



MEZINÁRODNÍ TESTOVÁNÍ DRŮBEŽE
státní podnik, ÚSTRAŠICE

390 02 Tábor 2

Tel.: 381 200 320

**2nd part fattening test
from the LIV. international parent test**

28. 1. 2026 - 1. 3. 2026

Study Investigator: Ing. Hana Horná
Ing. Markéta Krekulová

Ústrašice, March 2026

1 List of participants

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

2 Basic tests information

2.1 The basic dates

setting in the hatchery:

6 January 2026

beginning of test:

28 January 2026

end of the test:

1 March 2026

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 720 hatching eggs. 560 broilers were sexed and placed always 280 females (in two pens) and 280 males (in two pens).

The parent flock is 42 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

17,2 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	36.61	46.31	45.99	47.32
Maize	17.00	16.00	15.00	15.00
Soybean extr.	35.25	31.70	31.15	29.10
Soybean extr. groats	3.00	-	-	-
Fish meal	1.50	-	-	-
MCP – monocalciumphosphate	0.62	0.37	0.34	0.21
Calcium carbonate	1.23	1.05	1.02	0.95
Salt	0.21	0.23	0.23	0.23
Soybean oil	2.57	1.99	1.60	2.91
Animal fat	-	0.50	2.90	2.80
Sodium sulfate	0.11	0.13	0.12	0.12
Cholinchlorid	0.032	0.037	0.023	0.032
Premixes of amino acid	0.89	0.86	0.80	0.80
Vitamin and mineral supplement	0.68	0.53	0.53	0.33
AMV BR1 0,3 %	0.30	-	-	-
AMV BR2 0,3 %	-	0.30	0.30	-
AMV BR3 0,2 %	-	-	-	0.20
Nutrient content				
Crude protein (g/kg)	233.62	205.75	201.74	194.10
Fat (g/kg)	50.64	43.18	62.61	74.50
Lysine dig. (g/kg)	13.19	11.70	11.19	10.77
Methionine dig. (g/kg)	6.74	5.88	5.74	5.56
Ca phyt. (g/kg)	9.39	7.78	7.61	7.01
P dig. (g/kg)	4.71	3.89	3.81	3.50
Vitamin A (IU/kg)	15000	10000	10000	10000
Vitamin D3 (IU/kg)	5000	5000	5000	5000
ME (MJ/kg)	11.96	12.09	12.54	12.99

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: 54

Part fattening: 2

Cross	Sample	Fertility	Hatchability		Birds housed	Average weight		
			Set	Fert.		hatch. eggs	1-day	
		%	%	%		♂	♀	
						g	g	g
XXXXX	1	97.64	87.64	89.76	560	64.40	47.76	47.17
XXXXX	2	94.03	82.36	87.59	560	62.71	43.39	43.25
XXXXX	3	96.67	89.44	92.53	560	67.28	48.95	48.53
XXXXX	4	96.67	85.42	88.36	560	65.82	47.48	47.17
XXXXX	5	95.83	83.89	87.54	560	64.56	49.02	48.78
XXXXX	6	89.72	81.53	90.87	560	68.11	51.12	50.35
XXXXX	7	96.67	85.97	88.94	560	64.18	47.90	47.55
XXXXX	8	96.25	85.69	89.03	560	64.54	49.65	49.26
XXXXX	9	93.19	81.81	87.78	560	62.46	44.61	43.99
XXXXX	10	96.25	83.33	86.58	560	68.33	50.80	50.70
XXXXX	11	97.08	89.03	91.70	560	64.38	49.13	48.92
XXXXX	12	92.22	81.25	88.10	560	63.17	45.88	45.10

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

Broiler results at the age of 7 days

Tab. No. 2a

Test: 54

Part fattening: 2

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
XXXXX	1	0	0.00	208.33	0	0.00	185.83	0	0.00	197.08
XXXXX	2	0	0.00	183.17	3	1.07	179.50	3	0.54	181.34
XXXXX	3	0	0.00	203.50	2	0.71	197.50	2	0.36	200.51
XXXXX	4	0	0.00	204.83	4	1.43	189.33	4	0.71	197.14
XXXXX	5	0	0.00	204.17	0	0.00	188.00	0	0.00	196.08
XXXXX	6	0	0.00	201.83	0	0.00	185.83	0	0.00	193.83
XXXXX	7	0	0.00	202.50	0	0.00	189.17	0	0.00	195.83
XXXXX	8	0	0.00	210.83	2	0.71	189.67	2	0.36	200.29
XXXXX	9	0	0.00	192.50	1	0.36	181.67	1	0.18	187.09
XXXXX	10	0	0.00	204.67	0	0.00	189.00	0	0.00	196.83
XXXXX	11	0	0.00	206.33	0	0.00	196.83	0	0.00	201.58
XXXXX	12	0	0.00	195.00	2	0.71	184.17	2	0.36	189.60

Broiler results at the age of 14 days

Tab. No. 2b

Test: 54

Part fattening: 2

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	
XXXXX	1	279	612.50	953.84	280	558.33	997.23	559	585.37	974.57
XXXXX	2	280	550.33	1018.21	275	525.83	1069.82	555	538.19	1043.20
XXXXX	3	278	632.50	993.55	278	587.50	984.54	556	610.00	989.21
XXXXX	4	279	584.00	1030.47	275	560.33	1074.04	554	572.25	1051.64
XXXXX	5	276	627.50	1015.07	279	570.83	1061.14	555	599.01	1037.14
XXXXX	6	280	639.17	992.36	280	585.00	1031.14	560	612.08	1010.89
XXXXX	7	280	619.17	998.46	280	575.83	979.95	560	597.50	989.54
XXXXX	8	280	618.33	1028.11	278	571.67	960.84	558	595.08	995.91
XXXXX	9	278	563.33	1054.23	278	533.33	1087.90	556	548.33	1070.61
XXXXX	10	280	619.17	1009.42	280	579.17	1061.87	560	599.17	1034.77
XXXXX	11	280	631.17	982.31	279	593.33	990.09	559	612.28	986.07
XXXXX	12	278	560.00	1066.29	277	524.17	1008.30	555	542.12	1038.31

Broiler results at the age of 32 days

Tab. No. 2c

Test: 54

Part fattening: 2

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	
XXXXX	1	264	2381.14	1400.85	278	2153.99	1380.91	542	2264.63	1391.12
XXXXX	2	271	2231.81	1418.11	264	2015.30	1435.04	535	2124.97	1426.03
XXXXX	3	261	2554.41	1395.53	273	2149.52	1410.14	534	2347.42	1402.37
XXXXX	4	272	2348.38	1404.13	273	2111.06	1419.87	545	2229.50	1411.59
XXXXX	5	266	2513.65	1427.70	275	2195.82	1350.83	541	2352.09	1391.22
XXXXX	6	259	2604.56	1427.55	272	2243.05	1419.91	531	2419.38	1423.92
XXXXX	7	271	2415.94	1379.22	278	2084.82	1319.06	549	2248.27	1350.97
XXXXX	8	269	2570.82	1382.26	275	1938.22	1453.07	544	2251.03	1413.08
XXXXX	9	270	2253.44	1433.20	267	2008.99	1436.99	537	2131.90	1434.97
XXXXX	10	260	2504.35	1487.72	274	2239.64	1415.44	534	2368.52	1452.65
XXXXX	11	266	2351.43	1432.98	271	2058.04	1469.89	537	2203.37	1450.38
XXXXX	12	268	2205.97	1467.86	272	1913.93	1397.45	540	2058.87	1434.89

Mortality in the age 14 days

Tab. No. 3a

Test: 54

Part fattening: 2

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	1	0.36	0	0.00	1	0.18											1				
XXXXXX	2	0	0.00	5	1.79	5	0.89										1	1				3
XXXXXX	3	2	0.71	2	0.71	4	0.71											2				2
XXXXXX	4	1	0.36	5	1.79	6	1.07										1	1				4
XXXXXX	5	4	1.43	1	0.36	5	0.89											3				2
XXXXXX	6	0	0.00	0	0.00	0	0.00															
XXXXXX	7	0	0.00	0	0.00	0	0.00															
XXXXXX	8	0	0.00	2	0.71	2	0.36															2
XXXXXX	9	2	0.71	2	0.71	4	0.71											3				1
XXXXXX	10	0	0.00	0	0.00	0	0.00															
XXXXXX	11	0	0.00	1	0.36	1	0.18												1			
XXXXXX	12	2	0.71	3	1.07	5	0.89											3				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: 54

Part fattening: 2

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	1	0.18	17	3.04	18	3.21										1	14			3
XXXXXX	2	5	0.89	20	3.57	25	4.46										1	17			7
XXXXXX	3	4	0.71	22	3.93	26	4.64										1	23			2
XXXXXX	4	6	1.07	9	1.61	15	2.68										1	10			4
XXXXXX	5	5	0.89	14	2.50	19	3.39										1	16			2
XXXXXX	6	0	0.00	29	5.18	29	5.18											25			4
XXXXXX	7	0	0.00	11	1.96	11	1.96										1	7			3
XXXXXX	8	2	0.36	14	2.50	16	2.86											14			2
XXXXXX	9	4	0.71	19	3.39	23	4.11										1	18			4
XXXXXX	10	0	0.00	26	4.64	26	4.64											24			2
XXXXXX	11	1	0.18	22	3.93	23	4.11										1	20			2
XXXXXX	12	5	0.89	15	2.68	20	3.57											16			4

- 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: 54

Part fattening: 2

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		total weight	body carcass		
			g	g	g	g		%	g	%	%	g	%	%	g	%	%	%
xxxxxx	1	♂	2436	1727	143	23	0.94	619	25.42	35.85	513	21.08	29.73	1133	46.50	65.58	70.91	76.77
		♀	2194	1566	125	24	1.10	554	25.26	35.40	462	21.07	29.53	1017	46.34	64.93	71.37	77.05
		♂	2315	1646	134	24	1.02	587	25.35	35.64	488	21.08	29.63	1075	46.42	65.27	71.13	76.90
xxxxxx	2	♂	2194	1513	133	21	0.97	510	23.25	33.70	449	20.47	29.67	959	43.71	63.36	68.98	75.04
		♀	2037	1426	120	28	1.36	486	23.86	34.08	424	20.81	29.71	910	44.67	63.80	70.02	75.93
		♂	2115	1470	127	24	1.16	498	23.54	33.88	436	20.63	29.69	934	44.17	63.57	69.48	75.47
xxxxxx	3	♂	2643	1865	154	25	0.93	662	25.06	35.51	545	20.63	29.23	1207	45.69	64.74	70.57	76.41
		♀	2254	1598	123	24	1.08	568	25.21	35.57	466	20.68	29.17	1034	45.89	64.74	70.88	76.32
		♂	2448	1731	139	24	1.00	615	25.13	35.54	506	20.65	29.20	1121	45.78	64.74	70.71	76.37
xxxxxx	4	♂	2396	1683	145	28	1.16	584	24.38	34.71	501	20.89	29.75	1085	45.27	64.46	70.23	76.28
		♀	2107	1501	125	27	1.26	535	25.38	35.63	436	20.71	29.07	971	46.09	64.70	71.24	77.18
		♂	2252	1592	135	27	1.21	559	24.85	35.14	468	20.81	29.43	1028	45.65	64.57	70.70	76.70
xxxxxx	5	♂	2561	1820	154	26	1.00	643	25.12	35.34	541	21.14	29.73	1185	46.26	65.08	71.08	77.10
		♀	2268	1623	132	30	1.31	569	25.09	35.06	478	21.06	29.43	1047	46.16	64.50	71.56	77.36
		♂	2414	1722	143	28	1.14	606	25.11	35.21	509	21.10	29.59	1116	46.21	64.80	71.31	77.22
xxxxxx	6	♂	2639	1884	158	23	0.86	684	25.92	36.31	556	21.06	29.51	1240	46.99	65.82	71.39	77.39
		♀	2299	1689	132	24	1.06	606	26.36	35.88	505	21.98	29.93	1111	48.34	65.80	73.46	79.20
		♂	2469	1786	145	23	0.95	645	26.13	36.11	531	21.49	29.70	1175	47.62	65.81	72.35	78.23

Results of carcass analysis in 32 days

Tab. No. 4 (page 2)

Test: 54

Part fattening: 2

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		total weight	body carcass		
			g	g	g	g		%	g	%	%	g	%	%	g	%	%	%
xxxxx	7	♂	2573	1850	152	21	0.81	670	26.02	36.19	539	20.93	29.11	1208	46.95	65.29	71.91	77.81
		♀	2120	1543	125	25	1.18	533	25.16	34.57	448	21.13	29.04	981	46.29	63.61	72.78	78.66
		♂	2347	1697	138	23	0.98	601	25.63	35.45	493	21.02	29.07	1095	46.65	64.53	72.30	78.19
xxxxx	8	♂	2665	1915	157	24	0.90	681	25.53	35.53	576	21.60	30.05	1256	47.13	65.58	71.87	77.75
		♀	2043	1484	120	26	1.29	518	25.36	34.90	448	21.92	30.17	966	47.29	65.08	72.66	78.56
		♂	2354	1700	139	25	1.07	599	25.46	35.26	512	21.74	30.11	1111	47.20	65.36	72.21	78.10
xxxxx	9	♂	2392	1711	140	24	0.99	645	26.96	37.68	494	20.64	28.85	1139	47.60	66.53	71.54	77.37
		♀	1993	1410	115	25	1.23	508	25.47	36.00	414	20.79	29.38	922	46.27	65.38	70.77	76.54
		♂	2193	1561	127	24	1.10	576	26.28	36.92	454	20.71	29.09	1030	46.99	66.01	71.19	77.00
xxxxx	10	♂	2507	1814	152	23	0.92	643	25.65	35.45	543	21.68	29.96	1186	47.32	65.41	72.35	78.41
		♀	2276	1646	129	29	1.28	591	25.98	35.93	486	21.35	29.52	1077	47.33	65.45	72.32	77.96
		♂	2391	1730	140	26	1.09	617	25.81	35.68	515	21.52	29.75	1132	47.33	65.43	72.33	78.20
xxxxx	11	♂	2384	1686	144	23	0.96	577	24.21	34.22	509	21.36	30.20	1086	45.57	64.42	70.75	76.80
		♀	2036	1446	120	24	1.17	500	24.53	34.54	431	21.17	29.80	931	45.70	64.34	71.03	76.91
		♂	2210	1566	132	23	1.06	538	24.36	34.37	470	21.27	30.01	1008	45.63	64.38	70.88	76.85
xxxxx	12	♂	2350	1651	137	21	0.89	583	24.83	35.32	484	20.60	29.30	1067	45.42	64.63	70.28	76.12
		♀	2018	1429	119	26	1.30	502	24.89	35.15	417	20.66	29.18	919	45.55	64.33	70.81	76.69
		♂	2184	1540	128	24	1.08	543	24.86	35.25	450	20.63	29.24	993	45.48	64.49	70.53	76.38

Statistical analysis - Cocks on the age of 32 days

Tab. No. 5a

Test: 54

Part fattening: 2

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	%	%
xxxxx	1	264	2381.14	281.98	11.84	17.35	0.73	0.52
xxxxx	2	271	2231.81	219.47	9.83	13.33	0.60	0.43
xxxxx	3	261	2554.41	208.77	8.17	12.92	0.51	0.36
xxxxx	4	272	2348.38	241.91	10.30	14.67	0.62	0.45
xxxxx	5	266	2513.65	256.89	10.22	15.75	0.63	0.45
xxxxx	6	259	2604.56	213.07	8.18	13.24	0.51	0.36
xxxxx	7	271	2415.94	235.32	9.74	14.29	0.59	0.42
xxxxx	8	269	2570.82	210.63	8.19	12.84	0.50	0.36
xxxxx	9	270	2253.44	229.00	10.16	13.94	0.62	0.44
xxxxx	10	260	2504.35	282.52	11.28	17.52	0.70	0.50
xxxxx	11	266	2351.43	240.10	10.21	14.72	0.63	0.45
xxxxx	12	268	2205.97	235.08	10.66	14.36	0.65	0.47

Statistical analysis - Hens on the age of 32 days

Tab. No. 5b

Test: 54

Part fattening: 2

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	%	%
xxxxx	1	278	2153.99	229.61	10.66	13.77	0.64	0.46
xxxxx	2	264	2015.30	214.85	10.66	13.22	0.66	0.47
xxxxx	3	273	2149.52	199.06	9.26	12.05	0.56	0.40
xxxxx	4	273	2111.06	198.70	9.41	12.03	0.57	0.41
xxxxx	5	275	2195.82	198.72	9.05	11.98	0.55	0.39
xxxxx	6	272	2243.05	241.82	10.78	14.66	0.65	0.47
xxxxx	7	278	2084.82	209.08	10.03	12.54	0.60	0.43
xxxxx	8	275	1938.22	238.13	12.29	14.36	0.74	0.53
xxxxx	9	267	2008.99	200.45	9.98	12.27	0.61	0.44
xxxxx	10	274	2239.64	217.87	9.73	13.16	0.59	0.42
xxxxx	11	271	2058.04	197.21	9.58	11.98	0.58	0.42
xxxxx	12	272	1913.93	203.99	10.66	12.37	0.65	0.46