

**MUTAGENIC EFFECT OF CURRENT APPLICAION OF  
PESTICIDES ON SOME COTTON VARIETIES**

**By**

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B.Sc. Agric. (Genetics ), Ain Shams University,1993.**

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## Abstract

**Hanan Mohamed Abd El –Gelil . Mutagenic effect of current application of pesticides on some cotton varieties. Unpublished. M.Sc. Thesis, Department of Genetics, Faculty of Agriculture Ain Shams Univeristy.**

The Probable mutagenicity of pyrethroid and catabron insecticides using six long staple cotton varieties (Giza 75, Giza 80, Giza 83, Giza 85, Giza 86 and Dandera).

The study involved their effect on mitotic division in root tips, the process of meioses in cotton flower buds and on the storage protein of the M<sub>2</sub> cotton seeds and the storage of the cotton leafs

The different concentrations of the two insecticides induced significant decrease in of mitoses. The results also indicated that the two pesticides have mutagenic activity at the Cytological level in the six cotton varieties. All doses were effective in inducing chromosomal abnormalities and a clear dose response relationship was observed in the various cytological testes.

Analysis of chromosomal abnormalities revealed that the two insecticides display clastogenic and turbagenic activities.

At the protein level pyrethroid and catabron were found to play an important role in changing the protein banding patterns in seeds and leafs of six cotton varieties.

Changes in protein band intensity were recorded as compared with the control. The results obtained in the present study suggest possible mutagenic potential of the two pesticides.

Key words: Mutagenic activity, Pesticides, Gossypium-SP, (Cotton)

Clastogenic, Turbagenic, Laggards, SDS

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