شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

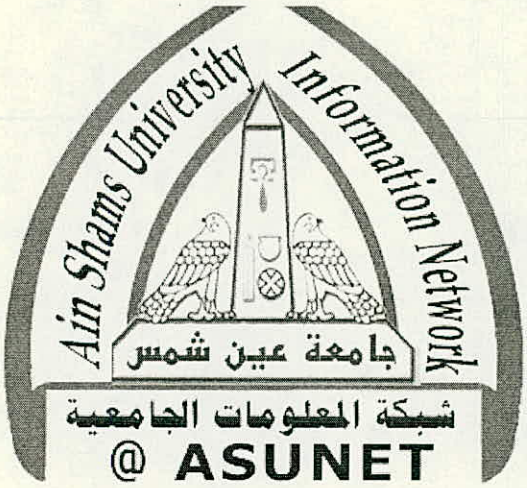
شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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

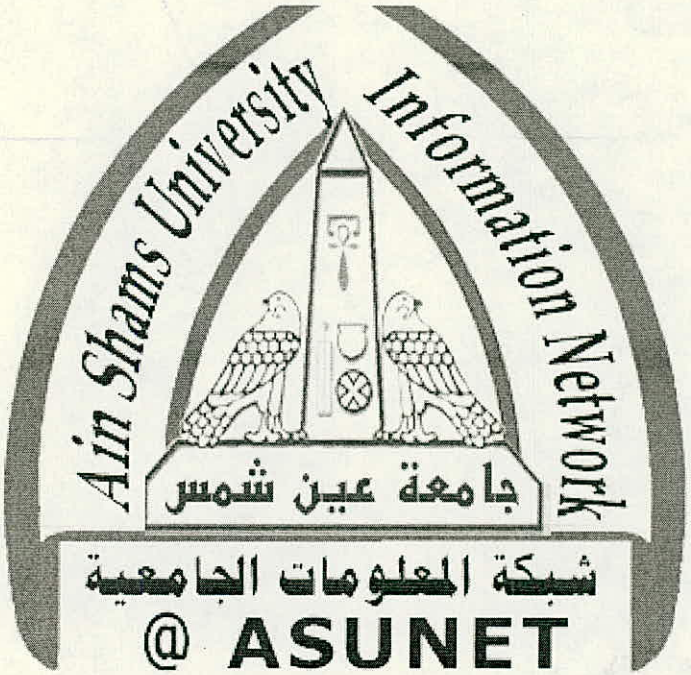


يجب أن

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

بالرسالة صفحات

لم ترد بالأصـــل

EFFECT OF BIOLOGICAL AND CHEMICAL TREATMENTS ON THE NUTRITIVE VALUE OF SOME CROP RESIDUES

BY

MOHAMED AHMED ABDULLA AHMED

B.Sc. Agri, Zagazig Univ. 1975

M.Sc. Zagazig Univ. 1995

A thesis submitted in partial fulfillment

Of

the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Agricultural Science- Animal Production

(Animal Nutrition)

Department of Animal Production
Faculty of Agriculture
Zagazig University
2002

EFFECT OF BIOLOGICAL AND CHEMICAL TREATMENTS ON THE NUTRITIVE VALUE OF SOME CROP RESIDUES

BY

MOHAMED AHMED ABDULLA AHMED

B.Sc. Agri., Zagazig Univ. 1975

M.Sc. Zagaizg Univ. 1995

Under the Supervision of:

Prof. Dr. **Sabry M. Bassuny** S. M. Bassuny

Prof. Of Animal Nutrition, Faculty of Agriculture, Zagazig University

Prof. Dr. **Abdel-Mordy A. Abdel-Aziz** Abdel Aziz

Chief Researcher, By-Products Utilization Research Department, Animal Production Research Institute, Agricultural Research Center, Giza, Egypt.

Approval Sheet

EFFECT OF BIOLOGICAL AND CHEMICAL TREATMENTS ON THE NUTRITIVE VALUE OF SOME CROP RESIDUES

By

MOHAMED AHMED ABDULLA AHMED

B.Sc. Agri, Zagazig Univ. 1975

M.Sc. Zagazig Univ. 1995

This thesis for Ph. D. degree has been approved by:

Prof. Dr. **Said A. Mahmoud** .....

Prof. of Animal Nutrition, Faculty of Agriculture, Kafr El-Sheikh, Tanta University

Prof. Dr. **Soliman M. Abd El-Baki** S.M. Abd El-Baki

Prof. Of Animal Nutrition and Headmaster of Animal Production Department, Faculty of Agriculture, Zagazig University.

Prof. Dr. **Sabry M. Bassuny** S.M. Bassuny

Prof. Of Animal Nutrition, Faculty of Agriculture, Zagazig University.

Prof. Dr. **Abdel-Mordy A. Abdel-Aziz** Abdel-Aziz

Chief Researcher, By- Products Utilization Research Department, Animal Production Research Institute, Agricultural Research Center, Giza, Egypt.

Date of examination : / /2002

ABSTRACT

The present study aimed to evaluate the effect of *Phanerochaete chrysosporium* or *Bacillus polymexa* , urea and urea + *Phanerochaete chrysosporium* or *Bacillus polymexa* as a biological, chemical and chemi-biological treatments, of some crop residues (corn cobs and sugar cane bagasse) under different incubation periods moreover, the effect of sterilization or non-sterilizaion process on the chemical composition and in-vitro dry and organic matter disappearance.The study included also, the effect of feeding the best treatments (after estimated aflatoxin levels) on digestibility, some ruminal and blood parameters, growth performance and the economical return .

The conclusion was summarized as fallow:

The biological, chemical and chemi-biological treated non-sterilized corn cobs, can be replaced one third of the concentrate feed without any adverse effects on the performance of lambs. But the cost of the biological treatment still expensive than urea treatment. Further investigation are required to search for the methods which can be reduce the cost of biological treatment to maximize its economical return.

ACKNOWLEDGMENT

My gratitude to *Prof. Dr.* Sabry M. Bassuny, Professor of Animal Nutrition, Department of Animal Production, Faculty of Agriculture, Zagazig University for suggesting the problem, his supervision and his worthy interest in designing this work and interest in the follow up of the field work.

My gratitude to *Prof. Dr.* Abdel-Mordy A.Abdel-Aziz Chief Researcher, By-Products Utilization Research Department, Animal Production Research Institute, Agricultural Research Center ministry of Agriculture for his supervision and interest in the follow up of the field work and chemical analysis.

Thanks are due to *Dr.* Mohamed F. El- Sayis Senior Researcher of Animal Nutrition Department, Animal Production Researcher Institute for his help.

Thanks are due to *Prof. Dr.* Nabil omar Chief Researcher, Agriculture Microbiology Research Department, Soils, Water and Environment Research Institute, Agricultural Research Center for his cooperation in this work.

Thanks are due to *Dr.* Hassan. Abdel-Fatah. Ass. Professor of Microbiology, Faculty of Agri., Zagazig Univ.for his help in the microbiology preparation.

Finaly, many thanks for all staff members and workers in Animal Production Department, Faculty of Agriculture, Zagazig University, By-Products Utilization Research Department, Animal Nutrition Research Unit at Ismailia and El- Gemmeiza Experimental station for their help throughout this work.

CONTENTS