

		/ -		/		2003/4/3	2003/2/15
	CD		270				
9			21				
2.5							
	%12 6						%5
	%6 %5				%6 %2.5		
	. %12 %5				%12 %2.5		
			21				
			(35 -22)				
:			(49 - 36)				
							-1
							-2
							-3
	35 %12		%5				

Effect of using different levels of rape seed oil and meal on broiler performance

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Abstract

This experiment was conducted in Poultry Farm of College of Agriculture, University of Anbar during the period 15/2/2003 to 3/4/2003. This study aimed to determine the effect of adding different levels of oil and rape seed meal during grower and finisher periods on broiler performance and carcass quality .

Two hundred and seventy one day male broiler chicks (Faobro CD line) were used. All chicks were reared as one group till 21 day of age , after that the chicks distributed randomly to 9 treatments consists (T1control, T2andT3rapeseed oil 2.5 and 5% respectively, T4 and T5 rapeseed meal 6 and 12% respectively , T6- 2.5% oil and 6% meal, T7- 5% oil and 6% meal, T8- 5% oil and 12% meal, T9- 5% oil and 12% meal).

All chicks were fed starter ration till 21days then on grower ration for the period 22 – 35 days and then on finisher 36 – 49 days .

The results revealed as follow :

- 1- No significant differences were obtained in all treatments when added rape seed oil instead of corn oil during grower and finisher periods .
- 2- Added rape seed meal up to 12% showed no significant differences among treatments during grower and finisher periods .
- 3- Added rape seed oil 5% and 12% rape seed meal up to 35 days did n` t differed significantly among treatments .

%35 -25

%24 -20 %27-21

(1)

(2)

(3)

(Rape)

Brassica rapa

(4) % 47 - 30

()

. (5) (%45- 35)

(7 6)

(/ 30) Eruslic

Zollitsch . (8)

(9)

(10) Scaife

/

270

2003/ 4 / 3

2003/2 /15

9 21 ()

. 15

:

(1) -1

% 2.5 (2) -2

%5 (3) -3

%6 (4) -4

%12 (5) -5

%6 %2.5 (6) -6

%6 %5 (7) -7

%12 %2.5 (8) -8

%12 %5 (9) -9

(cold pressing)

500

5

canola meal

21
 21
 (1) / 2813
 2 (11) A. O. A. C.
 (G L C)
 9 (4 3)
 (%12 %6 %0) (%5 %2.5 %0)
 49 - 36 35 - 22
 . 6 5
)
 . ()
 . (12) %5

(1)

60	
36	
3	()
0.7	
0.3	
100	
21.24	%
2913	/
0.16	%
0.70	%
0.49	%
1.24	%
0.68	% +

NRC (1994)

(2)

41.90	
5.17	
4.34	
11.80	
8.85	

AOAC (1980)

(3)

2.48	2.75	14	
23.39	22.83	16	
3.18	2.93	18	
0.41	0.64	20	
4.38	3.71	22	
1.48	1.91	24	

(4)

9.51	8.33	16:1	
28.47	29.26	18:1	
9.41	9.98	18:2	
11.51	12.1	18:3	

35 -21

(5)

9	8	7	6	5	4	3	2	1	
44	46.5	44	46.5	46.5	46.5	44	46.5	46.5	
20	20	20	20	20	20	20	20	20	
10	10	10	10	10	10	10	10	10	
8	8	14	14	8	14	20	20	20	
12	12	6	6	12	6	-	-	-	
5	2.5	5	2.5	-	-	5	2.5		
-	-	-	-	2.5	2.5	-	-	2.5	
0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
100	100	100	100	100	100	100	100	100	
19.50	19.87	19.70	20.00	19.87	20.00	20.30	20.50	20.50	%
3196	3050	3210	3064	3045	3058	3224	3077	3072	/
1.08	1.08	1.05	1.05	1.08	1.05	1.02	1.03	1.03	%
0.64	0.65	0.58	0.58	0.65	0.58	0.53	0.54	0.54	%
0.49	0.49	0.47	0.47	0.49	0.47	0.45	0.46	0.46	%
0.92	0.93	0.96	0.96	0.92	0.96	1.01	1.02	1.02	%
0.92	0.92	0.90	0.90	0.93	0.98	0.88	0.88	0.90	+ %

NRC (1994)

49-36

(6)

9	8	7	6	5	4	3	2	1	
49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	
19	19	19	19	19	19	19	19	19	
8	8	8	8	8	8	8	8	8	
5.5	5.5	11.5	11.5	5.5	17.5	17.5	17.5	17.5	
12	12	6	6	12	6	-	-	-	
5	2.5	5	2.5	-	-	5	2.5	-	
-	2.5	-	2.5	5	5	-	2.5	5	
0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
100	100	100	100	100	100	100	100	100	
18.3	18.3	18.5	18.5	18.3	18.5	18.6	18.6	18.6	%
3250	3245	3263	3285	3239	3253	3277	3272	3267	/
0.98	0.98	0.95	0.95	0.98	0.95	0.93	0.93	0.93	%
0.58	0.58	0.52	0.52	0.57	0.52	0.57	0.57	0.57	%
0.47	0.47	0.46	0.46	0.47	0.45	0.44	0.44	0.44	%
0.94	0.94	0.93	0.93	0.94	0.93	0.92	0.93	0.93	%
0.87	0.87	0.85	0.86	0.87	0.85	0.82	0.83	0.83	+ %

NRC (1994)

:

7

1288.17) 3 2

35

(1180.1)

(1222.5

(%5 2.5 0)

(2124 2035 2112.5) 49

/ (9220 8850)

. (13)

(%12 %6)

6

35

1180

(1250 1190.8)

49 - 36

%12 6

7

(2170 2123.3 2112.5)

%12

. (15) Jensen

(14)

7

9 8 7 6 1

35

(1117.5 1195 1165 1194.1 1180.1)

49

(2018.3)

(16)

Schloffel

. (17)

()

(7)

T9 %5 %12	T8 %2.5 %12	T7 %5 %6	T6 %2.5 %6	T5 - %12	T4 - %6	T3 %5 -	T2 %2.5 -	T1	
c 553.15	ab 583.83	ab 579.95	c 559.95	a 594.95	a 597.5	a 593.8	b 575.8	ab 578.5	
c 865.00	ab 910.66	bc 900.0	b 896.67	a 916.33	a 917.83	a 920.3	ab 911.0	bc 873.0	
b 1117.5	a 1195.00	ab 1165.00	a 1194.17	a 1250.00	ab 1190.83	ab 1222.5	ab 1228.17	a b1180.1	
c 1500.00	bc 1562.52	bc 1551.67	ab 1601.67	a 1650.83	b 1580.00	ab 1611.66	bc 1569.17	ab1615.5	
c 2018.33	b 2078.33	b 2091.67	ab 2106.67	a 2170.00	ab 2123.33	ab 2124.14	bc 2035.00	ab2112.5	

(0.05)

()

(8)

T9 %5 %12	T8 %2.5 %12	T7 %5 %6	T6 %2.5 %6	T5 %12	T4 %6	T3 %5	T2 %2.5	T1	
312.50 NS	326.83 NS	320.22 NS	336.67 NS	321.33 NS	320.33 NS	326.50 NS	335.17 NS	294.50 NS	
b 251.83	ab 284.30	ab 265.00	ab 297.50	a 333.66	ab 237.00	ab 302.17	ab 317.17	ab 307.17	
ab 382.50	b 367.50	ab 386.70	a 407.50	ab 400.83	ab 389.17	ab 389.17	a 441.00	a 430.86	
ab 518.33	ab 515.83	a 540.00	b 505.00	ab 519.17	a 543.33	b 508.62	c 465.83	b 500.00	

(0.05)

()

T9 %5 %12	T8 %2.5 %12	T7 %5 %6	T6 %2.5 %6	T5 %12	T4 %6	T3 %5	T2 %2.5	T1	
ab 605.44	a 620.00	a 622.50	ab 602.38	b 590.50	a 621.50	ab 602.93	a 620.49	a 621.00	
b 714.10	ab 717.50	b 715.70	ab 716.11	a 719.30	b 715.20	b 715.70	a 719.10	b 714.70	
d 1000.50	d 1005.00	d 1002.50	c 1016.00	a 1047.00	c 1018.50	c 1020.00	b 1032.50	c 1017.50	
b 1050.00	b 1055.00	b 1052.50	b 1050.00	ab 1067.50	ab 1060.00	b 1052.00	a 1077.50	ab1067.50	

(0.05)

(/)

(10)

T9 %5 %12	T8 %2.5 %12	T7 %5 %6	T6 %2.5 %6	T5 %12	T4 %6	T3 %5	T2 %2.5	T1	
ab 1.94	a 1.90	ab 1.95	a 1.79	a 1.84	ab 1.94	a 1.84	a 1.85	b 2.12	
b 2.91	ab 2.54	ab 2.70	a 2.48	ab 2.66	ab 2.63	ab 2.42	a 2.26	a 2.33	
ab 2.62	bc 2.74	bc 2.61	ab 2.51	ab 2.46	bc 2.68	b 2.62	c 3.07	a 2.34	
b 2.70	bc 2.81	b 2.74	ab 2.61	a 2.59	ab 2.66	b 2.75	c 3.91	a 2.47	

(0.05)

		:	
(%5 2.5 0)		11	
	49		
		%5	
1550 .63	%2.5		
.			
	(%12 6 0)		
(1584.35)	(1616.6)	%12	
	(1584.13)	%6	
	(22)	Olomu	
.			
6 0)	(%5 2.5 0)		
	11	49	(% 12
		%6	%5 %2.5
%12	(%5 2.5)	(1568.31 1577.1)	
.			
		11	
		%5 2.5	
	%75 %76.4 %76.2		
	% 74.5 % 74.6 %75	(%12 6 0)	
(20)	Javad (23) Sam Lee		
		%20	
.			
%75	(9 8 7 6 1)		
		%74.3 %74.2 %75.4 %75.3	

(11)

%		
75.00 bc	1584.35 b	T1
76.20 a	1550.63 c	T2 %2.5
76.40 a	1623.30 a	T3 %5
74.60 bc	1584.13 b	T4 %6
74.50 bc	1616.61 a	T5 %12
75.30 ab	1586.31 b	T6 %2.5 %6
75.40 ab	1577.10 b	T7 %5 %6
74.20 c	1542.10 c	T8 %2.5 %12
74.30 bc	1499.60 d	T9 %5 %12

(24)

12

150

%2.5

%2.5

150

%5

150

(24)

%2.5 12

%12 6

%5

150

(12)

174.59 ab	174.57 ab	T1
130.20 c	130.19 c	T2 %2.5
157.62 ab	157.63 ab	T3 %5
162.90 ab	162.91 ab	T4 %6
170.97 a	170.98 a	T5 %12
164.75 ab	164.73 ab	T6 % 2.5 %6
155.79 b	155.78 b	T7 %5 %6
150.94 b	150.94 b	T8 %2.5 %12
152.58 b	152.56 b	T9 %5 %12

(0.05)

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