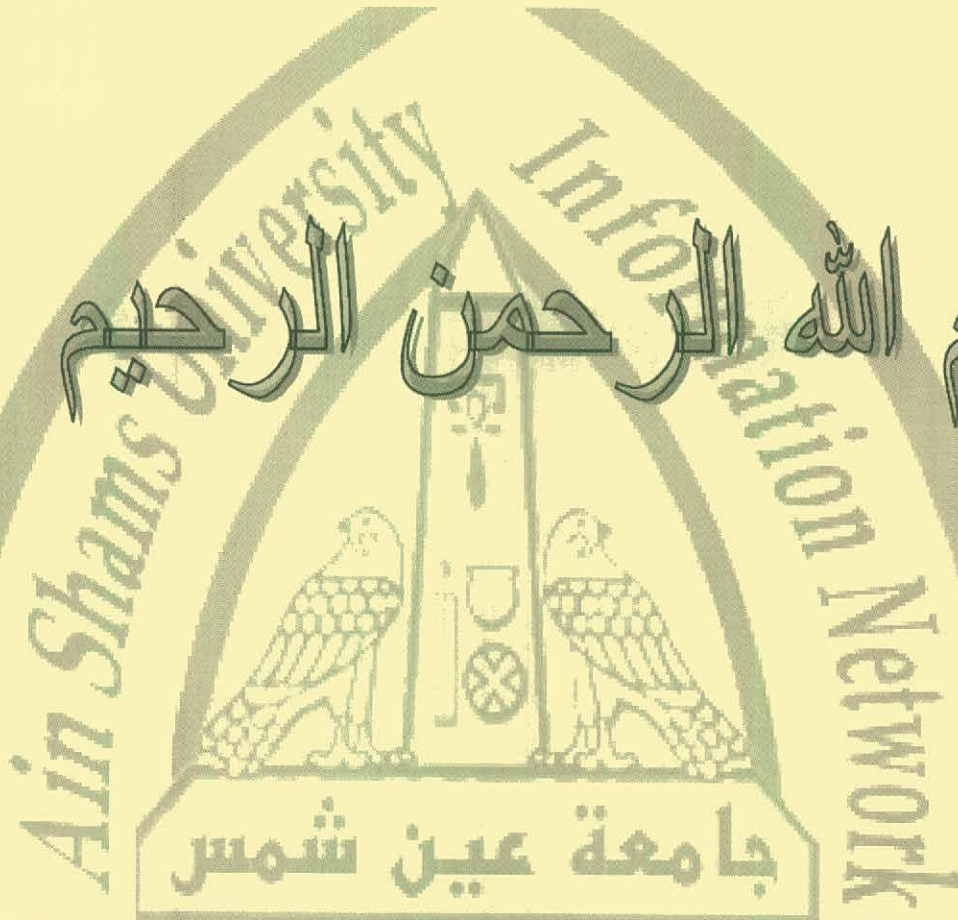




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شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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التوثيق الالكتروني والميكرو فيلم

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**EFFECT OF SOME BIO-FERTILIZERS COMPARED WITH CHEMICAL
FERTILIZERS ON GROWTH, YIELD AND ACTIVE CONSTITUENTS
OF CHAMOMILE PLANT (*Matricaria chamomile*)**

By

Horia Sharawy Mostafa

B.SC. SO. Operative Agriculture Science 1984

**Higher institute of Agriculture co-operation, Ministry of
Higher Education**

**Fulfillment of B. Sc. (Hort.), Fac. of Agric. Moshtohor,
Zagazig Univ. 2000**

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THESIS

**Submitted in Partial Fulfillment of
the Requirements for Degree of**

MASTER OF SCIENCE

IN

HORTICULTURE

**Horticulture Department
Faculty of Agriculture
Benha University**

2006



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**Submitted in Partial Fulfillment of the Requirements for
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IN

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ABSTRACT

This study was carried out at the Applied Research Center of Medicinal Plant Farm of National Organization for Drug Control and Research (NODCAR) at Kafer El-Gabal Farm, Giza, during the two successive seasons of 2002/2003 to investigate the effect of some chemical (ammonium sulphate, calcium superphosphate and ammonium sulphate + calcium super phosphate) and Bio one as (*Azotobacter* + *Azospirillum*, *Bacillus* and *Azotobacter* + *Azospirillum* + *Bacillus*) on growth, flower yield and chemical compositions of *Matticaria chamomile* plant. The obtained results were :

- 1- Chemical and bio-fertilizers increased plant height, fresh and dry weights of plant herb, fresh and dry weights of flower heads/plant or unit area.
- 2- Chemical and bio-fertilizers treatments also increased essential oil percentage, essential oil yield and of oil improved oil quality.
- 3- All treatments increased each of nitrogen, phosphorus and potassium percentage in plant herb compared with control plants.

The best results of growth or flower yield, oil percentage and oil quality were obtained with combined treatment of mineral fertilizer and with the bio fertilizer of *Azotobacter*, *Azospirillum* and *Bacillus*.

CONTENTS

	Page
1. INTRODUCTION.....	1
2. REVIEW OF LITERATURE	5
1- Effect of bio-fertilizer on vegetative growth characters.....	5
2- Effect of bio-fertilizer on flowering characters.....	13
3- Effect of bio-fertilizer on chemical composition.....	15
a- Oil percentage.....	15
b- N,P and K percentage.....	18
4- Effect of mineral fertilizer on vegetative growth characters.....	20
5- Effect of mineral fertilizer on chemical composition.....	27
a- Oil percentage.....	27
b- N,P and K percentage.....	29
3. MATERIALS AND METHODS	33
4. RESULTS AND DISCUSSION	39
4.1. Effect of different fertilization treatments on vegetative growth of chamomile plants during two successive seasons 2002/2003 and 2003/2004	39
4.1.1. Vegetative growth	39
4.1.1.1. Plant height (cm)	39
4.1.1.2. Fresh weight/plant (g)	43
4.1.1.3. Dry weight/plant (g)	48
4.1.1.4. Root length (cm)	52
4.1.1.5. Root fresh weight	56
4.1.1.6. Root dry weight	59
4.2. Flowering	63
4.2.1. Flower yield/plot	63
4.2.2. Yearly yield of flower heads/plot and /fed (Kg)	70
4.3. Chemical composition	73
4.3.1. Oil percentage	73
4.3.2. Oil yield/plot or /fed	75
4.3.3. Oil constituents	77
4.4. Values of total N,P, and K in nursery soil as influenced by different inculcation treatments after 45 days of sowing	86
5. SUMMARY AND CONCLUSION	95
6. REFERENCES.....	103
7. ARABIC SUMMARY	

