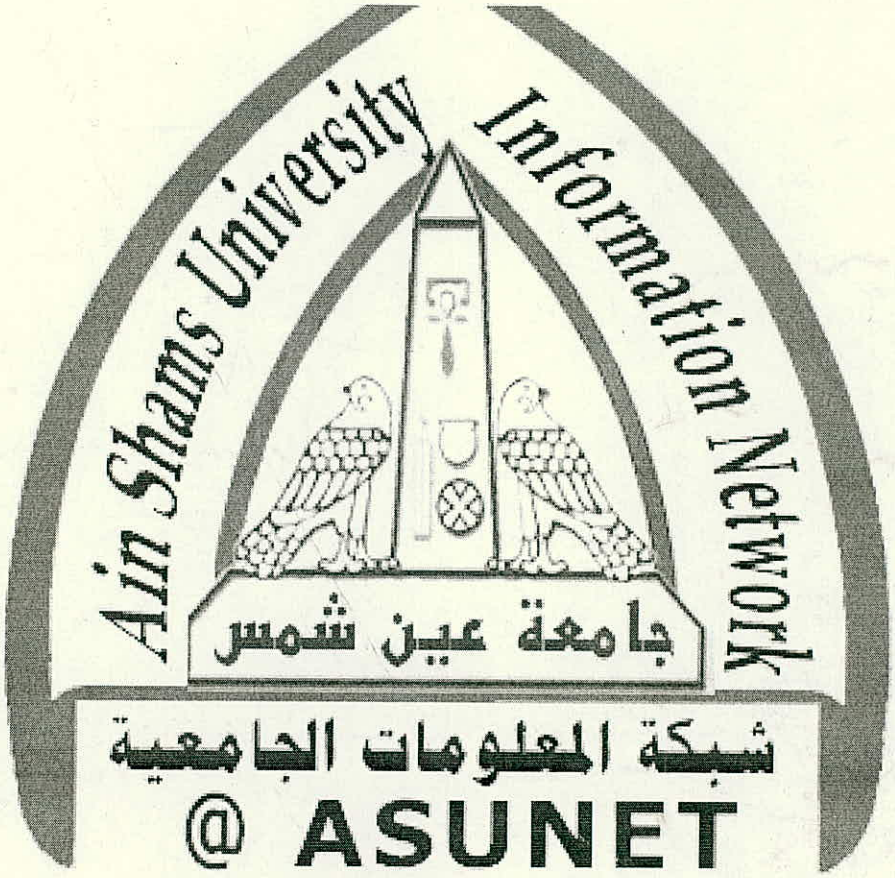
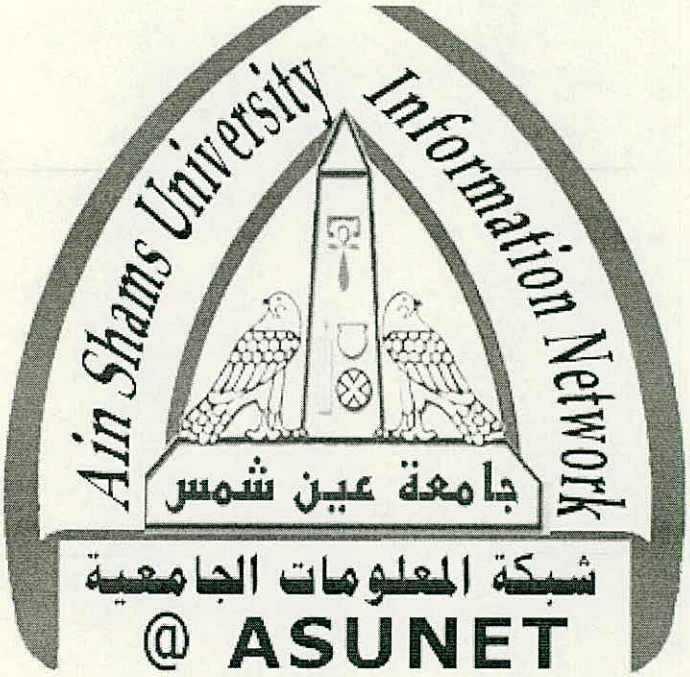
شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم





شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

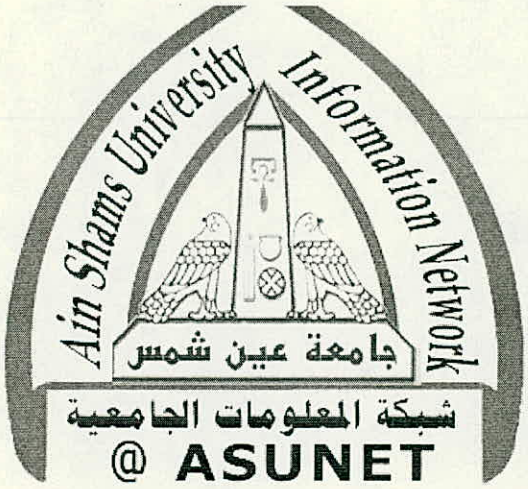
شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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

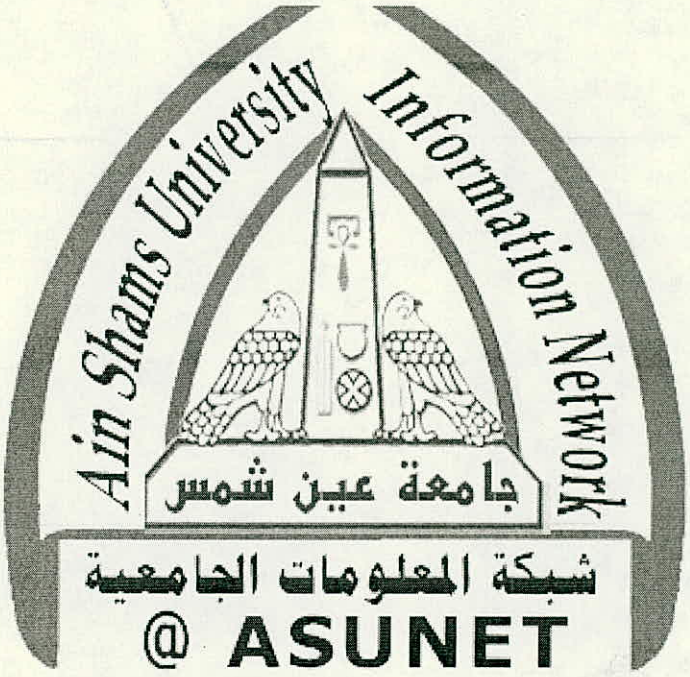


يجب أن

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

Supervision Committee

Aquaculture Engineering Parameters.

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Approval Sheet

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Date of examination : / / 2001

ABSTRACT

The main objectives of the present study were to use a semi-intensive system for fish production, or design ponds and design system aeration, feeding, foods and different feeding rate fertilizer amount. Number of feedings daily, different soil used (clay, sandy) were used with different water sources (lakes, drainage and Nile). **In this study we obtained that Results 1-average of dissolved oxygen (DO)** : during the experiments showed that the design system aeration higher than another systems. **2- Body mass gain :** Highest averages body mass gain was observed for treatment (5) (design system aeration) or (automatic demand feeder), Nile water, rectangular pond and layers sandy soil used the bottom of the bond in experiment .I (rectangular concrete). Highest averages BMG gain was observed for treatment (6) (vertical pump system aeration) or (demand feeder), circular cages, Nile water, and layer clay soil in the bottom of the bond in experiment 1.Highest averages BMG gain was observed for treatment (150 kg B) (design system food and aeration system), medium the pond lateral of the wind on method fertilizer) and 150 kg (chicken manure) per month in experiment 2. Highest averages BMG gain was observed for treatment (5% B) mechanical feeding (A), mechanical aeration (center 4 tube) at medium the pond lateral of the wind and 5% feeding rate in experiment 3. Highest averages BMG gain was observed for treatment 6 (mechanical feeding and fertilizer by design system of medium the pond lateral of the wind and three daily method at 10, 12 and 2 hour) in experiment 4. **3- Final BM and BMG :** Highest final BM and BMG were obtained by treatment 5 (design system aeration, automatic demand feeder, Nile water and layer sandy soil of the bottom rectangular pond) in experiment 1. Highest final BM and BMG were obtained by treatment 6 (circular cage, demand feeder, vertical pump aeration, Nile water and layer clay soil of the bottom circular cage) in experiment 1. Highest final BM and BMG were obtained by treatment 5% B (automatic demand feeder, center 4 tube aeration and 5% feeding rate) in experiment 3. **4- Specific growth rate (SGR) :** Treatment 5 showed the highest SGR value (automatic demand feeder, Nile water and layer sandy soil of the bottom rectangular pond) in

experiment 1. Treatment 6 showed the highest value of SGR (demand feeder, vertical pump aeration, Nile water and layer clay soil the bottom of the circular cages) in experiment 1. Treatment 150kg B showed the highest value of SGR (design system (food, aeration), medium the bond, 150 kg fertilizer amount) in experiment 2. Treatment 5% B showed the highest value of SGR (automatic demand feeder, center 4 tube aeration and 5% feeding rate) in experiment 3. Treatment 6 showed the highest value of SGR design system (food, feed and aeration), medium the bond lateral and feeding three daily 10, 12 and 2 hours) in experiment 4. **5- Accumulative growth rate (AGR) :** Treatment 5 showed the highest value of AGR (automatic demand feeder, Design system aeration, Nile water and layer sandy soil the bottom of the rectangular bond) in experiment 1. Treatment 6 showed the highest value of AGR (automatic demand feeder, vertical pump aeration, Nile water and layer clay soil the bottom of the circular cages) in experiment 1. Treatment 150kg B showed the highest value of AGR (design system food and aeration, medium the bond lateral and 150 kg fertilizer chicken manure amount) in experiment 2. Treatment 5% A showed the highest value of AGR (design systemfeed and aeration, irrigation nozzle the earthen pond method and 5% feeding rate) in experiment 3. Treatment 6 showed the highest value of AGR (design system food and aeration, the medium pond lateral earthen pond and feeding three daily at 10, 12 and 2 hour) in experiment 4. **6- Economic study :** At the end of the experiments, the total production of each experimental for tilapia. Fishes were (711.24, 68.04), 362602.8, 1509669, 400100.4 the highest net profit per feddan for fishes (LE).

ACKNOWLEDGMENT

First, thanks to **"ALLAH "** who made me able to accomplish this work.

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CONTENTS

LIST OF ABBREVIATIONS AND SYMBOLS

Eng.	Engineering
Dept.	Department
Agric.	Agriculture
Aquacult.	Aquaculture
LP	Liquid propane
AC	Alternating current
A	Automatic feeding
D	Demand feeding
RD	Restricted demand feeding
T	Tilapia
MGR	Mean growth rate
DIC	Dissolved inorganic carbon
PPT	Parts per thousand
K	Extinction coefficient
ZSD	Secchi disk visibility
Eg	Conversion efficiency
G	Growth
FI	Food intake
DO	Dissolved oxygen
PDOD	Potential dissolved oxygen drop
NPP	Net primary
O2	Oxygen