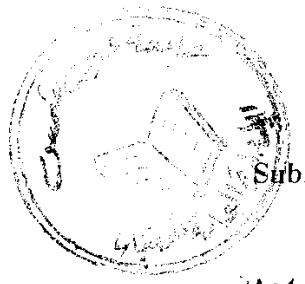
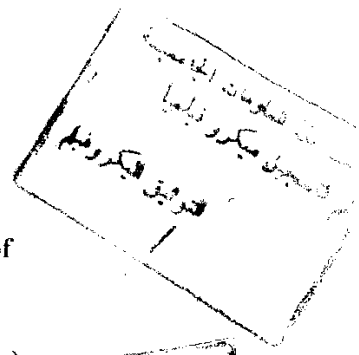
CYTOGENETIC STUDIES AND PROTEIN BANDING PATTERNS IN *Vicia faba* AND *Allium cepa* PLANTS TREATED WITH SOME PESTICIDES





Thesis

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By

Elham Ahmed Abbas Abd-Elhady

(M. Sc.)

Ain Shams University

Faculty of Science

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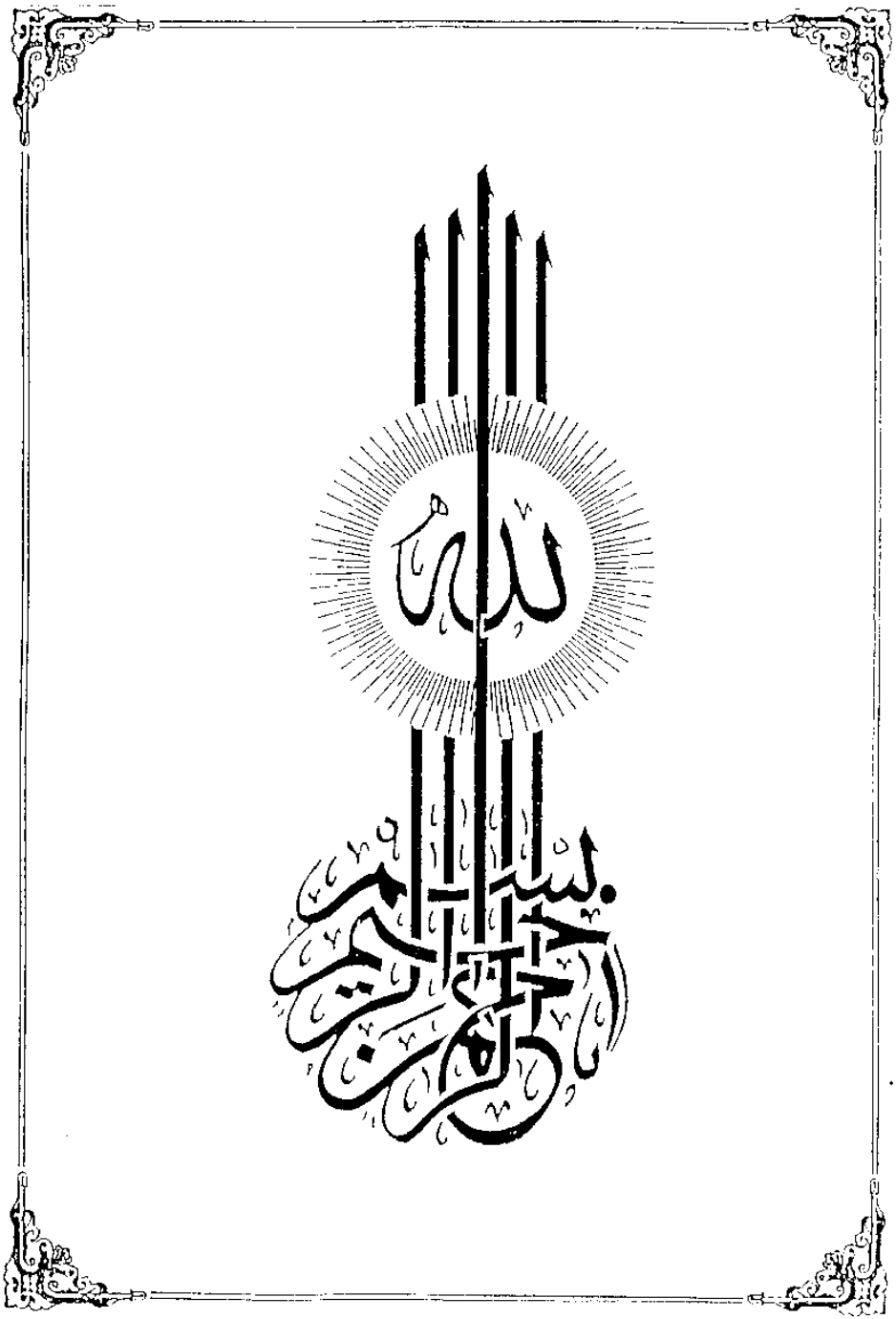

بسم الله الرحمن الرحيم

"وقل ربى زدنى علما"

صدق الله العظيم

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

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Ph.D. THESIS

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Degree : Ph. D. Botany (Cytogenetics)

Title : Cytogenetic studies and protein banding patterns in *Vicia faba* and *Allium cepa* plants treated with some pesticides

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Cytogenetics studies and protein banding pattern in *Vicia faba* and *Allium cepa* plants treated with some pesticides

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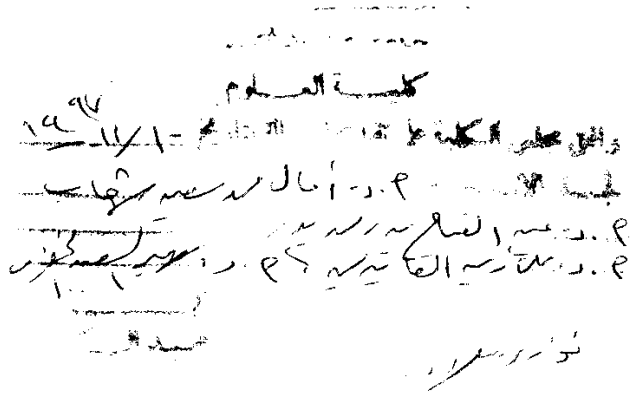

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ABSTRACT

Cytogenetic studies and protein banding patterns in *Vicia faba* and *Allium cepa* plants treated with some pesticides

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The present investigation has been conducted to study the mutagenic effect of the three insecticides curacron, hostathion and larvin on both mitoses in root tips of *Allium cepa* and meioses in flower buds of *Vicia faba* plants and the effects of the three insecticides on the seed storage protein banding patterns of the M_2 *Vicia faba* plants

The three applied insecticides showed a marked effect on the frequency of the different mitotic phases depending on the concentration used and the duration of treatment. Treatment of ***Allium cepa*** root tips with the three recommended doses of each of the three applied insecticides (curacron, hostathion and larvin) resulted in a remarkable reduction in the mitotic indices. All treatments of ***Vicia faba*** flower buds with the three tested insecticides resulted in an increase in the percentage of abnormal PMCs. Such increase was more pronounced at the higher concentrations of each insecticide than at the lower ones. All treatments of ***Vicia faba*** parents with each of the three insecticides curacron, hostathion and larvin resulted in a marked changes in the M_2 seed storage protein banding patterns as compared with the control one.