



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

NUTRITIONAL STUDIES ON RAISING SUCKLING CALVES

B5615

BY

SOLIMAN WELD ABD EL-KADER EBRAHIM ABD ELAAL

B. Sc. Agric. (Animal Production), Ain Shams Univ., 1981

A thesis submitted in partial fulfillment

of

the requirements for the degree of

Master of Science

in

Agricultural Science

(Animal Nutrition)

Department of Animal Production

Faculty of Agriculture

Ain Shams University

2000

201

1911

1912

1913

1914

1915

1916

APPROVAL SHEET

NUTRITIONAL STUDIES ON RAISING SUCKLING CALVES

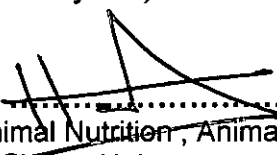
BY

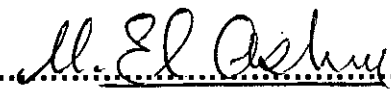
SOLIMAN WELD ABD EL-KADER IBRAHIM ABD EL-AAL

B. Sc. (Animal Production) Faculty of Agriculture
Ain Shams University, 1981

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

Prof. Dr. S. M. Allam 
Prof. of Animal Nutrition, Animal Production Department,
Fac. of Agric., (Al-Fayoum) Cairo Univ.

Dr. H. M. El-sayed 
Assist. Prof. of Animal Nutrition, Animal Production Department,
Fac. of Agric., Ain Shams Univ.

Prof. Dr. M. A. El-Ashry 
Prof. of Animal Nutrition, Animal Production Department,
Fac. of Agric., Ain Shams Univ. (Supervisor).

Date of examination: 7 / 6 / 2000

THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILL.

1967

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILL.

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILL.

12

NUTRITIONAL STUDIES ON RAISING SUCKLING CALVES

BY

SOLIMAN WELD ABD EL-KADER EBRAHIM ABD ELAAL

B. Sc. Agric. (Animal Production) Ain Shams Univ., 1981

Under the Supervision of :

Prof. Dr. M. A. El-Ashry

Prof . of Animal Nutrition , Animal Production
Department, Fac. Of Agric., Ain Shams Univ.

Prof. Dr. A. Z. EL-BASIONY

Prof . of Animal Nutrition , Animal Production
Department, Fac. Of Agric., Ain Shams Univ.

Prof. Dr .E. A. KHAFAGie

Animal Production Research Institute
Ministry of Agriculture

1964-1965

SPS:

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	

LIST OF CONTENTS

	page
I INTRODUCTION.....	1
II REVIEW OF LITERATURE.....	2
1 Effect of type of starter on:.....	2
1.1 Feed intake.....	2
1.2 Growth rate.....	3
1.3 Effect on digestibility.....	7
1.4 Effect on feed conversion	8
2 Effect of level and source of protein in calf starter	9
2.1 On feed intake:.....	9
2.2 On growth rate.....	11
2.3 On digestibility.....	15
2.4 Efficiency of feed conversion.....	16
3 - Weaning.....	20
4. Effect of diet protein diet on Blood	
Biochemistry	23
4.1. Serum total protein:	23
4.2. Albumin and globulin:	24
4.3. Glutamic oxalacetic transaminase (GOT) and	25
Glutamic pyrovic transaminase (GPT):.....	
4.4. Blood serum cholesterol	25
4.5. Blood serum urea concentration:.....	26
III MATERIALS AND METHODS.....	28
1. Suckling period.....	28
2. Post weaning period.....	29
3. Final period.....	29
4. animal and their management.....	30
5. Samples.....	32
5.1. Feedstuff and milk sample.....	32
5.2. Blood serum sampling.....	32
6. Chemical analysis.....	34

	2.2..5.Serum GPT.....	93
300	2..2.6. Serum GOT.....	94
	2.2..7. Serum Cholesterol.....	95
01	2.3-The third period.....	95
	2.3.1.Total serum protein	96
00	2.3.2.Serum albumin.....	98
	2.3..3.Serum globulin.....	98
10	2.3.4. Serum urea.....	99
	2.3.5.Serum GPT.....	99
	2.3.6. Serum GOT.....	100
00	2.3.7. Serum Cholesterol.....	101
01	2.4.Over The entire experimental period.....	102
	2.4.1.Total serum protein	102
10	2.4.2.Serum albumin.....	102
	2.4.3.Serum globulin.....	104
30	2.4.4. Serum urea.....	104
	2.4.5.Serum GPT.....	106
	2.4.6. Serum GOT.....	106
	2.4.7. Serum Cholesterol.....	106
VI	ENGLISH SUMMARY	109
VI	REFERENCES	117
VIII	ARABIC SUMMARY	

LIST OF TABLES

		page
1	Calves requirements from weaning to fertilizing service (El- Ashry 1980)	30
2	Calves requirements from weaning to fertilizing service (station allowancesz)	30
3	The ingredient of the starter A, B, C and concentrate feed mixture which offered pre. and post weaning....	31
4	Chemical composition of whole milk, starter A, B and C, berseem hay, berseem, concentrate mixture and rice straw.....	33
5	Effect of the experimental treatments on the cal intake during suckling period.....	40
6	Mean feed consumption and efficiency of the different treatments during the suckling period.....	41
7	Effect of the experimental treatments on the calf performance during suckling period.....	46
8	Effect of the experimental treatment on the calf intake during the second period (from weaning till the end of 9 month).....	54
9	Mean feed consumption and efficiency of the differen treatments during the second period (from weanin till the end of 9 month).....	55
10	Effect of the experimental treatment on the calf performance during the second period(from weaning till the end of 9 month).....	60
11	The residual effect of the previous experimental treatments on the calf performance of different groups during the third period (9-15 month old)	67
12	the residual of the previous experimental treatments on calf performance during the third period (9-15	

	month old).....	68
13	Effect of the experimental treatment on the calf performance over the entire three experimental periods as group	77
14	Effect of the experimental treatment on the calf performance over the entire three experimental periods	78
15	Effect of the different experimental treatments on some blood serum parameters during suckling period (first experimental period).....	85
16	Effect of the different experimental treatments on some blood serum parameters during postweaning period (second experimental period).....	91
17	Effect of the previous experimental treatments on the some blood serum parameters during the third period (from 9 to 15 month).....	97