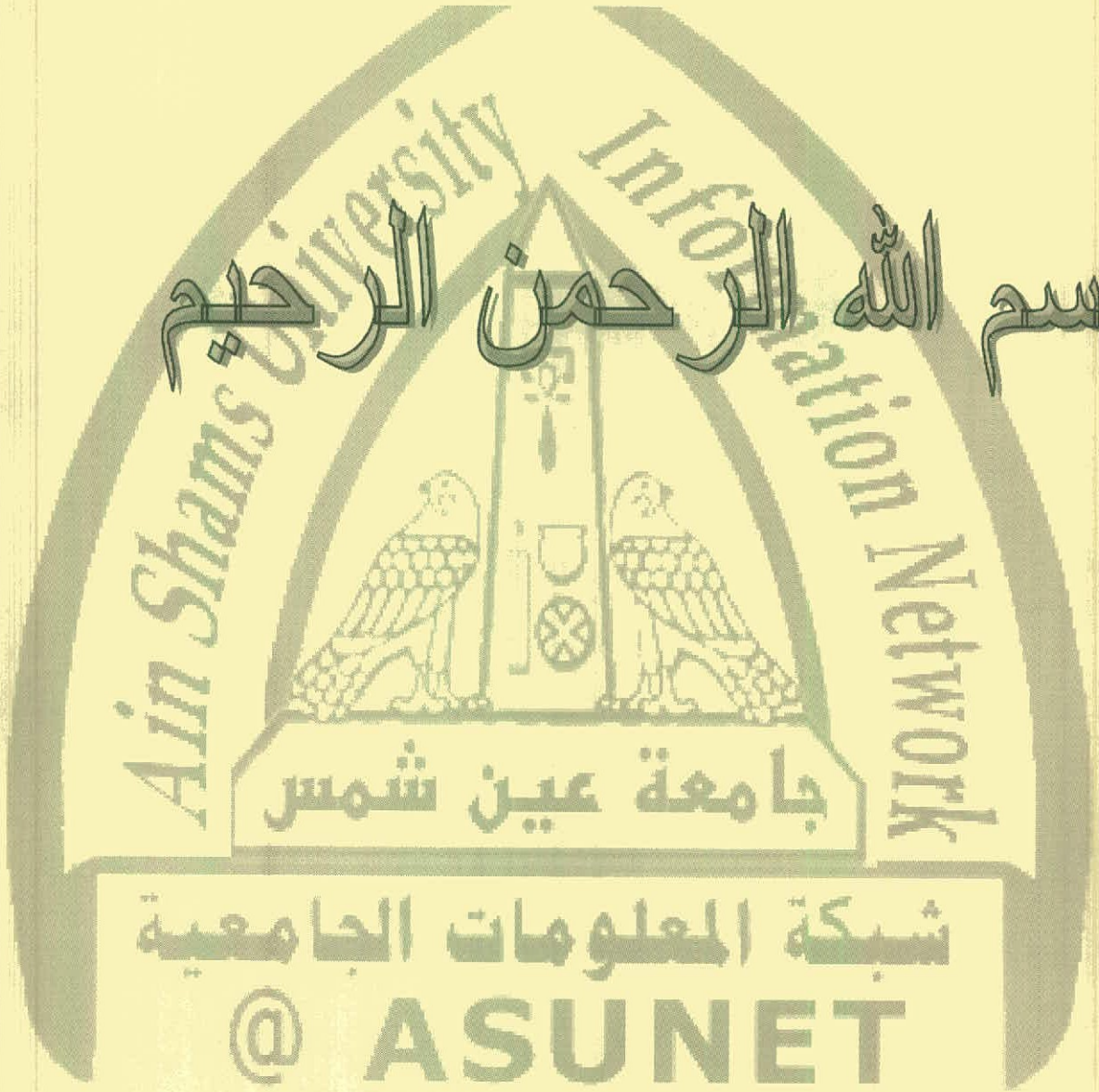
شبكة المعلومات الجامعية



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

BIOCHEMICAL GENETIC INDICES FOR INSECT RESISTANCE IN MAJOR SPECIES OF GENUS CYMBOPOGON

By
MOHAMED MOSTAFA IBRAHIM
B.Sc. Agric. Sci., Ain Shams Univ., 1980
M.Sc. Agric Sci., Ain Shams Univ., 1991

A thesis submitted in partial fulfillment
of
the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Agricultural Science
(Genetics)

Department of Genetics
Faculty of Agriculture
Ain Shams University

2000

Approval Sheet

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ABSTRACT

Mohamed Mostafa Ibrahim, Biochemical Genetic indices for insect-resistance in major speceis of genus Cymbopogon, Unpublished Doctor of Philosophy, dissertation Department of Genetics, Faculty of Agriculture, Ain Shams University, (2000).

The main objective of this study was to evaluate some selected clones of lemon grass and citronella which characterized by different synergism in producing pest natural product. The base population of genus *Cymbopogon* consisted of 27 clones of lemongrass and citronella developed from four different resources of roselle through co-cultivation system to study genetic variability and selected particular clones. Data were recorded on seven quantitative characters considering essential oil yield components on *Cymbopogon* clones while in resources of roselle eight characters were also recorded according to infestation characters in the two seasons. Genotypic variation were noted for all characters in two plants.

The estimates of heritability, analysis of variance, means performance, regression and correlation were calcualted. Volatile oil content and essential oil yield were determined. The constituents of essential oil for the four clones were analyzed by using GC/MS technique. Qulitative and quantitative variations were detected through 24 variant components. The anti-insect activity of the selected clones of volatile oil of lemongrass and citronella were studied. Most of selected clones caused marked effects on pink cotton boll worm through determined $LC_{30,\ 50,90}$. The value of active ingradients such as terpens were outlined the nature of genes participated in controlling resistance.

Keywords: Cymbopogon, Essentil oil, Boll worm, Anti-insect activity, Quantitative characters, Biochemical genetics, Clone selection.

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