



MEZINÁRODNÍ TESTOVÁNÍ DRŮBEŽE
ÚSTRAŠICE státní podnik

390 02 Tábor 2

Česká republika

BROILER FEEDING TEST No. 9/2024

**xxxxx to performance and health status of broiler chicks
raised on the floor**

Xxxxx

24 July 2024 – 10 September 2024

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Aim of the project

The objective of the present study is to evaluate the effects of xxxxx on performance and health status of broiler chicks raised on the floor.

Basic tests information

The basic dates

Beginning of the test: 1 July 2024 (setting in the incubator)
24 July 2024 (the 1st day of chicks)
End of the test: 10 September 2024

Material and methods

Material

In total there were 1680 day old chicks of JA 757. Day old chicks were randomly distributed into 2 dietary treatments (24 pens for sample).

Experimental treatments

Treat. No.	Treat.	Description	xxxxx (gram/ton of feed)	No. of pen	Birds per pen	No. of chick
1	T1	xxxxx	xxxxx	24	35	840
2	T2	xxxxx	xxxxx	24	35	840

Origin of hatching eggs: Mezinárodní testování drůbeže s.p., Ústrašice, age of the breeding flock was 47 weeks.

Housing system

Chickens were kept in the windowless chicken house with full climatic control, on deep litter. Drinking water was supplied ad libitum by nipple drinkers. Each pen was equipped with manually filled tube feeders. Bedding material was wood shaving.

Lighting programme

Day 1 - 7 23 hours of light + 1 hour of darkness
Day 8 - 46 18 hours of light + 6 hours of darkness
Day 47 - 49 23 hours of light + 1 hour of darkness

Stocking density

12,96 broilers per square meter

Feed

Feed was produced in Mezinárodní testování drůbeže s.p., Ústrašice.

Day 1 – 21 Starter (BR1)

Day 22 – 35 Grower (BR2)

Day 36 – 49 Finisher (BR3)

Diet formulas

Components (%)	Starter BR1	Grower BR2	Finisher BR3
Soybean meal	33.64	33.00	26.21
Maize	24.41	17.70	18.00
Wheat	19.44	21.00	21.50
Barley	15.00	20.00	25.00
Animal fat	3.30	4.80	6.00
Limestone	1.60	1.00	1.00
MCP	1.20	1.20	1.00
L-lysine HCl	0.38	0.32	0.30
Salt	0.26	0.26	0.26
Na ₂ CO ₃	0.18	0.15	0.15
DL-methionine	0.07	0.05	0.06
L-threonine	0.02	0.02	0.02
Premix AMVBR1 Plus	0.50	-	-
Premix AMVBR2 Plus	-	0.50	-
Premix AMVBR3 Plus	-	-	0.50
Nutrient content			
Crude protein (g/kg)	203.78	199.57	176.48
ME (MJ/kg)	11.44	11.58	11.82
Lysine (g/kg)	13.76	13.18	11.40
Methionine (g/kg)	5.90	5.27	4.76
Met.+Cys. (g/kg)	9.44	8.78	7.95
Ca (g/kg)	10.18	7.67	7.12
P dig. (g/kg)	3.37	3.39	2.99
Na (g/kg)	2.09	2.00	1.91

Veterinary precautions

The chicken house was disinfected by xxxxx before the chick placement. On days 1 and 12 chickens were vaccinated with xxxxx.

Parameters recorded

Live weight

Live weight was measured on days 1 (all the birds in each pen were weighed altogether), 21 and 35 (all the birds were weighed individually, without fasting). On day 49 birds were weighed individually, after 12 hours of fasting.

Weight gain

Weight gain per phase and average daily weight gains were calculated for the periods 1 – 21 days, 22 – 35 days, 36 – 49 days and for the overall experiment (1 – 49 days).

Feed conversion ratio

Feed consumption and feed conversion ratio to gain ratio were calculated for the periods 1 – 21 days, 22 – 35 days, 36 – 49 days and for the overall experiment (1 – 49 days). The calculation was included weight of deaths.

Feed consumption

Feed consumption was measured per pen for the feed – starter, grower and finisher.

Mortality

All pens were checked twice a day to see if there were any dead or ill birds. Dead chickens were registered by date and reason of mortality on the day of death. Mortality was recorded for the periods 1 – 21 days, 22 – 35 days, 36 – 49 days and 1 – 49 days.

Foot pad lesions

At the end of the trial the animals were recorded according the scale.

Statistical analyses

Performance results were statistically evaluated using the ANOVA single-factor model (Duncan test, Scheffe test) or nonparametric method Kruskal-Wallis test.

Results

Tab. No. **1 Hatchability**

2 Performance results:

2a Body weight

2b Weight gain

2c Feed conversion ratio per 1 kg of live weight

2d Feed consumption per 1 kg of weight gain

2e Feed consumption

3 Mortality

4 Foot pad lesions

5 Statistical analysis of body weight at the age of 49 days

(average body weight, standard deviation, coefficient of variation)

6 - 9 Statistical analyses of performance results

10 Performance results per pen:

10a Body weight

10b Weight gain

10c Feed conversion ratio per 1 kg of live weight

10d Feed consumption per 1 kg of weight gain

10e Feed consumption

10f Foot pad lesions

Results of incubation and hatching**Tab. No. 1**

Treatment	Tr. No.	Fertility	Hatchability		Birds housed	Average weight	
			Set eggs	Fertile eggs		Hatching eggs	Day old chicks
		%	%	%		g	g
T1	1	96.00	88.00	91.67	840	63.00	39.82
T2	2						840

Body weight per phases**Tab. No. 2a**

Treatment	Tr. No.	Day 1		Day 21		Day 35		Day 49	
		Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight
			g		g		g		g
T1	1	840	39.82	840	645.51	840	1347.08	830	2063.20
T2	2	840	39.88	840	662.79	840	1351.24	832	2088.38

Weight gain per phases**Tab. No. 2b**

Treatment	Tr. No.	Day 1 - 21		Day 22 - 35		Day 36 - 49		Day 1 - 49	
		Weight gain per phase	Daily weight gain	Weight gain per phase	Daily weight gain	Weight gain per phase	Daily weight gain	Weight gain per phase	Daily weight gain
		g	g	g	g	g	g	g	g
T1	1	605.69	28.84	701.57	50.11	716.11	51.15	2023.37	41.29
T2	2	622.91	29.66	688.45	49.17	737.14	52.65	2048.50	41.81

Feed conversion ratio (Feed consumption per 1 kg of live weight)**Tab. No. 2c**

Treatment	Tr. No.	Feed conversion ratio		
		Day 21	Day 35	Day 49
		g/kg LW	g/kg LW	g/kg LW
T1	1	1474.19	1799.39	2239.87
T2	2	1439.35	1802.58	2222.61

Feed consumption per 1 kg of weight gain (WG)**Tab. No. 2d**

Treatment	Tr. No.	Feed consumption per 1 kg of weight gain			
		1-21 days	22-35 days	36-49 days	1-49 days
		g/kg WG	g/kg WG	g/kg WG	g/kg WG
T1	1	1571.11	2098.61	3073.40	2284.05
T2	2	1531.50	2152.27	2995.47	2265.94

Feed consumption per phases**Tab. No. 2e**

Treatment	Tr. No.	Feed consumption			
		Starter (1-21 days)	Grower (22-35 days)	Finisher (36-49 days)	Total
		kg	kg	kg	kg
T1	1	799.35	1236.75	1837.80	3873.90
T2	2	801.35	1244.65	1847.80	3893.80

Mortality

Tab. No. 3

Treatment	Tr. No.	Mortality in the period									Mortality according causes																				
		Day 1 – 21		Day 22 – 35		Day 36 – 49		Day 1 – 49			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						
		birds	g	birds	g	birds	g	birds	g	%																					
T1	1	0	0	0	0	10	17066	10	17066	1.19																10					
T2	2	0	0	0	0	8	14378	8	14378	0.95																8					

- Causes:
- | | | |
|-------------------------|------------------------------------|--|
| 1 – Viral diseases | 6 – Wounds | 11 – Sudden death syndrome |
| 2 – Bacterial diseases | 7 – Digestive track diseases | 12 – Cannibalism |
| 3 – Moulds diseases | 8 – Respiratory tract diseases | 13 – Yolk sac. infam. |
| 4 – Parasitary diseases | 9 – Reproduction tract diseases | 14 – Other causes |
| 5 – Tumors | 10 – Locomotion apparatus diseases | 15 – Culling (excluded of calculation) |

Foot pad lesions**Tab. No. 4**

Treatment	Tr. No.	Evaluation	
		right foot	left foot
T1	1	1.05	1.08
T2	2	1.29	1.32

Statistical analysis - Body weight at 49 days of age**Tab. No. 5**

Treatment	Tr. No.	Cocks			
		Number of birds	Average body weight	Standard deviation	Coefficient of variation
			g/birds	g/birds	%
T1	1	830	2063.20	243.99	11.83
T2	2	832	2088.38	251.80	12.06

Statistical analyses of performance results

Performance results were statistically evaluated using the ANOVA single-factor model (Duncan test, Scheffe test) or nonparametric method Kruskal - Wallis test.

The following symbols are used for levels of significance:

$p \leq 0,001$	***	- differences are very high significant
$p \leq 0,01$	**	- differences are high significant
$p \leq 0,05$	*	- differences are significant
$p > 0,05$	o	- differences are not significant

Body weight - day 1

Tab. No. 6a

Treatment	Treat. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	39.82	0.48		o
T2	2	24	39.88	0.40	0.645215	

Body weight - day 21

Tab. No. 6b

Treatment	Treat. No.	No. of birds	Average (g)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	840	645.51	64.40		***
T2	2	840	662.79	59.71	0.000000	

Body weight - day 35**Tab. No. 6c**

Treatment	Treat. No.	No. of birds	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	840	1347.08	141.78		o
T2	2	840	1351.24	144.60	0.551752	

Body weight - day 49**Tab. No. 6d**

Treatment	Treat. No.	No. of birds	Average (g)	Standard deviation	Scheffe test	
					T1	T2
T1	1	830	2063.20	243.99		*
T2	2	832	2088.38	251.80	0.038581	

Average weight gain (day 1-21)**Tab. No. 7a**

Treatment	Treat. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	28.84	1.17		**
T2	2	24	29.66	0.84	0.007620	

Average weight gain (day 22-35)**Tab. No. 7b**

Treatment	Treat. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	50.11	3.97		o
T2	2	24	49.17	4.64	0.455698	

Average weight gain (day 36-49)**Tab. No. 7c**

Treatment	Treat. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	51.18	5.68		o
T2	2	24	52.61	7.09	0.443427	

Average weight gain (day 1-49)**Tab. No. 7d**

Treatment	Treat. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	41.30	2.23		o
T2	2	24	41.80	2.68	0.492200	

FCR 21**Tab. No. 8a**

Treatment	Treat. No.	No. of box	Average (g/kg live weight)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	1475.49	56.41		*
T2	2	24	1440.00	39.17	0.014970	

FCR 35**Tab. No. 8b**

Treatment	Treat. No.	No. of box	Average (g/kg live weight)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	24	1800.97	52.05		o
T2	2	24	1806.19	92.70	1.000000	

FCR 49**Tab. No. 8c**

Treatment	Treat. No.	No. of box	Average (g/kg live weight)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	2243.49	94.77		o
T2	2	24	2228.91	121.78	0.645717	

FCR per 1 kg of weight gain - 1-21 day**Tab. No. 9a**

Treatment	Treat. No.	No. of box	Average (g/kg weight gain)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	1572.71	62.48		*
T2	2	24	1532.33	43.73	0.012790	

FCR per 1 kg of weight gain - 22-35 day**Tab. No. 9b**

Treatment	Treat. No.	No. of box	Average (g/kg weight gain)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	24	2107.36	132.97		o
T2	2	24	2165.72	185.10	0.256761	

FCR per 1 kg of weight gain - 36-49 day**Tab. No. 9c**

Treatment	Treat. No.	No. of box	Average (g/kg weight gain)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	3106.76	348.62		o
T2	2	24	3057.51	500.08	0.694230	

FCR per 1 kg of weight gain - 1-49 day**Tab. No. 9d**

Treatment	Treat. No.	No. of box	Average (g/kg weight gain)	Standard deviation	Duncan test	
					T1	T2
T1	1	24	2287.91	98.20		o
T2	2	24	2272.69	127.12	0.644719	

Treatment	Tr. No.	Box No.	Day 1		Day 21		Day 35		Day 49	
			Birds	BW	Birds	BW	Birds	BW	Birds	BW
				g		g		g		g
T1	1	1	35	40.00	35	619.29	35	1331.94	35	2042.51
		2	35	40.00	35	596.43	35	1236.49	35	1918.09
		5	35	38.57	35	652.49	35	1301.66	34	1985.71
		6	35	40.00	35	637.37	35	1266.97	35	1941.89
		9	35	40.00	35	635.77	35	1269.34	35	1950.17
		10	35	40.00	35	638.03	35	1345.63	35	2021.14
		13	35	40.00	35	655.94	35	1320.00	35	1986.00
		14	35	40.00	35	661.11	35	1361.43	35	1970.29
		17	35	38.57	35	596.83	35	1327.66	35	2038.46
		18	35	40.00	35	624.69	35	1299.49	33	2027.73
		21	35	38.57	35	638.89	35	1397.86	35	2006.63
		22	35	40.00	35	639.17	35	1348.80	34	2026.76
		25	35	40.00	35	644.06	35	1309.86	35	1967.34
		26	35	40.00	35	665.54	35	1280.40	35	2073.89
		29	35	40.00	35	661.49	35	1380.97	34	2001.50
		30	35	40.00	35	666.20	35	1422.26	35	2192.11
		33	35	40.00	35	652.46	35	1390.97	35	2249.31
		34	35	40.00	35	626.86	35	1441.06	35	2152.34
		37	35	40.00	35	641.14	35	1379.49	34	2047.41
		38	35	40.00	35	673.17	35	1498.89	33	2232.27
41	35	40.00	35	637.83	35	1313.63	35	2001.46		
42	35	40.00	35	700.60	35	1426.26	35	2302.49		
45	35	40.00	35	637.77	35	1350.14	34	2179.35		
46	35	40.00	35	689.17	35	1328.80	34	2211.56		

Body weight (BW) per box

Tab. No. 10a (page 2)

Treatment	Tr. No.	Box No.	Day 1		Day 21		Day 35		Day 49	
			Birds	BW	Birds	BW	Birds	BW	Birds	BW
				g		g		g		g
T2	2	3	35	40.00	35	644.06	35	1281.60	35	2017.14
		4	35	40.00	35	655.26	35	1313.83	33	1729.30
		7	35	40.00	35	637.57	35	1297.17	35	2021.17
		8	35	40.00	35	657.26	35	1322.46	34	1990.88
		11	35	40.00	35	648.63	35	1346.49	35	1861.77
		12	35	40.00	35	642.54	35	1227.60	34	2052.00
		15	35	40.00	35	656.89	35	1353.46	35	2088.11
		16	35	40.00	35	653.97	35	1284.06	34	2073.03
		19	35	40.00	35	667.31	35	1301.49	34	2008.50
		20	35	40.00	35	660.09	35	1295.54	35	2084.71
		23	35	40.00	35	661.77	35	1416.63	35	2120.09
		24	35	40.00	35	636.09	35	1251.03	35	2032.43
		27	35	40.00	35	649.23	35	1394.51	35	2109.91
		28	35	40.00	35	685.06	35	1514.77	34	2311.18
		31	35	40.00	35	672.11	35	1334.26	35	2102.03
		32	35	40.00	35	691.11	35	1397.69	35	2191.11
		35	35	40.00	35	665.11	35	1252.40	35	2090.09
		36	35	40.00	35	695.14	35	1391.29	35	2271.34
		39	35	40.00	35	666.69	35	1424.43	35	2161.54
		40	35	38.57	35	696.09	35	1528.91	34	2360.03
43	35	40.00	35	647.46	35	1350.09	35	2087.11		
44	35	40.00	35	662.51	35	1365.49	35	2057.46		
47	35	40.00	35	681.66	35	1407.91	35	2193.11		
48	35	38.57	35	673.40	35	1376.69	35	2094.03		

Weight gain (WG) and daily weight gain (DWG) per box

Tab. No. 10b (page 1)

Treatment	Tr. No.	Box No.	Day 1 - 21		Day 22 - 35		Day 36 - 49		Day 1 - 49	
			WG	DWG	WG	DWG	WG	DWG	WG	DWG
			g	g	g	g	g	g	g	g
T1	1	1	579.29	27.59	712.66	50.90	710.57	50.76	2002.51	40.87
		2	556.43	26.50	640.06	45.72	681.60	48.69	1878.09	38.33
		5	613.91	29.23	649.17	46.37	684.05	48.86	1947.13	39.74
		6	597.37	28.45	629.60	44.97	674.91	48.21	1901.89	38.81
		9	595.77	28.37	633.57	45.26	680.83	48.63	1910.17	38.98
		10	598.03	28.48	707.60	50.54	675.51	48.25	1981.14	40.43
		13	615.94	29.33	664.06	47.43	666.00	47.57	1946.00	39.71
		14	621.11	29.58	700.31	50.02	608.86	43.49	1930.29	39.39
		17	558.26	26.58	730.83	52.20	710.80	50.77	1999.89	40.81
		18	584.69	27.84	674.80	48.20	728.24	52.02	1987.73	40.57
		21	600.31	28.59	758.97	54.21	608.77	43.48	1968.06	40.16
		22	599.17	28.53	709.63	50.69	677.96	48.43	1986.76	40.55
		25	604.06	28.76	665.80	47.56	657.49	46.96	1927.34	39.33
		26	625.54	29.79	614.86	43.92	793.49	56.68	2033.89	41.51
		29	621.49	29.59	719.49	51.39	620.53	44.32	1961.50	40.03
		30	626.20	29.82	756.06	54.00	769.86	54.99	2152.11	43.92
		33	612.46	29.16	738.51	52.75	858.34	61.31	2209.31	45.09
		34	586.86	27.95	814.20	58.16	711.29	50.81	2112.34	43.11
		37	601.14	28.63	738.34	52.74	667.93	47.71	2007.41	40.97
		38	633.17	30.15	825.71	58.98	733.39	52.38	2192.27	44.74
41	597.83	28.47	675.80	48.27	687.83	49.13	1961.46	40.03		
42	660.60	31.46	725.66	51.83	876.23	62.59	2262.49	46.17		
45	597.77	28.47	712.37	50.88	829.21	59.23	2139.35	43.66		
46	649.17	30.91	639.63	45.69	882.76	63.05	2171.56	44.32		

Weight gain (WG) and daily weight gain (DWG) per box

Tab. No. 10b (page 2)

Treatment	Tr. No.	Box No.	Day 1 - 21		Day 22 - 35		Day 36 - 49		Day 1 - 49	
			WG	DWG	WG	DWG	WG	DWG	WG	DWG
			g	g	g	g	g	g	g	g
T2	2	3	604.06	28.76	637.54	45.54	735.54	52.54	1977.14	40.35
		4	615.26	29.30	658.57	47.04	415.47	29.68	1689.30	34.48
		7	597.57	28.46	659.60	47.11	724.00	51.71	1981.17	40.43
		8	617.26	29.39	665.20	47.51	668.43	47.74	1950.88	39.81
		11	608.63	28.98	697.86	49.85	515.29	36.81	1821.77	37.18
		12	602.54	28.69	585.06	41.79	824.40	58.89	2012.00	41.06
		15	616.89	29.38	696.57	49.76	734.66	52.48	2048.11	41.80
		16	613.97	29.24	630.09	45.01	788.97	56.36	2033.03	41.49
		19	627.31	29.87	634.17	45.30	707.01	50.50	1968.50	40.17
		20	620.09	29.53	635.46	45.39	789.17	56.37	2044.71	41.73
		23	621.77	29.61	754.86	53.92	703.46	50.25	2080.09	42.45
		24	596.09	28.39	614.94	43.92	781.40	55.81	1992.43	40.66
		27	609.23	29.01	745.29	53.23	715.40	51.10	2069.91	42.24
		28	645.06	30.72	829.71	59.27	796.41	56.89	2271.18	46.35
		31	632.11	30.10	662.14	47.30	767.77	54.84	2062.03	42.08
		32	651.11	31.01	706.57	50.47	793.43	56.67	2151.11	43.90
		35	625.11	29.77	587.29	41.95	837.69	59.83	2050.09	41.84
		36	655.14	31.20	696.14	49.72	880.06	62.86	2231.34	45.54
		39	626.69	29.84	757.74	54.12	737.11	52.65	2121.54	43.30
		40	657.51	31.31	832.83	59.49	831.12	59.37	2321.46	47.38
43	607.46	28.93	702.63	50.19	737.03	52.64	2047.11	41.78		
44	622.51	29.64	702.97	50.21	691.97	49.43	2017.46	41.17		
47	641.66	30.56	726.26	51.88	785.20	56.09	2153.11	43.94		
48	634.83	30.23	703.29	50.23	717.34	51.24	2055.46	41.95		

Feed conv. ratio (Feed consumpt. per 1 kg of live weight) per box

Tab. No. 10c (page 1)

Treatment	Tr. No.	Box No.	Feed conversion ratio		
			Day 21	Day 35	Day 49
			g/kg LW	g/kg LW	g/kg LW
T1	1	1	1531.72	1791.15	2137.42
		2	1542.51	1878.60	2229.90
		5	1418.75	1826.24	2275.04
		6	1474.81	1877.37	2320.28
		9	1469.53	1880.61	2289.18
		10	1410.60	1749.58	2212.33
		13	1480.97	1836.58	2315.49
		14	1480.18	1780.69	2350.64
		17	1579.78	1798.01	2277.63
		18	1518.48	1845.79	2274.41
		21	1520.50	1727.13	2347.22
		22	1472.89	1774.06	2314.20
		25	1503.86	1844.26	2373.03
		26	1429.55	1878.88	2267.65
		29	1470.72	1756.53	2313.95
		30	1496.76	1822.05	2220.95
		33	1445.09	1722.33	2088.89
		34	1599.82	1802.25	2291.85
		37	1475.04	1734.60	2251.55
		38	1489.75	1731.76	2197.36
41	1402.08	1783.50	2299.75		
42	1411.04	1809.93	2077.88		
45	1406.68	1739.50	2044.85		
46	1380.54	1831.94	2072.28		

Feed conv. ratio (Feed consumpt. per 1 kg of live weight) per box

Tab. No. 10c (page 2)

Treatment	Tr. No.	Box No.	Feed conversion ratio		
			Day 21	Day 35	Day 49
			g/kg LW	g/kg LW	g/kg LW
T2	2	3	1463.93	1845.91	2197.59
		4	1447.63	1910.45	2640.99
		7	1519.16	1942.69	2282.98
		8	1423.67	1783.48	2264.88
		11	1475.64	1765.44	2377.92
		12	1502.96	1945.72	2195.18
		15	1474.49	1764.79	2212.52
		16	1520.38	1993.68	2317.04
		19	1417.19	1822.09	2318.83
		20	1380.77	1797.37	2159.25
		23	1431.22	1775.85	2274.17
		24	1473.30	1886.45	2278.77
		27	1452.27	1696.44	2159.87
		28	1443.05	1777.73	2158.93
		31	1436.83	1899.40	2315.45
		32	1418.00	1820.36	2233.05
		35	1417.59	1891.23	2220.69
		36	1385.12	1817.44	2116.43
		39	1414.25	1662.82	2129.43
		40	1397.61	1662.24	2008.09
43	1403.29	1726.87	2173.20		
44	1444.71	1744.02	2212.86		
47	1404.14	1691.46	2085.10		
48	1412.87	1724.64	2160.57		

Treatment	Tr. No.	Box No.	Feed consumption per 1 kg of weight gain			
			1-21 days	22-35 days	36-49 days	1-49 days
			g/kg WG	g/kg WG	g/kg WG	g/kg WG
T1	1	1	1637.48	2016.60	2786.49	2180.12
		2	1653.40	2191.77	2867.20	2277.39
		5	1507.89	2235.82	3153.46	2320.55
		6	1573.56	2284.90	3151.72	2369.08
		9	1568.19	2293.12	3050.90	2337.11
		10	1504.94	2055.24	3134.12	2256.99
		13	1577.14	2187.85	3264.69	2363.09
		14	1575.51	2064.38	3625.06	2399.35
		17	1688.93	1976.23	3173.49	2321.56
		18	1622.36	2148.78	3064.70	2320.73
		21	1618.20	1901.07	3771.06	2393.22
		22	1571.22	2045.34	3415.08	2361.17
		25	1603.44	2173.54	3426.47	2422.28
		26	1520.96	2365.24	2895.00	2312.25
		29	1565.37	2019.30	3571.93	2361.34
		30	1592.37	2108.68	2957.88	2262.23
		33	1539.47	1967.27	2682.91	2126.71
		34	1708.86	1958.10	3283.79	2335.25
		37	1573.19	1959.99	3337.68	2296.67
		38	1583.86	1929.07	3158.83	2237.60
41	1495.89	2143.49	3285.70	2346.65		
42	1496.48	2195.05	2514.02	2114.61		
45	1500.81	2037.46	2552.51	2083.39		
46	1465.60	2318.31	2437.51	2110.60		

Treatment	Tr. No.	Box No.	Feed consumption per 1 kg of weight gain			
			1-21 days	22-35 days	36-49 days	1-49 days
			g/kg WG	g/kg WG	g/kg WG	g/kg WG
T2	2	3	1560.87	2231.78	2810.36	2242.05
		4	1541.75	2370.93	4975.33	2703.69
		7	1620.85	2352.07	2892.66	2329.07
		8	1515.92	2138.99	3223.10	2311.42
		11	1572.62	2034.80	3978.38	2430.13
		12	1602.73	2432.00	2567.58	2238.87
		15	1570.10	2038.56	3037.37	2255.73
		16	1619.43	2484.92	2851.78	2362.91
		19	1507.56	2248.15	3246.30	2366.19
		20	1469.84	2230.12	2753.34	2201.50
		23	1523.30	2077.97	3277.69	2317.90
		24	1572.16	2313.80	2906.87	2324.51
		27	1547.62	1909.14	3063.22	2201.61
		28	1532.53	2054.06	2901.72	2197.27
		31	1527.75	2368.93	3038.48	2360.37
		32	1505.11	2213.91	2960.03	2274.57
		35	1508.30	2427.63	2713.26	2264.02
		36	1469.69	2249.13	2589.12	2154.37
		39	1504.51	1881.53	3031.13	2169.58
		40	1479.60	1883.43	2645.63	2041.48
43	1495.70	2025.05	2990.77	2215.66		
44	1537.54	2026.09	3138.03	2256.73		
47	1491.67	1961.13	2790.92	2123.83		
48	1498.72	2023.16	2997.17	2201.11		

Feed consumption per box

Tab. No. 10e (page 1)

Treatment	Tr. No.	Box No.	Feed consumption			
			Starter (1-21 days)	Grower (22-35 days)	Finisher (36-49 days)	Total
			kg	kg	kg	kg
T1	1	1	33.20	50.30	69.30	152.80
		2	32.20	49.10	68.40	149.70
		5	32.40	50.80	73.40	156.60
		6	32.90	50.35	74.45	157.70
		9	32.70	50.85	72.70	156.25
		10	31.50	50.90	74.10	156.50
		13	34.00	50.85	76.10	160.95
		14	34.25	50.60	77.25	162.10
		17	33.00	50.55	78.95	162.50
		18	33.20	50.75	75.60	159.55
		21	34.00	50.50	80.35	164.85
		22	32.95	50.80	79.10	162.85
		25	33.90	50.65	78.85	163.40
		26	33.30	50.90	80.40	164.60
		29	34.05	50.85	76.50	161.40
		30	34.90	55.80	79.70	170.40
		33	33.00	50.85	80.60	164.45
		34	35.10	55.80	81.75	172.65
		37	33.10	50.65	76.70	160.45
		38	35.10	55.75	80.25	171.10
41	31.30	50.70	79.10	161.10		
42	34.60	55.75	77.10	167.45		
45	31.40	50.80	72.55	154.75		
46	33.30	51.90	74.60	159.80		

Feed consumption per box

Tab. No. 10e (page 2)

Treatment	Tr. No.	Box No.	Feed consumption			
			Starter (1-21 days)	Grower (22-35 days)	Finisher (36-49 days)	Total
			kg	kg	kg	kg
T2	2	3	33.00	49.80	72.35	155.15
		4	33.20	54.65	71.60	159.45
		7	33.90	54.30	73.30	161.50
		8	32.75	49.80	74.95	157.50
		11	33.50	49.70	71.75	154.95
		12	33.80	49.80	73.90	157.50
		15	33.90	49.70	78.10	161.70
		16	34.80	54.80	77.50	167.10
		19	33.10	49.90	79.20	162.20
		20	31.90	49.60	76.05	157.55
		23	33.15	54.90	80.70	168.75
		24	32.80	49.80	79.50	162.10
		27	33.00	49.80	76.70	159.50
		28	34.60	59.65	78.95	173.20
		31	33.80	54.90	81.65	170.35
		32	34.30	54.75	82.20	171.25
		35	33.00	49.90	79.55	162.45
		36	33.70	54.80	79.75	168.25
		39	33.00	49.90	78.20	161.10
		40	34.05	54.90	76.80	165.75
43	31.80	49.80	77.15	158.75		
44	33.50	49.85	76.00	159.35		
47	33.50	49.85	76.70	160.05		
48	33.30	49.80	75.25	158.35		

Foot pad lesions

Tab. No. 10f (page 1)

Treatment	Tr. No.	Box No.	Evaluation	
			right foot	left foot
T1	1	1	0.37	0.54
		2	0.06	0.17
		5	0.41	0.38
		6	0.26	0.31
		9	1.06	1.03
		10	0.91	1.06
		13	1.74	1.74
		14	2.77	2.77
		17	0.54	0.43
		18	0.33	0.30
		21	0.43	0.46
		22	0.15	0.03
		25	0.69	0.60
		26	0.57	0.60
		29	1.41	1.41
		30	1.03	1.23
		33	1.97	1.77
		34	0.57	0.71
		37	2.35	2.35
		38	1.55	1.58
41	2.83	2.83		
42	1.26	1.34		
45	1.53	1.68		
46	0.44	0.59		

Foot pad lesions

Tab. No. 10f (page 2)

Treatment	Tr. No.	Box No.	Evaluation	
			right foot	left foot
T2	2	3	0.89	0.91
		4	1.61	1.64
		7	0.37	0.37
		8	1.03	1.09
		11	2.11	2.23
		12	1.50	1.53
		15	1.57	1.66
		16	0.18	0.18
		19	1.12	0.97
		20	1.46	1.71
		23	0.57	0.49
		24	0.51	0.43
		27	0.83	1.06
		28	0.65	0.53
		31	0.26	0.46
		32	1.17	1.26
		35	2.60	2.40
		36	3.14	3.03
		39	2.37	2.29
		40	0.41	0.53
43	0.91	1.00		
44	2.37	2.29		
47	1.40	1.49		
48	1.94	2.00		