



MEZINÁRODNÍ TESTOVÁNÍ DRŮBEŽE
státní podnik, ÚSTRAŠICE

390 02 Tábor 2

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**4th part fattening test
from the LIII. international parent test**

4. 6. 2025 - 6. 7. 2025

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Ing. Markéta Krekulová

Ústrašice, July 2025

1 List of participants

Sample	Cross	Breeding organization	State
1	XXXXXX	XXXXXX	XXXXXX
2	XXXXXX	XXXXXX	XXXXXX
3	XXXXXX	XXXXXX	XXXXXX
4	XXXXXX	XXXXXX	XXXXXX
5	XXXXXX	XXXXXX	XXXXXX
6	XXXXXX	XXXXXX	XXXXXX
7	XXXXXX	XXXXXX	XXXXXX
8	XXXXXX	XXXXXX	XXXXXX
9	XXXXXX	XXXXXX	XXXXXX
10	XXXXXX	XXXXXX	XXXXXX
11	XXXXXX	XXXXXX	XXXXXX
12	XXXXXX	XXXXXX	XXXXXX

2 Basic tests information

2.1 The basic dates

setting in the hatchery:	13 May 2025
beginning of test:	4 June 2025
end of the test:	6 July 2025

2.2 Location of the test

Mezinárodní testování drůbeže, s.p. Ústrašice, Czech Republic

3 Material and methods

3.1 Material

There were 12 different breeds in this test. Each sample consisted of 900 hatching eggs. 520 broilers were sexed and placed always 260 females (in two pens) and 260 males (in two pens). The sample 6 and 8 had a lower number of chicks (poor hatching). The parent flock is 60 weeks old at the time of hatching eggs collection.

3.2 Housing system

Pullets were kept in windowless house with full control of the environment. They were kept in deep litter system. Manually filled tube feeders and nipple automatic drinkers were used.

3.3 Lighting programme

Pullets were kept in windowless house. All the birds were submitted to the following lighting programme.

Age	Hours of light	Hours of darkness
Day 1 – 7	23	1
Day 8 – 29	18	6
Day 30 – 32	23	1

3.4 Stocking density

16 broilers per square meter

3.5 Feeding

Feed was produced in xxxxx.

Day 1 – 10 Starter (BR1)

Day 11 – 21 Grower (BR2-A)

Day 22 – 28 Grower (BR2-B)

Day 29 – 32 Finisher (BR3)

Diet formulas

	Starter BR1	Grower BR2-A	Grower BR2-B	Finisher BR3
Age	Days 1 - 10	Days 11 - 21	Day 22 - 28	Day 29 - 32
Components (%)				
Wheat	41.95	50.55	52.46	57.88
Maize	15.00	13.00	13.00	10.00
Soybean extr.	32.60	30.95	28.90	26.65
Soybean extr. groats	3.00	-	-	-
Fish meal	1.50	-	-	-
MCP – monocalciumphosphate	0.87	0.35	0.27	0.18
Calcium carbonate	1.15	1.08	0.99	0.98
Salt	0.21	0.23	0.23	0.23
Soybean oil	1.86	1.58	1.20	1.00
Animal fat	-	0.50	1.28	1.72
Sodium sulfate	0.11	0.12	0.12	0.11
Cholinchlorid	0.04	0.04	0.03	0.03
Premixes of amino acid	0.84	0.88	0.80	0.80
Vitamin and mineral supplement	0.88	0.73	0.73	0.43
Nutrient content				
Crude protein (g/kg)	225.35	204.27	196.71	189.70
Fat (g/kg)	43.17	38.47	42.37	44.04
Lysine dig. (g/kg)	12.79	11.71	11.10	10.66
Methionine dig. (g/kg)	6.39	5.68	5.43	5.16
Ca phyt. (g/kg)	9.41	7.80	7.30	6.99
P dig. (g/kg)	5.10	3.78	3.58	3.37
Vitamin A (IU/kg)	15000	10000	10000	10000
Vitamin D3 (IU/kg)	5000	5000	5000	5000
ME (MJ/kg)	12.03	12.16	12.34	12.51

3.6 Veterinary precautions

The chicken house was disinfected by xxxxx before the chick placement. On the first days old chickens was applied to the water solution of permanganate. On days 1 and 12 chickens were vaccinated with xxxxx.

4 Parameters recorded

4.1 Live weight

Live weight was measured on days 1 (all the birds in each pen were weighed altogether), 7 and 14 (20 % of the birds were weighed altogether, without fasting). On day 32 birds were weighed individually, after 12 hours of fasting.

4.2 Feed conversion ratio (FCR)

Feed conversion ratio was calculated as feed consumption per 1 kg of live weight for the periods 1 – 14 days and 1 – 32 days.

4.3 Mortality

All pens were checked three 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.

4.4 Carcass analysis

The carcass analysis was done on 20 cocks and 20 hens per each genotype on day 32. Breast muscles was weighed without skin and thigh muscles with bone and skin.

4.5 Statistical analyses

Performance results of live weight at the age of 32 days were statistically evaluated.

5 Results

Tab. No.	1	Hatchability
	2a	Broiler results at the age of 7 days
	2b	Broiler results at the age of 14 days
	2c	Broiler results at the age of 32 days
	3a	Mortality during growing period at the age of 14 days
	3b	Mortality during growing period at the age of 32 days
	4	Results of carcass analysis
	5a	Statistical analysis – cocks
	5b	Statistical analysis – hens

Hatchability**Tab. No. 1**

Test: 53

Part fattening: 4

Cross	Sample	Fertility	Hatchability		Birds housed	Average weight		
			Set	Fert.		hatch. eggs	1-day	
		%	%	%		g	♂ g	♀ g
XXXXXX	1	76.67	58.33	76.09	520	72.99	49.35	49.27
XXXXXX	2	92.00	75.44	82.00	520	71.39	49.96	49.23
XXXXXX	3	92.22	75.11	81.45	520	71.80	50.04	49.38
XXXXXX	4	79.33	60.44	76.19	520	70.60	47.85	47.54
XXXXXX	5	80.00	67.56	84.44	520	70.44	49.35	49.38
XXXXXX	6	86.33	43.56	50.45	390	71.80	48.41	48.64
XXXXXX	7	73.78	59.22	80.27	520	72.60	50.31	50.12
XXXXXX	8	83.67	35.67	42.63	300	71.46	47.33	47.53
XXXXXX	9	86.22	71.56	82.99	520	71.68	50.38	49.65
XXXXXX	10	78.89	64.33	81.55	520	71.97	49.88	49.42
XXXXXX	11	93.44	75.89	81.21	520	72.29	47.38	46.08
XXXXXX	12	90.78	74.67	82.25	520	71.88	48.46	47.85

This is the true fertility (broken eggs) not the candling fertility.

Broiler results at the age of 7 days

Tab. No. 2a

Test: 53

Part fattening: 4

Cross	Sample	Average live weight at 7 days								
		male			female			average		
		mortality		live weight	mortality		live weight	mortality		live weight
		birds	%	g	birds	%	g	birds	%	g
XXXXXX	1	2	0.77	190.00	16	6.15	200.83	18	3.46	195.27
XXXXXX	2	2	0.77	217.50	3	1.15	205.00	5	0.96	211.26
XXXXXX	3	2	0.77	215.83	2	0.77	207.50	4	0.77	211.67
XXXXXX	4	0	0.00	203.33	1	0.38	202.50	1	0.19	202.92
XXXXXX	5	3	1.15	210.00	0	0.00	200.83	3	0.58	205.39
XXXXXX	6	4	2.35	204.17	10	4.55	195.00	14	3.59	199.05
XXXXXX	7	2	0.77	213.33	5	1.92	206.67	7	1.35	210.02
XXXXXX	8	4	2.67	201.67	3	2.00	197.50	7	2.33	199.58
XXXXXX	9	1	0.38	215.83	1	0.38	205.83	2	0.38	210.83
XXXXXX	10	2	0.77	213.33	6	2.31	201.67	8	1.54	207.55
XXXXXX	11	3	1.15	210.00	9	3.46	200.83	12	2.31	205.47
XXXXXX	12	2	0.77	212.50	1	0.38	203.33	3	0.58	207.91

Broiler results at the age of 14 days

Tab. No. 2b

Test: 53

Part fattening: 4

Cross	Sample	Average live weight at 14 days								
		male			female			average		
		birds	live weight	FCR	birds	live weight	FCR	birds	live weight	FCR
			g	g		g	g		g	g
xxxxxx	1	257	574.17	1034.15	243	554.17	1081.96	500	564.45	1056.96
xxxxxx	2	255	630.00	1021.48	254	542.50	1092.93	509	586.34	1054.47
xxxxxx	3	257	610.33	993.91	257	559.17	1074.42	514	584.75	1032.40
xxxxxx	4	258	567.50	1087.32	259	574.17	1072.56	517	570.84	1079.88
xxxxxx	5	254	616.67	1016.39	258	562.50	1061.84	512	589.37	1038.25
xxxxxx	6	161	585.00	1196.58	209	544.17	1078.86	370	561.93	1132.19
xxxxxx	7	254	617.50	1020.75	251	558.33	1044.66	505	588.09	1032.03
xxxxxx	8	142	567.50	1166.47	140	538.33	1111.90	282	553.02	1140.10
xxxxxx	9	258	606.67	1075.90	258	548.33	1048.28	516	577.50	1062.79
xxxxxx	10	257	612.50	1001.19	253	561.67	1062.62	510	587.28	1030.34
xxxxxx	11	255	585.83	1079.74	248	543.33	1083.51	503	564.88	1081.53
xxxxxx	12	253	625.00	1003.00	257	563.33	1031.24	510	593.92	1016.50

Broiler results at the age of 32 days

Tab. No. 2c

Test: 53

Part fattening: 4

Cross	Sample	Average live weight at 32 days								
		male			female			average		
		birds	live weight	FCR	birds	live weight	FCR	birds	live weight	FCR
			g	g		g	g		g	g
xxxxx	1	243	2285.60	1459.31	242	2037.48	1471.60	485	2161.79	1465.09
xxxxx	2	251	2339.92	1452.87	253	1980.87	1519.87	504	2159.68	1483.72
xxxxx	3	252	2329.25	1429.20	251	2014.66	1511.23	503	2172.27	1467.17
xxxxx	4	252	2229.52	1414.10	255	2010.51	1529.80	507	2119.37	1469.31
xxxxx	5	253	2359.76	1464.11	255	1963.84	1540.20	508	2161.02	1498.82
xxxxx	6	158	2453.86	1448.51	206	2013.06	1521.38	364	2204.40	1486.17
xxxxx	7	245	2444.90	1460.10	250	2073.00	1517.99	495	2257.07	1486.95
xxxxx	8	134	2311.94	1436.09	135	2154.81	1467.51	269	2233.09	1451.31
xxxxx	9	256	2392.11	1418.73	256	2115.16	1403.75	512	2253.63	1411.70
xxxxx	10	249	2385.94	1432.08	246	2169.15	1414.14	495	2278.20	1423.59
xxxxx	11	253	2354.47	1445.91	244	2114.10	1477.01	497	2236.46	1460.34
xxxxx	12	249	2395.22	1440.28	253	2149.80	1436.85	502	2271.53	1438.64

Mortality in the age 14 days

Tab. No. 3a

Test: 53

Part fattening: 4

Cross	Sample	Mortality in the period						Mortality according causes													
		male		female		total		1	2	3	4	5	6	7	8	9	10	11	12	13	14
		birds	%	birds	%	birds	%														
XXXXXX	1	3	1.15	17	6.54	20	3.85					11						4		4	1
XXXXXX	2	5	1.92	6	2.31	11	2.12											6		3	2
XXXXXX	3	3	1.15	3	1.15	6	1.15											1			5
XXXXXX	4	2	0.77	1	0.38	3	0.58											2			1
XXXXXX	5	6	2.31	2	0.77	8	1.54					2					1	4		1	
XXXXXX	6	9	5.29	11	5.00	20	5.13										1	6		7	6
XXXXXX	7	6	2.31	9	3.46	15	2.88	1				1					1	3			9
XXXXXX	8	8	5.33	10	6.67	18	6.00					3					7	2			6
XXXXXX	9	2	0.77	2	0.77	4	0.77											3			1
XXXXXX	10	3	1.15	7	2.69	10	1.92				6							4			
XXXXXX	11	5	1.92	12	4.62	17	3.27					4					2	4			7
XXXXXX	12	7	2.69	3	1.15	10	1.92					2					1	5			2

Causes: 1 – Viral diseases
2 – Bacterial diseases
3 – Moulds diseases
4 – Parasitary diseases
5 – Tumors

6 – Wounds
7 – Digestive track diseases
8 – Respiratory tract diseases
9 – Reproduction tract diseases
10 – Locomotion apparatus diseases

11 – Sudden death syndrome
12 – Cannibalism
13 – Yolk sac. infam.
14 – Culling and other causes

Mortality during the masts in 32 days

Tab. No. 3b

Test: 53

Part fattening: 4

Cross	Sample	Mortality in the period						Mortality according causes													
		1 - 14		15 - 32		1 - 32		1	2	3	4	5	6	7	8	9	10	11	12	13	14
		birds	%	birds	%	birds	%														
XXXXXX	1	20	3.85	15	2.88	35	6.73					11						18		4	2
XXXXXX	2	11	2.12	5	0.96	16	3.08										1	10		3	2
XXXXXX	3	6	1.15	11	2.12	17	3.27											10			7
XXXXXX	4	3	0.58	10	1.92	13	2.50										3	9			1
XXXXXX	5	8	1.54	4	0.77	12	2.31	1				2					1	7		1	
XXXXXX	6	20	5.13	6	1.54	26	6.67										4	9		7	6
XXXXXX	7	15	2.88	10	1.92	25	4.81	1				1					3	9			11
XXXXXX	8	18	6.00	13	4.33	31	10.33					3					12	7			9
XXXXXX	9	4	0.77	4	0.77	8	1.54											5			3
XXXXXX	10	10	1.92	15	2.88	25	4.81				6						2	14			3
XXXXXX	11	17	3.27	6	1.15	23	4.42					4					3	8			8
XXXXXX	12	10	1.92	8	1.54	18	3.46					2					2	11			3

Causes: 1 – Viral diseases
2 – Bacterial diseases
3 – Moulds diseases
4 – Parasitary diseases
5 – Tumors

6 – Wounds
7 – Digestive track diseases
8 – Respiratory tract diseases
9 – Reproduction tract diseases
10 – Locomotion apparatus diseases

11 – Sudden death syndrome
12 – Cannibalism
13 – Yolk sac. infam.
14 – Culling and other causes

Results of carcass analysis in 32 days

Tab. No. 4 (page 1)

Test: 53

Part fattening: 4

Cross	Sample	Sex	Weight				Ratio of abd. fat to live weight	Breast meat without skin			Thigh meat with bone and skin			Breast meat and thighs			Carcass	
			Total	Body	Gibl.	Abd. fat		weight	percentage		weight	percentage		weight	percentage		value	quality
									total weight	body carcass		total weight	body carcass					
g	g	g	g	%	g	%	%	g	%	%	g	%	%	%	%			
xxxxxx	1	♂	2318	1650	136	25	1.06	571	24.66	34.63	499	21.51	30.21	1070	46.17	64.84	71.21	77.08
		♀	2069	1494	120	29	1.40	510	24.64	34.11	449	21.69	30.02	958	46.33	64.13	72.24	78.04
		♂	2193	1572	128	27	1.22	541	24.65	34.38	474	21.60	30.12	1014	46.24	64.50	71.70	77.53
xxxxxx	2	♂	2342	1675	136	25	1.06	564	24.08	33.68	512	21.87	30.59	1076	45.96	64.27	71.52	77.33
		♀	2015	1450	116	28	1.38	502	24.89	34.59	439	21.78	30.27	940	46.68	64.86	71.97	77.73
		♂	2178	1562	126	26	1.21	533	24.46	34.10	476	21.83	30.44	1008	46.29	64.54	71.73	77.51
xxxxxx	3	♂	2338	1684	132	25	1.07	574	24.55	34.08	515	22.03	30.58	1089	46.59	64.66	72.05	77.69
		♀	2001	1414	115	28	1.41	489	24.43	34.56	420	20.97	29.68	909	45.40	64.24	70.67	76.40
		♂	2169	1549	123	27	1.22	531	24.49	34.30	467	21.55	30.17	999	46.04	64.47	71.41	77.10
xxxxxx	4	♂	2275	1630	132	28	1.21	554	24.35	33.98	488	21.44	29.93	1042	45.79	63.90	71.66	77.46
		♀	2034	1479	121	30	1.49	500	24.57	33.79	441	21.67	29.81	940	46.24	63.60	72.71	78.67
		♂	2154	1554	127	29	1.34	527	24.45	33.89	464	21.55	29.87	991	46.00	63.76	72.15	78.03
xxxxxx	5	♂	2390	1696	136	27	1.14	571	23.91	33.69	518	21.70	30.57	1090	45.61	64.26	70.98	76.66
		♀	2012	1455	119	29	1.43	491	24.38	33.72	449	22.30	30.84	939	46.69	64.56	72.31	78.24
		♂	2201	1575	127	28	1.27	531	24.13	33.70	484	21.97	30.69	1015	46.10	64.40	71.59	77.38
xxxxxx	6	♂	2399	1703	136	26	1.08	579	24.12	33.98	519	21.63	30.47	1097	45.75	64.45	70.99	76.67
		♀	2017	1456	116	27	1.34	510	25.28	35.00	444	22.00	30.46	953	47.28	65.46	72.22	77.96
		♂	2208	1580	126	27	1.20	544	24.65	34.45	481	21.80	30.46	1025	46.45	64.92	71.55	77.26

Results of carcass analysis in 32 days
Tab. No. 4 (page 2)

Test: 53

Part fattening: 4

Cross	Sample	Sex	Weight				Ratio of abd. fat to live weight	Breast meat without skin			Thigh meat with bone and skin			Breast meat and thighs			Carcass	
			Total	Body	Gibl.	Abd. fat		weight	percentage		weight	percentage		weight	percentage		value	quality
									total weight	body carcass		total weight	body carcass					
g	g	g	g	%	g	%	%	g	%	%	g	%	%	%	%			
xxxxxx	7	♂	2462	1764	139	28	1.13	593	24.10	33.63	541	21.98	30.67	1134	46.07	64.31	71.65	77.30
		♀	2176	1580	120	31	1.43	544	25.00	34.43	480	22.05	30.37	1024	47.05	64.79	72.61	78.13
		♂	2319	1672	130	29	1.27	569	24.52	34.01	510	22.01	30.53	1079	46.53	64.54	72.10	77.69
xxxxxx	8	♂	2285	1603	137	27	1.18	530	23.19	33.07	482	21.09	30.08	1012	44.29	63.15	70.13	76.11
		♀	2189	1560	125	34	1.55	530	24.20	33.96	468	21.39	30.01	998	45.59	63.97	71.26	76.98
		♂	2237	1581	131	30	1.36	530	23.69	33.51	475	21.24	30.05	1005	44.92	63.56	70.69	76.53
xxxxxx	9	♂	2542	1795	141	25	1.00	614	24.16	34.21	553	21.77	30.82	1168	45.94	65.03	70.64	76.18
		♀	2191	1568	126	26	1.21	552	25.19	35.20	472	21.53	30.09	1024	46.72	65.29	71.55	77.32
		♂	2366	1681	134	26	1.10	583	24.64	34.67	513	21.66	30.48	1096	46.30	65.16	71.06	76.71
xxxxxx	10	♂	2541	1808	137	26	1.03	617	24.29	34.12	545	21.46	30.14	1162	45.74	64.27	71.18	76.58
		♀	2203	1574	122	34	1.55	559	25.35	35.50	488	22.13	30.99	1046	47.49	66.49	71.43	76.95
		♂	2372	1691	129	30	1.27	588	24.78	34.76	516	21.77	30.54	1104	46.55	65.30	71.29	76.75
xxxxxx	11	♂	2464	1742	140	31	1.24	570	23.13	32.70	531	21.56	30.48	1101	44.69	63.18	70.73	76.39
		♀	2210	1584	128	33	1.50	535	24.20	33.76	477	21.57	30.10	1012	45.77	63.85	71.68	77.47
		♂	2337	1663	134	32	1.36	552	23.63	33.20	504	21.57	30.30	1056	45.20	63.50	71.18	76.90
xxxxxx	12	♂	2490	1790	137	27	1.09	614	24.65	34.29	540	21.67	30.14	1154	46.33	64.43	71.90	77.39
		♀	2250	1629	123	29	1.30	569	25.30	34.94	486	21.60	29.84	1055	46.90	64.78	72.40	77.87
		♂	2370	1710	130	28	1.19	592	24.96	34.60	513	21.64	30.00	1104	46.60	64.60	72.14	77.62

Statistical analysis - Cocks on the age of 32 days

Tab. No. 5a

Test: 53

Part fattening: 4

Cross	Sample	Sample size	Average	Standard deviation	Coefficient of variation	Standard error of mean	Precision select. average	Standard error of coeff. of variation
			g/birds	g/birds	%	g/birds	%	%
xxxxxx	1	243	2285.60	255.11	11.16	16.37	0.72	0.51
xxxxxx	2	251	2339.92	220.45	9.42	13.91	0.59	0.43
xxxxxx	3	252	2329.25	221.83	9.52	13.97	0.60	0.43
xxxxxx	4	252	2229.52	235.33	10.56	14.82	0.66	0.48
xxxxxx	5	253	2359.76	201.00	8.52	12.64	0.54	0.38
xxxxxx	6	158	2453.86	297.08	12.11	23.63	0.96	0.69
xxxxxx	7	245	2444.90	237.59	9.72	15.18	0.62	0.44
xxxxxx	8	134	2311.94	307.45	13.30	26.56	1.15	0.83
xxxxxx	9	256	2392.11	242.45	10.14	15.15	0.63	0.45
xxxxxx	10	249	2385.94	273.85	11.48	17.35	0.73	0.52
xxxxxx	11	253	2354.47	254.06	10.79	15.97	0.68	0.49
xxxxxx	12	249	2395.22	249.60	10.42	15.82	0.66	0.47

Statistical analysis - Hens on the age of 32 days

Tab. No. 5b

Test: 53

Part fattening: 4

Cross	Sample	Sample size	Average	Standard deviation	Coefficient of variation	Standard error of mean	Precision select. average	Standard error of coeff. of variation
			g/birds	g/birds	%	g/birds	%	%
xxxxxx	1	242	2037.48	246.82	12.11	15.87	0.78	0.56
xxxxxx	2	253	1980.87	187.74	9.48	11.80	0.60	0.43
xxxxxx	3	251	2014.66	215.04	10.67	13.57	0.67	0.48
xxxxxx	4	255	2010.51	206.96	10.29	12.96	0.64	0.46
xxxxxx	5	255	1963.84	195.81	9.97	12.26	0.62	0.45
xxxxxx	6	206	2013.06	222.69	11.06	15.52	0.77	0.55
xxxxxx	7	250	2073.00	211.35	10.20	13.37	0.64	0.46
xxxxxx	8	135	2154.81	220.21	10.22	18.95	0.88	0.63
xxxxxx	9	256	2115.16	211.07	9.98	13.19	0.62	0.45
xxxxxx	10	246	2169.15	218.00	10.05	13.90	0.64	0.46
xxxxxx	11	244	2114.10	257.56	12.18	16.49	0.78	0.56
xxxxxx	12	253	2149.80	189.70	8.82	11.93	0.55	0.40