



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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%



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم

بالرسالة صفحات
لم ترد بالأصل

بعض الوثائق
الأصلية تالفه

The Phylogenetic Relations of Some Barley Species and Varieties

By

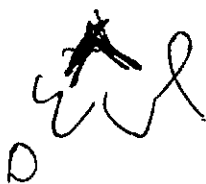
TAHA SAYED TAHA HUSSEIN

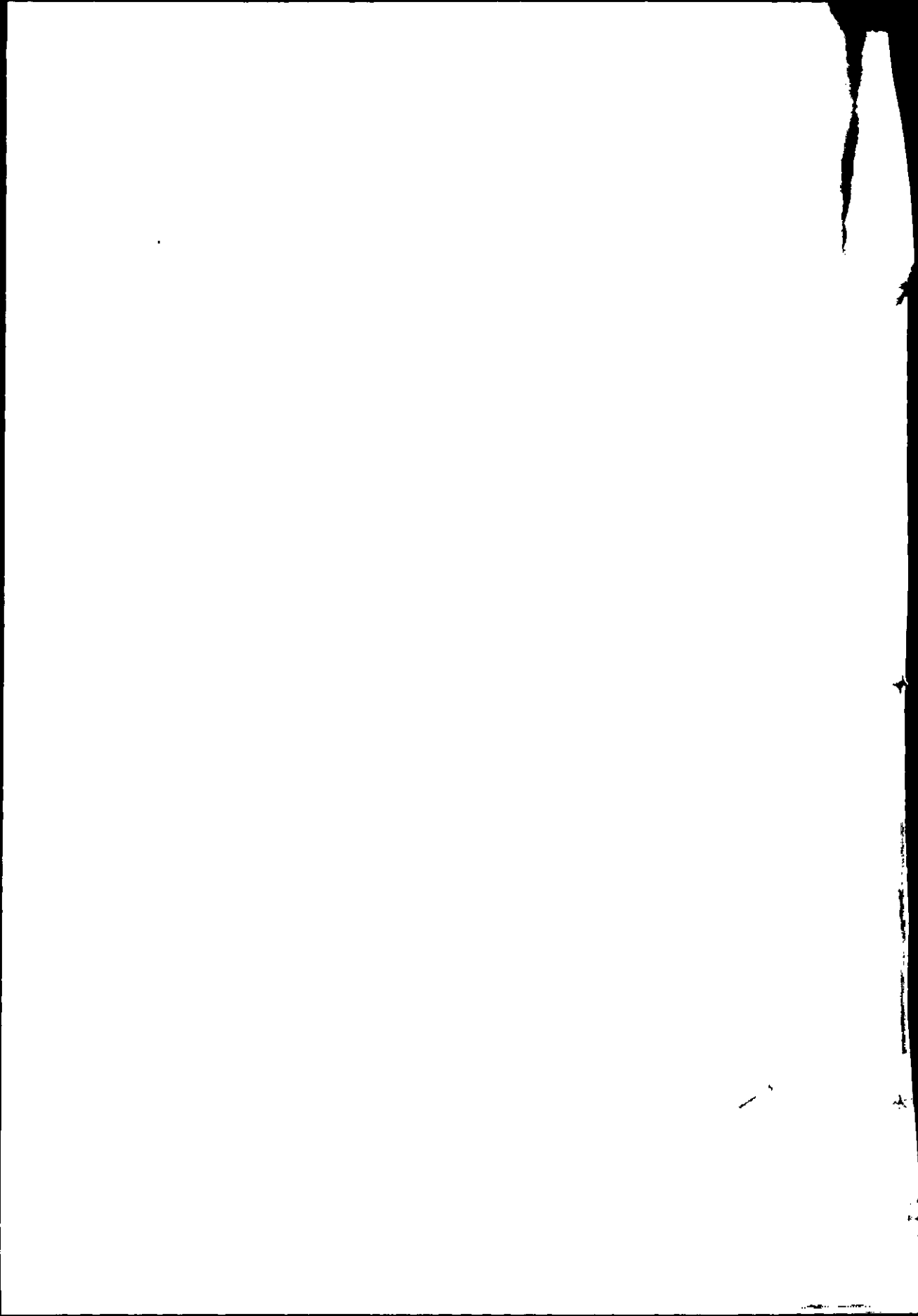
A thesis submitted in partial fulfillment
of
the requirements for the degree of

Master of Science

in
Agriculture
(Genetics)

Department of Genetics
Faculty of Agriculture
Ain Shams University
1996

A handwritten signature and the letter 'D' are located in the bottom left corner of the page.



The Phylogenetic Relations of Some Barley Species and Varieties

By

TAHA SAYED TAHA HUSSEIN

B.Sc. Agric. (Genetics), Ain Shams Univ., 1983

Under the supervision of:

Prof. Dr. **Abdel-Fatah Arafa Tayel**

Prof. of Genetics, Fac. of Agric. Ain Shams Univ.

Prof. Dr. **Mohamed Abdel-Salam Rashed**

Prof. of Genetics, Fac. of Agric. Ain Shams Univ.

Dr. **Sami Mohamed Soliman**

Head Research, Agriculture Research Center

Approval Sheet

The Phylogenetic Relations of Some Barley Species and Varieties

By

TAHA SAYED TAHA HUSSEIN

B.Sc. Agric. (Genetics), Ain Shams Univ., 1983

This thesis for M.Sc. degree has been approved by:

Prof. Dr. Ahmed Abdel-Salam Mahmoud.. A.A. Mahmoud..
Prof. of Genetics. Fac. of Agric., Zagazig Univ.

Prof. Dr. Fathy Mohamed Abdel-Tawab... F.M. Abdel-Tawab...
Prof. of Genetic. Fac. of Agric. Ain Shams Univ.

Prof. Dr. Mohamed Abdel-Salam Rashed.... M.A. Rashed..
Prof. of Genetic. Fac. of Agric. Ain Shams Univ. (Supervisor)

Date of examination: / / 1996

Abstract

Taha Sayed Taha Hussein. The Phylogenetic Relations of Some Barley Species and Varieties. M.Sc. Ain Shams Univ. Agric. Fac. Genet. Dept. 1996.

Phylogenetic relationships among four *Hordeum* species namely *H. vulgare*, *H. murinum*, *H. maritimum* and *H. spontaneum* were studied by using total soluble protein, hordein protein and some isozymes electrophoretic patterns. The protein electrophoretic patterns was more reliable in barley varieties and species identification, while hordein electrophoretic pattern was more effective in barley varieties identification. Some isozymes such as Est, 6-Pgd, Adh, Idh and Acp were used in both barley varieties and species identification, whereas Per and Mdh were not effective for barley varieties and species identification.

Key words: Barley, Phylogenetic, Protein, Hordein, Isozymes

Acknowledgment

The author is very much indebted and obliged to Dr. A. A. Tayel, Professor and Head Department of Genetics, Faculty of Agriculture, Ain Shams University, for his valuable help and kind encouragement, for reading and correcting the manuscript.

Grateful appreciation is also due to Dr. M. Abdel salam Rashed, Professor of Genetics, Genetics Department, Faculty of Agriculture, Ain Shams University for suggesting the problem, faithful encouragement and help during the progress of this study.

Thanks also to Dr. S. M. Soliman Head Research, Agriculture Research Center (ARC), for his supervision, valuable advice and kind encouragement.

Many thanks to Dr. Gh. A. Gad El-Karim Senior Researcher, Biocomputing and Network Unit, Agriculture Genetic Engineering Research Institute, ARC, for analyzing and computing the densitometer of electrophoresis studies.

✧

✧

✧