



**MEZINÁRODNÍ TESTOVÁNÍ DRŮBEŽE
ÚSTRAŠICE** státní podnik

390 02 Tábor 2

Česká republika

BROILER FEEDING TEST No. 11/2024

**Effect of the tested product in drinking water
to performance and health of animals**

XXXXXX

5 November – 10 December 2024

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Veterinary precautions

The chicken house was disinfected with xxxxx before the chick placement.

On days 1 and 12 the chicken were vaccinated with xxxxx.

Feed

Feed was produced by xxxxx

Day 1 - 10 Starter (BR 1)

Day 11 - 28 Grower (BR 2)

Day 29 - 35 Finisher (BR 3)

Diet formulas:

Components (%)	Starter BR1	Grower BR2	Finisher BR3
Wheat	40.83	56.02	56.91
Soybean meal	34.25	28.10	23.85
Maize	14.00	10.00	8.00
Soybean oil	2.46	1.30	2.24
Soybeans	2.00	-	-
Fish meal	1.50	-	-
Limestone	1.29	1.08	1.05
Sunflower meal	1.00	-	3.50
MCP - monocalciumphosphate	0.56	-	-
Salt	0.27	0.24	0.24
Sodium sulfate	0.10	0.12	0.10
Cholinchlorid	0.03	0.03	0.02
Animal fat	-	1.74	2.80
Premix aminoacids	0.84	0.88	0.84
Premix enz., org. acids,..	0.58	0.20	0.25
AMV BR1 Plus	0.30	-	-
AMV BR2 Plus	-	0.30	-
AMV BR3 Plus	-	-	0.20
Nutrient content			
Crude protein (g/kg)	230.30	194.64	186.77
ME (MJ/kg)	12.14	12.48	12.88
Lysine (g/kg)	13.04	11.23	10.52
Methionine (g/kg)	6.38	5.37	5.11
Met. + Cys. (g/kg)	9.76	8.40	8.05
Ca phyt. (g/kg)	9.46	7.17	6.98
P dig. (g/kg)	4.51	3.55	3.54
Na (g/kg)	1.90	1.66	1.59
Vitamin A (IU/kg)	15000	10000	10000
Vitamin D3 (IU/kg)	5000	5000	5000

Parameters recorded and methods applied

Live weight

Live weight was measured on day 1 (all the birds in each pen were weighed altogether). On days 10 and 28 of age birds were weighed individually, without fasting. On day 35 birds were weighed individually, after 12 hours of fasting.

Feed consumption

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

Weight gain

Weight gain per phase and average daily weight gains were calculated for the periods 1 – 10 days, 11 – 28 days, 29 – 35 days and for the overall experiment (1 – 35 days).

Feed conversion ratio

Feed conversion ratio was calculated as feed consumption per 1 kg of live weight and per 1 kg of weight gain for the periods 1 – 10 days, 11 – 28 days, 29 – 35 days and for the overall experiment (1 – 35 days). The calculation was included weight of deaths.

Mortality

All pens were checked twice times a day to see if there were any dead or ill birds. Dead chickens were registered by date, weight and reason of mortality on the day of death. Mortality was recorded for the periods 1 – 10 days, 11 – 28 days, 29 – 35 days and 1 – 35 days.

Statistical analyses

Performance results of live weight (on days 1, 10, 28 and 35) were statistically evaluated using the ANOVA single-factor model (Scheffe test, Duncan test) or nonparametric method (Kruskal-Wallis test).

Results

Tab. No. **1 Hatchability**

2 Performance results:

2a Body weight

2b Weight gain

2c Feed conversion per 1 kg of live weight

2d Feed conversion per 1 kg of weight gain

2e Feed consumption

3 Mortality

4 Carcass analysis

5 Statistical analysis of body weight at the age of 35 days

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

6 – 8 Statistical analyses of performance results

9 Performance results per pen:

9a Body weight

9b Weight gain

9c Feed conversion per 1 kg of live weight

9d Feed conversion per 1 kg of weight gain

9e Feed consumption

10 Individual weight

11 Daily water intake

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	95.40	89.70	94.59	840	57.50	41.40
T2	2				840		41.40

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

Treatment	Tr. No.	Day 1		Day 10		Day 28		Day 35	
		Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight
			g		g		g		g
T1	1	840	41.40	840	313.67	831	1799.12	820	2516.84
T2	2	840	41.40	840	310.71	830	1794.09	820	2547.57

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

Treatment	Tr. No.	Day 1 - 10		Day 11 - 28		Day 29 - 35		Day 1 – 35	
		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	272.27	27.23	1485.45	82.52	717.72	102.53	2475.44	70.73
T2	2	269.31	26.93	1483.39	82.41	753.48	107.64	2506.17	71.60

Feed conversion per 1 kg of live weight**Tab. No. 2c**

Treatment	Tr. No.	Feed conversion ratio		
		Day 10	Day 28	Day 35
		g/kg live weight	g/kg live weight	g/kg live weight
T1	1	1002.91	1258.78	1556.27
T2	2	986.77	1208.94	1503.79

Feed conversion per 1 kg of weight gain**Tab. No. 2d**

Treatment	Tr. No.	Feed conversion ratio			
		Day 1-10	Day 11-28	Day 29-35	Day 1-35
		g/kg weight gain	g/kg weight gain	g/kg weight gain	g/kg weight gain
T1	1	1155.40	1313.23	2311.33	1582.56
T2	2	1138.46	1255.79	2212.88	1528.85

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

Treatment	Tr. No.	Feed consumption			
		Starter (day 1-10)	Grower (day 11-28)	Finisher (day 29-35)	Total (day 1-35)
		kg	kg	kg	kg
T1	1	264.25	1626.03	1367.52	3257.80
T2	2	257.54	1554.21	1378.93	3190.68

Mortality

Tab. No. 3

Treat.	Tr. No.	Mortality in the period									Mortality according causes																				
		Day 1 - 10		Day 11 - 28		Day 29 - 35		Day 1 - 35			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	9	6606	11	22916	20	29522	2.38																20					
T2	2	0	0	10	9527	10	23227	20	32754	2.38																20					

Causes:

- | | | |
|-------------------------|------------------------------------|---|
| 1 - Viral diseases | 6 - Injuries | 11 - Sudden death syndrome |
| 2 - Bacterial diseases | 7 - Digestive tract diseases | 12 - Cannibalism |
| 3 - Fungal diseases | 8 - Respiratory tract diseases | 13 - Diverticulus inflammation |
| 4 - Parasitary diseases | 9 - Reproduction tract diseases | 14 - Culling and other causes |
| 5 - Tumors | 10 - Locomotion apparatus diseases | 15 - Sampling (excluded of calculation) |

Results of carcass analysis

Tab. No. 4

Treatment	Tr. No.	Weight				Ratio of abd. fat to live weight	Breast muscles without skin			Thigh muscles with skin			Total muscles			Carcass	
		Total	Body	Gibl.	Abd. fat		Weight	Percentage		Weight	Percentage		Weight	Percentage		Value	Yield
								Total weight	Body carcass		Total weight	Body carcass		Total weight	Body carcass		
g	g	g	g	%	g	%	%	g	%	%	g	%	%	%	%		
T1	1	2573	1878	140	22	0.84	609	23.68	32.44	553	21.49	29.45	1162	45.17	61.89	72.99	78.42
T2	2	2604	1898	135	22	0.83	611	23.47	32.20	555	21.32	29.26	1167	44.79	61.47	72.87	78.04

Statistical analysis - Body weight at 35 days of age**Tab. No. 5**

Treatment	Tr. No.	Cocks			
		No. of birds	Average body weight	Standard deviation	Coefficient of variation
			g/birds	g/birds	%
T1	1	820	2516.84	288.30	11.45
T2	2	820	2547.57	260.86	10.24

Statistical analyses of performance results

Performance results were statistically evaluated using the ANOVA single-factor model (Scheffe test, Duncan 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

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	12	41.41	1.07		
T2	2	12	41.41	1.13	0.998636	o

Body weight - day 10

Tab. No. 6b

Treat.	Tr. No.	No. of birds	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	840	313.67	28.72		
T2	2	840	310.71	28.25	0.032960	*

Body weight - day 28**Tab. No. 6c**

Treat.	Tr. No.	No. of birds	Average (g)	Standard deviation	Scheffe test	
					T1	T2
T1	1	831	1799.12	197.28		o
T2	2	830	1794.09	188.83	0.595981	

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

Treat.	Tr. No.	No. of birds	Average (g)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	820	2516.84	288.30		o
T2	2	820	2547.57	260.86	0.152490	

FCR - day 10**Tab. No. 7a**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	12	1002.89	15.99		o
T2	2	12	987.17	46.09	0.644167	

FCR - day 28**Tab. No. 7b**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	12	1261.78	70.59		*
T2	2	12	1210.41	48.39	0.049573	

FCR - day 35**Tab. No. 7c**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	12	1560.87	104.90		o
T2	2	12	1504.51	37.08	0.165857	

FCR - day 1-10**Tab. No. 8a**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	12	1155.56	20.16	0.686106	o
T2	2	12	1139.24	57.08		

FCR - day 11-28**Tab. No. 8b**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	12	1317.71	89.14	0.062614	o
T2	2	12	1257.77	56.98		

FCR - day 29-35**Tab. No. 8c**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Duncan test	
					T1	T2
T1	1	12	2339.24	317.20	0.315735	o
T2	2	12	2227.25	205.20		

FCR - day 1-35**Tab. No. 8d**

Treat.	Tr. No.	No. of box	Average (g)	Standard deviation	Kruskal-Wallis test	
					T1	T2
T1	1	12	1587.39	108.02	0.184209	o
T2	2	12	1529.61	37.95		

Performance results per replicate

Body weight per phases

Tab. No. 9a

Treatment	Tr. No.	Pen	Day 1		Day 10		Day 28		Day 35	
			Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight
				g		g		g		g
T1	1	1	70	41.14	70	319.34	70	1841.03	69	2650.90
		2	70	40.86	70	312.99	67	1832.78	67	2629.12
		5	70	44.29	70	314.23	69	1902.87	67	2593.24
		6	70	41.71	70	306.71	69	1829.58	69	2565.84
		9	70	41.71	70	314.54	69	1803.25	69	2591.65
		10	70	41.43	70	307.20	69	1803.48	66	2625.82
		13	70	42.00	70	305.67	70	1697.59	69	2326.01
		14	70	41.43	70	303.74	70	1614.87	69	2329.80
		17	70	40.00	70	323.11	69	1830.07	69	2531.72
		18	70	40.86	70	313.47	70	1650.41	69	2224.01
		21	70	40.86	70	322.07	70	1896.04	68	2601.87
22	70	40.57	70	320.97	69	1892.72	69	2543.58		
T2	2	3	70	41.14	70	313.03	70	1846.11	67	2656.42
		4	70	41.43	70	313.69	67	1883.79	66	2661.58
		7	70	44.57	70	309.39	69	1665.36	69	2540.75
		8	70	42.29	70	308.21	70	1705.99	68	2453.84
		11	70	41.43	70	321.87	70	1770.10	69	2583.51
		12	70	40.29	70	321.20	69	1838.75	68	2481.38
		15	70	41.14	70	300.20	70	1750.87	70	2494.39
		16	70	41.14	70	299.71	68	1727.28	67	2466.91
		19	70	40.29	70	312.86	70	1810.81	69	2574.28
		20	70	41.43	70	316.53	68	1811.43	68	2505.06
		23	70	40.86	70	305.93	70	1852.41	70	2541.94
24	70	40.86	70	305.87	69	1868.51	69	2614.51		

Weight gain per phases (WG) and daily weight gain

Tab. No. 9b

Treatment	Tr. No.	Box	Day 1 - 10		Day 11 - 28		Day 29 - 35		Day 1 - 35	
			WG	DWG	WG	DWG	WG	DWG	WG	DWG
			g	g	g	g	g	g	g	g
T1	1	1	278.20	27.82	1521.69	84.54	809.87	115.70	2609.76	74.56
		2	272.13	27.21	1519.79	84.43	796.34	113.76	2588.26	73.95
		5	269.94	26.99	1588.64	88.26	690.37	98.62	2548.95	72.83
		6	265.00	26.50	1522.87	84.60	736.26	105.18	2524.13	72.12
		9	272.83	27.28	1488.70	82.71	788.41	112.63	2549.94	72.86
		10	265.77	26.58	1496.28	83.13	822.34	117.48	2584.39	73.84
		13	263.67	26.37	1391.91	77.33	628.43	89.78	2284.01	65.26
		14	262.31	26.23	1311.13	72.84	714.93	102.13	2288.37	65.38
		17	283.11	28.31	1506.96	83.72	701.65	100.24	2491.72	71.19
		18	272.61	27.26	1336.94	74.27	573.60	81.94	2183.15	62.38
		21	281.21	28.12	1573.97	87.44	705.82	100.83	2561.01	73.17
22	280.40	28.04	1571.75	87.32	650.86	92.98	2503.01	71.51		
T2	2	3	271.89	27.19	1533.09	85.17	810.30	115.76	2615.28	74.72
		4	272.26	27.23	1570.11	87.23	777.78	111.11	2620.15	74.86
		7	264.82	26.48	1355.98	75.33	875.39	125.06	2496.18	71.32
		8	265.92	26.59	1397.77	77.65	747.85	106.84	2411.55	68.90
		11	280.44	28.04	1448.23	80.46	813.41	116.20	2542.08	72.63
		12	280.91	28.09	1517.55	84.31	642.63	91.80	2441.09	69.75
		15	259.06	25.91	1450.67	80.59	743.51	106.22	2453.25	70.09
		16	258.57	25.86	1427.57	79.31	739.63	105.66	2425.77	69.31
		19	272.57	27.26	1497.96	83.22	763.46	109.07	2533.99	72.40
		20	275.10	27.51	1494.90	83.05	693.63	99.09	2463.63	70.39
		23	265.07	26.51	1546.49	85.92	689.53	98.50	2501.08	71.46
24	265.01	26.50	1562.64	86.81	746.00	106.57	2573.65	73.53		

Feed conversion ratio (Feed consum. per 1 kg of live weight)

Tab. No. 9c

Treatment	Tr. No.	Box	Feed conversion ratio		
			Day 10	Day 28	Day 35
			g/kg live weight	g/kg live weight	g/kg live weight
T1	1	1	1011.00	1207.24	1482.09
		2	979.05	1221.47	1506.28
		5	1011.55	1172.97	1526.63
		6	1034.00	1266.52	1506.72
		9	994.64	1263.64	1491.52
		10	1013.76	1246.50	1426.73
		13	979.11	1309.59	1643.62
		14	990.03	1354.02	1636.15
		17	996.99	1273.94	1613.58
		18	1016.27	1417.83	1821.11
		21	1004.66	1208.98	1516.88
		22	1003.65	1198.65	1559.12
T2	2	3	1035.96	1181.32	1468.06
		4	889.88	1156.49	1453.74
		7	1048.16	1281.97	1458.88
		8	1008.11	1287.73	1508.65
		11	936.49	1209.13	1481.94
		12	947.34	1213.22	1548.68
		15	966.02	1245.09	1530.52
		16	1020.02	1262.03	1574.13
		19	972.60	1165.69	1500.90
		20	1008.71	1157.11	1521.64
		23	1017.98	1200.29	1523.81
		24	994.82	1164.79	1483.19

Feed conversion per 1 kg of weight gain

Tab. No. 9d

Treatment	Tr. No.	Box	Feed conversion ratio			
			Day 1-10	Day 11-28	Day 29-35	Day 1-35
			g/kg weight gain	g/kg weight gain	g/kg weight gain	g/kg weight gain
T1	1	1	1160.51	1248.43	2110.76	1505.49
		2	1126.06	1273.14	2171.87	1530.88
		5	1177.52	1205.19	2524.60	1553.53
		6	1196.75	1313.81	2107.40	1531.87
		9	1146.70	1320.88	2017.28	1516.13
		10	1171.80	1294.86	1835.99	1450.09
		13	1135.07	1382.17	2553.16	1673.91
		14	1146.40	1438.35	2275.07	1665.79
		17	1137.85	1334.11	2502.58	1639.79
		18	1168.59	1511.98	2993.86	1855.29
		21	1150.63	1250.79	2363.74	1541.24
		22	1148.86	1238.83	2614.62	1584.63
T2	2	3	1192.72	1211.00	2126.13	1491.21
		4	1025.30	1211.14	2190.97	1477.39
		7	1224.57	1335.81	1797.79	1485.18
		8	1168.43	1349.39	2025.80	1535.31
		11	1074.84	1269.73	2076.92	1506.11
		12	1083.21	1269.81	2526.39	1574.48
		15	1119.43	1302.84	2202.67	1556.19
		16	1182.31	1313.87	2308.18	1601.34
		19	1116.37	1206.02	2301.58	1524.82
		20	1160.62	1188.82	2494.12	1547.58
		23	1174.90	1236.35	2392.94	1548.70
		24	1148.20	1198.50	2283.48	1507.03

Feed consumption per phases

Tab. No. 9e

Treatment	Tr. No.	Box	Feed consumption			
			Starter (D 1-10)	Grower (D 11-28)	Finisher (D 29-35)	Total (D 1-35)
			kg	kg	kg	kg
T1	1	1	22.60	132.98	118.92	274.50
		2	21.45	130.85	115.88	268.18
		5	22.25	132.85	118.30	273.40
		6	22.20	138.70	107.06	267.96
		9	21.90	136.70	109.74	268.34
		10	21.80	134.00	101.06	256.86
		13	20.95	134.67	111.42	267.04
		14	21.05	132.01	113.56	266.62
		17	22.55	138.89	121.16	282.60
		18	22.30	141.50	118.94	282.74
		21	22.65	137.81	114.06	274.52
22	22.55	135.07	117.42	275.04		
T2	2	3	22.70	129.96	119.72	272.38
		4	19.54	129.76	114.04	263.34
		7	22.70	125.65	108.59	256.94
		8	21.75	132.03	103.34	257.12
		11	21.10	128.72	118.00	267.82
		12	21.30	134.14	111.06	266.50
		15	20.30	132.30	114.64	267.24
		16	21.40	128.70	116.72	266.82
		19	21.30	126.46	122.14	269.90
		20	22.35	123.25	117.64	263.24
		23	21.80	133.84	115.50	271.14
24	21.30	129.40	117.54	268.24		

Individual weight (g)

Tab. No. 10a

Treatment	Tr. No.	Box	Wing stamp No.	Day 10	Day 28	Day 35	Box	Wing stamp No.	Day 10	Day 28	Day 35
T1	1	1	976	303	1753	2685	2	950	309	1732	2597
			977	331	1828	2674		951	352	2043	2626
			978	307	1765	2592		953	335	1883	2768
			979	317	1818	2563		954	346	2009	2894
			980	306	1662	2379		955	254	1758	2576
			981	294	1649	2541		957	369	2011	2670
			982	333	1769	2507		958	296	1812	2748
			983	330	1778	2460		959	328	1870	2703
			984	284	1703	2411		960	334	1999	2713
			985	349	1947	2779		961	306	1931	2479
			986	310	1842	2755		962	334	1951	2726
			987	309	1903	2767		964	355	1972	2902
			988	306	1792	2696		965	337	1992	2754
			989	345	1938	2761		966	271	1636	2408
		5	875	311	1738	2547	6	850	340	2019	2815
			876	341	1644	2545		851	339	1989	2515
			878	344	2078	2827		852	245	1691	2688
			879	318	1998	2727		853	315	1828	2794
			880	300	1855	2937		854	323	1955	2721
			882	282	1748	2418		855	354	1637	2481
			883	330	1836	2667		856	343	1878	2703
			884	347	1983	2834		858	310	1946	2786
			885	302	1790	2615		859	323	2147	2732
			886	281	2154	2766		861	308	1651	2560
			887	292	1622	2596		862	302	1581	2495
			888	280	1824	2617		863	323	2044	2586
			891	300	1993	2882		864	302	2008	2805
			892	304	2028	2664		865	335	1863	2511
		9	775	319	1775	2671	10	750	377	1793	2796
			776	297	2088	2910		751	319	1813	2684
			777	332	1815	2590		753	291	1846	2351
			779	312	1868	2688		754	325	1563	2458
			780	284	1829	2605		755	278	1760	2631
			781	298	1831	2714		756	289	1678	2458
			782	337	1740	2637		757	258	1820	2544
			784	327	1731	2401		759	293	1567	2244
			786	339	1951	2401		760	360	1862	2623
			787	300	1750	2311		761	297	1808	2647
			788	276	1659	2671		762	299	1817	2567
			789	287	1777	2679		763	299	1624	2340
			791	332	1790	2509		764	252	1919	2474
			793	279	1758	2651		765	292	1785	2690

Individual weight (g)

Tab. No. 10b

Treatment	Tr. No.	Box	Wing stamp No.	Day 10	Day 28	Day 35	Box	Wing stamp No.	Day 10	Day 28	Day 35
T1	1	13	675	300	1812	2591	14	653	322	1978	2767
			676	305	1893	2581		654	319	1599	2186
			677	294	1639	2455		655	328	1784	2654
			678	336	1849	2555		657	324	1866	2666
			679	336	1824	2518		658	323	1558	2376
			680	313	1792	2510		660	289	1797	2667
			681	302	1778	2455		661	353	1840	2562
			682	274	1686	2476		662	307	1658	2534
			684	316	1831	2544		663	342	1986	2732
			685	250	1561	2363		664	348	1804	2678
			686	322	1939	2828		666	312	1700	2420
			687	315	1554	2163		667	339	1562	2261
			691	328	1658	2369		668	288	1593	2407
			693	299	1823	2432		669	324	1642	2596
		17	576	339	2009	2962	18	550	244	1581	2445
			577	331	1905	2588		552	325	1699	2323
			578	305	1662	2236		553	280	1650	2165
			580	325	2034	2795		554	384	1872	2671
			581	319	1663	2435		557	305	1547	2018
			582	359	2011	2893		558	298	1534	2038
			583	354	2033	2634		559	327	1912	2486
			584	303	1705	2302		560	309	1701	2499
			585	285	1709	2383		561	328	1747	2269
			586	367	2001	2819		562	300	1671	2285
			588	329	1932	2621		563	328	1711	2608
			589	324	1866	2673		564	315	1738	2436
			590	332	2041	2881		565	365	1759	2644
			591	358	2041	2276		566	347	1905	2684
		21	479	369	2307	2988	22	450	307	1926	2731
			480	374	2197	2917		451	318	2018	2666
			481	340	1962	2614		452	317	2003	2808
			483	336	1941	2842		453	306	1925	2635
			484	345	1949	2547		454	317	1841	2578
			485	307	1996	2811		455	294	1701	2398
			486	338	1892	2750		456	314	1651	2366
			487	322	1980	2766		458	324	1862	2639
			488	334	2013	2681		459	365	2037	2803
			489	343	1884	2740		460	333	2074	2954
			491	285	1663	2376		461	341	1970	2549
			492	360	2089	2862		462	318	1853	2561
			493	308	1756	2491		464	306	2086	2841
			494	346	1944	2425		465	296	1861	2626

Individual weight (g)

Tab. No. 10c

Treatment	Tr. No.	Box	Wing stamp No.	Day 10	Day 28	Day 35	Box	Wing stamp No.	Day 10	Day 28	Day 35
T2	2	3	433	309	1679	2508	4	400	295	1880	2434
			926	345	1984	2657		901	301	2006	2894
			928	296	1772	2696		902	295	1880	2765
			929	373	2213	3052		903	318	1694	2532
			930	367	2086	2955		904	302	1734	2433
			439	354	1908	2549		905	325	1995	2985
			932	319	1829	2667		906	341	2075	3052
			933	352	2177	3061		907	322	1884	2779
			934	285	1895	2621		908	317	1828	2676
			935	314	1848	2756		909	323	2111	3037
			936	308	1986	2790		912	279	1714	2534
			937	350	2027	2911		913	295	1873	2820
			939	321	2003	2834		914	331	2049	2896
			940	282	1839	2560		915	214	1626	2409
		7	830	283	1521	2389	8	800	280	1695	2516
			832	295	1497	2317		801	311	1789	2540
			833	288	1705	2500		802	274	1943	2398
			834	306	1544	2311		803	299	1480	2230
			835	309	1600	2466		804	282	1650	2538
			836	322	1766	2371		805	300	1516	2436
			837	307	1782	2811		806	361	2009	2959
			838	360	2022	2990		808	304	1579	2394
			839	342	1817	2655		809	382	1726	2771
			840	290	1508	2200		811	339	1861	2707
			841	305	1580	2498		812	314	1838	2413
			842	314	1693	2345		813	301	1515	2409
			843	358	1658	2640		814	280	1551	2232
			844	306	2013	2854		818	314	1962	2770
		11	729	329	1638	2581	12	705	355	2067	2927
			730	316	1715	2575		706	329	2260	2719
			731	304	1567	2431		707	316	1807	2666
			732	248	1521	2299		708	290	1669	2589
			733	389	1685	2668		709	275	1662	2466
			734	309	1658	2559		710	304	1800	2648
			736	309	1651	2467		711	307	1787	2330
			737	270	1476	2299		712	305	1701	2621
			738	301	1868	2609		713	369	1429	2466
			739	354	1688	2514		714	315	1820	2535
			740	362	1814	2692		715	320	1785	2741
			741	337	2171	2887		717	304	1800	2642
		742	320	1607	2475	718	358	1948	2379		
		744	343	1795	2530	719	313	1792	2735		

Individual weight (g)

Tab. No. 10d

Treatment	Tr. No.	Box	Wing stamp No.	Day 10	Day 28	Day 35	Box	Wing stamp No.	Day 10	Day 28	Day 35
T2	2	15	627	290	1654	2281	16	600	282	1655	2425
			628	313	2068	2915		601	286	1708	2527
			629	281	1742	2538		602	316	1845	2673
			630	283	1737	2476		603	295	1665	2443
			631	305	1872	2676		604	324	1787	2421
			632	292	1752	2502		605	281	1607	2286
			533	297	1684	2381		606	290	1534	2299
			634	288	1616	2399		607	326	1907	2578
			541	299	1744	2650		608	305	1788	2576
			636	293	1858	2636		609	339	2080	2651
			637	292	1553	2266		611	291	1962	2708
			639	296	1877	2761		612	316	1822	2389
			640	309	1900	2653		613	289	1706	2397
			641	373	2080	2932		515	282	1661	2566
		19	525	327	1795	2536	500	320	1805	2535	
			526	290	1766	2563	617	295	1610	2331	
			527	295	1866	2582	503	303	1840	2689	
			528	325	1986	2582	504	318	1932	2754	
			529	341	2034	2978	505	320	1604	2208	
			530	323	1883	2537	508	337	1647	2144	
			531	316	1745	2133	510	327	1726	2441	
			532	298	1688	2208	511	336	1860	2740	
			633	303	1637	2348	512	333	1927	2523	
			534	304	1884	2678	513	332	1968	2912	
			535	337	1954	2745	614	313	1746	2416	
			536	329	1874	2736	516	319	1895	2854	
			537	329	2004	2907	517	351	2142	2884	
			635	311	1878	2489	518	334	1922	2679	
		23	425	305	1899	2672	900	280	1641	2410	
			426	295	1651	2410	401	342	2020	2967	
			427	304	1837	2578	402	294	1637	2359	
			428	320	1669	2356	403	294	1830	2563	
			429	320	1856	2578	404	278	1734	2662	
			431	308	1838	2529	405	315	1934	2768	
			432	329	1954	2728	406	283	2029	2567	
			925	295	1807	2483	408	274	1566	2233	
			434	295	1974	2888	409	312	1852	2674	
			437	308	1941	2568	918	327	1813	2468	
			438	337	1699	2424	411	274	1785	2499	
			931	278	1767	2512	412	317	2010	2913	
			440	338	2094	2956	414	273	1934	2808	
441	330	2022	2843	415	290	1823	2587				

Daily water intake in 6 hours daylight time**Tab. No. 11**

(only treatment T2)

Day	l / box	ml / bird
1	0,46	6,50
2	0,60	8,50
3	0,70	10,00
4	0,81	11,50
5	0,95	13,50
15	4,75	67,86
16	5,77	82,38
17	6,58	94,05
18	7,29	104,17
19	9,04	129,17
20	9,77	139,52
21	9,92	141,67