



MEZINÁRODNÍ TESTOVÁNÍ DRŮBEŽE ÚSTRAŠICE

státní podnik

390 02 Tábor 2

Česká republika

BROILER FEEDING TEST No. 6/2026

XXXXX

19 May – 23 June 2026

Study Investigator:
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July 2026

Basic tests information

The basic dates

Beginning of the test: 27 April 2026 (setting in the incubator)
19 May 2026 (transfer to the chicken house)

End of the test: 23 June 2026

Material and methods

Material

In total there were 3360 one-day old chicks.

Experimental treatments

Treatment No.	Treatment	Genotype	No. of pen	Birds per pen	No. of chick
1	T1	xxxxx	6	140	840
2	T2	xxxxx	6	140	840
3	T3	xxxxx	6	140	840
4	T4	xxxxx	6	140	840

Origin of hatching eggs:

xxxxx

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 – 32	18 hours of light + 6 hours of darkness
Day 33 – 35	23 hours of light + 1 hour of darkness

Veterinary precautions

The chicken house was disinfected by xxxxx before the chick placement. On day 1 and 13 chickens were vaccinated with xxxxx.

Feed

Feed was produced in xxxxx

Day 1 – 10	Starter (BR1)
Day 11 – 21	Grower A (BR2 A)
Day 22 – 30	Grower B (BR2 B)
Day 31 – 35	Finisher (BR3)

Diet formulas:

	Starter BR1	Grower BR2-A	Grower BR2-B	Finisher BR3
Age	Days 1 - 10	Days 11 - 21	Day 22 - 30	Day 31 - 35
Components (%)				
Wheat	39.17	44.30	49.60	52.15
Soybean extr. groats	34.30	32.80	29.15	27.05
Maize	17.00	16.00	15.00	15.00
Soybean oil	2.34	4.53	4.20	1.00
Fish meal	1.50	-	-	-
Soybean extr.	1.50	-	-	-
MCP	1.18	0.42	0.29	0.26
Calcium carbonate	0.99	1.01	0.93	0.93
Methionine	0.38	0.34	0.32	0.31
L-lysine	0.31	0.31	0.30	0.31
L-threonine	0.10	0.08	0.07	0.07
Salt	0.22	0.25	0.26	0.24
Sodium sulfate	0.11	0.10	0.11	0.11
Biostrong	0.05	0.05	0.05	0.05
Cholinchlorid	0.029	0.035	0.026	0.034
Animal fat	-	2.00	1.92	1.96
Premix	0.525	0.475	0.475	0.325
AG-BR1	0.30	-	-	-
AG-BR2	-	0.30	0.30	-
AG-BR3	-	-	-	0.20
Nutrient content				
Crude protein (g/kg)	227.473	209.529	197.971	191.454
Fat (g/kg)	45.724	53.385	49.101	47.534
Lysine dig. (g/kg)	12.624	11.417	10.604	10.215
Methionine dig. (g/kg)	6.367	5.709	5.406	5.248
Ca phyt. (g/kg)	9.597	7.986	7.402	7.190
P av. (g/kg)	5.808	4.003	3.691	3.602
Vitamin A (IU/kg)	15000	10000	10000	10000
Vitamin D3 (IU/kg)	5000	5000	5000	5000
ME (MJ/kg)	11.885	12.254	12.318	12.399

Parameters recorded

Live weight

Live weight was measured on day 1 (all the birds in each pen were weighed altogether), on day 10, 21 and 30 (all the birds were weighed individually, without fasting) and on day 35 (all the 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 – 10 days, 11 – 21 days, 22 – 30 days, 31 – 35 days and for the overall experiment (1 – 35 days).

Feed conversion ratio

Feed consumption and feed conversion ratio to gain ratio were calculated for the periods 1 – 10 days, 11 – 21 days, 22 – 30 days, 31 – 35 days and for the overall experiment (1 – 35 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 two times 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 – 10 days, 11 – 21 days, 22 – 30 days, 31 – 35 days and 1 – 35 days.

Carcass analysis

The carcass analysis was done in 10 ♂+ 10 ♀ per each pen on day 35.

Results

Tab. No.	1 Hatchability
	2 Performance results:
	2a Body weight
	2b Weight gain
	2c Feed conversion ratio
	2d Feed consumption
	3 Mortality
	4 Carcass analysis at the age of 35 days
	5 Statistical analysis of body weights
	6 Performance results per pen:
	6a Body weight
	6b Weight gain
	6c Feed conversion ratio
	6d Feed consumption

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	89.58	81.88	91.40	840	63.89	40.81
T2	2	89.58	80.69	90.08	840	61.63	40.30
T3	3	95.83	90.35	94.28	840	61.71	41.20
T4	4	89.92	72.08	80.17	840	51.37	32.04

Body weight per phases

Tab. No. 2a

Treatment	Tr. No.	Day 1		Day 10		Day 21		Day 30		Day 35	
		Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight
			g		g		g		g		g
T1	1	840	40.81	840	299.67	837	1080.44	828	1955.95	817	2299.75
T2	2	840	40.30	840	302.45	840	1094.45	834	1983.81	827	2312.08
T3	3	840	41.20	840	328.78	840	1163.49	833	2042.90	826	2361.04
T4	4	840	32.04	840	241.25	834	947.45	827	1794.50	812	2182.49

Weight gain per phases

Tab. No. 2b

Treatment	Tr. No.	Day 1 - 10		Day 11 - 21		Day 22 - 30		Day 31 - 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	Weight gain per phase	Daily weight gain
		g	g	g	g	g	g	g	g	g	g
T1	1	258.86	25.89	780.78	70.98	875.50	97.28	343.81	68.76	2258.94	64.54
T2	2	262.15	26.21	792.00	72.00	889.36	98.82	328.28	65.66	2271.79	64.91
T3	3	287.57	28.76	834.72	75.88	879.41	97.71	318.14	63.63	2319.84	66.28
T4	4	209.21	20.92	706.20	64.20	847.05	94.12	387.99	77.60	2150.46	61.44

Feed conversion ratio**Tab. No. 2c**

Treatment	Tr. No.	Feed conversion ratio			
		Day 10	Day 21	Day 30	Day 35
		g/kg live weight	g/kg live weight	g/kg live weight	g/kg live weight
T1	1	1066.27	1205.67	1347.19	1503.39
T2	2	945.07	1175.31	1307.09	1472.18
T3	3	1041.75	1138.71	1295.76	1471.87
T4	4	1013.10	1203.55	1341.87	1468.57

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

Treatment	Tr. No.	Feed consumption				
		Starter (d 1-10)	Grower (d 11-21)	Grower (d 22-30)	Finisher (d 31-35)	Total (d 1-35)
		kg	kg	kg	kg	kg
T1	1	268.40	823.70	1107.30	676.80	2876.20
T2	2	240.10	840.40	1089.50	672.30	2842.30
T3	3	287.70	825.20	1102.90	684.00	2899.80
T4	4	205.30	747.70	1048.90	647.70	2649.60

Mortality

Tab. No. 3

Treatment	Tr. No.	Mortality in the period											Mortality according causes														
		Day 1-10		Day 11-21		Day 22-30		Day 31-35		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	birds	g	%															
T1	1	0	0	3	1468	9	11588	11	21193	23	34249	2.74									20	3					
T2	2	0	0	0	0	6	5682	7	12903	13	18585	1.55									8	5					
T3	3	0	0	0	0	7	8303	7	11629	14	19932	1.67									10	4					
T4	4	0	0	6	1655	7	6165	15	24194	28	32014	3.33									18	10					

Causes:

1 - Viral diseases

2 - Bacterial diseases

3 - Fungal diseases

4 - Parasitary diseases

5 - Tumors

6 - Injuries

7 - Digestive tract diseases

8 - Respiratory tract diseases

9 - Reproduction tract diseases

10 - Locomotion apparatus diseases

11 - Sudden death syndrome

12 - Cannibalism

13 - Diverticulus inflammation

14 - Culling and other causes

15 - Sampling (excluded of calculation)

Results of carcass analysis

Tab. No. 4

Treatment	Tr. No.	Sex	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					
															g	g		
T1	1	♂	2505	1801	141	27	1.07	600	23.95	33.32	548	21.87	30.42	1148	45.82	63.73	71.90	77.51
		♀	2164	1564	121	29	1.32	530	24.50	33.91	456	21.05	29.13	986	45.55	63.04	72.25	77.82
		Ø	2335	1682	131	28	1.19	565	24.21	33.59	502	21.49	29.82	1067	45.69	63.41	72.06	77.65
T2	2	♂	2554	1843	146	27	1.06	598	23.40	32.42	571	22.38	31.00	1169	45.78	63.42	72.18	77.92
		♀	2210	1609	125	29	1.29	541	24.46	33.59	480	21.72	29.83	1021	46.19	63.42	72.83	78.51
		Ø	2382	1726	136	28	1.17	569	23.89	32.97	526	22.07	30.45	1095	45.97	63.42	72.48	78.19
T3	3	♂	2565	1853	143	25	0.96	614	23.95	33.15	568	22.13	30.62	1182	46.08	63.77	72.26	77.82
		♀	2238	1631	124	26	1.16	555	24.81	34.03	484	21.64	29.69	1040	46.45	63.72	72.90	78.43
		Ø	2401	1742	133	25	1.06	585	24.35	33.56	526	21.90	30.19	1111	46.25	63.75	72.56	78.11
T4	4	♂	2427	1748	142	23	0.96	576	23.75	32.98	536	22.07	30.65	1112	45.82	63.63	72.02	77.86
		♀	2135	1521	125	28	1.31	502	23.52	33.00	458	21.45	30.11	960	44.97	63.11	71.26	77.10
		Ø	2281	1634	133	26	1.13	539	23.64	32.99	497	21.78	30.40	1036	45.42	63.39	71.66	77.51

Statistical analysis - Body weight at 35 days of age

Tab. No. 5

Treatment	Tr. No.	Cocks				Hens			
		Number of birds	Average body weight	Standard deviation	Coefficient of variation	Number of birds	Average body weight	Standard deviation	Coefficient of variation
			g/birds	g/birds	%		g/birds	g/birds	%
T1	1	399	2467.11	232.74	9.43	418	2140.00	196.19	9.17
T2	2	405	2512.32	187.80	7.48	422	2119.91	231.23	10.91
T3	3	405	2565.17	187.99	7.33	421	2164.67	225.75	10.43
T4	4	392	2383.91	241.03	10.11	420	1994.50	281.53	14.12

Performance results per replicate

Body weight per phases

Tab. No. 6a

Treatment	Tr. No.	Box	Day 1		Day 10		Day 21		Day 30		Day 35	
			Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight	Birds	Average body weight
				g		g		g		g		g
T1	1	1	140	40.43	140	294.69	140	1059.41	138	1938.96	135	2362.29
		5	140	40.57	140	303.70	140	1106.66	137	1942.01	135	2348.73
		9	140	40.29	140	292.64	139	1063.09	139	1978.12	136	2270.77
		13	140	41.57	140	309.02	140	1084.19	140	1935.36	139	2291.33
		17	140	40.57	140	303.71	139	1085.76	139	1972.62	138	2251.14
		21	140	41.43	140	294.24	139	1083.50	135	1968.79	134	2275.63
T2	2	2	140	39.86	140	287.64	140	1085.49	137	1932.99	137	2379.27
		6	140	40.29	140	302.36	140	1114.87	139	1988.03	138	2365.88
		10	140	40.36	140	293.26	140	1105.36	140	2046.78	139	2311.71
		14	140	40.36	140	322.00	140	1084.23	138	1938.80	136	2230.78
		18	140	40.21	140	294.48	140	1042.91	140	1871.69	138	2265.38
		22	140	40.71	140	314.93	140	1133.81	140	2122.85	139	2318.73
T3	3	3	140	41.57	140	325.35	140	1151.51	138	2004.99	136	2415.29
		7	140	41.14	140	339.86	140	1180.10	140	2072.41	139	2412.68
		11	140	40.71	140	324.42	140	1173.03	140	2115.54	140	2352.02
		15	140	41.36	140	329.29	140	1137.31	139	1910.35	139	2249.70
		19	140	41.00	140	328.00	140	1173.77	139	2070.12	138	2386.74
		23	140	41.43	140	325.74	140	1165.24	137	2083.55	134	2350.87
T4	4	4	140	32.29	140	237.44	138	958.80	136	1781.66	134	2245.95
		8	140	32.14	140	251.30	139	955.73	139	1766.63	135	2179.19
		12	140	32.14	140	248.12	140	947.48	140	1835.43	138	2241.45
		16	140	31.43	140	233.17	140	945.21	137	1803.45	131	2180.78
		20	140	32.07	140	236.77	138	952.28	136	1785.98	135	2145.36
		24	140	32.14	140	240.67	139	925.32	139	1793.23	139	2103.67

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

Tab. No. 6b

Treatment	Tr. No.	Box	Day 1 - 10		Day 11 - 21		Day 22 - 30		Day 31 - 35		Day 1 - 35	
			WG	DWG	WG	DWG	WG	DWG	WG	DWG	WG	DWG
			g	g	g	g	g	g	g	g	g	g
T1	1	1	254.26	25.43	764.71	69.52	879.56	97.73	423.33	84.67	2321.86	66.34
		5	263.13	26.31	802.96	73.00	835.36	92.82	406.71	81.34	2308.15	65.95
		9	252.35	25.24	770.46	70.04	915.03	101.67	292.65	58.53	2230.49	63.73
		13	267.45	26.75	775.17	70.47	851.17	94.57	355.97	71.19	2249.76	64.28
		17	263.14	26.31	782.05	71.10	886.86	98.54	278.52	55.70	2210.57	63.16
		21	252.81	25.28	789.26	71.75	885.29	98.37	306.85	61.37	2234.21	63.83
T2	2	2	247.79	24.78	797.84	72.53	847.51	94.17	446.28	89.26	2339.41	66.84
		6	262.08	26.21	812.51	73.86	873.16	97.02	377.86	75.57	2325.60	66.45
		10	252.90	25.29	812.10	73.83	941.42	104.60	264.93	52.99	2271.36	64.90
		14	281.64	28.16	762.23	69.29	854.57	94.95	291.98	58.40	2190.42	62.58
		18	254.26	25.43	748.44	68.04	828.77	92.09	393.70	78.74	2225.17	63.58
		22	274.21	27.42	818.89	74.44	989.04	109.89	195.88	39.18	2278.02	65.09
T3	3	3	283.78	28.38	826.16	75.11	853.49	94.83	410.29	82.06	2373.72	67.82
		7	298.71	29.87	840.24	76.39	892.31	99.15	340.27	68.05	2371.54	67.76
		11	283.71	28.37	848.61	77.15	942.51	104.72	236.49	47.30	2311.31	66.04
		15	287.93	28.79	808.02	73.46	773.04	85.89	339.35	67.87	2208.34	63.10
		19	287.00	28.70	845.77	76.89	896.35	99.59	316.62	63.32	2345.74	67.02
		23	284.31	28.43	839.50	76.32	918.32	102.04	267.31	53.46	2309.44	65.98
T4	4	4	205.15	20.52	721.36	65.58	822.86	91.43	464.29	92.86	2213.66	63.25
		8	219.16	21.92	704.43	64.04	810.90	90.10	412.56	82.51	2147.05	61.34
		12	215.98	21.60	699.36	63.58	887.95	98.66	406.02	81.20	2209.31	63.12
		16	201.74	20.17	712.04	64.73	858.24	95.36	377.33	75.47	2149.35	61.41
		20	204.70	20.47	715.51	65.05	833.70	92.63	359.39	71.88	2113.29	60.38
		24	208.53	20.85	684.65	62.24	867.91	96.43	310.44	62.09	2071.53	59.19

Feed conversion ratio

Tab. No. 6c

Treatment	Tr. No.	Box	Feed conversion ratio			
			Day 10	Day 21	Day 30	Day 35
			g/kg live weight	g/kg live weight	g/kg live weight	g/kg live weight
T1	1	1	1076.18	1242.61	1376.78	1480.08
		5	1105.41	1177.94	1362.13	1483.02
		9	1120.36	1226.96	1338.58	1526.67
		13	1074.82	1195.10	1338.25	1498.70
		17	1008.96	1206.40	1335.28	1525.07
		21	1012.31	1186.89	1332.72	1508.57
T2	2	2	1015.64	1206.17	1377.12	1472.43
		6	1027.62	1174.38	1325.31	1458.87
		10	964.54	1179.97	1255.28	1467.31
		14	920.59	1193.08	1330.60	1499.79
		18	890.19	1207.47	1365.08	1480.64
		22	859.61	1095.54	1204.58	1455.70
T3	3	3	1047.22	1142.60	1318.93	1451.51
		7	1015.13	1110.68	1271.12	1440.15
		11	1076.64	1121.03	1245.55	1470.77
		15	986.98	1156.87	1346.15	1494.14
		19	1010.45	1120.32	1275.71	1454.79
		23	1116.15	1181.86	1323.14	1522.92
T4	4	4	1025.84	1198.76	1352.41	1430.61
		8	1026.09	1274.55	1416.30	1515.86
		12	978.78	1188.87	1302.15	1430.95
		16	1062.98	1187.94	1322.62	1461.75
		20	995.54	1169.39	1346.45	1493.06
		24	991.27	1201.34	1313.89	1482.07

Feed consumption per phases

Tab. No. 6d

Treatm ent	Tr. No.	Box	Feed consumption				
			Starter (D 1-10)	Grower (D 11-21)	Grower (D 22-30)	Finisher (D 31-35)	Total (D 1-35)
			kg	kg	kg	kg	kg
T1	1	1	44.40	139.90	187.10	112.70	484.10
		5	47.00	135.50	184.80	114.80	482.10
		9	45.90	136.00	186.80	111.20	479.90
		13	46.50	134.90	181.20	116.30	478.90
		17	42.90	139.60	184.10	111.60	478.20
		21	41.70	137.80	183.30	110.20	473.00
T2	2	2	40.90	142.40	184.80	115.50	483.60
		6	43.50	139.80	184.40	112.90	480.60
		10	39.60	143.00	177.10	113.90	473.60
		14	41.50	139.60	177.70	105.40	464.20
		18	36.70	139.60	181.40	110.20	467.90
		22	37.90	136.00	184.10	114.40	472.40
T3	3	3	47.70	136.50	183.30	116.30	483.80
		7	48.30	135.20	185.30	117.40	486.20
		11	48.90	135.20	184.80	115.40	484.30
		15	45.50	138.70	175.30	110.00	469.50
		19	46.40	137.70	184.80	114.20	483.10
		23	50.90	141.90	189.40	110.70	492.90
T4	4	4	34.10	125.10	171.30	107.30	437.80
		8	36.10	133.50	178.50	108.10	456.20
		12	34.00	123.70	176.90	111.80	446.40
		16	34.70	122.50	173.10	105.60	435.90
		20	33.00	121.60	176.10	109.00	439.70
		24	33.40	121.30	173.00	105.90	433.60