

มหาวิทยาลัยเชียงใหม่  
Chiang Mai University

**ภาคผนวก**

## ภาคผนวก ก.

Table appendix 1. Chemical composition of soybean meal and fish meal.

		Soybean meal		Fish meal	
		% AD basis	% DM basis	% AD basis	% DM basis
DM	Rep. 1	90.93	100.00	91.88	100.00
	Rep. 2	91.16	100.00	91.76	100.00
	Ave.	<b>91.05 ± 0.16</b>	<b>100</b>	<b>91.82 ± 0.08</b>	<b>100.00</b>
CP	Rep. 1	45.92	50.50	59.64	64.91
	Rep. 2	45.95	50.40	59.38	64.71
	Ave.	<b>45.94 ± 0.02</b>	<b>50.45 ± 0.07</b>	<b>59.51 ± 0.18</b>	<b>64.81 ± 0.14</b>
EE	Rep. 1	3.00	3.30	7.32	7.97
	Rep. 2	3.10	3.40	7.28	7.93
	Ave.	<b>3.05 ± 0.07</b>	<b>3.35 ± 0.07</b>	<b>7.30 ± 0.03</b>	<b>7.95 ± 0.03</b>
CF	Rep. 1	4.77	5.25	2.24	2.44
	Rep. 2	4.63	5.08	2.31	2.52
	Ave.	<b>4.70 ± 0.10</b>	<b>5.16 ± 0.10</b>	<b>2.28 ± 0.05</b>	<b>2.48 ± 0.05</b>
Ash	Rep. 1	6.48	7.13	24.48	26.64
	Rep. 2	6.44	7.07	24.79	27.01
	Ave.	<b>6.46 ± 0.03</b>	<b>7.10 ± 0.03</b>	<b>24.64 ± 0.22</b>	<b>26.84 ± 0.22</b>
OM	Rep. 1	84.45	92.87	67.40	73.36
	Rep. 2	84.72	92.93	66.97	72.99
	Ave.	<b>84.59 ± 0.19</b>	<b>92.90 ± 0.04</b>	<b>67.19 ± 0.30</b>	<b>73.18 ± 0.26</b>
ME <sup>1/</sup>	(kcal/g)	2.23	2.51	2.82	3.07

<sup>1/</sup> NRC (1994).

**Table appendix 2.** Chemical composition (% air dry basis) of fine rice bran and rough rice bran<sup>1/</sup>.

	Fine rice bran	Rough rice bran
DM	90.0	91.7
CP	12.0	4.9
EE	14.3	1.7
CF	14.3	38.5
Ash	11.0	16.7
Nitrogen free extract	39.7	29.9
OM	89.0	83.3
ME in poultry (kcal/g)	2.71 <sup>2/</sup>	0.66 <sup>3/</sup>
Ca	0.07	0.02 <sup>4/</sup>
aP	0.22	0.07 <sup>4/</sup>
<b>Essential amino acid</b>		
Lysine	0.59 <sup>2/</sup>	0.18 <sup>4/</sup>
Methionine	0.26	0.08
Cystine	0.27	0.08
Tryptophan	0.12	0.04
Threonine	0.48	1.14
Leucine	0.91	0.27
Isoleucine	0.45	0.14
Valine	~ 0.80	~ 0.24
Histidine	0.35	0.11
Phenylalanine	0.60	0.18
Tyrosine	0.42	0.13

<sup>1/</sup> The values investigated in this experiment.

<sup>2/</sup> NRC (1994).

<sup>3/</sup> Estimated according to CP level.

<sup>4/</sup> Estimated from 30% of fine rice bran.

## ภาคผนวก ข.

## วิธีและขั้นตอนการประเมินการตรวจชิม

1. นำเนื้อหน้าอกลอกหนัง (รวมสันใน) และเนื้อน่องลอกหนัง (ถอดกระดูก) จากการสุ่มไก่ลูกผสมพื้นเมืองเพศผู้และเพศเมียที่ได้รับอาหารที่มีระดับ CP และ ME 3 ระดับ คือ ระดับสูง (19% CP, 3.2 kcal ME/g; การทดลองที่ 1 และ 15% CP, 3.2 kcal ME/g การทดลองที่ 2) ระดับกลาง (17% CP, 2.9 kcal ME/g; การทดลองที่ 1 และ 13 %CP, 2.9 kcal ME/g การทดลองที่ 2) และระดับต่ำ (15% CP, 2.6 kcal ME/g; การทดลองที่ 1 และ 11% CP, 2.6 kcal ME/g การทดลองที่ 2) รวมทั้งของไก่พื้นเมือง (17% CP, 2.9 kcal ME/g; การทดลองที่ 1 และ 13% CP, 2.9 kcal ME/g การทดลองที่ 2) และไก่เนื้อที่หาซื้อตามท้องตลาด จำนวน 3 ตัวจากไก่แต่ละประเภท

2. นำเนื้อหน้าอกลอกหนัง (รวมสันใน) และเนื้อน่องลอกหนัง (ถอดกระดูก) ในแต่ละเพศ (รวม 6 ตัว/ประเภท) ตัดแต่งเนื้อหน้าอกลอกหนัง (รวมสันใน) และเนื้อน่องอกลอกหนัง (ถอดกระดูก) ให้มีขนาด 1.5 x 2.5 x 1.0 ลูกบาศก์เซนติเมตร และ 1.5 x 2.0 x 1.0 ลูกบาศก์เซนติเมตร ตามลำดับ

3. ทำให้สุกโดยการใช้ความร้อนจากเตาไมโครเวฟ ยี่ห้อ LUX รุ่น DM 32 C ตามโปรแกรมคำแนะนำจากเอกสารประกอบการใช้ โดยเลือกโปรแกรม Autocook 4 เป็นเวลา 1 นาที

4. ตรวจชิมโดยการให้คะแนน โดยให้อาสาสมัครจำนวนมากกว่า 10 คนขึ้นไป ทำการชิมโดยไม่ทราบชนิดของไก่ คุณลักษณะที่ใช้ในการให้คะแนนได้แก่ ความเหนียว (Toughness) ความยุ่ย (Textureless) ความชุ่มฉ่ำ (Juiciness) รสชาติ (Flavor) และความชอบโดยรวม (Preference) ให้คะแนน 1-5 จากน้อยไปหามาก

ความเหนียว (Toughness) เป็นความสามารถต้านแรงบดของฟัน

ความยุ่ย (Textureless) เป็นความละเอียดของเนื้อที่ถูกเคี้ยวบดด้วยฟัน

ความชุ่มฉ่ำ (Juiciness) ไขมันหรือน้ำในเนื้อที่ช่วยหล่อลื่น ทำให้การเคี้ยวเป็นไปได้ง่าย

รสชาติ (Flavor) ความรู้สึกในรสชาติเป็นผลสืบเนื่องมาจากความรู้สึกรับรู้พื้นฐาน 4 ชนิด คือ หวาน ขม เปรี้ยว และเค็ม

ความชอบโดยรวม (Preference) ความพอใจโดยรวม

## แบบประเมินการชิมเนื้อไก่

ผู้ชิม เพศ.....

อายุ.....ปี

วันที่.....

ตัวอย่าง	คะแนน					ข้อคิดเห็น
	ความเหนียว	ความนุ่ม	ความชุ่มฉ่ำ	รสชาติ	ความชอบ	

หมายเหตุ :

โปรดให้คะแนนช่วง 1-5

คะแนน

หมายถึง

5

มากที่สุด

4

มาก

3

ปานกลาง

2

น้อย

1

น้อยที่สุด

## ภาคผนวก ค.

**Table appendix 3.** Productive performance of 3 lines crossbred native compared with native chickens during 2-5 weeks of age in Exp.1<sup>1</sup>.

Age (weeks)	BWG (kg)	FI (kg)	FCR	Mortality (%)
<b>Crossbred native</b>				
2	0.071	0.129	1.818	0.268
3	0.157	0.296	1.879	0.000
4	0.248	0.487	1.967	0.269
5	0.394	0.782	1.986	0.269
<b>Native</b>				
2	0.035	0.099	2.829	0.971
3	0.078	0.228	2.923	1.942
4	0.132	0.333	2.523	1.942
5	0.210	0.569	2.710	0.000

Average body weight of day-old chicks was 0.040 and 0.037 kg.

**Table appendix 4.** Productive performance of 3 lines crossbred native compared with native chickens during 1-10 weeks of age in Exp.2.

Age (weeks)	BWG (kg)		FI (kg)		FCR	
	Male	Female	Male	Female	Male	Female
<b>Crossbred native</b>						
1		0.032		0.059		1.896
2		0.080		0.174		2.179
3		0.160		0.352		2.202
4		0.250		0.563		2.259
5		0.382		0.860		2.256
6	0.518	0.485	1.251	1.214	2.415	2.503
7	0.719	0.663	1.764	1.686	2.453	2.543
8	0.915	0.819	2.322	2.169	2.538	2.648
9	1.099	0.965	2.942	2.683	2.677	2.780
10	1.230	1.070	3.588	3.210	2.917	3.000
<hr/>						
<b>Native:</b>						
1		0.020		0.065		3.250
2		0.062		0.169		2.726
3		0.113		0.306		2.780
4		0.169		0.477		2.822
5		0.272		0.797		2.930
6	0.374	0.365	1.156	1.277	3.091	3.499
7	0.504	0.486	1.626	1.758	3.226	3.617
8	0.640	0.623	2.041	2.306	3.189	3.701
9	0.801	0.782	2.482	2.991	3.099	3.825
10	0.921	0.882	3.021	3.786	3.280	4.293

Average body weight of day-old chicks was 0.040 and 0.034 kg.

**Table appendix 5.** Dressing percentage and visceral organs (% BW) of 10 week-old, 3 lines crossbred native chicken fed diets containing various levels of CP and ME during 6-10 weeks of age in Exp.1<sup>1/</sup>.

Gr. no.	Nutrient level		Dressing percentage		Visceral organ plus GI tract		Gizzard		Liver plus bile sac		Abdominal plus visceral fat	
	CP (%)	ME (kcal/g)	M	F	M	F	M	F	M	F	M	F
	1	19	3.2	80.22	79.35	13.00	11.87	2.67	2.49	2.11	1.85	0.85
2	19	2.9	79.90	82.95	12.00	12.15	2.42	2.23	2.01	2.16	1.23	0.72
3	19	2.6	80.93	81.39	12.09	12.36	2.30	3.04	1.97	1.81	0.51	0.59
4	17	3.2	80.36	81.96	11.28	12.83	1.91	2.82	1.35	2.18	1.80	1.77
5	17	2.9	80.79	82.74	11.61	11.84	2.19	2.69	1.90	1.97	2.38	1.45
6	17	2.6	81.64	82.59	11.54	12.31	2.73	2.65	1.94	2.02	0.74	1.01
7	15	3.2	80.60	80.25	11.43	13.12	2.16	2.77	2.03	2.12	3.18	2.56
8	15	2.9	79.82	80.95	11.93	10.90	2.61	2.18	2.08	1.75	1.86	2.11
9	15	2.6	80.73	80.37	10.21	11.93	2.31	3.02	1.76	1.90	1.29	1.75

<sup>1/</sup> Data from 3 replications.

<sup>2/</sup> Dressing percentage =  $\frac{\text{Body weight} - \text{Blood} - \text{Feather} - \text{Visceral organ}}{\text{Body weight}} \times 100$

**Table appendix 6.** Dressing percentage and visceral organs (% BW) of 13 week-old, 3 lines crossbred native chicken fed diets containing various levels of CP and ME during 11-13 weeks of age in Exp.2<sup>1/</sup>.

Gr. no.	Nutrient level		Dressing percentage		Visceral organ plus GI tract		Gizzard		Liver plus bile sac		Abdominal plus visceral fat	
	CP (%)	ME (kcal/g)	M	F	M	F	M	F	M	F	M	F
	1	15	3.2	84.39	86.20	11.37	12.25	2.21	2.36	1.94	2.15	0.81
2	15	2.9	84.80	82.64	11.47	12.29	2.58	2.44	2.12	2.21	0.90	0.74
3	15	2.6	83.54	80.56	12.08	13.65	2.14	2.88	2.32	2.52	0.45	0.44
4	13	3.2	83.65	86.84	10.76	12.99	1.98	2.74	2.12	2.35	1.83	0.51
5	13	2.9	84.50	81.57	11.31	12.70	2.10	2.51	2.33	2.32	0.81	1.00
6	13	2.6	83.36	82.64	12.36	12.46	2.46	2.31	2.37	2.29	0.68	0.37
7	11	3.2	85.07	84.97	12.04	10.77	2.18	2.32	2.08	1.93	1.34	0.78
8	11	2.9	84.26	84.82	11.77	11.39	2.68	2.49	2.48	2.20	1.03	1.22
9	11	2.6	87.77	84.33	12.24	11.30	2.55	2.21	2.53	2.20	1.15	1.44

<sup>1/</sup>, <sup>2/</sup> See Table appendix 6.



**Table appendix 7.** Chemical composition of breast and debone thigh meat of 10 week-old, 3 lines crossbred native, native and broiler chickens fed different CP and ME level in Exp.1.

Gr.no.	CP (%)	ME(kcal/g)	Fresh wt.	DM	CP	EE
<b>Breast meat</b>						
Crossbred native						
1	19	3.2	170	27.92	93.91	3.79
3	19	2.6	167	26.96	94.57	3.43
5	17	2.9	188	27.90	87.53	8.78
7	15	3.2	162	27.58	88.89	5.32
9	15	2.6	185	27.87	92.45	5.34
Native						
	17	2.9	145	30.88	95.32	3.83
Broiler						
			177	27.13	88.94	11.09
<b>Debone thigh meat</b>						
Crossbred native						
1	19	3.2	108	25.00	86.41	11.89
3	19	2.6	129	23.86	80.59	11.06
5	17	2.9	109	25.49	87.68	12.34
7	15	3.2	114	25.98	84.78	14.50
9	15	2.6	127	25.55	85.03	14.54
Native						
	17	2.9	70	24.52	93.81	6.48
Broiler						
			153	25.87	77.44	19.34

**Table appendix 8.** Chemical composition of breast and debone thigh meat of 13 week-old, 3 lines crossbred native, native and broiler chickens fed different CP and ME level in Exp.2.

Gr.no.	CP (%)	ME (kcal/g)	Fresh wt.	DM	CP	EE
<b>Breast meat</b>						
Crossbred native						
1	15	3.2	188	28.461	95.80	3.46
3	15	2.6	179	26.893	92.70	4.12
5	13	2.9	137	27.991	93.52	3.96
7	11	3.2	179	27.099	91.93	5.89
9	11	2.6	143	27.326	94.90	3.58
Native						
	13	2.9	144	27.715	94.69	4.18
Broiler						
			140	26.171	88.68	10.42
<b>Debone thigh meat</b>						
Crossbred native						
1	15	3.2	100	25.674	85.86	13.63
3	15	2.6	114	25.432	87.00	10.11
5	13	2.9	102	25.839	86.64	11.41
7	11	3.2	108	25.505	85.25	14.62
9	11	2.6	107	25.250	87.54	12.08
Native						
	13	2.9	69	25.914	86.25	11.86
Broiler						
			102	24.704	83.71	15.14

**Table appendix 9.** Chemical composition of breast meat of 13 week-old, 3 lines crossbred native from 2 production sources compared with native and broiler chickens of both sexes in Exp.3.

Source	Type of diet	Sex	Fresh wt. (g)	DM	CP	EE
Crossbred native						
A	Mixed	Male	218	27.403	90.697	3.518
		Female	252	28.026	88.774	6.135
A	Broiler	Male	222	27.511	87.613	4.153
		Female	301	27.954	86.813	8.984
A	Layer	Male	237	26.492	87.598	4.393
		Female	242	28.293	89.655	5.305
B	Mixed	Male	337	26.915	96.382	2.924
		Female	191	26.910	92.371	4.525
B	Broiler	Male	197	26.821	88.344	2.407
		Female	191	27.464	92.169	4.361
B	Layer	Male	215	27.123	82.211	4.227
		Female	161	28.152	91.306	5.088
Native	Mixed	Male	198	25.963	93.490	2.475
		Female	166	26.703	93.544	2.503
	Broiler	Male	255	26.549	92.127	2.254
		Female	171	26.910	94.540	2.493
Broiler		Male	289	23.660	91.972	4.215
		Female	261	29.294	90.162	6.067

See Table 17.

**Table appendix 10.** Chemical composition of debone thigh meat of 13 week-old, 3 lines crossbred native from 2 production sources compared with native and broiler chickens of both sexes in Exp.3.

Source	Type of diet	Sex	Fresh wt.(g)	DM	CP	EE
Crossbred native						
A	Mixed	Male	123	25.236	82.392	12.871
		Female	121	24.129	84.399	11.249
A	Broiler	Male	139	24.645	85.014	12.136
		Female	118	26.699	81.176	16.845
A	Layer	Male	157	24.207	87.511	9.436
		Female	113	25.537	84.252	12.304
B	Mixed	Male	127	24.648	86.824	9.829
		Female	89	25.311	85.404	10.889
B	Broiler	Male	104	24.045	82.299	7.884
		Female	100	26.258	85.628	12.649
B	Layer	Male	137	24.807	85.628	10.710
		Female	95	25.883	84.776	12.335
Native	Mixed	Male	96	24.567	84.989	9.171
		Female	85	25.379	85.459	10.013
	Broiler	Male	89	25.071	84.072	9.905
		Female	71	25.361	89.311	8.585
Broiler		Male	122	23.125	77.412	21.920
		Female	109	28.450	78.494	15.732

See Table 17.

**Table appendix 11.** Average daily gain (g) of 3 lines crossbred native chickens when fed diets containing various levels of CP and ME during 6-10 (Exp.1) and 11-13 weeks of age (Exp.2).

Exp.1 (6-10 weeks of age; 35 days)			Exp.2 (11-13 weeks of age; 21 days)				
Male	Female	Ave.	Male	Female	Ave.		
<b>Level of CP (%)</b>			<b>Level of CP (%)</b>				
19	27.9	21.8	24.9	15	26.5	19.6	23.1
17	25.7	20.4	23.0	13	24.8	18.8	21.8
15	24.1	19.3	21.7	11	19.2	14.6	17.0
<b>Level of ME (kcal/g)</b>			<b>Level of ME (kcal/g)</b>				
3.2	24.7	19.5	22.1	3.2	22.1	16.0	19.0
2.9	25.8	20.3	23.1	2.9	23.3	18.0	20.7
2.6	27.1	21.5	24.3	2.6	24.2	19.0	21.6
Ave.	25.9	20.5		Ave.	23.5	17.7	

**Table appendix 12.** Average daily feed intake (g) of 3 lines crossbred native chickens when fed diets containing various levels of CP and ME during 6-10 (Exp.1) and 11-13 weeks of age (Exp.2).

Exp.1 (6-10 weeks of age; 35 days)			Exp.2 (11-13 weeks of age; 21 days)				
Male	Female	Ave.	Male	Female	Ave.		
<b>Level of CP (%)</b>			<b>Level of CP (%)</b>				
19	80.3	66.2	73.2	15	97.9	81.7	89.8
17	77.2	66.0	71.6	13	98.9	88.2	93.5
15	82.5	63.9	73.2	11	97.1	79.8	88.4
<b>Level of ME (kcal/g)</b>			<b>Level of ME (kcal/g)</b>				
3.2	74.5	59.0	66.8	3.2	89.4	74.3	81.9
2.9	77.5	64.5	71.0	2.9	100.1	84.0	92.0
2.6	88.0	72.5	80.2	2.6	103.5	91.4	97.5
Ave.	80.0	65.3		Ave.	98.0	83.2	

**Table appendix 13.** Daily CP intake (g) of 3 lines crossbred native chickens when fed diets containing various levels of CP and ME during 6-10 (Exp.1) and 11-13 weeks of age (Exp.2).

Exp.1 (6-10 weeks of age; 35 days)				Exp.2 (11-13 weeks of age; 21 days)			
	Male	Female	Ave.		Male	Female	Ave.
<b>Level of CP (%)</b>				<b>Level of CP (%)</b>			
19	15.3	12.6	14.0	15	14.7	12.3	13.5
17	13.1	11.2	12.2	13	12.7	11.5	12.1
15	12.4	9.6	11.0	11	10.7	8.8	9.8
<b>Level of ME (kcal/g)</b>				<b>Level of ME (kcal/g)</b>			
3.2	12.6	10.0	11.3	3.2	11.6	9.7	10.7
2.9	13.2	11.0	12.1	2.9	13.0	10.9	12.0
2.6	15.0	12.4	13.7	2.6	13.5	11.9	12.7
Ave.	13.6	11.1		Ave.	12.7	10.8	

**Table appendix 14.** Daily ME intake (kcal) of 3 lines crossbred native chickens when fed diets containing various levels of CP and ME during 6-10 (Exp.1) and 11-13 weeks of age (Exp.2).

Exp.1 (6-10 weeks of age; 35 days)				Exp.2 (11-13 weeks of age; 21 days)			
	Male	Female	Ave.		Male	Female	Ave.
<b>Level of CP (%)</b>				<b>Level of CP (%)</b>			
19	231.2	190.1	210.7	15	282.7	235.8	259.3
17	222.6	190.4	206.5	13	282.4	253.5	268.0
15	238.3	184.0	211.2	11	280.5	229.7	255.1
<b>Level of ME (kcal/g)</b>				<b>Level of ME (kcal/g)</b>			
3.2	238.5	188.9	213.7	3.2	286.2	237.8	262.0
2.9	224.8	187.1	206.0	2.9	290.2	243.6	266.9
2.6	228.7	188.4	208.6	2.6	269.2	237.7	253.5
Ave.	230.7	188.1		Ave.	281.9	239.7	

**Table appendix 15.** Methionine intake (g) of 3 lines crossbred native chickens when fed diets containing various levels of CP and ME during 6-10 (Exp.1) and 11-13 weeks of age (Exp.2).

Exp.1 (6-10 weeks of age; 35 days)				Exp.2 (11-13 weeks of age; 21 days)			
	Male	Female	Ave.		Male	Female	Ave.
<b>Level of CP (%)</b>				<b>Level of CP (%)</b>			
19	9.6	7.9	8.8	15	5.9	4.9	5.4
17	8.6	7.3	8.0	13	5.3	4.7	5.0
15	8.3	6.4	7.4	11	4.6	3.8	4.2
<b>Level of ME (kcal/g)</b>				<b>Level of ME (kcal/g)</b>			
3.2	8.2	6.5	7.4	3.2	4.9	4.1	4.5
2.9	8.7	7.2	8.0	2.9	5.4	4.6	5.0
2.6	9.6	7.9	8.8	2.6	5.4	4.8	5.1
Ave.	8.8	7.2		Ave.	5.2	4.5	

**Table appendix 16.** Lysine intake (g) of 3 lines crossbred native chickens when fed diets containing various levels of CP and ME during 6-10 (Exp.1) and 11-13 weeks of age (Exp.2).

Exp.1 (6-10 weeks of age; 35 days)				Exp.2 (11-13 weeks of age; 21 days)			
	Male	Female	Ave.		Male	Female	Ave.
<b>Level of CP (%)</b>				<b>Level of CP (%)</b>			
19	28.6	23.6	26.1	15	15.4	12.9	14.2
17	23.9	20.4	22.2	13	12.7	11.4	12.1
15	21.6	16.7	19.2	11	9.9	8.1	9.0
<b>Level of ME (kcal/g)</b>				<b>Level of ME (kcal/g)</b>			
3.2	22.9	18.2	20.6	3.2	11.5	9.6	10.6
2.9	23.7	19.8	21.8	2.9	12.8	10.8	11.8
2.6	27.4	22.7	25.1	2.6	13.7	12.1	12.9
Ave.	24.7	20.2		Ave.	12.7	10.8	

**Table appendix 17.** Average daily gain (g) of 3 lines crossbred native chickens from 2 commercial sources fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	15.1	29.3	24.1	26.7	32.2	23.8	28.0
B	12.2	24.1	18.8	21.4	28.9	20.1	24.5
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	13.0	26.1	21.9	24.0	31.5	21.9	26.7
Diet 2	14.3	27.2	21.1	24.1	30.0	22.0	25.8
<b>Type of diets <sup>2/</sup></b>							
Mixed	12.7	25.7	21.5	23.6	31.1	22.2	26.7
Broiler	14.6	25.2	21.4	24.3	27.6	19.9	23.8
Layer	13.6	27.1	21.4	24.3	33.0	23.6	28.3
<b>Ave.</b>	<b>13.7</b>	<b>26.7</b>	<b>21.5</b>		<b>30.6</b>	<b>21.9</b>	

<sup>1/</sup>, <sup>2/</sup> See Table 17.

**Table appendix 18.** Average daily feed intake (g) of 3 lines crossbred native chickens from 2 commercial sources fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	30.4	92.2	79.3	85.7	142.2	112.5	127.4
B	26.5	89.9	72.2	81.1	133.3	99.8	116.6
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	26.3	87.9	79.4	83.7	143.8	109.3	126.5
Diet 2	30.5	94.3	72.0	83.2	131.7	103.1	117.4
<b>Type of diets <sup>2/</sup></b>							
Mixed	27.5	87.9	72.6	80.2	135.5	104.0	119.8
Broiler	29.7	92.7	78.7	85.7	133.0	98.2	115.6
Layer	28.1	92.7	75.9	84.3	144.6	116.3	130.5
<b>Ave.</b>	<b>28.4</b>	<b>91.1</b>	<b>75.7</b>		<b>137.7</b>	<b>106.2</b>	

<sup>1/</sup>, <sup>2/</sup> See Table 17.



**Table appendix 19.** Average fiber intake (g) of 3 lines crossbred native chickens from 2 commercial sources, fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	40.4	185.5	204.1	194.8	258.5	204.1	231.3
B	35.4	179.7	184.8	182.3	243.5	178.5	211.0
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	31.3	188.8	254.7	221.8	309.1	234.5	271.8
Diet 2	44.5	176.4	134.2	155.3	192.9	148.1	170.5
<b>Type of diets <sup>2/</sup></b>							
Mixed	34.7	153.2	176.4	164.8	226.9	172.9	199.9
Broiler	36.5	217.3	237.9	227.6	316.3	233.8	275.0
Layer	42.5	177.3	169.1	173.2	209.8	167.3	188.5
<b>Ave.</b>	<b>37.9</b>	<b>182.6</b>	<b>194.4</b>		<b>251.0</b>	<b>191.3</b>	

<sup>1/ 2/</sup> See Table 17.

**Table appendix 20.** Average daily ME intake (kcal) of 3 lines crossbred native chickens from 2 commercial sources, fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	92.4	267.4	217.4	242.4	390.4	309.0	349.7
B	80.4	260.9	197.9	229.4	265.3	274.1	319.7
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	84.3	254.8	206.5	230.6	373.8	284.1	329.0
Diet 2	88.5	273.5	208.8	241.2	381.9	298.9	340.4
<b>Type of diets <sup>2/</sup></b>							
Mixed	83.5	254.9	199.6	227.2	372.5	286.3	329.4
Broiler	90.3	268.9	215.2	242.1	365.2	269.5	317.3
Layer	85.4	268.7	208.2	238.4	395.8	318.8	357.3
<b>Ave.</b>	<b>86.4</b>	<b>264.1</b>	<b>207.7</b>		<b>377.8</b>	<b>291.5</b>	

<sup>1/ 2/</sup> See Table 17.

**Table appendix 21.** Average daily CP intake (g) of 3 lines crossbred native chickens from 2 commercial sources, fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	6.4	16.6	14.2	15.4	21.3	16.9	19.1
B	5.6	16.3	13.0	14.6	20.0	15.0	17.5
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	5.5	14.9	13.5	14.2	21.6	16.4	19.0
Diet 2	6.4	17.9	13.7	15.8	19.8	15.5	17.6
<b>Type of diets <sup>2/</sup></b>							
Mixed	5.8	15.9	13.1	14.5	20.3	15.6	18.0
Broiler	6.2	16.7	14.1	15.4	20.0	14.7	17.3
Layer	5.9	16.7	13.6	15.2	21.7	17.5	19.6
<b>Ave.</b>	<b>6.0</b>	<b>16.4</b>	<b>13.6</b>		<b>20.7</b>	<b>15.9</b>	

<sup>1/ 2/</sup> See Table 17.

**Table appendix 22.** Average methionine intake (g) of 3 lines crossbred native chickens from 2 commercial sources, fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	4.4	11.3	9.6	10.5	9.1	7.2	8.1
B	3.8	11.1	8.7	9.9	8.5	6.4	7.4
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	3.8	10.4	9.2	9.8	9.2	7.0	8.1
Diet 2	4.4	12.0	9.2	10.6	8.4	6.6	7.5
<b>Type of diets <sup>2/</sup></b>							
Mixed	3.6	10.3	8.4	9.4	8.1	6.2	7.2
Broiler	4.8	12.0	10.0	11.0	8.9	6.6	7.8
Layer	3.9	11.2	9.2	10.2	9.3	7.5	8.4
<b>Ave.</b>	<b>4.1</b>	<b>11.2</b>	<b>9.2</b>		<b>8.8</b>	<b>6.8</b>	

<sup>1/ 2/</sup> See Table 17.

**Table appendix 23.** Average lysine intake (g) of 3 lines crossbred native chickens from 2 commercial sources, fed 3 types of diets and 2 levels of nutrients in each growing stage in Exp.3.

Birds' age	Week 1-5 (35 days)	Week 6-10 (35 days)			Week 11-13 (21 days)		
	Both sexes	Male	Female	Ave.	Male	Female	Ave.
<b>Source of chicks</b>							
A	11.9	30.0	25.8	27.9	22.3	17.6	19.9
B	10.3	29.5	23.5	26.5	20.9	15.6	18.2
<b>Level of nutrients <sup>1/</sup></b>							
Diet 1	10.3	26.6	24.3	25.5	22.7	17.3	20.1
Diet 2	11.9	32.9	25.1	29.0	20.4	15.9	18.2
<b>Type of diets <sup>2/</sup></b>							
Mixed	11.0	29.2	24.1	26.7	21.4	16.4	18.9
Broiler	11.8	29.8	25.2	27.5	21.0	15.5	18.2
Layer	10.5	30.4	24.8	27.6	22.4	18.0	20.2
<b>Ave.</b>	<b>11.1</b>	<b>29.8</b>	<b>24.7</b>		<b>21.6</b>	<b>16.6</b>	

<sup>1/, 2/</sup> See Table 17.

## ภาคผนวก ง.

Table appendix 24. ANOVA : Body weight gain of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	0.66082200	0.03887188	14.89 **	0.0001
CP	2	0.10912144	0.05456072	20.89 **	0.0001
ME	2	0.05270233	0.02635117	10.09 **	0.0003
Sex	1	0.48773007	0.48773007	186.78 **	0.0001
CP*ME	4	0.00492989	0.00123247	0.47 <sup>ns</sup>	0.7559
CP*Sex	2	0.00459604	0.00229802	0.88 <sup>ns</sup>	0.4235
ME*Sex	2	0.00060693	0.00030346	0.12 <sup>ns</sup>	0.8906
CP*ME*Sex	4	0.00113530	0.00028382	0.11 <sup>ns</sup>	0.9787
Error	36	0.09400400	0.00261122		
Total	53	0.75482600			
CV = 6.30 %	SEM = 0.01				

Table appendix 25. ANOVA : Body weight gain of male at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.11468630	0.01433579	3.56 *	0.0121
CP	2	0.07914096	0.03957048	9.82 **	0.0013
ME	2	0.03216474	0.01608237	3.99 *	0.0368
CP*ME	4	0.00338059	0.00084515	0.21 <sup>ns</sup>	0.9297
Error	18	0.07254400	0.00403022		
Total	26	0.18723030			
CV = 7.00 %	SEM = 0.01				

Table appendix 26. ANOVA : Body weight gain of female at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.05840563	0.00730070	6.12 **	0.0007
CP	2	0.03457652	0.01728826	14.50 **	0.0002
ME	2	0.02114452	0.01057226	8.87 **	0.0021
CP*ME	4	0.00268459	0.00067115	0.56 <sup>ns</sup>	0.6926
Error	18	0.02146000	0.00119222		
Total	26	0.07986563			
CV = 4.82 %	SEM = 0.01				

Table appendix 27. ANOVA : Feed intake of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	6.18119320	0.36359960	7.58 **	0.0001
CP	2	0.03792404	0.01896202	0.40 <sup>ns</sup>	0.6763
ME	2	2.07900915	1.03950457	21.68 **	0.0001
Sex	1	3.55483380	3.55483380	74.14 **	0.0001
CP*Sex	2	0.15254826	0.07627413	1.59 <sup>ns</sup>	0.2178
ME*Sex	2	0.02238937	0.01119469	0.23 <sup>ns</sup>	0.7930
CP*ME	4	0.20473385	0.05118346	1.07 <sup>ns</sup>	0.3868
CP*ME*Sex	4	0.12975474	0.03243869	0.68 <sup>ns</sup>	0.6127
Error	36	1.72621000	0.04795028		
Total	53	7.90740320			
CV = 8.61 %	SEM = 0.03				

Table appendix 28. ANOVA : Feed intake of male at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	1.30674074	0.16334259	2.62 *	0.0429
CP	2	0.15418541	0.07709270	1.24 <sup>ns</sup>	0.3142
ME	2	1.09475785	0.54737893	8.77 **	0.0022
CP*ME	4	0.05779748	0.01444937	0.23 <sup>ns</sup>	0.9170
Error	18	1.12324667	0.06240259		
Total	26	2.42998741			
CV = 8.92 %	SEM = 0.05				

Table appendix 29. ANOVA : Feed intake of female at 10 weeks of age (Exp.1).

SOV	Df	SS	MS	F-value	Pr>F
Treatment	8	1.31961867	0.16495233	4.92 **	0.0024
CP	2	0.03628689	0.01814344	0.54 <sup>ns</sup>	0.5910
ME	2	1.00664067	0.50332033	15.03 **	0.0001
CP*ME	4	0.27669111	0.06917278	2.06 <sup>ns</sup>	0.1280
Error	18	0.60296333	0.03349796		
Total	26	1.92258200			
CV = 8.00 %	SEM = 0.04				

Table appendix 30. ANOVA : FCR of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	3.49439970	0.20555292	2.45 *	0.0116
CP	2	1.60050559	0.80025280	9.55 **	0.0005
ME	2	0.73234359	0.36617180	4.37 *	0.0200
Sex	1	0.11611141	0.11611141	1.39 <sup>ns</sup>	0.2468
CP*Sex	2	0.31087604	0.15543802	1.86 <sup>ns</sup>	0.1710
ME*Sex	2	0.31087604	0.15543802	1.86 <sup>ns</sup>	0.1710
CP*ME	4	0.46721885	0.11680471	1.39 <sup>ns</sup>	0.2555
CP*ME*Sex	4	0.21526396	0.05381599	0.64 <sup>ns</sup>	0.6358
Error	36	3.01601933	0.08377831		
Total	53	6.51041904			
CV = 9.18 %	SEM = 0.04				

Table appendix 31. ANOVA : FCR of male at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	1.96483496	0.24560437	3.01 *	0.0249
CP	2	1.53002007	0.76501004	9.37 **	0.0016
ME	2	0.29870585	0.14935293	1.83 <sup>ns</sup>	0.1893
CP*ME	4	0.13610904	0.03402726	0.42 <sup>ns</sup>	0.7945
Error	18	1.47021400	0.08167856		
Total	26	3.43504896			
CV = 9.20 %	SEM = 0.06				

Table appendix 32. ANOVA : FCR of female at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	1.41345333	0.17668167	2.06 <sup>ns</sup>	0.0971
CP	2	0.38136156	0.19068078	2.22 <sup>ns</sup>	0.1374
ME	2	0.48571800	0.24285900	2.83 <sup>ns</sup>	0.0855
CP*ME	4	0.54637378	0.13659344	1.59 <sup>ns</sup>	0.2198
Error	18	1.54580533	0.08587807		
Total	26	2.95925867			
CV = 9.16 %	SEM = 0.06				

**Table appendix 33. ANOVA : Body weight gain of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	0.41883215	0.02463719	15.40 **	0.0001
CP	2	0.16896548	0.08448274	52.82 **	0.0001
ME	2	0.03095893	0.01547946	9.68 **	0.0004
Sex	1	0.20757600	0.20757600	129.78 **	0.0001
CP*Sex	2	0.00322441	0.00080610	0.50 <sup>ns</sup>	0.7330
ME*Sex	2	0.00095478	0.00047739	0.30 <sup>ns</sup>	0.7438
CP*ME	4	0.00322441	0.00080610	0.50 <sup>ns</sup>	0.7330
CP*ME*Sex	4	0.00147122	0.00036781	0.23 <sup>ns</sup>	0.9198
Error	36	0.05758200	0.00159950		
Total	53	0.47641415			
CV = 8.43 %	SEM = 0.01				

**Table appendix 34. ANOVA : Body weight gain of male at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.13429207	0.01678651	9.66 **	0.0001
CP	2	0.11760030	0.05880015	33.83 **	0.0001
ME	2	0.01255252	0.00627626	3.61 *	0.0480
CP*ME	4	0.00413926	0.00103481	0.60 <sup>ns</sup>	0.6706
Error	18	0.03128800	0.00173822		
Total	26	0.16558007			
CV = 9.24 %	SEM = 0.01				

**Table appendix 35. ANOVA : Body weight gain of female at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.07696407	0.00962051	6.59 **	0.0005
CP	2	0.05704652	0.02852326	19.53 **	0.0001
ME	2	0.01936119	0.00968059	6.63 <sup>ns</sup>	0.0070
CP*ME	4	0.00055637	0.00013909	0.10 <sup>ns</sup>	0.9827
Error	18	0.02629400	0.00146078		
Total	26	0.10325807			
CV = 10.31 %	SEM = 0.01				

**Table appendix 36. ANOVA : Feed intake of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	2.53678817	0.14922283	7.20 **	0.0001
CP	2	0.09381378	0.04690689	2.26 <sup>ns</sup>	0.1187
ME	2	0.99703478	0.49851739	24.05 **	0.0001
Sex	1	1.24366713	1.24366713	59.99 **	0.0001
CP*Sex	2	0.06309793	0.03154896	1.52 <sup>ns</sup>	0.2320
ME*Sex	2	0.01720959	0.00860480	0.42 <sup>ns</sup>	0.6634
CP*ME	4	0.07546811	0.01886703	0.91 <sup>ns</sup>	0.4685
CP*ME*Sex	4	0.04649685	0.01162421	0.56 <sup>ns</sup>	0.6926
Error	36	0.74629467	0.02073041		
Total	53	3.28308283			
CV = 7.58 %		SEM = 0.02			

**Table appendix 37. ANOVA : Feed intake of male at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.50618007	0.06327251	2.32 <sup>ns</sup>	0.0662
CP	2	0.00224830	0.00112415	0.04 <sup>ns</sup>	0.9598
ME	2	0.42812207	0.21406104	7.84 **	0.0036
CP*ME	4	0.07580970	0.01895243	0.69 <sup>ns</sup>	0.6059
Error	18	0.49171067	0.02731726		
Total	26	0.99789074			
CV = 8.06 %		SEM = 0.05			

**Table appendix 38. ANOVA : Feed intake of female at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.78694096	0.09836762	6.95 **	0.0003
CP	2	0.15466341	0.07733170	5.47 *	0.0140
ME	2	0.58612230	0.29306115	20.72 **	0.0001
CP*ME	4	0.04615526	0.01153881	0.82 <sup>ns</sup>	0.5316
Error	18	0.25458400	0.01414356		
Total	26	1.04152496			
CV = 6.81 %		SEM = 0.02			



Table appendix 39. ANOVA : FCR of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	22.57445483	1.32790911	12.58 **	0.0001
CP	2	16.87708011	8.43854006	79.94 **	0.0001
ME	2	0.19824433	0.09912217	0.94 <sup>ns</sup>	0.4004
Sex	1	4.27007824	4.27007824	40.45 **	0.0001
CP*Sex	2	0.26782315	0.13391157	1.27 <sup>ns</sup>	0.2935
ME*Sex	2	0.01020359	0.00510180	0.05 <sup>ns</sup>	0.9529
CP*ME	4	0.58877889	0.14719472	1.39 <sup>ns</sup>	0.2554
CP*ME*Sex	4	0.36224652	0.09056163	0.86 <sup>ns</sup>	0.4984
Error	36	3.80007000	0.10555750		
Total	53	26.37452483			
CV = 7.20 %	SEM = 0.04				

Table appendix 40. ANOVA : FCR of male at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	10.26710719	1.28338840	21.55 **	0.0001
CP	2	9.39599830	4.69799915	78.88 **	0.0001
ME	2	0.08410807	0.04205404	0.71 <sup>ns</sup>	0.5067
CP*ME	4	0.78700081	0.19675020	3.30 <sup>ns</sup>	0.3390
Error	18	1.07201933	0.05955663		
Total	26	11.33912652			
CV = 5.77 %	SEM = 0.05				

Table appendix 41. ANOVA : FCR of female at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	8.03726941	1.00465868	6.63 **	0.0004
CP	2	7.74890496	3.87445248	25.56 **	0.0001
ME	2	0.12433985	0.06216993	0.41 <sup>ns</sup>	0.6696
CP*ME	4	0.16402459	0.04100615	0.27 <sup>ns</sup>	0.8931
Error	18	2.72805067	0.15155837		
Total	26	10.76532007			
CV = 8.12 %	SEM = 0.08				

Table appendix 42. ANOVA : Dressing percentage of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	55.11269815	3.24192342	0.78 <sup>ns</sup>	0.7030
CP	2	14.77602593	7.38801296	1.78 <sup>ns</sup>	0.1837
ME	2	7.13797037	3.56898519	0.86 <sup>ns</sup>	0.4324
Sex	1	9.38333519	9.38333519	2.26 <sup>ns</sup>	0.1418
CP*Sex	2	4.06418148	2.03209074	0.49 <sup>ns</sup>	0.6174
ME*Sex	2	9.99912593	4.99956296	1.20 <sup>ns</sup>	0.3123
CP*ME	4	4.99231852	1.24807963	0.30 <sup>ns</sup>	0.8759
CP*ME*Sex	4	4.75974074	1.18993519	0.29 <sup>ns</sup>	0.8850
Error	36	149.69966667	4.15832407		
Total	53	204.81236481			
CV = 2.52 %	SEM= 0.28				

Table appendix 43. ANOVA : Dressing percentage of male at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	7.57086667	0.94635833	0.32 <sup>ns</sup>	0.9473
CP	2	2.08526667	1.04263333	0.35 <sup>ns</sup>	0.7067
ME	2	4.22826667	2.11413333	0.72 <sup>ns</sup>	0.5014
CP*ME	4	1.25733333	0.31433333	0.11 <sup>ns</sup>	0.9787
Error	18	53.02953333	2.94608519		
Total	26	60.60040000			
CV = 2.13%	SEM = 0.33				

Table appendix 44. ANOVA : Dressing percentage of female at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	38.15849630	4.76981204	0.89 <sup>ns</sup>	0.5454
CP	2	16.75494074	8.37747037	1.56 <sup>ns</sup>	0.2373
ME	2	12.90882963	6.45441481	1.20 <sup>ns</sup>	0.3237
CP*ME	4	8.49472593	2.12368148	0.40 <sup>ns</sup>	0.8092
Error	18	96.67013333	5.37056296		
Total	26	134.32862963			
CV = 2.84 %	SEM = 0.45				

Table appendix 45. ANOVA : Dressing percentage of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	157.35889815	9.25640577	1.39 <sup>ns</sup>	0.1983
CP	2	26.31201481	13.15600741	1.98 <sup>ns</sup>	0.1534
ME	2	25.42228148	12.71114074	1.91 <sup>ns</sup>	0.1630
Sex	1	7.62377963	7.62377963	1.14 <sup>ns</sup>	0.2917
CP*Sex	2	2.45521481	1.22760741	0.18 <sup>ns</sup>	0.8324
ME*Sex	2	40.26730370	20.13365185	3.02 <sup>ns</sup>	0.0611
CP*ME	4	33.12445185	8.28111296	1.24 <sup>ns</sup>	0.3100
CP*ME*Sex	4	22.15385185	5.53846296	0.83 <sup>ns</sup>	0.5139
Error	36	239.72013333	6.65889259		
Total	53	397.07903148			
CV = 3.06 %		SEM = 0.35			

Table appendix 46. ANOVA : Dressing percentage of male at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	42.04900000	5.25612500	0.67 <sup>ns</sup>	0.7075
CP	2	17.27780000	8.63890000	1.11 <sup>ns</sup>	0.3514
ME	2	1.30286667	0.65143333	0.08 <sup>ns</sup>	0.9201
CP*ME	4	23.46833333	5.86708333	0.75 <sup>ns</sup>	0.5689
Error	18	140.21166667	7.78953704		
Total	26	182.26066667			
CV = 3.30 %		SEM = 0.54			

Table appendix 47. ANOVA : Dressing percentage of female at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	107.68611852	13.46076481	2.43 <sup>ns</sup>	0.0557
CP	2	11.48942963	5.74471481	1.04 <sup>ns</sup>	0.3740
ME	2	64.38671852	32.19335926	5.82 <sup>*</sup>	0.0112
CP*ME	4	31.80997037	7.95249259	1.44 <sup>ns</sup>	0.2620
Error	18	99.50846667	5.52824815		
Total	26	207.19458519			
CV = 2.80 %		SEM = 0.45			

Table appendix 48. ANOVA : Visceral organ plus GI tract of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	26.21128333	1.54184020	1.62 <sup>ns</sup>	0.1095
CP	2	3.90303333	1.95151667	2.05 <sup>ns</sup>	0.1431
ME	2	3.19303333	1.59651667	1.68 <sup>ns</sup>	0.2007
Sex	1	3.00097963	3.00097963	3.16 <sup>ns</sup>	0.0840
CP*Sex	2	3.40338148	1.70169074	1.79 <sup>ns</sup>	0.1815
ME*Sex	2	3.27335926	1.63667963	1.72 <sup>ns</sup>	0.1931
CP*ME	4	2.14413333	0.53603333	0.56 <sup>ns</sup>	0.6904
CP*ME*Sex	4	7.29336296	1.82334074	1.92 <sup>ns</sup>	0.1285
Error	36	34.22000000	0.95055556		
Total	53	60.43128333			
CV = 8.18 %		SEM = 0.13			

Table appendix 49. ANOVA : Visceral organ plus GI tract of male at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	13.45102963	1.68137870	1.67 <sup>ns</sup>	0.1753
CP	2	6.76671852	3.38335926	3.35 <sup>ns</sup>	0.0579
ME	2	2.14314074	1.07157037	1.06 <sup>ns</sup>	0.3666
CP*ME	4	4.54117037	1.13529259	1.12 <sup>ns</sup>	0.3759
Error	18	18.16913333	1.00939630		
Total	26	31.62016296			
CV = 8.60 %		SEM = 0.19			

Table appendix 50. ANOVA : Visceral organ plus GI tract of female at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	9.75927407	1.21990926	1.37 <sup>ns</sup>	0.2748
CP	2	0.53969630	0.26984815	0.30 <sup>ns</sup>	0.7426
ME	2	4.32325185	2.16162593	2.42 <sup>ns</sup>	0.1169
CP*ME	4	4.89632593	1.22408148	1.37 <sup>ns</sup>	0.2826
Error	18	16.05086667	0.89171481		
Total	26	25.81014074			
CV = 7.77 %		SEM = 0.18			

**Table appendix 51. ANOVA : Visceral organ plus GI tract of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	29.56381667	1.73904804	1.55 <sup>ns</sup>	0.1305
CP	2	3.79641111	1.89820556	1.70 <sup>ns</sup>	0.1976
ME	2	4.38274444	2.19137222	1.96 <sup>ns</sup>	0.1557
Sex	1	3.16342407	3.16342407	2.83 <sup>ns</sup>	0.1013
CP*Sex	2	12.36160370	6.18080185	5.53 <sup>**</sup>	0.0081
ME*Sex	2	0.42815926	0.21407963	0.19 <sup>ns</sup>	0.8266
CP*ME	4	1.20594444	0.30148611	0.27 <sup>ns</sup>	0.8956
CP*ME*Sex	4	4.22552963	1.05638241	0.94 <sup>ns</sup>	0.4496
Error	36	40.26693333	1.11852593		
Total	53	69.83075000			
CV = 8.84 %	SEM = 0.15				

**Table appendix 52. ANOVA : Visceral organ plus GI tract of male at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	6.68629630	0.83578704	0.97 <sup>ns</sup>	0.4872
CP	2	1.35720741	0.67860370	0.79 <sup>ns</sup>	0.4692
ME	2	3.75534074	1.87767037	2.18 <sup>ns</sup>	0.1415
CP*ME	4	1.57374815	0.39343704	0.46 <sup>ns</sup>	0.7657
Error	18	15.47393333	0.85966296		
Total	26	22.16022963			
CV = 8.84 %	SEM = 0.18				

**Table appendix 53. ANOVA : Visceral organ plus GI tract of female at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	19.71409630	2.46426204	1.79 <sup>ns</sup>	0.1454
CP	2	14.80080741	7.40040370	5.37 <sup>*</sup>	0.0148
ME	2	1.05556296	0.52778148	0.38 <sup>ns</sup>	0.6871
CP*ME	4	3.85772593	0.96443148	0.70 <sup>ns</sup>	0.6019
Error	18	24.79300000	1.37738889		
Total	26	44.50709630			
CV = 9.62 %	SEM = 0.23				

**Table appendix 54. ANOVA : Gizzard of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	5.07218704	0.29836394	1.44 <sup>ns</sup>	0.1734
CP	2	0.01287037	0.00643519	0.03 <sup>ns</sup>	0.9694
ME	2	0.88321481	0.44160741	2.14 <sup>ns</sup>	0.1327
Sex	1	1.22401667	1.22401667	5.92 <sup>*</sup>	0.0200
CP*Sex	2	0.24863333	0.12431667	0.60 <sup>ns</sup>	0.5534
ME*Sex	2	0.60760000	0.30380000	1.47 <sup>ns</sup>	0.2434
CP*ME	4	0.18718519	0.04679630	0.23 <sup>ns</sup>	0.9218
CP*ME*Sex	4	1.90866667	0.47716667	2.31 <sup>ns</sup>	0.0767
Error	36	7.43953333	0.20665370		
Total	53	12.51172037			
CV = 18.15 %	SEM = 0.06				

**Table appendix 55. ANOVA : Gizzard of male at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	1.59769630	0.19971204	1.17 <sup>ns</sup>	0.3702
CP	2	0.17869630	0.08934815	0.52 <sup>ns</sup>	0.6021
ME	2	0.18427407	0.09213704	0.54 <sup>ns</sup>	0.5929
CP*ME	4	1.23472593	0.30868148	1.80 <sup>ns</sup>	0.1722
Error	18	3.08153333	0.17119630		
Total	26	4.67922963			
CV = 17.58 %	SEM = 0.08				

**Table appendix 56. ANOVA : Gizzard of female at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	2.25047407	0.28130926	1.16 <sup>ns</sup>	0.3727
CP	2	0.08280741	0.04140370	0.17 <sup>ns</sup>	0.8442
ME	2	1.30654074	0.65327037	2.70 <sup>ns</sup>	0.0944
CP*ME	4	0.86112593	0.21528148	0.89 <sup>ns</sup>	0.4904
Error	18	4.35800000	0.24211111		
Total	26	6.60847407			
CV = 18.54 %	SEM = 0.10				

Table appendix 57. ANOVA : Gizzard of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	2.91553333	0.17150196	1.49 <sup>ns</sup>	0.1549
CP	2	0.06687778	0.03343889	0.29 <sup>ns</sup>	0.7499
ME	2	0.27417778	0.13708889	1.19 <sup>ns</sup>	0.3161
Sex	1	0.32356296	0.32356296	2.81 <sup>ns</sup>	0.1025
CP*Sex	2	0.55349259	0.27674630	2.40 <sup>ns</sup>	0.1050
ME*Sex	2	0.26703704	0.13351852	1.16 <sup>ns</sup>	0.3254
CP*ME	4	0.29491111	0.07372778	0.64 <sup>ns</sup>	0.6376
CP*ME*Sex	4	1.13547407	0.28386852	2.46 <sup>ns</sup>	0.0626
Error	36	4.14906667	0.11525185		
Total	53	7.06460000			
CV = 14.16 %	SEM = 0.05				

Table appendix 58. ANOVA : Gizzard of male at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	1.49318519	0.18664815	1.22 <sup>ns</sup>	0.3429
CP	2	0.38280741	0.19140370	1.25 <sup>ns</sup>	0.3102
ME	2	0.54027407	0.27013704	1.76 <sup>ns</sup>	0.1997
CP*ME	4	0.57010370	0.14252593	0.93 <sup>ns</sup>	0.4681
Error	18	2.75600000	0.15311111		
Total	26	4.24918519			
CV = 16.87 %	SEM = 0.08				

Table appendix 59. ANOVA : Gizzard of female at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	1.09878519	0.13734815	1.77 <sup>ns</sup>	0.1486
CP	2	0.23756296	0.11878148	1.53 <sup>ns</sup>	0.2424
ME	2	0.00094074	0.00047037	0.01 <sup>ns</sup>	0.9939
CP*ME	4	0.86028148	0.21507037	2.78 <sup>ns</sup>	0.0585
Error	18	1.39306667	0.07739259		
Total	26	2.49185185			
CV = 11.24 %	SEM = 0.05				

**Table appendix 60. ANOVA : Liver plus bile sac at 10 weeks of age of both sexes of crossbred native chickens (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	0.93286667	0.05487451	2.03 <sup>ns</sup>	0.0362
CP	2	0.01657778	0.00828889	0.31 <sup>ns</sup>	0.7373
ME	2	0.12741111	0.06370556	2.36 <sup>ns</sup>	0.1087
Sex	1	0.00500741	0.00500741	0.19 <sup>ns</sup>	0.6691
CP*Sex	2	0.17712593	0.08856296	3.28 <sup>ns</sup>	0.0520
ME*Sex	2	0.02560370	0.01280185	0.47 <sup>ns</sup>	0.6260
CP*ME	4	0.18607778	0.04651944	1.72 <sup>ns</sup>	0.1659
CP*ME*Sex	4	0.39506296	0.09876574	3.66 <sup>ns</sup>	0.1133
Error	36	0.97106667	0.02697407		
Total	53	1.90393333			
CV = 8.36 %		SEM = 0.02			

**Table appendix 61. ANOVA : Liver plus bile sac of male at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.33625185	0.04203148	1.51 <sup>ns</sup>	0.2223
CP	2	0.09931852	0.04915926	1.76 <sup>ns</sup>	0.1996
ME	2	0.06009630	0.03004815	1.08 <sup>ns</sup>	0.3610
CP*ME	4	0.17783704	0.04445926	1.60 <sup>ns</sup>	0.2184
Error	18	0.50140000	0.02785556		
Total	26	0.83765185			
CV = 8.53 %		SEM = 0.03			

**Table appendix 62. ANOVA : Liver plus bile sac of female at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.59160741	0.07395093	2.83 *	0.0316
CP	2	0.09538519	0.04769259	1.83 <sup>ns</sup>	0.1894
ME	2	0.09291852	0.04645926	1.78 <sup>ns</sup>	0.1970
CP*ME	4	0.40330370	0.10082593	3.86 <sup>ns</sup>	0.0595
Error	18	0.46966667	0.02609259		
Total	26	1.06127407			
CV = 8.18 %		SEM = 0.03			



**Table appendix 63. ANOVA : Liver plus bile sac of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	1.49394259	0.08787898	1.11 <sup>ns</sup>	0.3794
CP	2	0.07002593	0.03501296	0.44 <sup>ns</sup>	0.6452
ME	2	0.66938148	0.33469074	4.24 <sup>ns</sup>	0.0222
Sex	1	0.00155741	0.00155741	0.02 <sup>ns</sup>	0.8891
CP*Sex	2	0.39349259	0.19674630	2.49 <sup>ns</sup>	0.0969
ME*Sex	2	0.08955926	0.04477963	0.57 <sup>ns</sup>	0.5720
CP*ME	4	0.23005185	0.05751296	0.73 <sup>ns</sup>	0.5783
CP*ME*Sex	4	0.03987407	0.00996852	0.13 <sup>ns</sup>	0.9720
Error	36	2.84146667	0.07892963		
Total	53	4.33540926			
CV = 12.49 %	SEM = 0.04				

**Table appendix 64. ANOVA : Liver plus bile sac of male at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.92591852	0.11573981	1.61 <sup>ns</sup>	0.1894
CP	2	0.25469630	0.12734815	1.78 <sup>ns</sup>	0.1976
ME	2	0.60945185	0.30472593	4.25 <sup>*</sup>	0.0307
CP*ME	4	0.06177037	0.01544259	0.22 <sup>ns</sup>	0.9264
Error	18	1.29013333	0.07167407		
Total	26	2.21605185			
CV = 11.88 %	SEM = 0.05				

**Table appendix 65. ANOVA : Liver plus bile sac of female at 13 weeks of age (Exp.2).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	0.56646667	0.07080833	0.82 <sup>ns</sup>	0.5942
CP	2	0.20882222	0.10441111	1.21 <sup>ns</sup>	0.3209
ME	2	0.14948889	0.07474444	0.87 <sup>ns</sup>	0.4369
CP*ME	4	0.20815556	0.05203889	0.60 <sup>ns</sup>	0.6649
Error	18	1.55133333	0.08618519		
Total	26	2.11780000			
CV = 13.08 %	SEM = 0.06				

**Table appendix 66. ANOVA : Abdominal plus visceral fat of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	27.72592037	1.63093649	2.46 *	0.0115
CP	2	13.86828148	6.93414074	10.44 **	0.0003
ME	2	8.39504815	4.19752407	6.32 **	0.0044
Sex	1	0.04001667	0.04001667	0.06 <sup>ns</sup>	0.8075
CP*Sex	2	0.21960000	0.10980000	0.17 <sup>ns</sup>	0.8482
ME*Sex	2	1.00403333	0.50201667	0.76 <sup>ns</sup>	0.4768
CP*ME	4	2.17647407	0.54411852	0.82 <sup>ns</sup>	0.5212
CP*ME*Sex	4	2.02246667	0.50561667	0.76 <sup>ns</sup>	0.5572
Error	36	23.90066667	0.66390741		
Total	53	51.62658704			
CV = 53.87 %	SEM = 0.11				

**Table appendix 67. ANOVA : Abdominal plus visceral fat of male at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	17.74229630	2.21778704	2.85 *	0.0308
CP	2	7.18894074	3.59447037	4.63 *	0.0239
ME	2	6.48525185	3.24262593	4.17 *	0.0324
CP*ME	4	4.06810370	1.01702593	1.31 <sup>ns</sup>	0.3043
Error	18	13.98700000	0.77705556		
Total	26	31.72929630			
CV = 57.25 %	SEM = 0.17				

**Table appendix 68. ANOVA : Abdominal plus visceral fat of female at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	9.94360741	1.24295093	2.26 <sup>ns</sup>	0.0723
CP	2	6.89894074	3.44947037	6.26 **	0.0086
ME	2	2.91382963	1.45691481	2.65 <sup>ns</sup>	0.0984
CP*ME	4	0.13083704	0.03270926	0.06 <sup>ns</sup>	0.9929
Error	18	9.91366667	0.55075926		
Total	26	19.85727407			
CV = 49.97 %	SEM = 0.14				

Table appendix 69. ANOVA : Abdominal plus visceral fat of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	7.93814815	0.46694989	1.91 *	0.0502
CP	2	1.44023704	0.72011852	2.95 <sup>ns</sup>	0.0650
ME	2	1.07400370	0.53700185	2.20 <sup>ns</sup>	0.1254
Sex	1	0.22945185	0.22945185	0.94 <sup>ns</sup>	0.3387
CP*Sex	2	0.87063704	0.43531852	1.78 <sup>ns</sup>	0.1825
ME*Sex	2	0.73347037	0.36673519	1.50 <sup>ns</sup>	0.2361
CP*ME	4	1.53274074	0.38318519	1.57 <sup>ns</sup>	0.2032
Sex*CP*ME	4	2.05760741	0.51440185	2.11 <sup>ns</sup>	0.1000
Error	36	8.78500000	0.24402778		
Total	53	16.72314815			
CV = 52.84 %	SEM = 0.07				

Table appendix 70. ANOVA : Abdominal plus visceral fat of male at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	3.93820000	0.49227500	2.44 <sup>ns</sup>	0.0555
CP	2	1.07840000	0.53920000	2.67 <sup>ns</sup>	0.0965
ME	2	1.55775556	0.77887778	3.86 *	0.0403
CP*ME	4	1.30204444	0.32551111	1.61 <sup>ns</sup>	0.2144
Error	18	3.63420000	0.20190000		
Total	26	7.57240000			
CV = 44.93 %	SEM = 0.09				

Table appendix 71. ANOVA : Abdominal plus visceral fat of female at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	3.77049630	0.47131204	1.65 <sup>ns</sup>	0.1803
CP	2	1.23247407	0.61623704	2.15 <sup>ns</sup>	0.1450
ME	2	0.24971852	0.12485926	0.44 <sup>ns</sup>	0.6531
CP*ME	4	2.28830370	0.57207593	2.00 <sup>ns</sup>	0.1378
Error	18	5.15080000	0.28615556		
Total	26	8.92129630			
CV = 61.51 %	SEM = 0.10				

Table appendix 72. ANOVA : Thigh meat of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	12.25386667	0.72081569	1.44 <sup>ns</sup>	0.1757
CP	2	1.65581111	0.82790556	1.65 <sup>ns</sup>	0.2058
ME	2	2.84974444	1.42487222	2.84 <sup>ns</sup>	0.0714
Sex	1	2.94000000	2.94000000	5.87 *	0.0206
CP*Sex	2	0.69694444	0.34847222	0.70 <sup>ns</sup>	0.5055
ME*Sex	2	0.31381111	0.15690556	0.31 <sup>ns</sup>	0.7331
CP*ME	4	0.21061111	0.05265278	0.11 <sup>ns</sup>	0.9800
CP*ME*Sex	4	3.58694444	0.89673611	1.79 <sup>ns</sup>	0.1523
Error	36	18.04006667	0.50111296		
Total	53	30.29393333			
CV = 6.99 %	SEM = 0.10				

Table appendix 73. ANOVA : Thigh meat of male at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	6.61573333	0.82696667	1.62 <sup>ns</sup>	0.1873
CP	2	2.23015556	1.11507778	2.19 <sup>ns</sup>	0.1412
ME	2	2.03295556	1.01647778	1.99 <sup>ns</sup>	0.1651
CP*ME	4	2.35262222	0.58815556	1.15 <sup>ns</sup>	0.3637
Error	18	9.17693333	0.50982963		
Total	26	15.79266667			
CV = 6.89 %	SEM = 0.14				

Table appendix 74. ANOVA : Thigh meat of female at 10 weeks of age (Exp.1).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	2.69813333	0.33726667	0.68 <sup>ns</sup>	0.6995
CP	2	0.12260000	0.06130000	0.12 <sup>ns</sup>	0.8837
ME	2	1.13060000	0.56530000	1.15 <sup>ns</sup>	0.3394
CP*ME	4	1.44493333	0.36123333	0.73 <sup>ns</sup>	0.5809
Error	18	8.86313333	0.49239630		
Total	26	11.56126667			
CV = 7.09 %	SEM = 0.14				

Table appendix 75. ANOVA : Thigh meat of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	6.77270370	0.39839434	1.52 <sup>ns</sup>	0.1444
CP	2	0.58224815	0.29112407	1.11 <sup>ns</sup>	0.3414
ME	2	1.79378148	0.89689074	3.41 <sup>ns</sup>	0.0440
Sex	1	2.49185185	2.49185185	9.48 <sup>**</sup>	0.0040
CP*Sex	2	0.11607037	0.05803519	0.22 <sup>ns</sup>	0.8030
ME*Sex	2	0.00404815	0.00202407	0.01 <sup>ns</sup>	0.9923
CP*ME	4	0.06237407	0.01559352	0.06 <sup>ns</sup>	0.9932
CP*ME*Sex	4	1.72232963	0.43058241	1.64 <sup>ns</sup>	0.1860
Error	36	9.46340000	0.26287222		
Total	53	16.23610370			
CV = 4.812 %		SEM = 0.07			

Table appendix 76. ANOVA : Thigh meat of male at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	2.05166667	0.25645833	0.68 <sup>ns</sup>	0.6997
CP	2	0.23162222	0.11581111	0.31 <sup>ns</sup>	0.7378
ME	2	0.81380000	0.40690000	1.09 <sup>ns</sup>	0.3585
CP*ME	4	1.00624444	0.25156111	0.67 <sup>ns</sup>	0.6201
Error	18	6.74100000	0.37450000		
Total	26	8.79266667			
CV = 5.64 %		SEM = 0.12			

Table appendix 77. ANOVA : Thigh meat of female at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	2.22918519	0.27864815	1.84 <sup>ns</sup>	0.1342
CP	2	0.46669630	0.23334815	1.54 <sup>ns</sup>	0.2407
ME	2	0.98402963	0.49201481	3.25 <sup>ns</sup>	0.0622
CP*ME	4	0.77845926	0.19461481	1.29 <sup>ns</sup>	0.3121
Error	18	2.72240000	0.15124444		
Total	26	4.9515851			
CV = 3.73 %		SEM = 0.08			

**Table appendix 78. ANOVA : Breast meat of both sexes of crossbred native chickens at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	45.85938704	2.69761100	1.83 <sup>ns</sup>	0.0624
CP	2	4.97638148	2.48819074	1.69 <sup>ns</sup>	0.1986
ME	2	20.73601481	10.39300741	7.06 <sup>**</sup>	0.0026
Sex	1	11.56481667	11.56481667	7.86 <sup>**</sup>	0.0081
CP*Sex	2	0.18201111	0.09100556	0.06 <sup>ns</sup>	0.9401
ME*Sex	2	6.03684444	3.01842222	2.05 <sup>ns</sup>	0.1433
CP*ME	4	1.92540741	0.48135185	0.33 <sup>ns</sup>	0.8579
CP*ME*Sex	4	0.38791111	0.09697778	0.07 <sup>ns</sup>	0.9917
Error	36	52.96706667	1.47130741		
Total	53	98.82645370			
CV = 11.08 %	SEM = 0.17				

**Table appendix 79. ANOVA : Breast meat of male at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	16.65214074	2.08151759	1.33 <sup>ns</sup>	0.2919
CP	2	1.65294074	0.82647037	0.53 <sup>ns</sup>	0.5991
ME	2	13.55480741	6.77740370	4.32 <sup>ns</sup>	0.0293
CP*ME	4	1.44439259	0.36109815	0.23 <sup>ns</sup>	0.9177
Error	18	28.21766667	1.56764815		
Total	26	44.86980741			
CV = 11.94 %	SEM = 0.24				

**Table appendix 80. ANOVA : Breast meat of female at 10 weeks of age (Exp.1).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	17.64242963	2.20530370	1.60 <sup>ns</sup>	0.1925
CP	2	3.50545185	1.75272593	1.27 <sup>ns</sup>	0.3036
ME	2	13.26805185	6.63402593	4.82 <sup>*</sup>	0.0210
CP*ME	4	0.86892593	0.21723148	0.16 <sup>ns</sup>	0.9568
Error	18	24.74940000	1.37496667		
Total	26	42.39182963			
CV = 10.28 %	SEM = 0.23				

Table appendix 81. ANOVA : Breast meat of both sexes of crossbred native chickens at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	17	24.98954815	1.46997342	0.80 <sup>ns</sup>	0.6843
CP	2	8.01121481	4.00560741	2.17 <sup>ns</sup>	0.1284
ME	2	0.40380370	0.20190185	0.11 <sup>ns</sup>	0.8965
Sex	1	4.31236296	4.31236296	2.34 <sup>ns</sup>	0.1348
CP*Sex	2	0.73912593	0.36956296	0.20 <sup>ns</sup>	0.8192
ME*Sex	2	0.96302593	0.48151296	0.26 <sup>ns</sup>	0.7715
CP*ME	4	0.89642963	0.22410741	0.12 <sup>ns</sup>	0.9738
CP*ME*Sex	4	9.66358519	2.41589630	1.31 <sup>ns</sup>	0.2843
Error	36	66.32746667	1.84242963		
Total	53	91.31701481			
CV = 11.00 %	SEM = 0.19				

Table appendix 82. ANOVA : Breast meat of male at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	8.09886667	1.01235833	0.39 <sup>ns</sup>	0.9109
CP	2	3.70995556	1.85497778	0.72 <sup>ns</sup>	0.5013
ME	2	1.04246667	0.52123333	0.20 <sup>ns</sup>	0.8192
CP*ME	4	3.34644444	0.83661111	0.32 <sup>ns</sup>	0.8584
Error	18	46.52500000	2.58472222		
Total	26	54.62386667			
CV = 13.34 %	SEM = 0.31				

Table appendix 83. ANOVA : Breast meat of female at 13 weeks of age (Exp.2).

SOV	df	SS	MS	F-value	Pr>F
Treatment	8	12.57831852	1.57228981	1.43 <sup>ns</sup>	0.2507
CP	2	5.04038519	2.52019259	2.29 <sup>ns</sup>	0.1299
ME	2	0.32436296	0.16218148	0.15 <sup>ns</sup>	0.8640
CP*ME	4	7.21357037	1.80339259	1.64 <sup>ns</sup>	0.2079
Error	18	19.80246667	1.10013704		
Total	26	32.38078519			
CV = 8.31 %	SEM = 0.20				

Table appendix 84. ANOVA : Body weight gain of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	3.27131598	0.14223113	39.60 **	0.0001
Type	2	0.06856867	0.03428433	9.55 **	0.0009
Diet	1	0.01283802	0.01283802	3.57 <sup>ns</sup>	0.0708
Source	1	1.53474769	1.53474769	427.30 **	0.0001
Sex	1	1.58740502	1.58740502	441.96 **	0.0001
Type*Diet	2	0.00495717	0.00247858	0.69 <sup>ns</sup>	0.5112
Type*Source	2	0.01495550	0.00747775	2.08 <sup>ns</sup>	0.1466
Type*Sex	2	0.00720417	0.00360208	1.00 <sup>ns</sup>	0.3817
Diet*Source	1	0.00000019	0.00000019	0.00 <sup>ns</sup>	0.9943
Diet*Sex	1	0.00188752	0.00188752	0.53 <sup>ns</sup>	0.4755
Source*Sex	1	0.00041419	0.00041419	0.12 <sup>ns</sup>	0.7371
Type*Diet*Source	2	0.00956600	0.00478300	1.33 <sup>ns</sup>	0.2829
Type*Diet*Sex	2	0.01401017	0.00700508	1.95 <sup>ns</sup>	0.1641
Type*Source*Sex	2	0.00258050	0.00129025	0.36 <sup>ns</sup>	0.7019
Diet*Source*Sex	1	0.00013002	0.00013002	0.04 <sup>ns</sup>	0.8507
Type*Diet*Source*Sex	2	0.01205117	0.00602558	1.68 <sup>ns</sup>	0.2080
Error	24	0.08620150	0.00359173		
Total	47	3.35751748			
CV = 3.21 %		SEM = 0.01			



Table appendix 85. ANOVA : Body weight gain at 1-5 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	11	0.09487000	0.00862455	24.12**	0.0001
Type	2	0.01876900	0.00938450	26.25 **	0.0001
Diet	1	0.01278817	0.01278817	35.77 **	0.0001
Source	1	0.05940150	0.05940150	166.16 **	0.0001
Type*Diet	2	0.00182933	0.00091467	2.56 <sup>ns</sup>	0.1187
Type*Source	2	0.00157500	0.00078750	2.20 <sup>ns</sup>	0.1532
Diet*Source	1	0.00004267	0.00004267	0.12 <sup>ns</sup>	0.7357
Type*Diet*Source	2	0.00046433	0.00023217	0.65 <sup>ns</sup>	0.5398
Error	12	0.00429000	0.00035750		
Total	23	0.09916000			

CV = 3.96 %

SEM = 0.01

Table appendix 86. ANOVA : Body weight gain at 6-10 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	0.87071757	0.03785729	10.01 **	0.0001
Type	2	0.00569634	0.00284817	0.75 <sup>ns</sup>	0.4819
Diet	1	0.00038194	0.00038194	0.10 <sup>ns</sup>	0.7534
Source	1	0.40432394	0.40432394	106.86 **	0.0001
Sex	1	0.39759721	0.39759721	105.08 **	0.0001
Type*Diet	2	0.00241141	0.00120570	0.32 <sup>ns</sup>	0.7302
Type*Source	2	0.00507021	0.00253510	0.67 <sup>ns</sup>	0.5210
Type*Sex	2	0.00776954	0.00388477	1.03 <sup>ns</sup>	0.3734
Diet*Source	1	0.01030774	0.01030774	2.72 <sup>ns</sup>	0.1119
Diet*Sex	1	0.01302184	0.01302184	3.44 <sup>ns</sup>	0.0759
Source*Sex	1	0.00004681	0.00004681	0.01 <sup>ns</sup>	0.9124
Type*Diet*Source	2	0.00200051	0.00100025	0.26 <sup>ns</sup>	0.7699
Type*Diet*Sex	2	0.00861581	0.00430790	1.14 <sup>ns</sup>	0.3370
Type*Source*Sex	2	0.00055424	0.00027712	0.07 <sup>ns</sup>	0.9296
Diet*Source*Sex	1	0.00059784	0.00059784	0.16 <sup>ns</sup>	0.6945
Type*Diet*Source*Sex	2	0.01232221	0.00616110	1.63 <sup>ns</sup>	0.2172
Error	24	0.09080958	0.00378373		
Total	47	0.96152715			

CV = 7.31 %

SEM = 0.01

Table appendix 87. ANOVA : Body weight gain at 11-13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	0.57911092	0.02517874	15.49 **	0.0001
Type	2	0.07007029	0.03503515	21.55 **	0.0001
Diet	1	0.00554700	0.00554700	3.41 <sup>ns</sup>	0.0771
Source	1	0.06264075	0.06264075	38.53 **	0.0001
Sex	1	0.38664300	0.38664300	237.82 **	0.0001
Type*Diet	2	0.00537113	0.00268556	1.65 <sup>ns</sup>	0.2128
Type*Source	2	0.00218113	0.00109056	0.67 <sup>ns</sup>	0.5206
Type*Sex	2	0.00197138	0.00098569	0.61 <sup>ns</sup>	0.5535
Diet*Source	1	0.01400833	0.01400833	8.62 **	0.0072
Diet*Sex	1	0.00612008	0.00612008	3.76 <sup>ns</sup>	0.0642
Source*Sex	1	0.00043200	0.00043200	0.27 <sup>ns</sup>	0.6109
Type*Diet*Source	2	0.00848929	0.00424465	2.61 <sup>ns</sup>	0.0942
Type*Diet*Sex	2	0.00942704	0.00471352	2.90 <sup>ns</sup>	0.0745
Type*Source*Sex	2	0.00466287	0.00233144	1.43 <sup>ns</sup>	0.2580
Diet*Source*Sex	1	0.00081675	0.00081675	0.50 <sup>ns</sup>	0.4853
Type*Diet*Source*Sex	2	0.00072987	0.00036494	0.22 <sup>ns</sup>	0.8006
Error	24	0.03901900	0.00162579		
Total	47	0.61812992			
CV = 7.34 %	SEM = 0.01				

Table appendix 88. Interaction between Diet\*Source of body weight gain at 11-13 weeks of age (Exp.3).

Diet	Source of chickens	
	A	B
1	0.614	0.507
2	0.563	0.520

Table appendix 89. ANOVA : Feed intake of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	25.56523581	1.11153199	8.65 **	0.0001
Type	2	1.20324350	0.60162175	4.68 *	0.0192
Diet	1	0.04398352	0.04398352	0.34 <sup>ns</sup>	0.5640
Source	1	3.31222669	3.31222669	25.77 **	0.0001
Sex	1	17.29080169	17.29080169	134.55 **	0.0001
Type*Diet	2	0.89520067	0.44760033	3.48 *	0.0470
Type*Source	2	0.07929950	0.03964975	0.31 <sup>ns</sup>	0.7374
Type*Sex	2	0.00389600	0.00194800	0.02 <sup>ns</sup>	0.9850
Diet*Source	1	0.16438502	0.16438502	1.28 <sup>ns</sup>	0.2692
Diet*Sex	1	0.39367519	0.39367519	3.06 <sup>ns</sup>	0.0928
Source*Sex	1	0.18290352	0.18290352	1.42 <sup>ns</sup>	0.2445
Type*Diet*Source	2	0.26557267	0.13278633	1.03 <sup>ns</sup>	0.3711
Type*Diet*Sex	2	0.29705150	0.14852575	1.16 <sup>ns</sup>	0.3317
Type*Source*Sex	2	0.35122067	0.17561033	1.37 <sup>ns</sup>	0.2741
Diet*Source*Sex	1	0.17340052	0.17340052	1.35 <sup>ns</sup>	0.2568
Type*Diet*Source*Sex	2	0.90837517	0.45418758	3.53 <sup>ns</sup>	0.0451
Error	24	3.08415050	0.12850627		
Total	47	28.64938631			
CV = 5.54 %		SEM = 0.05			

Table appendix 90. ANOVA : Feed intake at 1-5 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	11	0.30119483	0.02738135	6.57 **	0.0015
Type	2	0.02687433	0.01343717	3.22 <sup>ns</sup>	0.0759
Diet	1	0.12906667	0.12906667	30.95 **	0.0001
Source	1	0.11152067	0.11152067	26.74 **	0.0002
Type*Diet	2	0.00757033	0.00378517	0.91 <sup>ns</sup>	0.4295
Type*Source	2	0.02002233	0.01001117	2.40 <sup>ns</sup>	0.1328
Diet*Source	1	0.00043350	0.00043350	0.10 <sup>ns</sup>	0.7527
Type*Diet*Source	2	0.00570700	0.00285350	0.68 <sup>ns</sup>	0.5231
Error	12	0.05004700	0.00417058		
Total	23	0.35124183			
CV = 6.49 %	SEM = 0.01				

Table appendix 91. ANOVA : Feed intake at 6-10 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	6.81669331	0.29637797	4.50 **	0.0003
Type	2	0.31615763	0.15807881	2.40 <sup>ns</sup>	0.1122
Diet	1	0.00331669	0.00331669	0.05 <sup>ns</sup>	0.8244
Source	1	0.31931719	0.31931719	4.85 *	0.0376
Sex	1	3.46848769	3.46848769	52.65 **	0.0001
Type*Diet	2	0.14481387	0.07240694	1.10 <sup>ns</sup>	0.3494
Type*Source	2	0.11341662	0.05670831	0.86 <sup>ns</sup>	0.4355
Type*Sex	2	0.01763637	0.00881819	0.13 <sup>ns</sup>	0.8754
Diet*Source	1	0.27740002	0.27740002	4.21 <sup>ns</sup>	0.0512
Diet*Sex	1	0.70737352	0.70737352	10.74 **	0.0032
Source*Sex	1	0.08458802	0.08458802	1.28 <sup>ns</sup>	0.2684
Type*Diet*Source	2	0.30216754	0.15108377	2.29 <sup>ns</sup>	0.1226
Type*Diet*Sex	2	0.17277329	0.08638665	1.31 <sup>ns</sup>	0.2881
Type*Source*Sex	2	0.22078454	0.11039227	1.68 <sup>ns</sup>	0.2084
Diet*Source*Sex	1	0.33383352	0.33383352	5.07 *	0.0338
Type*Diet*Source*Sex	2	0.33462679	0.16731340	2.54 <sup>ns</sup>	0.0999
Error	24	1.58114350	0.06588098		
Total	47	8.39783681			
CV = 8.79 %	SEM = 0.01				

**Table appendix 92.** Interaction between Diet\*Sex and Diet\*Source\*Sex of feed intake at 6-10 weeks of age (Exp.3).

Sex	Diet	Source of chickens		
		A	B	Ave.
Male	1	3.274	2.876	3.075
	2	2.896	2.664	3.301
Female	1	3.181	3.421	2.780
	2	2.651	2.390	2.521

**Table appendix 93.** ANOVA : Feed intake at 11-13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	8.07994898	0.35130213	9.19 **	0.0001
Type	2	0.83096867	0.41548433	10.87 **	0.0004
Diet	1	0.44140852	0.44140852	11.55 **	0.0024
Source	1	0.61902919	0.61902919	16.19 **	0.0005
Sex	1	5.26488769	5.26488769	137.73 **	0.0001
Type*Diet	2	0.40589017	0.20294508	5.31 *	0.0123
Type*Source	2	0.05002400	0.02501200	0.65 <sup>ns</sup>	0.5288
Type*Sex	2	0.03740150	0.01870075	0.49 <sup>ns</sup>	0.6191
Diet*Source	1	0.02146302	0.02146302	0.56 <sup>ns</sup>	0.4609
Diet*Sex	1	0.04508002	0.04508002	1.18 <sup>ns</sup>	0.2883
Source*Sex	1	0.01908019	0.01908019	0.50 <sup>ns</sup>	0.4867
Type*Diet*Source	2	0.00469117	0.00234558	0.06 <sup>ns</sup>	0.9406
Type*Diet*Sex	2	0.03207467	0.01603733	0.42 <sup>ns</sup>	0.6621
Type*Source*Sex	2	0.03446450	0.01723225	0.45 <sup>ns</sup>	0.6424
Diet*Source*Sex	1	0.02646102	0.02646102	0.69 <sup>ns</sup>	0.4136
Type*Diet*Source*Sex	2	0.24702467	0.12351233	3.23 <sup>ns</sup>	0.0572
Error	24	0.91743150	0.03822631		
Total	47	8.99738048			

CV = 7.64 %

SEM = 0.03

**Table appendix 94.** Interaction between Type\*Diet of feed intake at 11-13 weeks of age (Exp.3).

Diet	Type		
	Mixed	Broiler	Layer
1	2.504	2.513	3.204
2	2.526	2.343	2.527

Table appendix 95. ANOVA : FCR of both sexes of crossbred native chickens at 13 weeks of age  
(Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	3.05882181	0.13299225	2.65 *	0.0107
Type	2	0.02115937	0.01057969	0.21 <sup>ns</sup>	0.8115
Diet	1	0.11203669	0.11203669	2.23 <sup>ns</sup>	0.1483
Source	1	1.79297352	1.79297352	35.70 **	0.0001
Sex	1	0.01537252	0.01537252	0.31 <sup>ns</sup>	0.5852
Type*Diet	2	0.22949263	0.11474631	2.28 <sup>ns</sup>	0.1235
Type*Source	2	0.01455454	0.00727727	0.14 <sup>ns</sup>	0.8659
Type*Sex	2	0.03791504	0.01895752	0.38 <sup>ns</sup>	0.6896
Diet*Source	1	0.01900052	0.01900052	0.38 <sup>ns</sup>	0.5443
Diet*Sex	1	0.09711002	0.09711002	1.93 <sup>ns</sup>	0.1771
Source*Sex	1	0.00228252	0.00228252	0.05 <sup>ns</sup>	0.8330
Type*Diet*Source	2	0.26185379	0.13092690	2.61 <sup>ns</sup>	0.0945
Type*Diet*Sex	2	0.02679079	0.01339540	0.27 <sup>ns</sup>	0.7681
Type*Source*Sex	2	0.08356354	0.04178177	0.83 <sup>ns</sup>	0.4474
Diet*Source*Sex	1	0.06113269	0.06113269	1.22 <sup>ns</sup>	0.2809
Type*Diet*Source*Sex	2	0.28358363	0.14179181	2.82 <sup>ns</sup>	0.0792
Error	24	1.20543250	0.05022635		
Total	47	4.26425431			
CV = 6.43 %		SEM = 0.03			

Table appendix 96. ANOVA : FCR at 1-5 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	11	0.53819813	0.04892710	2.81 *	0.0448
Type	2	0.06710725	0.03355363	1.93 <sup>ns</sup>	0.1881
Diet	1	0.05910338	0.05910338	3.39 <sup>ns</sup>	0.0903
Source	1	0.11662204	0.11662204	6.70 *	0.0238
Type*Diet	2	0.08697175	0.04348587	2.50 <sup>ns</sup>	0.1240
Type*Source	2	0.17661558	0.08830779	5.07 *	0.0253
Diet*Source	1	0.00670004	0.00670004	0.38 <sup>ns</sup>	0.5467
Type*Diet*Source	2	0.02507808	0.01253904	0.72 <sup>ns</sup>	0.5066
Error	12	0.20897850	0.01741487		
Total	23	0.74717663			
CV = 6.30 %	SEM = 0.03				

Table appendix 97. Interaction between Type\*Source of FCR at 1-5 weeks of age (Exp.3).

Source	Type		
	Mixed	Broiler	Layer
A	2.214	1.888	1.975
B	2.125	2.212	2.158

Table appendix 98. ANOVA : FCR at 6-10 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	7.75735800	0.33727643	2.29 *	0.0246
Type	2	0.14735338	0.07367669	0.50 <sup>ns</sup>	0.6126
Diet	1	0.00128133	0.00128133	0.01 <sup>ns</sup>	0.9265
Source	1	3.99745633	3.99745633	27.14 **	0.0001
Sex	1	0.20228033	0.20228033	1.37 <sup>ns</sup>	0.2528
Type*Diet	2	0.54681129	0.27340565	1.86 <sup>ns</sup>	0.1780
Type*Source	2	0.10340754	0.05170377	0.35 <sup>ns</sup>	0.7075
Type*Sex	2	0.15789579	0.07894790	0.54 <sup>ns</sup>	0.5919
Diet*Source	1	0.94753200	0.94753200	6.43 *	0.0181
Diet*Sex	1	0.33333333	0.33333333	2.26 <sup>ns</sup>	0.1455
Source*Sex	1	0.00028033	0.00028033	0.00 <sup>ns</sup>	0.9656
Type*Diet*Source	2	0.37706113	0.18853056	1.28 <sup>ns</sup>	0.2964
Type*Diet*Sex	2	0.15951004	0.07975502	0.54 <sup>ns</sup>	0.5888
Type*Source*Sex	2	0.40320429	0.20160215	1.37 <sup>ns</sup>	0.2736
Diet*Source*Sex	1	0.22908033	0.22908033	1.56 <sup>ns</sup>	0.2244
Type*Diet*Source*Sex	2	0.15087054	0.07543527	0.51 <sup>ns</sup>	0.6056
Error	24	3.53520800	0.14730033		
Total	47	11.29256600			
CV = 10.92 %	SEM = 0.06				

Table appendix 99. Interaction between Diet\*Source of FCR at 6-10 weeks of age (Exp.3).

Diet	Source of chickens	
	A	B
1	3.372	3.669
2	3.081	3.941



**Table appendix 100.** ANOVA : FCR of both sexes of crossbred native chickens at 11-13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	11.82636692	0.51418987	1.53 <sup>ns</sup>	0.1520
Type	2	1.24952629	0.62476315	1.86 <sup>ns</sup>	0.1767
Diet	1	0.68688675	0.68688675	2.05 <sup>ns</sup>	0.1651
Source	1	0.66458133	0.66458133	1.98 <sup>ns</sup>	0.1718
Sex	1	1.45882133	1.45882133	4.35 <sup>*</sup>	0.0477
Type*Diet	2	1.03480288	0.51740144	1.54 <sup>ns</sup>	0.2339
Type*Source	2	0.03065504	0.01532752	0.05 <sup>ns</sup>	0.9554
Type*Sex	2	0.30017129	0.15008565	0.45 <sup>ns</sup>	0.6442
Diet*Source	1	2.04022533	2.04022533	6.09 <sup>*</sup>	0.0211
Diet*Sex	1	0.11320133	0.11920133	0.36 <sup>ns</sup>	0.5564
Source*Sex	1	0.03531675	0.03531675	0.11 <sup>ns</sup>	0.7482
Type*Diet*Source	2	1.78765879	0.89382940	2.67 <sup>ns</sup>	0.0899
Type*Diet*Sex	2	0.19115404	0.09557702	0.29 <sup>ns</sup>	0.7543
Type*Source*Sex	2	0.01656787	0.00828394	0.02 <sup>ns</sup>	0.9756
Diet*Source*Sex	1	0.10028408	0.10028408	0.30 <sup>ns</sup>	0.5894
Type*Diet*Source*Sex	2	2.11051379	1.05525690	3.15 <sup>ns</sup>	0.0610
Error	24	8.04072300	0.33503012		
Total	47	19.86708992			
CV = 12.25 %	SEM = 0.08				

**Table appendix 101.** Interaction between Diet\*Source of FCR at 11-13 weeks of age (Exp.3).

Diet	Source of chickens	
	A	B
1	4.521	5.169
2	4.694	4.517

Table appendix 102. ANOVA : Dressing percentage at 13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	168.67442500	7.33367065	1.78 <sup>ns</sup>	0.0834
Type	2	7.40015000	3.70007500	0.90 <sup>ns</sup>	0.4201
Diet	1	0.51253333	0.51253333	0.12 <sup>ns</sup>	0.7272
Source	1	15.75520833	15.75520833	3.83 <sup>ns</sup>	0.0621
Sex	1	3.86467500	3.86467500	0.94 <sup>ns</sup>	0.3421
Type*Diet	2	12.29371667	6.14685833	1.49 <sup>ns</sup>	0.2446
Type*Source	2	19.77721667	9.88860833	2.40 <sup>ns</sup>	0.1118
Type*Sex	2	9.85145000	4.92572500	1.20 <sup>ns</sup>	0.3194
Diet*Source	1	4.58803333	4.58803333	1.12 <sup>ns</sup>	0.3015
Diet*Sex	1	14.34453333	14.34453333	3.49 <sup>ns</sup>	0.0741
Source*Sex	1	2.14207500	2.14207500	0.52 <sup>ns</sup>	0.4775
Type*Diet*Source	2	7.57131667	3.78565833	0.92 <sup>ns</sup>	0.4120
Type*Diet*Sex	2	6.15301667	3.07650833	0.75 <sup>ns</sup>	0.4841
Type*Source*Sex	2	2.84685000	1.42342500	0.35 <sup>ns</sup>	0.7110
Diet*Source*Sex	1	35.56963333	35.56963333	8.65 <sup>**</sup>	0.0071
Type*Diet*Source*Sex	2	26.00401667	13.00200833	3.16 <sup>ns</sup>	0.0605
Error	24	98.73310000	4.11387917		
Total	47	267.40752500			

CV = 2.47 %

SEM = 0.29

Table appendix 103. Interaction between Diet\*Source\*Sex of dressing percentage at 13 weeks of age (Exp.3).

Sex	Diet	Source of chickens	
		A	B
Male	1	81.213	80.830
	2	81.410	83.233
Female	1	80.727	84.637
	2	82.180	81.410

**Table appendix 104.** ANOVA : Visceral organ plus GI tract of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	67.17546667	2.92067246	2.90 **	0.0061
Type	2	12.56692917	6.28346458	6.24**	0.0066
Diet	1	7.71203333	7.71203333	7.66*	0.0107
Source	1	0.86940833	0.86940833	0.86 <sup>ns</sup>	0.3620
Sex	1	6.97687500	6.97687500	6.93 *	0.0146
Type*Diet	2	0.97477917	0.48738958	0.48 <sup>ns</sup>	0.6222
Type*Source	2	6.82677917	3.41338958	3.39 <sup>ns</sup>	0.0505
Type*Sex	2	6.28208750	3.14104375	3.12 <sup>ns</sup>	0.0625
Diet*Source	1	5.58967500	5.58967500	5.55 <sup>ns</sup>	0.0270
Diet*Sex	1	1.39400833	1.39400833	1.38 <sup>ns</sup>	0.2509
Source*Sex	1	0.08333333	0.08333333	0.08 <sup>ns</sup>	0.7761
Type*Diet*Source	2	4.42126250	2.21063125	2.20 <sup>ns</sup>	0.1332
Type*Diet*Sex	2	9.04270417	4.52135208	4.49 *	0.0220
Type*Source*Sex	2	2.42780417	1.21390208	1.21 <sup>ns</sup>	0.3170
Diet*Source*Sex	1	1.87230000	1.87230000	1.86 <sup>ns</sup>	0.1853
Type*Diet*Source*Sex	2	0.13548750	0.06774375	0.07 <sup>ns</sup>	0.9351
Error	24	24.16520000	1.00688333		
Total	47	91.34066667			
CV = 7.46 %	SEM = 0.02				

**Table appendix 105.** Interaction between Type\*Diet\*Sex of visceral organ plus GI tract of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

Diet	Sex	Type		
		Mixed	Broiler	Layer
1	Male	12.650	14.845	13.455
	Female	13.165	14.355	13.200
2	Male	12.045	12.490	12.985
	Female	12.995	15.045	12.790

**Table appendix 106.** ANOVA : Gizzard of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	6.44019167	0.28000833	2.16 *	0.0331
Type	2	2.02430417	1.01215208	7.82 **	0.0024
Diet	1	0.36400833	0.36400833	2.81 <sup>ns</sup>	0.1064
Source	1	0.68163333	0.68163333	5.27 *	0.0308
Sex	1	0.27603333	0.27603333	2.13 <sup>ns</sup>	0.1571
Type*Diet	2	0.50277917	0.25138958	1.94 <sup>ns</sup>	0.1651
Type*Source	2	0.17002917	0.08501458	0.66 <sup>ns</sup>	0.5274
Type*Sex	2	0.10345417	0.05172708	0.40 <sup>ns</sup>	0.6748
Diet*Source	1	0.04320000	0.04320000	0.33 <sup>ns</sup>	0.5687
Diet*Sex	1	0.21333333	0.21333333	1.65 <sup>ns</sup>	0.2114
Source*Sex	1	0.11407500	0.11407500	0.88 <sup>ns</sup>	0.3571
Type*Diet*Source	2	0.40958750	0.20479375	1.58 <sup>ns</sup>	0.2261
Type*Diet*Sex	2	1.39617917	0.69808958	5.40 *	0.0116
Type*Source*Sex	2	0.00251250	0.00125625	0.01 <sup>ns</sup>	0.9903
Diet*Source*Sex	1	0.09187500	0.09187500	0.71 <sup>ns</sup>	0.4077
Type*Diet*Source*Sex	2	0.04718750	0.02359375	0.18 <sup>ns</sup>	0.8344
Error	24	3.10500000	0.12937500		
Total	47	9.54519167			

CV = 15.00 %

SEM = 0.05

**Table appendix 107.** Interaction between Type\*Diet\*Sex of gizzard of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

Diet	Sex	Type		
		Mixed	Broiler	Layer
1	Male	2.755	2.800	1.985
	Female	2.220	2.820	2.445
2	Male	1.790	2.310	2.415
	Female	2.320	2.830	2.215

**Table appendix 108.** ANOVA : Liver plus bile sac of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	2.35294792	0.10230208	1.86 <sup>ns</sup>	0.0697
Type	2	0.18232917	0.09116458	1.65 <sup>ns</sup>	0.2123
Diet	1	0.34510208	0.34510208	6.26 *	0.0195
Source	1	0.00541875	0.00541875	0.10 <sup>ns</sup>	0.7565
Sex	1	0.06091875	0.06091875	1.11 <sup>ns</sup>	0.3035
Type*Diet	2	0.26987917	0.13493958	2.45 <sup>ns</sup>	0.1077
Type*Source	2	0.08058750	0.04029375	0.73 <sup>ns</sup>	0.4917
Type*Sex	2	0.25816250	0.12908125	2.34 <sup>ns</sup>	0.1177
Diet*Source	1	0.25666875	0.25666875	4.66 *	0.0411
Diet*Sex	1	0.03050208	0.03050208	0.55 <sup>ns</sup>	0.4641
Source*Sex	1	0.00285208	0.00285208	0.05 <sup>ns</sup>	0.8220
Type*Diet*Source	2	0.23213750	0.11606875	2.11 <sup>ns</sup>	0.1436
Type*Diet*Sex	2	0.44342917	0.22171458	4.02 *	0.0311
Type*Source*Sex	2	0.11250417	0.05625208	1.02 <sup>ns</sup>	0.3754
Diet*Source*Sex	1	0.06825208	0.06825208	1.24 <sup>ns</sup>	0.2768
Type*Diet*Source*Sex	2	0.00420417	0.00210208	0.04 <sup>ns</sup>	0.9626
Error	24	1.32255000	0.05510625		
Total	47	3.67549792			

CV = 11.05 %

SEM = 0.03

**Table appendix 109.** Interaction between Diet\*Source of Liver plus bile sac of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

Diet	Source of chickens	
	A	B
1	2.148	2.272
2	2.125	1.958

**Table appendix 110.** Interaction between Type\*Diet\*Sex of Liver plus bile sac of both sexes of crossbred native chickens at 13 weeks of age (Exp.3).

Diet	Sex	Type		
		Mixed	Broiler	Layer
1	Male	2.070	2.155	2.590
	Female	2.375	1.995	2.075
2	Male	1.970	2.100	2.090
	Female	1.865	2.135	2.090

**Table appendix 111. ANOVA : Abdominal plus visceral fat of both sexes of crossbred native chickens at 13 week of age (Exp.3).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	23.00662500	1.00028804	1.28 <sup>ns</sup>	0.2748
Type	2	0.20015000	0.10007500	0.13 <sup>ns</sup>	0.8802
Diet	1	0.08003333	0.08003333	0.10 <sup>ns</sup>	0.7515
Source	1	1.74040833	1.74040833	2.23 <sup>ns</sup>	0.1483
Sex	1	8.87520000	8.87520000	11.38 <sup>**</sup>	0.0025
Type*Diet	2	0.09721667	0.04860833	0.06 <sup>ns</sup>	0.9398
Type*Source	2	2.49751667	1.24875833	1.60 <sup>ns</sup>	0.2226
Type*Sex	2	2.48805000	1.24402500	1.59 <sup>ns</sup>	0.2238
Diet*Source	1	0.07363333	0.07363333	0.09 <sup>ns</sup>	0.7613
Diet*Sex	1	0.13867500	0.13867500	0.18 <sup>ns</sup>	0.6771
Source*Sex	1	0.85333333	0.85333333	1.09 <sup>ns</sup>	0.3061
Type*Diet*Source	2	2.82926667	1.41463333	1.81 <sup>ns</sup>	0.1848
Type*Diet*Sex	2	1.23935000	0.61967500	0.79 <sup>ns</sup>	0.4635
Type*Source*Sex	2	0.64031667	0.32015833	0.41 <sup>ns</sup>	0.6680
Diet*Source*Sex	1	0.16567500	0.16567500	0.21 <sup>ns</sup>	0.6491
Type*Diet*Source*Sex	2	1.08780000	0.54390000	0.70 <sup>ns</sup>	0.5078
Error	24	18.72550000	0.78022917		
Total	47	41.73212500			

CV = 69.76 %      SEM = 0.13

Table appendix 112. ANOVA : Breast meat of both sexes of crossbred native chickens at 13 week of age (Exp.3).

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	52.48718125	2.28205136	1.82 <sup>ns</sup>	0.0754
Type	2	0.72020000	0.36010000	0.29 <sup>ns</sup>	0.7524
Diet	1	1.11325208	1.11325208	0.89 <sup>ns</sup>	0.3549
Source	1	0.23101875	0.23101875	0.18 <sup>ns</sup>	0.6712
Sex	1	12.07010208	12.07010208	9.65 <sup>**</sup>	0.0048
Type*Diet	2	7.27226667	3.63613333	2.91 <sup>ns</sup>	0.0741
Type*Source	2	11.38020000	5.69010000	4.55 <sup>*</sup>	0.0211
Type*Sex	2	0.07251667	0.03625833	0.03 <sup>ns</sup>	0.9715
Diet*Source	1	1.43866875	1.43866875	1.15 <sup>ns</sup>	0.2942
Diet*Sex	1	1.64650208	1.64650208	1.32 <sup>ns</sup>	0.2626
Source*Sex	1	0.46216875	0.46216875	0.37 <sup>ns</sup>	0.5490
Type*Diet*Source	2	3.34140000	1.67070000	1.34 <sup>ns</sup>	0.2819
Type*Diet*Sex	2	2.10501667	1.05250833	0.84 <sup>ns</sup>	0.4435
Type*Source*Sex	2	7.70465000	3.85232500	3.08 <sup>ns</sup>	0.0645
Diet*Source*Sex	1	0.00130208	0.00130208	0.00 <sup>ns</sup>	0.9745
Type*Diet*Source*Sex	2	2.92791667	1.46395833	1.17 <sup>ns</sup>	0.3274
Error	24	30.02555000	1.25106458		
Total	47	82.51273125			
CV = 8.60 %	SEM = 0.16				

**Table appendix 113. ANOVA : Thigh meat of both sexes of crossbred native chickens at 13 week of age (Exp.3).**

SOV	df	SS	MS	F-value	Pr>F
Treatment	23	16.78078125	0.72959918	3.61**	0.0014
Type	2	0.11290000	0.22580000	0.56 <sup>ns</sup>	0.5790
Diet	1	0.03050208	0.03050208	0.15 <sup>ns</sup>	0.7009
Source	1	0.73260208	0.73260208	3.63 <sup>ns</sup>	0.0689
Sex	1	9.53191875	9.53191875	47.21**	0.0001
Type*Diet	2	0.90426667	0.45213333	2.24 <sup>ns</sup>	0.1283
Type*Source	2	0.27166667	0.13583333	0.67 <sup>ns</sup>	0.5197
Type*Sex	2	0.05445000	0.02722500	0.13 <sup>ns</sup>	0.8745
Diet*Source	1	0.06675208	0.06675208	0.33 <sup>ns</sup>	0.5707
Diet*Sex	1	1.15010208	1.15010208	5.70*	0.0252
Source*Sex	1	0.10360208	0.10360208	0.51 <sup>ns</sup>	0.4807
Type*Diet*Source	2	1.26186667	0.63093333	3.12 <sup>ns</sup>	0.0622
Type* Diet*Sex	2	0.07761667	0.03880833	0.19 <sup>ns</sup>	0.8264
Type*Source*Sex	2	0.39651667	0.19825833	0.98 <sup>ns</sup>	0.3892
Diet*Source*Sex	1	0.70810208	0.70810208	3.51 <sup>ns</sup>	0.0733
Type*Diet*Source*Sex	2	1.26501667	0.63250833	3.13 <sup>ns</sup>	0.0618
Error	24	4.84595000	0.20191458		
Total	47	21.62673125			
CV = 4.36 %	SEM = 0.07				

**Table appendix 114. Interaction between Diet\*Sex of thigh meat of both sexes of crossbred native chickens at 13 week of age (Exp.3).**

Diet	Sex	
	Male	Female
1	10.570	10.930
2	9.988	9.728



## ประวัติผู้เขียน

ชื่อ	บุญญวดี ธัญชัย
วัน เดือน ปีเกิด	19 มีนาคม 2520
ประวัติการศึกษา	สำเร็จการศึกษาระดับประถมศึกษา โรงเรียนอนุบาลเชียงใหม่ อ.เมือง จ.เชียงใหม่ ปีการศึกษา 2531 สำเร็จการศึกษาระดับมัธยมศึกษาตอนต้น โรงเรียนวัดโนนทัยพายัพ อ.เมือง จ.เชียงใหม่ ปีการศึกษา 2534 สำเร็จการศึกษาระดับมัธยมศึกษาตอนปลาย โรงเรียนยุพราชวิทยาลัย อ.เมือง จ.เชียงใหม่ ปีการศึกษา 2537 สำเร็จการศึกษาระดับอุดมศึกษา วิทยาศาสตร์บัณฑิต (วท.บ.) สาขา เกษตรศาสตร์ คณะเกษตรศาสตร์ มหาวิทยาลัยเชียงใหม่ ปีการศึกษา 2541
ผลงานทางวิชาการ	บุญญวดี ธัญชัย, สุชน ตั้งทวีวัฒน์ และบุญล้อม ชีวะอิสระกุล. 2544. ความต้องการพลังงานและโปรตีนของไก่ลูกผสมพื้นเมืองอายุ 11-13 สัปดาห์. รายงานการประชุมทางวิชาการครั้งที่ 39, สาขาสัตวศาสตร์ สาขาสัตวแพทยศาสตร์. หน้า 161-168, มหาวิทยาลัยเกษตรศาสตร์, กรุงเทพฯ. รุ่งรัตน์ ปิงเมือง, สุชน ตั้งทวีวัฒน์, บุญล้อม ชีวะอิสระกุล และ บุญญวดี ธัญชัย. 2544. ระดับโปรตีนและพลังงานที่เหมาะสมใน อาหารไก่ลูกผสมพื้นเมืองอายุ 6-10 สัปดาห์. รายงานการประชุมทาง วิชาการครั้งที่ 39, สาขาสัตว สาขาสัตวแพทยศาสตร์. หน้า 169-177, มหาวิทยาลัยเกษตรศาสตร์, กรุงเทพฯ. บุญญวดี ธัญชัย, สุชน ตั้งทวีวัฒน์ และบุญล้อม ชีวะอิสระกุล. 2544. สูตรอาหารที่เหมาะสมกับไก่ลูกผสมพื้นเมืองจากสองแหล่งผลิต. การประชุมทางวิชาการครั้งที่ 1, มหาวิทยาลัยมหาสารคาม, มหาสารคาม. บุญญวดี ธัญชัย, สุชน ตั้งทวีวัฒน์ และบุญล้อม ชีวะอิสระกุล. 2544. สูตรอาหารที่เหมาะสมกับไก่ลูกผสมพื้นเมืองจากสองแหล่งผลิต.

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เมื่อวันที่ 23-24 สิงหาคม 2544 ณ คณะเกษตรศาสตร์ มหาวิทยาลัย  
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เกษตรกรใน อำเภอสันทราย จังหวัดเชียงใหม่ และอำเภอจุน จังหวัด  
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เกษตร มหาวิทยาลัยแม่โจ้, เชียงใหม่.