THE RESPONSE OF GROWING BUFFALO CALVES TO DIFFERENT CONCENTRATION OF ENERGY IN THEIR RATIONS

BY

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A thesis submitted in partial fulfillment

of

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Animal Production Department

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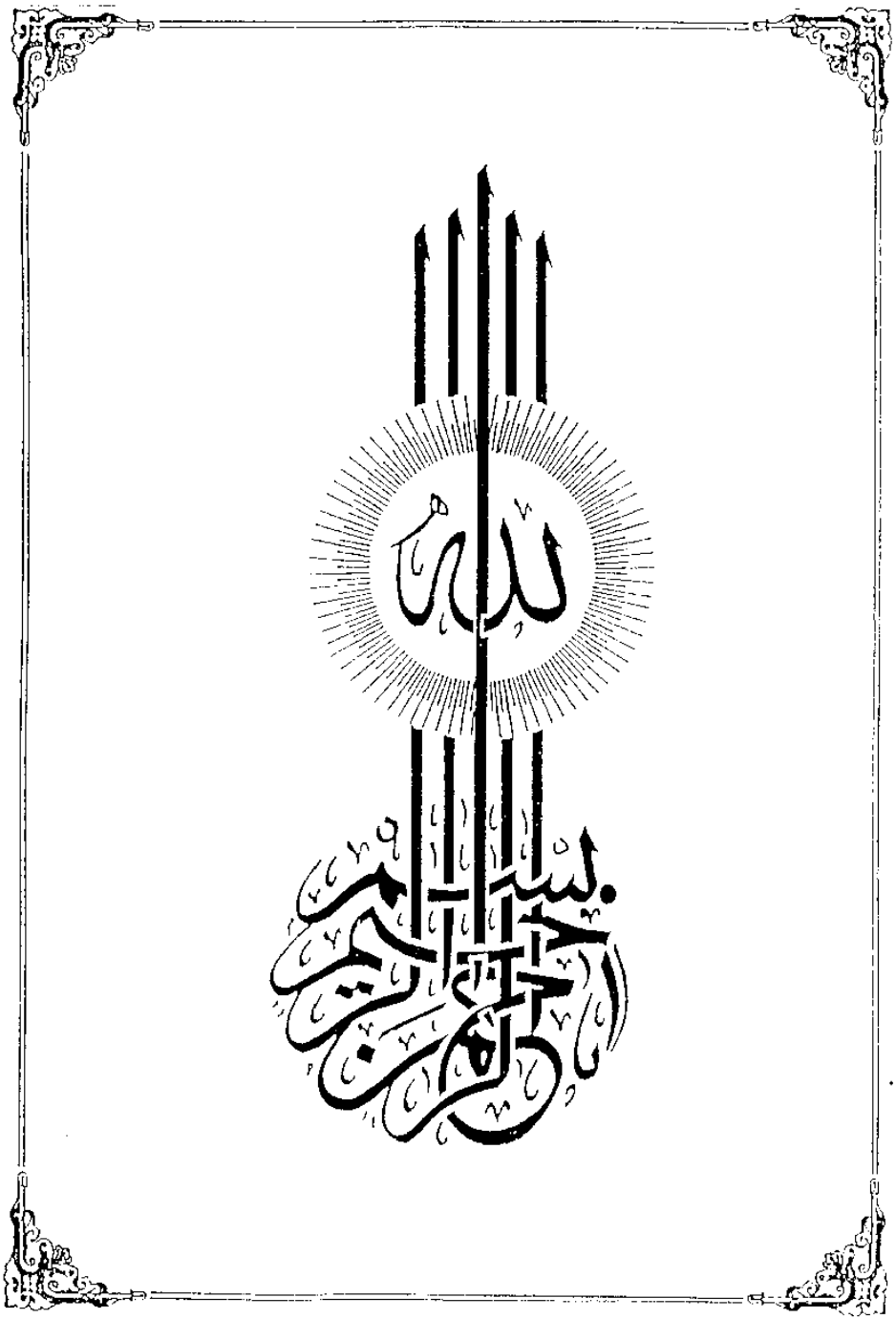
TO
MY PARENTS



APPROVAL SHEET

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ABSTRACT

This study was carried out to investigate the effect of incorporating ascending energy levels (80, 100 and 120 of El-Ashry allowances, 1980) on some productive and reproductive parameters of male and female buffalo calves and heifers till finishing weight for the males (450 Kg) and till first calving for the females. Results indicated that there was a significant difference ($p<0.05$) by age on

most of the parameters tested (live body weight, feed consumption, feed efficiency, body measurements, serum total protein and cholesterol concentration). It was also indicated that there was difference ($p<0.05$) among physiological state of the animals and between sex in feed efficiency, serum protein, urea serum concentration and cholesterol level in the serum.

Results supported the concept of the disadvantage of underfeeding and overfeeding on female reproductive performance. However, age at the first fertile service ranged from 17 to 20 months of age which helped in increasing the buffalo productive life. Results tend to support the level of 100% of El-Ashry allowances, (1980) as the proper feeding regime among the levels tested in this study.

Key words: diet, energy level, feed consumption, blood parameters, body measurements, age at the fertile service male and female buffaloe calves.

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SYMBOLS LIST OF SCIENTIFIC TERMS AND ABBREVIATION

PEL	Poultry Excreta based on wheat straw Litter
CM	Concentrate Mixture
TDN	Total Digestible Nutrients
DM	Dry Matter
OM	Organic Matter
SV	Starch Value
SE	Starch Equivalent
DMI	Dry Matter Intake
OMI	Organic Matter Intake
CPI	Crude Protein Intake
NFE	Nitrogen-Free Extract
CF	Crude Fiber
ADG	Average Daily Gain
CFM	Concentrate Feed Mixture
LBW	Live Body Weight
DCP	Digestible Crude Protein
OME	Organic Matter Efficiency
DME	Dry Matter Efficiency
SEE	Starch Equivalent Efficiency
CPE	Crude Protein Efficiency
MBS	Metabolic Body Size
g	Gram
Kg	Kilogram
SGOT	Serum Glutamic Oxaloacetic Transaminase
SGPT	Serum Glutamic Pyruvic Transaminase
u/ml	units/millie litter
g%=	gram/100 millie litter

mg/d	milligram/day
mu/ml	millie units/millie litter
HW	Height at Withers
HH	Height at Hips
LBL	Lateral Body Length
HG	Heart Girth
WT	Width at Thurls
CN	Circumference at Naval
FC	Circumference at Flank
Cm	Centimeter
G_1	Group One (80% of SE called by El-Ashry Allowance, 1980)
G_2	Group Two (100% of SE called by El-Ashry Allowance, 1980)
G_3	Group Three (120% of SE called by El-Ashry Allowance, 1980)
TCFM	Traditional Concentrate Feed Mixture
WF	Inedible Wheat Flour
RS	Rice Straw
BH	Berseem Hay

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