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NON-TRADITIONAL MATERIALS IN POULTRY NUTRITION

By

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ABSTRACT

The present study was carried out at the Poultry Research Station , Poultry Department , Faculty of Agriculture , Fayoum , Cairo University . A total number of 500 unsexed one – day old Lohmman broiler chicks was used to study the effects of different sources of oil refining by-products such as a commercial soybean / sunflower oil blend , deodorizer distilled fatty acids DDFA , pitch oil PO and binary mixture of DDFA + PO on the productivity performance , carcass characteristics , fatty acids composition of meat , and meat quality . The following results were obtained :

Live body weight LBW and live body weight gain (LBWG at 0-2 ,4-6 and 0-6 weeks of age were significantly affected by the dietary sources , whereas , there was no significant difference at 2-4 and 0-4 weeks of age .The best feed intake FI and feed conversion FC obtained by feeding the control diet . During finishing period (6-7 weeks old) feeding the control or pitch oil diets improved BW , LBWG , FI , FC , CPC and ECR than those fed DDFA or DDFA+PO , except FI it was higher in the control diet than in the DDFA+PO diets .

From mortality data it can be concluded that none of the tested oil sources was lethal at the different levels throughout the experimental period . The addition of different fat sources had no significant effect on slaughter characteristics and intestinal tract measurements at different ages . Carcass moisture % , CP% , EE% and ash % were significantly affected by treatment , except CP% , it was not affected by treatment at 6 weeks of age . Meat quality (color , texture , taste , aroma and acceptability) was not affected by treatments at 6 weeks of age but it gave significant differences at 7 weeks of age .

The present study indicated that the two products deodorizer distilled fatty acids and pitch oil can be used successfully in broiler feeds as a source of energy according to their comparative costs and availability.

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CONTENTS

	Page
<u>CHAPTER I :</u>	
LIST OF TABLES	i
LIST OF FIGURES	ii
LIST OF ABBREVIATIONS	iv
1. INTRODUCTION	1
2. REVIEW OF LITERATURE	3
2.1. The utilization of oil and fat mixture by growing chicks .-----	3
2.1.1. The influence of age on the utilization of fat .-----	3
2.1.2. The efficiency of energy utilization.-----	4
2.1.3. The efficiency of edible oil refining by- products.-----	4
2.1.4. Influence of fat source on rate of food passage .-----	5
2.1.5. Temperature and energy requirements .-----	6
2.2. The effects of dietary fat / oil on the general performance .-----	8
2.2.1. The effects of dietary fat / oil sources regardless of their levels on the general performance .	8
2.2.2. The effects of dietary of fat / oil levels regardless of their sources on the general performance	9
2.2.3. The addition of different sources of oil refining by-products and chick performance .-----	11
2.3. Carcass fat's quality and composition .-----	12
2.3.1. Energy and abdominal fat.-----	16
2.3.2. Problems of obesity.-----	19
2.4. Consumers and health quality of foods.-----	20
2.4.1. Altering the lipid composition of poultry meat.-----	20
2.4.2. Sensory evaluation of poultry meat.-----	21
2.4.3. Reduction the risk of coronary heart disease .-----	21
<u>CHAPTER II :</u>	
MATERIALS AND METHODS	
1. Fat sources .-----	23
2. Experimental diets.-----	27
3. Management and allocation of chicks.-----	27
4. Slaughter test.-----	27

5.	Measurement and traits studied. -----	29
5.1.	Body weight (BW). -----	29
5.2.	Weight gain (WG). -----	29
5.3.	Specific gravity -----	29
5.4.	Feed Intake (FI) -----	29
5.5.	Feed conversion (FC). -----	30
5.6.	Crude protein conversion (CPC). -----	30
5.7.	Energy conversion ratio (ECR). -----	30
5.8.	Mortality rate. -----	30
5.9.	Economical efficiency (E.Ef.). -----	30
6.	Analytical methods. -----	31
6.1.	Proximate analysis. -----	31
6.1.1.	Preparation of fatty acid esters for GC analysis. -----	31
6.1.2.	Analysis of fatty acid methyl esters by GC-----	31
6.1.3.	Determination of fat composition. -----	32
6.2.	Organoleptic evaluation. -----	32
6.3.	Statistical analysis. -----	32

CHAPTER III :

RESULTS AND DISCUSSION

1.	Effect of oil / fat sources on growth performance at starting-growing period :	33
1.1.	Body weight (BW) . -----	33
1.2.	Body weight gain (BWG). -----	33
1.3.	Feed intake (FI) . -----	36
1.4.	Feed conversion (FC). -----	36
2.	Effect of environmental temperature on live body weight performance .-----	39
3.	Crude protein conversion (CPC) and energy conversion ratio (ECR) .-----	42
4.	Effect of dietary oil / fat sources on growth performance of finishing period .-----	45

5.	Mortality rate. -----	47
6.	Slaughter test. -----	50
6.1.	Effect of oil/fat sources on carcass parameters at 6 and 7 weeks of age .-----	50
6.2.	Slaughter test characteristics at 6 and 7 weeks of age .-----	50
6.3.	Intestinal tract measurements . -----	56
7.	Carcass meat analysis at 6 and 7 weeks of age .-----	56
8.	Identification and determination of fatty acid composition of breast and thigh meat samples at 7 weeks of age . -----	59
9.	Organoleptic evaluation at 6 and 7 weeks of age . -----	64
10.	Economical considerations. -----	64
SUMMARY AND CONCLUSIONS.		72
REFERENCES.		76
ARABIC SUMMARY.		105

LIST OF TABLES

	<i>Page</i>
Table (1) Fatty acids composition of the dietary fat sources (% of total fatty acid) .-----	26
Table (2) Composition and chemical analysis of the experimental broiler diets used at different ages . -----	28
Table (3) Periodical body weight (g) of broiler chicks fed the experimental starter-grower diets from one-day old up to 6 weeks of age . -----	34
Table (4) Periodical body weight gain (g) of broiler chicks fed the experimental starter-grower diets from one-day old up to 6 weeks of age . -----	35
Table (5) Periodical feed intake (g) of broiler chicks fed the experimental starter-grower diets from one-day old up to 6 weeks of age . -----	37
Table (6) Periodical feed conversion of broiler chicks fed the experimental starter-grower diets from one-day old up to 6 weeks of age . -----	38
Table (7) Crude protein conversion (CPC) of broiler chicks fed the experimental starter-grower diets from one-day old up to 6 weeks of age . -----	43
Table (8) Energy conversion ratio (ECR) of broiler chicks fed the experimental starter-grower diets from one-day old up to 6 weeks of age . -----	44
Table (9) The performance of broiler chicks fed the finisher diets at 7 weeks of age .-----	46
Table (10) Effect of oil / fat sources on mortality rate of broiler chicks from (0-7)weeks of age.-----	48
Table (11) Effect of oil / fat sources on carcass parameters at 6 and 7 weeks of age . -----	51
Table (12) Effect of oil / fat sources on slaughter test components at 6 weeks of age . -----	52
Table (13) Effect of oil / fat sources on slaughter test components at 7 weeks of age . -----	53
Table (14) Abdominal fat content of broilers reported in literature .-----	55
Table (15) Effect of oil / fat sources on intestinal measurements (cm.) of broiler chicks at 6 and 7 weeks of age . -----	57
Table (16) Nutrient content of carcass meat samples of broilers at 6 and 7 weeks of age. ----	58
Table (17) Nutrient content of breast and thigh meat samples of broilers at 6 weeks of age .	60