



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بللّاه العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات

لم ترد بالأصل

GENETICAL STUDIES ON SOME AGRONOMICAL AND CHEMICAL CHARACTERS IN EGYPTIAN COTTON

BL. 22V

By

Azima Mohamed Abd El-Salam

B.Sc. Agric., (Agronomy), Alex. University, 1970

M.Sc. Agric. (Genetics), Kafr El-Sheikh, Tanta Univ., 1979

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Faculty of Agriculture

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ اسْبِحَانَكَ

لَا عِلْمَ لَنَا

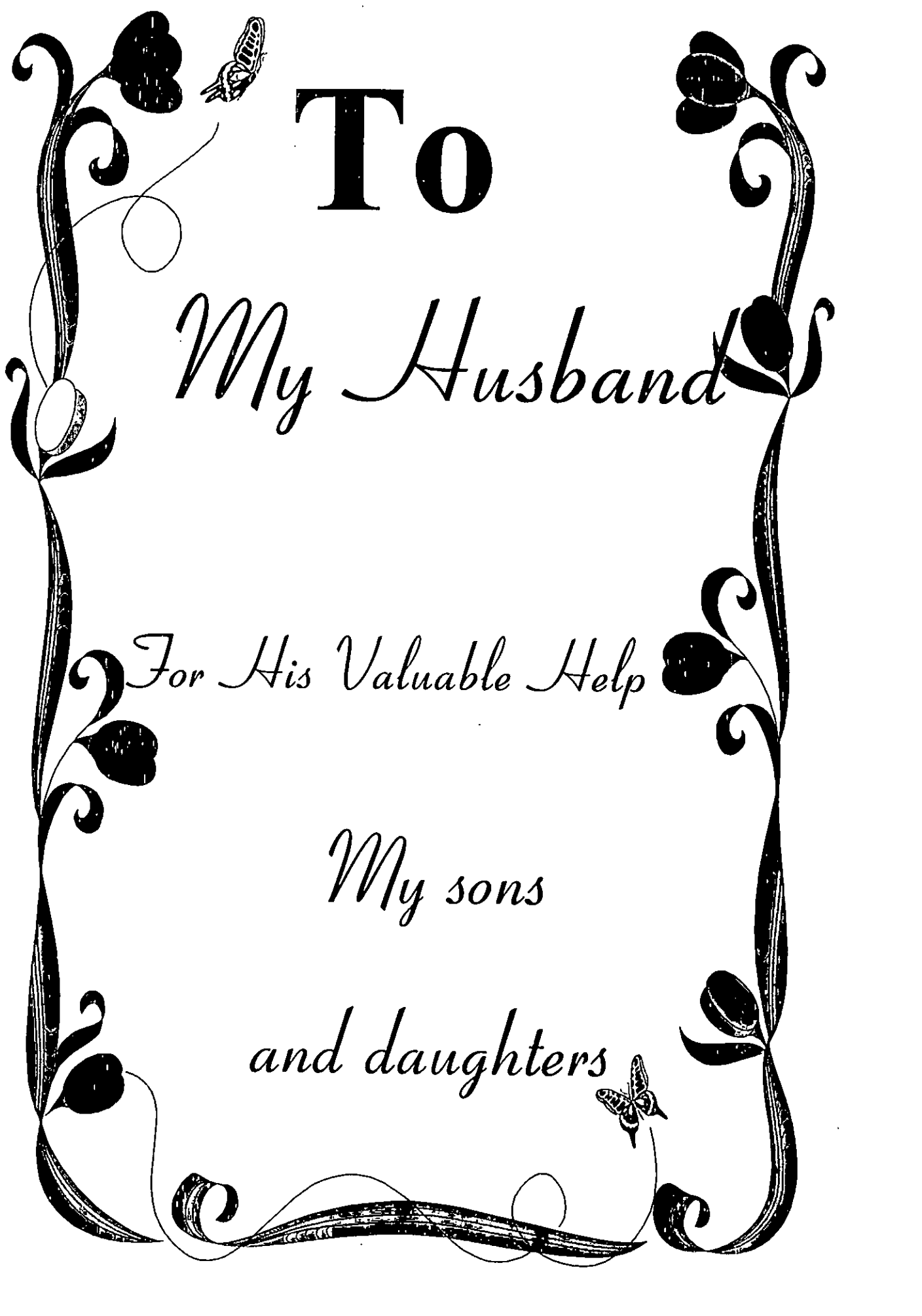
إِلَّا مَا عَلَّمْتَنَا

أَنَّكَ أَنْتَ الْعَلِيمُ

الْحَكِيمُ

صَدَقَ اللَّهُ الْعَظِيمُ

سُورَةُ الْبَقَرَةِ - آيَةُ ٣٢



To

My Husband

For His Valuable Help

My sons

and daughters

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INTRODUCTION

INTRODUCTION

Since twenty years ago cotton was ranked as the first fiber crop in the world. In Egypt, about 20% of the total growing area is cultivated with cotton (*G. barbadense*). Now the cultivated area is about 700,000 feddan. Egyptian cotton varieties proved to be limited in their yield productivity, although they represent the most important part of the world finest cotton.

The ultimate goal of all cotton breeding programs is to increase yield as well as improving fiber properties. On the other hand, yield and yield component traits are influenced by both genetic and environmental variations in addition to the interaction of these two factors and careful consideration of this point should be an important purpose for any successful improvement program.

Many investigators demonstrated that plant hormones and growth regulators play an important role in the different physiological processes of higher plants (Jacobs, 1979). Flowering, fruit setting, flower and fruit abscission, fruit growth, maturation and dormancy are physiological processes which are controlled by the gradual changes in the naturally-occurring growth active materials during different growth stages. Furthermore, these stages are greatly influenced by environmental conditions and can be modified by application of a wide variety of exogenous growth regulators such as auxins, gibberellins, kinetins and phenols.

This investigation was achieved to assess the following objectives:

- 1- The influence of growth regulators on cotton characteristics.
- 2- Estimation of genetic variability, heritability and expected genetic gain from selection inter-cotton varietal crosses.
- 3- Estimation of both general and specific combining ability in a diallel cross set of cotton varieties under different growth regulators effects and their implication in future breeding program.

REVIEW
OF
LITERATURE

REVIEW OF LITERATURE

The review of literature was divided into three main parts as follow:

- I- Influence of growth regulators on cotton characteristics.
- II- Estimation of genetic variability.
- III- Combining ability and heterosis.

I. Influence of Growth Regulators on Cotton Characteristics

Five types of chemical growth regulator systems are well known for the plant physiologists (Garl Leopold and Kriedemann, 1978). These five systems were classified as follows:

The auxin and gibberellins which stimulate cell elongation; the cytokinins, which stimulate cell division; ethylene gas, which stimulates the swelling or isodiametric growth of stems and roots and the inhibitors. Each of these types is capable of altering most aspects of growth including cell division, cell enlargement, differentiation and differential growth phenomena.

Gibberellins are a group of closely related naturally occurring compounds in the higher plants. They were first isolated in 1939 in Japan by Yobuta and Suniki, and Known principally for their effects on modifying many physiological processes in plant.