



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



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 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات

لم ترد بالأصل

B9EAE

EFFECT OF FEEDING PLANS ON RUMINANTS PRODUCTION PERFORMANCE

By

EBTEHAG IBRAHIM MOHAMED ABOU EL-ENIN

B.Sc. Agric. Sci. (Animal Production),
Ain Shams University, 1992

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

MASTER OF SCIENCE
in
Agriculture
(Animal Nutrition)

Department of Animal Production
Faculty of Agriculture
Ain Shams University

1998

Page 2

APPROVAL SHEET

EFFECT OF FEEDING PLANS ON RUMINANTS PRODUCTION PERFORMANCE

By

EBTEHAG IBRAHIM MOHAMED ABOU EL-ENIN

B.Sc. Agric. Sci. (Animal Production),

Ain Shams University, 1992

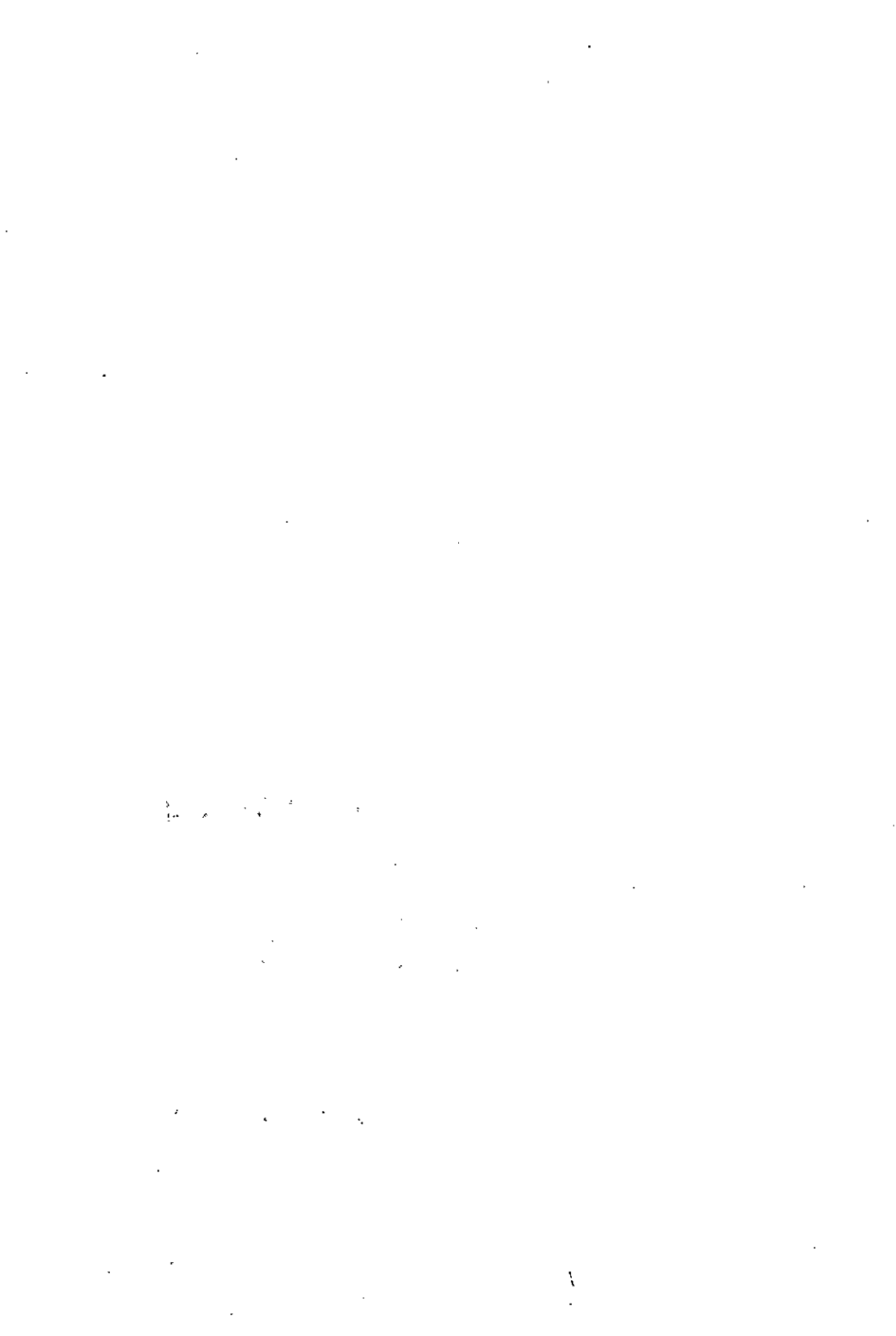
This thesis for M.Sc. degree has been approved by:

Prof. Dr. G. A. Abd El-Rahman *G.A. Abd El-Rahman*
Prof. of Animal Nutrition, Faculty of Agriculture, Zagazig
University.

Prof. Dr. M. A. El-Ashry *M.A. El-Ashry*
Prof. of Animal Nutrition and chairman of Animal Production
Department, Faculty of Agriculture, Ain Shams University.

Associate Prof. Dr. A. A. Z. El-Basiony *A.A.Z. El-Basiony*
Associate Prof. of Animal Nutrition, Faculty of Agriculture
Ain Shams University (Supervisor).

Date of examination: / / 1998



Acknowledgment

I'd like to express my gratitude to Dr. A. A. Z. El-Basiony , Prof. of Animal Nutrition, Animal Production Department, Faculty of Agriculture , Ain shams University for his direct supervision of this study and his continual help, advice and continuous encouragement throughout the work of the thesis .

Special thanks are also to Dr. H. M. Metwally, Lecturer of Animal Nutrition, Animal Production Department, Faculty of Agriculture , Ain shams University for Valuable helps, continuous guidance, encouragement and supervision throughout the course of this work .

The deepest gratitude to Dr. S. I. Hafez, Senior Researcher Officer in Animal Nutrition Department, Animal Production Research Institute, for providing sincere help, facilities, constructive suggestion, advice, and supervision throughout the stages of the study .

Appreciation is also expressed to the staff members of Department of Animal Production, Faculty of Agriculture, Ain Shams University and Animal Production Research Institute which making this work possible.

Finally, I'm extremely grateful to my parents and my sister for the great help and kind .

~~~~~



# **EFFECT OF FEEDING PLANS ON RUMINANTS PRODUCTION PERFORMANCE**

By

**EBTEHAG IBRAHIM MOHAMED ABO EL-ENIN**

B.Sc. Agric. Sci. (Animal Production),  
Ain Shams University, 1992

Under the supervision of:

**Associate Prof. Dr. A. A. Z. El-Basiony**

Associate Prof. of Animal Nutrition, Fac. of Agric., Ain  
Shams Univ.

**Dr. H. M. Metwaly**

Lecturer of Animal Nutrition, Fac. of Agric., Ain Shams  
University.

**Dr. S. I. Hafez**

Senior Research officer in Animal Nutrition Department,  
Anim. Prod Res. Institute



## ABSTRACT

**Ebtehag Ibrahim Mohamed Abou El-Enin . Effect of feeding plans on ruminants production performance . Unpublished Master of Science, University of Ain Shams, Faculty of Agriculture, Department of Animal Production, 1998.**

Thirty Ossimi lambs of 31.4 kg average live body weight were divided into 6 experimental groups of 5 animals each for feeding trial . In-addition, 18 Ossimi mature rams were used for a metabolism trial, 3 animals in each group. The plans of feeding were : G1) 100% of concentrate was offered before berseem and water. G2) 50% of concentrates were offered then berseem and water then the rest of concentrate. G3) Experimental animals were fed berseem and water followed by 100% of concentrate. G4) 100% of concentrate then water before berseem .G5) 50% of concentrates were offered then water before berseem and 50% of concentrate G6) water, berseem and 100% of concentrate at morning.

There were no significant differences in DM intake due to feeding sequences , G5 had the highest live body weight and the highest values of feed efficiency related to DMI, CPI, TDNI, SVI, DCPI (0.188 , 1.46 , 0.257 , 0.296 and 1.57 gm, respectively) than the other values for feed efficiency. Values of nutrient digestibilities, feeding values (TDN , SE and DCP) were the highest for G5. The nitrogen balances were positive for all experimental groups . Water apparent balance relatively to metabolic body size ( $\text{ml/kg } W^{0.75}$ ) was higher for G5 than G1.

Rumen pH ,the highest value ( $p < 0.05$  ; 6.95 ) was recorded for G3 after 2 h post first feeding. Ruminal ammonia-N concentration, there were the high value for G2 at zero and 2 h post first feeding, while after 4 h G1 was the highest value. Animals of G2 showed the highest value of ruminal TVFA' s (15.68 m.eq/100ml) at 2h and 4h post first feeding. Animals of G2 had the highest plasma total protein (9.04 gm/100ml) after 2 h post feeding and G3 showed lower plasma urea value (32.45 mg/100ml) than G1 (48.85 mg/100ml).

**Key words :** Sequences of feeding, frequency, forage, concentrate, feed intake, gain, feed efficiency, digestibility, feeding values, nitrogen balance, water balance, some rumen and blood parameters.