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التوثيق الالكتروني والميكروفيلم

﴾ قـــــسم ﴿

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
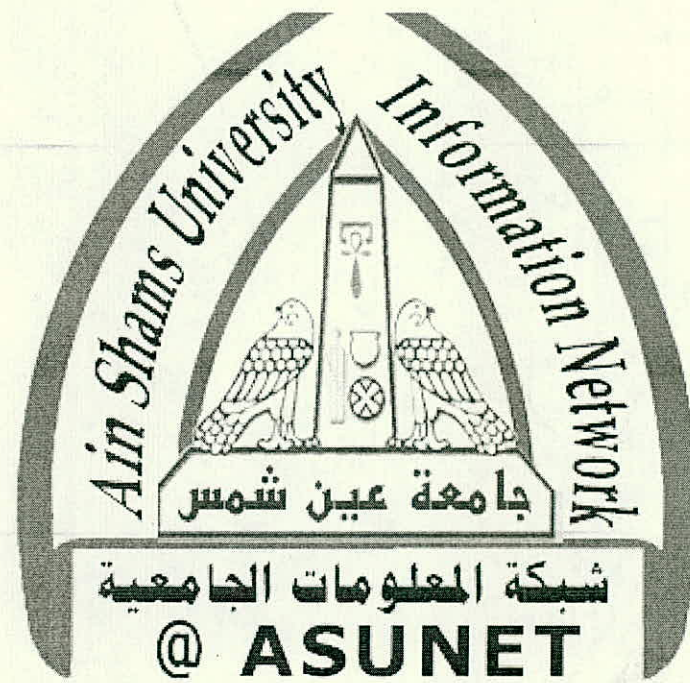علي هذه الأفلام قد اعدت دون آية تغيرات

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 %

بعض الوثائق

الأصلية تالفة

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بالرسالة صفحات

لم ترد بالأصــل

MORPHOLOGICAL AND BIOCHEMICAL IDENTIFICATION OF SOME SOYBEAN CULTIVARS

By

AMAL HASSAN SELIM EID

B.Sc. (Agron .) , Ain Shams Univ., 1989

A thesis submitted in partial fulfilment
of
the requirements for the degree of
MASTER of SCIENCE

IN

Agricultural Science
(Agronomy)

Department of Agronomy
Faculty of Agriculture
Ain Shams University
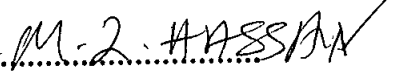
1997

r APPROVAL SHEET

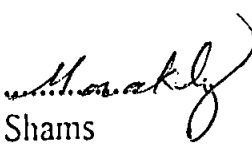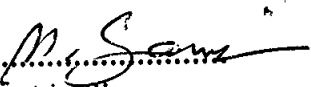# MORPHOLOGICAL AND BIOCHEMICAL IDENTIFICATION OF SOME SOYBEAN CULTIVARS

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ABSTRACT

Amal Hassan Selim Eid. Morphological And Biochemical Identification Of Some Soybean Cultivars. Unpublished Master of Science, Ain Shams University, Faculty of Agriculture, Department of Agronomy, 1997.

The data indicated that some qualitative characters could be used for soybean genotype identification. DR 101 had stem determinate, brown pubescence and vigorous seedling .

Clark variety had stem indeterminate, brown pubescence color and non vigorous seedlings. H_{15} L_4 had gray pubescence color. On the other side, some quantitative parameters could be used for identification of soybean genotypes during growth . The length of hypocotyls and coleoptyle were varied due to the genetic makeup of studied germplasms. No significant differences in amount of chlorophyll A in leaves of indeterminate soybean plants but its content was significantly higher than that leaves of determinate soybean genotype DR 101.

Yield component parameters such as plant height, number of nodes/plant, seed structure, shape and size can be used for identification of studied soybean germplasms. It was clearly found that DR 101 was not adapted to grow and the environmental conditions of Giza and Kaluobea Governorates. The data of H, L, T and seed total protein were high in 1996 than 1995 growing season . This was due to the effect of preceding crop that was legume and cereal for the above respective growing seasons. On exception was noticed for seed crude protein of H29 that insignificantly differed versus growing seasons. Also HLR and HTR were unchanged versus growing seasons. It means that these ratios are accurate descriptors for studied soybean genotypes. The changes in carbohydrate fractions versus years and soybean genotypes had no trend. Whereas, seeds of Giza 21 and Giza 35 characterized by significant lowest tri and tetrasuccharides and subsequently increase soybean meal quality .

The soybean seeds were statistically varied in their total vicine content.. Otherwise, its concentration was generally low. The significant highest TIA was found for soybean seeds of Giza 21 and DR 101. While, the lowest activity characterized the seeds of Giza 35 and Giza 82 genotypes indicating low pancreatic hypertrophy effect of their raw soybean meals. Banding patterns indicate significant differences in seed proteins of various genotypes . It was found certain proteins with different molecular weight characterized every soybean genotype under investigation. Therefore, electro-phoretic analysis is an important tool for the identification of soybean cultivars.

ACKNOWLEDGMENT