MEZINÁRODNÍ TESTOVÁNÍ DRŮBEŽE
státní podnik. ÚSTRAŠICE

390 02 Tábor 2 Tel.: 381 200 320

XXXIV. International performance test of commercial layers - cage system

The final report 2025 - 2026

Study Investigator: Ing. Fara Jiří
Ing. Krekulová Markéta

Ústrašice, September 2026

1 The list of participants

Sam.	Cross	Hatchery flock	State	Breeding organization
1	xxxxx	xxxxx	xxxxx	xxxxx
2	xxxxx	xxxxx	xxxxx	xxxxx
3	xxxxx	xxxxx	xxxxx	xxxxx
4	xxxxx	xxxxx	xxxxx	xxxxx
5	xxxxx	xxxxx	xxxxx	xxxxx
6	xxxxx	xxxxx	xxxxx	xxxxx
7	xxxxx	xxxxx	xxxxx	xxxxx
8	xxxxx	xxxxx	xxxxx	xxxxx
9	xxxxx	xxxxx	xxxxx	xxxxx
10	xxxxx	xxxxx	xxxxx	xxxxx
11	xxxxx	xxxxx	xxxxx	xxxxx
12	xxxxx	xxxxx	xxxxx	xxxxx

2 The basic data of performance test

2.1 Progeny testing

The progeny testing of commercial layers hybrids consists of:
- incubation and hatch of delivered hatching eggs from a regular PS flock
- pullets rearing: 18 weeks long rearing period (126 days)
- hen production: 56 weeks long laying period (127 – 518 days of age)

2.2 Location of the test

Mezinárodní testování drůbeže. s.p. Ústrašice – Testační stanice nosných slepic (Test Station of Layers)

2.3 Material

There were 12 genotypes compared in the test. Each sample consisted of 1080 hatching eggs delivered to the test station.

2.4 Important dates

setting in the hatchery:	24 February 2025
beginning of rearing – day 1:	19 March 2025
end of rearing:	22 July 2025
beginning of laying. start of the period 1:	23 July 2025
end of laying. end of the period 14:	18 August 2026

3 Incubation and hatching

3.1 Sorting and weighing of hatching eggs

The hatching eggs were sorted immediately after delivery to the test station. The average egg weight of each sample was found.

3.2 Storage of hatching eggs

After sorting and weighing. the hatching eggs were disinfected and stored in temperature of 16 – 18 °C.

3.3 Setting in the hatchery

Hatching eggs of all samples were set for a single stage incubation at once. Correspondent data monitoring was made during incubation.

4 Rearing of pullets

4.1 Samples and their location

The rearing of pullets took 126 days. Day old chicks were sexed. The males were destroyed. After culling of nonstandard birds, 270 pullets of each sample were randomly chosen for the test. 90 pullets were placed in the house with deep litter system and 180 pullets in the cage system.

Pullets were marked (wing banded). Beak trimming was carried out by hot blade on days 9 and 10. This treatment was done on half of the pullets reared in the cage system and on all pullets reared in the deep litter system. The other half of pullets reared in the cage system is not beak-trimmed.

4.2 Housing system

Pullets were kept in windowless house with full control of the environment. Pullets in cage system were kept in 3-tier cage batteries. Feed was manually filled in the feeders. Nipple automatic drinkers were used. Belt conveyer for clearance of excrements. Manually filled tube feeders and nipple automatic drinkers were used in deep litter system.

4.3 Conditions of the environment

Temperature

Age	Deep litter system		Cage system
	below the heater °C	in the house °C	in the house °C
Day 1 - 3	36	27	36
Day 4 - 7	33	27	33
Day 8 - 14	30	24	30
Day 15 - 21	27	24	27
Day 22 - 28	24	22	24
Day 29 - 35	-	20	20
From week 6	-	18 – 20	18 – 20

Stocking density

Age	Deep litter system	Cage system
Day 1 - 112	9 birds/m^2	350 cm^2/bird
From day 112	756 cm^2/ks	

Ventilation
Transversal automatically controlled ventilation (fans and air inlets on the opposite side of the house) was used. Ventilation provided minimum ventilation rate of 3 m^3/hour/kg live weight in winter, with possible increase in summer, depending on temperature and air humidity. Relative humidity was kept between 50 – 70 %.

4.4 Lighting programme

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

Lighting programme:

Age	Hours of light	Luminous intensity (lx)
Day 1 - 3	23	40
Day 4 - 7	20	30
Day 8 - 14	18	20
Day 15 - 21	16	10
Day 22 - 28	14	10
Day 29 - 35	12	5 – 10
Week 6 - 16	10	5 – 10
Week 17	12	10 – 15
Week 18	13	10 – 15

4.5 Feeding and watering

Pullets were fed to reach their BW standards during rearing. The complete feed mixture was filled daily in the tube feeders in deep litter system and in groove feeders in cage system. The feed K1 is distributed several times a day. The feeds K2, KZK and N0 are distributed twice a day – 50% in the morning and 50% in the afternoon. All the distributed feed should be daily eaten. Water was supplied by automatic nipple drinkers. Feed was supplied by xxxxx

Diet formulas:

	K1 IT N	K2 IT N	KZK IT N	N0
Age	Week 1 - 4	Week 5 - 10	Week 11 - 16	Week 17 - 18
Feed form	crumbled	crushed	crushed	crushed
Components – content in %:				
Wheat	51.00	52.78	58.49	51.26
Maize	15.00	16.00	10.00	15.00
Extr. soybean groats	23.85	19.30	9.00	16.35
Extr. rapeseed groats	1.50	2.00	3.00	3.00
Extr. sunflower groats	1.50	2.00	2.90	2.50
Wheat bran	-	2.50	12.20	2.30
Fish meal	1.50	0.70	-	-
Soybean oil	1.56	0.92	0.88	0.30

Animal fat	-	-	-	1.82
Lysine-HCl	0.29	0.22	0.20	0.13
L-threonine	0.07	0.03	-	-
DL-methionine	0.23	0.17	0.08	0.15
Sodium sulfate	0.15	0.13	0.12	0.17
Salt	0.26	0.27	0.27	0.24
Limestone	1.97	1.95	2.15	3.53
Limestone-roughly ground	-	-	-	2.00
MCP – monocalciumphosphate	0.85	0.75	0.42	0.80
Vitamin and mineral supplement	0.27	0.28	0.29	0.45
Nutrient content (calculated values):				
CP (g/kg)	203.10	186.00	155.90	169.10
Fat (g/kg)	36.00	29.60	28.30	40.00
Linoleic acid (g/kg)	16.00	13.00	12.50	11.00
Crude fiber (g/kg)	29.80	32.80	42.00	33.10
ME enz. (MJ/kg)	12.30	12.10	11.80	11.50
Lysine (g/kg)	11.41	9.75	7.28	8.26
Methionine (g/kg)	5.15	4.39	3.21	3.96
Met. + Cys. (g/kg)	8.67	7.77	6.31	7.13
Threonine (g/kg)	7.90	6.82	5.23	5.91
Tryptophan (g/kg)	2.42	2.21	1.88	2.02
Ca phytase (g/kg)	12.00	11.50	11.50	24.50
P (g/kg)	6.20	6.00	5.90	5.90
P av. (g/kg)	4.80	4.50	3.80	4.40
Vitamin A (IU/kg)	10000.00	10000.00	10000.00	10000.00
Vitamin D3 (IU/kg)	3000.00	3000.00	3000.00	3000.00

4.6 Veterinary precautions

House was cleaned, washed and disinfected with xxxxx before the pullets` placement. Disinfection of shoes by xxxxx at house entry was used. Rodent control was provided regularly.

Vaccination programme

Age	Disease
Day 1	Marek`s disease + infectious bronchitis
Day 3	Salmonellosis
Day 7	Coccidiosis
Day 10	E.coli
Day 13	Infectious bronchitis
Day 17	Newcastle disease
	Gumboro disease
Week 3	Salmonellosis
Week 4	Gumboro disease
Week 6	Infectious bronchitis
	Newcastle disease
Week 9	Infectious bronchitis
Week 10	Avian pneumovirus
Week 11	Avian encephalomyelitis
Week 12	Infectious bronchitis
Week 13	Salmonellosis
Week 14	E.coli
Week 16	Infectious bronchitis
	Newcastle disease
	Egg-drop syndrome

4.7 Transfer to the laying house

Pullets were moved to the laying house at the age of 16 weeks (112 days). 180 birds per sample were selected according to their live weight.

Pullets were placed in cage batteries in 6 replications per sample. All samples were kept in coincident environment conditions.

5 Production period

5.1 Samples and their placement

Hens were placed in cage batteries in 6 replications per sample. All samples were kept in coincident environment conditions.

5.2 Housing system

Hens were kept in windowless house with full control of the environment. They were kept in 3-tier enriched cage batteries.

Enriched cages provided 756 cm^2 of floor space per hen. Enriched cages were equipped with a perch, a nest, a roosting ash place and claw shortening devices in addition to feeders and drinkers.

Feed was manually filled in the feeders, water was supplied by automatic nipple drinkers. Droppings were removed by the conveyor belt. Eggs were collected manually, each sample separately.

5.3 Conditions of the environment

Temperature was kept between 18 – 20°C. Relative humidity was 60 – 70 %. Temperature was regulated by transversal automatically controlled ventilation (fans and air inlets on the opposite side of the house), in cold weather a gas heater was used. Ventilation provided minimum ventilation rate of 3 m^3/hour/kg live weight in winter and 5 m^3/hour/kg live weight in summer.

5.4 Lighting programme

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

Age	Hours of light
Week 19	14
Week 20	15
Week 21	15.5
Week 22 – end of the test	16

Luminous intensity 15 – 20 lx.

5.5 Feeding

Hens were fed with three types of feed: from 19th week of age N1 start, from 31st week of age N1 and from 47th week of age N2. Complete feeds were in mash form and fed ad libitum.

Feed was supplied by xxxxx

Diet formulas

		N1 IT N start	N1 IT N	N2 IT N
Age		19^{th}-30^{th} week	30^{th}-46^{th} week	47^{th}-74^{th} week
Feed form		crushed	crushed	crushed
Components – content in %:				
Wheat		35.08	42.71	45.28
Extr. soybean groats		16.20	11.75	11.25
Maize		20.60	18.10	15.00
Rape extr. groat		5.00	5.00	5.00
Sunflower extr. groat		7.10	7.30	7.40
Animal fat		2.35	1.25	3.34
Soybean oil		2.50	2.72	1.10
Salt		0.28	0.28	0.28
Limestone		2.82	2.88	3.09
Limestone-roughly ground		6.60	6.60	7.00
MCP - monocalciumphosphate		0.55	0.47	0.33
Premix of vitamins, enzyms		0.45	0.45	0.45
Nutrient content (calculated values):				
Crude protein	g/kg	174.00	160.98	159.10
Fat	g/kg	67.14	58.03	61.86
Linoleic acid	g/kg	23.02	22.98	15.97
Crude fiber	g/kg	39.99	39.95	39.93
ME	MJ/kg	11.45	11.40	11.40
Lysine	g/kg	7.43	6.89	6.77
Methionine dig.	g/kg	4.08	3.68	3.56
Meth.+cysteine dig	g/kg	6.73	6.21	6.07
Threonine dig.	g/kg	5.27	4.76	4.68
Tryptophan dig.	g/kg	1.76	1.61	1.59
Ca	g/kg	37.00	37.00	38.99
P	g/kg	5.38	5.12	4.78
P av.	g/kg	3.91	3.70	3.41
Vitamin A	U.I./kg	10 000.00	10 000.00	10 000.00
Vitamin D3	U.I./kg	3 000.00	3 000.00	3 000.00

6 Evaluated parameters

6.1 Incubation and hatching

- weight of hatching eggs
- fertility in %
- hatchability of set eggs in %
- hatchability of fertile eggs in %

6.2 Feed consumption

- per 1 reared pullet
- per 1 hen in production period
- per 1 egg
- per 1 kg of egg mass
- per 1 feeding day

6.3 Live body weight

- at the age of 1 day – group weighing
- at the age of 14 days (2 week), 28 days (4 week), 42 days (6 week), 56 days (8 week), 70 days (10 week), 84 days (12 week), 98 days (14 week) – individual weighing
- at the age of 112 days (16 weeks) – individual weighing all birds
- at the age of 126 days (18 weeks), 140 days (20 weeks), 154 days (22 weeks), 168 days (24 weeks), 182 days (26 weeks), 210 days (30 weeks) – individual weighing 30 birds per sample
- at the age of 518 days (74 weeks) – individual weighing all birds

6.4 Mortality

- mortality during rearing
- mortality of hens and it's causes

6.5 Egg production

Egg production was recorded daily. Eggs were collected manually at the same time every day. Eggs of different samples were collected separately. Production was evaluated in 14 four week periods, from 127 to 518 days of age.

Results of the egg production:

- per 1 hen housed
- per 1 hen present
- per 1 hen housed for each period

6.6 Sexual maturity

- age of the layers at 10 %. 30 %. 50 % and peak of lay

6.7 Egg weight

- average egg weight for each period
- average egg weight for the whole production
- classification of eggs

6.8 Production of egg mass

- per 1 hen housed
- per 1 hen present

6.9 Second quality eggs

Second quality eggs were sorted out as:

- cracked eggs
- broken eggs
- double-yolk eggs
- shell-less eggs

6.10 Egg quality

- egg weight
- yolk weight
- shell strength
- index of egg shape
- shell thickness
- Haugh´s units
- yolk colour
- egg shell colour
- presence of blood spots on the yolk

7 Results

Tab. No. 1	Results of incubation and hatching
Tab. No. 2	Results of rearing
Tab. No. 3	Mortality in rearing
Tab. No. 4	Results of the egg production
Tab. No. 5	Feed consumption
Tab. No. 6	Live weight of laying hens
Tab. No. 7	Mortality and it's causes
Tab. No. 8	Second quality eggs
Tab. No. 9	Weight classes of eggs
Tab. No. 10a	Egg quality – Period 6
Tab. No. 10b	Egg quality – Period 9
Tab. No. 10c	Egg quality – Period 12
Tab. No. 11	Intensity of lay
Tab. No. 12	Average egg weight

Graph No. 1-4	Intensity of lay

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

Sample	Cross	Weight of hatching eggs	Fertility	Hatchability	
				Set eggs	Fertile eggs
		g	%	%	%
1	xxxxx	61.83	94.20	78.70	83.50
2	xxxxx	63.95	88.40	66.90	75.70
3	xxxxx	60.81	93.30	53.30	57.10
4	xxxxx	59.18	82.00	65.80	80.30
5	xxxxx	63.68	88.70	66.10	74.50
6	xxxxx	52.84	89.60	73.10	81.50
7	xxxxx	59.40	87.30	73.10	83.80
8	xxxxx	59.19	96.40	80.80	83.90
9	xxxxx	59.27	91.60	70.90	77.50
10	xxxxx	61.03	94.00	48.60	51.70
11	xxxxx	61.80	96.17	74.37	77.30
12	xxxxx	58.59	95.10	76.77	80.80

Results of rearing **Tab. No. 2**

Sample	Cross	Live weight										Feed consumption per 1 pullet at the age of 126 days
		Day 1	Week 2	Week 4	Week 6	Week 8	Week 10	Week 12	Week 14	Week 16	Week 18	
		g	g	g	g	g	g	g	g	g	g	kg/bird
	xxxxx	**38.3**	**128.6**	**282.6**	**505.0**	**696.4**	**909.9**	**1112.9**	**1235.9**	**1395.8**	**1564.3**	**7.39**
1	cage system	38.4	132.1	287.7	514.0	701.7	883.7	1082.7	1214.7	1409.5	1604.5	7.33
	deep litter system	38.2	125.0	277.5	496.0	691.0	936.0	1143.0	1257.0	1382.0	1524.0	7.45
	xxxxx	**39.4**	**131.7**	**286.5**	**500.2**	**714.4**	**932.7**	**1113.7**	**1255.2**	**1399.3**	**1560.0**	**7.55**
2	cage system	39.4	128.4	282.5	494.3	689.7	870.3	1061.3	1211.3	1389.5	1552.0	7.48
	deep litter system	39.5	135.0	290.5	506.0	739.0	995.0	1166.0	1299.0	1409.0	1568.0	7.61
	xxxxx	**37.2**	**128.6**	**283.2**	**493.4**	**700.9**	**918.7**	**1117.7**	**1252.2**	**1415.3**	**1585.0**	**7.41**
3	cage system	37.3	127.2	286.4	505.7	715.7	912.3	1124.3	1238.3	1411.5	1613.0	7.30
	deep litter system	37.2	130.0	280.0	481.0	686.0	925.0	1111.0	1266.0	1419.0	1557.0	7.51
	xxxxx	**37.5**	**122.4**	**275.3**	**472.9**	**678.4**	**894.0**	**1088.5**	**1250.2**	**1395.8**	**1586.0**	**7.46**
4	cage system	36.5	119.8	288.0	498.7	694.7	902.0	1094.0	1224.3	1388.5	1584.0	7.36
	deep litter system	38.4	125.0	262.5	447.0	662.0	886.0	1083.0	1276.0	1403.0	1588.0	7.55
	xxxxx	**39.6**	**128.3**	**293.7**	**512.7**	**708.9**	**938.0**	**1120.9**	**1255.4**	**1418.3**	**1602.5**	**7.50**
5	cage system	40.5	126.5	298.8	508.3	682.7	905.0	1100.7	1230.7	1431.5	1607.0	7.45
	deep litter system	38.7	130.0	288.5	517.0	735.0	971.0	1141.0	1280.0	1405.0	1598.0	7.55
	xxxxx	**33.3**	**116.5**	**278.8**	**502.2**	**687.0**	**914.0**	**1128.7**	**1237.0**	**1381.5**	**1600.0**	**7.42**
6	cage system	33.8	114.2	288.1	508.3	663.0	891.0	1122.3	1216.0	1382.0	1616.0	7.33
	deep litter system	32.8	118.8	269.5	496.0	711.0	937.0	1135.0	1258.0	1381.0	1584.0	7.50

Results of rearing **Tab. No. 2**

Sample	Cross	Live weight										Feed consumption per 1 pullet at the age of 126 days
		Day 1	Week 2	Week 4	Week 6	Week 8	Week 10	Week 12	Week 14	Week 16	Week 18	
		g	g	g	g	g	g	g	g	g	g	kg/bird
	xxxxx	**36.4**	**130.2**	**290.0**	**511.5**	**694.4**	**901.2**	**1113.4**	**1254.0**	**1387.5**	**1556.8**	**7.45**
7	cage system	36.2	127.8	305.9	511.0	666.7	910.3	1106.7	1222.0	1387.0	1565.5	7.39
	deep litter system	36.7	132.5	274.0	512.0	722.0	892.0	1120.0	1286.0	1388.0	1548.0	7.51
	xxxxx	**35.7**	**126.8**	**290.9**	**515.0**	**696.4**	**934.2**	**1129.4**	**1249.5**	**1397.0**	**1579.8**	**7.50**
8	cage system	36.4	124.7	302.8	523.0	692.7	898.3	1118.7	1246.0	1400.0	1608.5	7.39
	deep litter system	35.0	128.8	279.0	507.0	700.0	970.0	1140.0	1253.0	1394.0	1551.0	7.61
	xxxxx	**36.4**	**129.6**	**286.3**	**512.0**	**684.9**	**920.4**	**1108.0**	**1263.5**	**1381.8**	**1554.5**	**7.47**
9	cage system	36.7	124.1	290.6	509.0	648.7	880.7	1087.0	1219.0	1347.5	1534.0	7.36
	deep litter system	36.0	135.0	282.0	515.0	721.0	960.0	1129.0	1308.0	1416.0	1575.0	7.57
	xxxxx	**37.7**	**124.3**	**290.7**	**509.4**	**691.2**	**921.7**	**1123.5**	**1262.2**	**1396.3**	**1561.8**	**7.42**
10	cage system	37.5	121.0	295.3	509.7	666.3	861.3	1085.0	1209.3	1368.5	1559.5	7.39
	deep litter system	37.9	127.5	286.0	509.0	716.0	982.0	1162.0	1315.0	1424.0	1564.0	7.45
11	xxxxx	**38.9**	**127.6**	**292.2**	**503.2**	**655.2**	**886.2**	**1102.0**	**1236.3**	**1399.3**	**1624.2**	**7.54**
	cage system	38.9	127.6	292.2	503.2	655.2	886.2	1102.0	1236.3	1399.3	1624.2	7.54
12	xxxxx	**38.1**	**129.6**	**286.0**	**500.7**	**719.7**	**943.2**	**1143.3**	**1283.0**	**1448.7**	**1662.2**	**7.55**
	cage system	38.1	129.6	286.0	500.7	719.7	943.2	1143.3	1283.0	1448.7	1662.2	7.55

Mortality in rearing **Tab. No. 3**

Sample	Cross	Number of pullets			
		Initial flock	Final flock	Mortality	
		birds	birds	birds	%
1	xxxxx	**270**	**269**	**1**	**0.37**
	cage system	180	179	1	0.56
	deep litter system	90	90	0	0.00
2	xxxxx	**270**	**266**	**4**	**1.48**
	cage system	180	177	3	1.67
	deep litter system	90	89	1	1.11
3	xxxxx	**270**	**269**	**1**	**0.37**
	cage system	180	180	0	0.00
	deep litter system	90	89	1	1.11
4	xxxxx	**270**	**266**	**4**	**1.48**
	cage system	180	178	2	1.11
	deep litter system	90	88	2	2.22
5	xxxxx	**270**	**268**	**2**	**0.74**
	cage system	180	178	2	1.11
	deep litter system	90	90	0	0.00
6	xxxxx	**270**	**268**	**2**	**0.74**
	cage system	180	179	1	0.56
	deep litter system	90	89	1	1.11

Mortality in rearing **Tab. No. 3**

Sample	Cross	Number of pullets			
		Initial flock	Final flock	Mortality	
		birds	birds	birds	%
7	xxxxx	**270**	**266**	**4**	**1.48**
	cage system	180	177	3	1.67
	deep litter system	90	89	1	1.11
8	xxxxx	**270**	**264**	**6**	**2.22**
	cage system	180	177	3	1.67
	deep litter system	90	87	3	3.33
9	xxxxx	**270**	**266**	**4**	**1.48**
	cage system	180	178	2	1.11
	deep litter system	90	88	2	2.22
10	xxxxx	**270**	**267**	**3**	**1.11**
	cage system	180	177	3	1.67
	deep litter system	90	90	0	0.00
11	xxxxx	**270**	**268**	**2**	**0.74**
	cage system	270	268	2	0.74
12	xxxxx	**270**	**266**	**4**	**1.48**
	cage system	270	266	4	1.48

Results of the egg yield **Tab. No. 4 (page 1)**

Sample	Cross		Age at the yield					Egg production per				Egg weight	Egg mass per	
			10%	30%	50%	Max.		hen - housed		hen - day			hen - housed	hen - day
	Way of rearing					day	%	number	%	number	%	g	kg	kg
1	xxxxx	**ø**	**138**	**141**	**144**	**170**	**97.78**	**337.08**	**85.99**	**350.50**	**89.41**	**60.35**	**20.34**	**21.15**
		a	138	141	150	155	100.00	341.85	87.21	347.67	88.69	60.25	20.60	20.95
		b	137	141	149	153	100.00	324.40	82.76	350.99	89.54	60.26	19.55	21.15
		c	138	141	144	152	100.00	344.98	88.01	352.89	90.02	60.53	20.88	21.36
2	xxxxx	**ø**	**138**	**141**	**145**	**155**	**99.44**	**342.79**	**87.45**	**345.81**	**88.22**	**62.32**	**21.36**	**21.55**
		a	139	142	145	158	100.00	337.20	86.02	337.20	86.02	63.07	21.27	21.27
		b	138	141	144	153	100.00	345.28	88.08	346.11	88.29	62.24	21.49	21.54
		c	138	143	144	152	100.00	345.88	88.24	354.32	90.39	61.69	21.34	21.86
3	xxxxx	**ø**	**139**	**143**	**147**	**161**	**100.00**	**342.68**	**87.42**	**344.21**	**87.81**	**61.71**	**21.15**	**21.24**
		a	140	149	146	153	100.00	340.43	86.85	340.43	86.85	61.47	20.93	20.93
		b	137	141	144	161	100.00	342.85	87.46	347.46	88.64	62.23	21.34	21.62
		c	136	140	142	161	100.00	344.77	87.95	344.77	87.95	61.40	21.17	21.17
4	xxxxx	**ø**	**139**	**143**	**146**	**187**	**97.22**	**322.42**	**82.25**	**329.87**	**84.15**	**62.78**	**20.24**	**20.71**
		a	140	149	147	176	98.33	311.35	79.43	311.92	79.57	62.75	19.54	19.57
		b	139	144	145	161	100.00	310.93	79.32	330.66	84.35	63.19	19.65	20.90
		c	138	141	146	161	100.00	344.97	88.00	347.15	88.56	62.44	21.54	21.67
5	xxxxx	**ø**	**138**	**140**	**142**	**168**	**97.78**	**334.70**	**85.38**	**338.85**	**86.44**	**63.03**	**21.10**	**21.36**
		a	138	141	142	178	98.33	308.05	78.58	312.04	79.60	63.08	19.43	19.68
		b	139	140	142	158	100.00	343.42	87.61	351.84	89.75	63.35	21.75	22.29
		c	139	141	143	155	100.00	352.63	89.96	352.63	89.96	62.67	22.10	22.10

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Results of the egg yield **Tab. No. 4 (page 2)**

Sample	Cross		Age at the yield					Egg production per				Egg weight	Egg mass per	
			10%	30%	50%	Max.		hen - housed		hen - day			hen - housed	hen - day
	Way of rearing					day	%	number	%	number	%	g	kg	kg
6	xxxxx	**ø**	**137**	**140**	**142**	**162**	**99.44**	**351.72**	**89.72**	**353.89**	**90.28**	**62.27**	**21.90**	**22.04**
		a	137	141	142	161	100.00	345.08	88.03	348.72	88.96	61.49	21.22	21.44
		b	138	143	142	158	100.00	350.10	89.31	351.52	89.67	63.41	22.20	22.29
		c	135	139	141	154	100.00	359.97	91.83	361.40	92.19	61.92	22.29	22.38
7	xxxxx	**ø**	**138**	**141**	**144**	**168**	**99.44**	**337.08**	**85.99**	**343.68**	**87.67**	**61.62**	**20.77**	**21.18**
		a	138	141	144	152	100.00	323.83	82.61	335.22	85.52	61.40	19.88	20.58
		b	137	140	142	155	100.00	341.83	87.20	342.96	87.49	61.82	21.13	21.20
		c	137	139	143	161	100.00	345.58	88.16	352.77	89.99	61.64	21.30	21.74
8	xxxxx	**ø**	**138**	**141**	**144**	**181**	**97.78**	**335.17**	**85.50**	**345.61**	**88.17**	**62.39**	**20.91**	**21.56**
		a	140	142	149	161	100.00	315.07	80.37	334.86	85.42	63.30	19.94	21.19
		b	138	141	142	153	100.00	344.92	87.99	352.98	90.04	61.62	21.25	21.75
		c	138	141	142	153	100.00	345.52	88.14	348.55	88.92	62.37	21.55	21.74
9	xxxxx	**ø**	**139**	**142**	**147**	**187**	**100.00**	**335.31**	**85.54**	**341.34**	**87.08**	**62.66**	**21.01**	**21.39**
		a	138	143	147	187	100.00	328.12	83.70	331.04	84.45	62.77	20.60	20.78
		b	139	143	147	160	100.00	325.27	82.98	335.85	85.68	63.84	20.76	21.44
		c	138	140	142	153	100.00	352.55	89.94	357.07	91.09	61.47	21.67	21.95
10	xxxxx	**ø**	**134**	**140**	**144**	**197**	**98.33**	**334.36**	**85.29**	**339.28**	**86.55**	**63.34**	**21.18**	**21.49**
		a	138	141	144	167	100.00	330.38	84.28	330.68	84.36	62.62	20.69	20.71
		b	140	143	145	183	100.00	324.30	82.73	335.93	85.70	64.63	20.96	21.71
		c	135	139	142	152	100.00	348.38	88.87	351.21	89.59	62.83	21.89	22.07

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Results of the egg yield **Tab. No. 4 (page 3)**

Sample	Cross		Age at the yield					Egg production per				Egg weight	Egg mass per	
			10%	30%	50%	Max.		hen - housed		hen - day			hen - housed	hen - day
	Way of rearing					day	%	number	%	number	%	g	kg	kg
11	xxxxx	**ø**	**139**	**143**	**146**	**163.3**	**100.00**	**307.91**	**78.55**	**319.46**	**81.49**	**60.98**	**18.76**	**19.46**
			138	143	145	161	100.00	316.67	80.78	332.07	84.71	59.60	18.87	19.79
			139	142	147	168	100.00	288.37	73.56	302.56	77.18	63.00	18.17	19.06
			140	143	146	161	100.00	318.68	81.30	323.75	82.59	60.34	19.23	19.54
12	xxxxx	**ø**	**137**	**141**	**148**	**172**	**98.89**	**291.09**	**74.26**	**297.01**	**75.77**	**63.15**	**18.38**	**18.75**
			137	140	150	183	98.33	301.60	76.94	305.69	77.98	62.35	18.80	19.06
			137	141	149	166	100.00	303.82	77.50	305.51	77.94	63.53	19.30	19.41
			138	143	145	167	98.33	267.87	68.33	279.84	71.39	63.58	17.03	17.79

Feed consumption **Tab. No. 5 (page 1)**

Sample	Cross		Feed consumption			
			per 1 hen	per 1 egg	per 1 kg of egg mass	per 1 feeding day
	Way of rearing		kg	g	kg	g
1	xxxxx	**ø**	**50.58**	**144.30**	**2.39**	**129.03**
		a	49.59	142.64	2.37	126.51
		b	52.08	148.37	2.46	132.85
		c	50.15	142.13	2.35	127.95
2	xxxxx	**ø**	**50.24**	**145.29**	**2.33**	**128.17**
		a	50.29	149.13	2.36	128.28
		b	49.59	143.27	2.30	126.50
		c	50.87	143.56	2.33	129.76
3	xxxxx	**ø**	**49.31**	**143.26**	**2.32**	**125.80**
		a	48.86	143.52	2.33	124.64
		b	50.26	144.65	2.32	128.21
		c	48.83	141.64	2.31	124.58
4	xxxxx	**ø**	**49.11**	**148.86**	**2.37**	**125.27**
		a	48.29	154.81	2.47	123.18
		b	50.17	151.73	2.40	127.98
		c	48.92	140.92	2.26	124.80
5	xxxxx	**ø**	**49.52**	**146.13**	**2.32**	**126.32**
		a	48.87	156.60	2.48	124.66
		b	50.43	143.34	2.26	128.66
		c	49.26	139.70	2.23	125.67

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Feed consumption **Tab. No. 5 (page 2)**

Sample	Cross		Feed consumption			
			per 1 hen	per 1 egg	per 1 kg of egg mass	per 1 feeding day
	Way of rearing		kg	g	kg	g
6	xxxxx	**ø**	**49.03**	**138.56**	**2.23**	**125.09**
		a	48.64	139.48	2.27	124.08
		b	49.59	141.06	2.22	126.49
		c	48.88	135.24	2.18	124.68
7	xxxxx	**ø**	**49.12**	**142.92**	**2.32**	**125.31**
		a	49.06	146.35	2.38	125.15
		b	49.99	145.76	2.36	127.53
		c	48.29	136.90	2.22	123.20
8	xxxxx	**ø**	**49.73**	**143.88**	**2.31**	**126.85**
		a	49.83	148.81	2.35	127.12
		b	49.90	141.38	2.29	127.31
		c	49.45	141.88	2.27	126.15
9	xxxxx	**ø**	**49.81**	**145.91**	**2.33**	**127.05**
		a	49.19	148.60	2.37	125.49
		b	50.98	151.79	2.38	130.04
		c	49.27	137.99	2.24	125.69
10	xxxxx	**ø**	**49.54**	**146.01**	**2.30**	**126.37**
		a	48.74	147.38	2.35	124.33
		b	51.12	152.18	2.35	130.41
		c	48.80	138.96	2.21	124.50

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Feed consumption **Tab. No. 5 (page 3)**

Sample	Cross		Feed consumption			
			per 1 hen	per 1 egg	per 1 kg of egg mass	per 1 feeding day
	Way of rearing		kg	g	kg	g
11	xxxxx	**ø**	**49.80**	**156.24**	**2.56**	**127.05**
			48.84	147.07	2.47	124.59
			50.87	168.13	2.67	129.77
			49.70	153.51	2.54	126.78
12	xxxxx	**ø**	**50.06**	**168.84**	**2.67**	**127.71**
			50.90	166.51	2.67	129.85
			49.21	161.08	2.54	125.53
			50.07	178.94	2.81	127.74

Live weight of laying hens **Tab. No. 6 (page 1)**

Sample	Cross	Way of rearing	Live weight (g)					
			week 20	week 22	week 24	week 26	week 30	final live weight
1	xxxxx	**ø**	**1782.0**	**1804.3**	**1867.7**	**1926.7**	**2020.3**	**2203.8**
		a	1769	1827	1882	1949	1955	2241.7
		b	1771	1826	1905	1960	2094	2168.8
		c	1806	1760	1816	1871	2012	2193.1
2	xxxxx	**ø**	**1777.3**	**1786.0**	**1888.7**	**1897.3**	**1980.7**	**2269.0**
		a	1818	1848	1932	1971	2065	2399.6
		b	1769	1762	1816	1827	1891	2200.1
		c	1745	1748	1918	1894	1986	2203.0
3	xxxxx	**ø**	**1764.7**	**1799.3**	**1895.7**	**1909.0**	**2030.0**	**2234.5**
		a	1737	1789	1901	1920	1997	2352.2
		b	1773	1823	1938	1887	2042	2101.1
		c	1784	1786	1848	1920	2051	2198.2
4	xxxxx	**ø**	**1747.3**	**1810.3**	**1898.7**	**1945.3**	**2054.7**	**2157.0**
		a	1718	1906	1940	1971	2058	2272.2
		b	1766	1814	1939	1963	2098	2012.7
		c	1758	1711	1817	1902	2008	2110.6
5	xxxxx	**ø**	**1786.3**	**1800.7**	**1851.3**	**1925.3**	**1973.7**	**2310.9**
		a	1776	1829	1859	1877	1975	2481.8
		b	1831	1839	1915	2002	2001	2209.1
		c	1752	1734	1780	1897	1945	2230.4

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Live weight of laying hens **Tab. No. 6 (page 2)**

Sample	Cross		Live weight (g)					
		Way of rearing	week 20	week 22	week 24	week 26	week 30	final live weight
6	xxxxx	**ø**	**1779.7**	**1787.0**	**1866.3**	**1912.0**	**1986.3**	**2139.9**
		a	1758	1766	1873	1961	2037	2223.4
		b	1848	1867	1915	1928	2025	1989.7
		c	1733	1728	1811	1847	1897	2130.4
7	xxxxx	**ø**	**1768.0**	**1776.3**	**1826.7**	**1871.0**	**1979.3**	**2124.2**
		a	1771	1824	1786	1829	1995	2264.4
		b	1814	1778	1892	1931	2064	2100.5
		c	1719	1727	1802	1853	1879	2083.9
8	xxxxx	**ø**	**1788.0**	**1786.0**	**1889.3**	**1960.7**	**1992.3**	**2234.6**
		a	1803	1768	1888	1904	1986	2370.5
		b	1808	1808	1955	1939	2019	2186.1
		c	1753	1782	1825	2039	1972	2229.5
9	xxxxx	**ø**	**1724.3**	**1741.3**	**1774.0**	**1820.7**	**1904.0**	**2094.9**
		a	1757	1774	1775	1870	1947	2169.1
		b	1733	1778	1805	1842	1884	2012.4
		c	1683	1672	1742	1750	1881	2094.8
10	xxxxx	**ø**	**1772.3**	**1796.7**	**1866.0**	**1926.0**	**2054.0**	**2218.2**
		a	1750	1814	1863	2032	2113	2290.8
		b	1789	1808	1883	1852	1987	2169.1
		c	1778	1768	1852	1894	2062	2189.2

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Live weight of laying hens **Tab. No. 6 (page 3)**

Sample	Cross		Live weight (g)					
	Way of rearing		week 20	week 22	week 24	week 26	week 30	final live weight
11	xxxxx	**ø**	**1834.0**	**1832.0**	**1933.7**	**1980.2**	**2052.3**	**2375.0**
			1808.0	1793.0	1880.0	1982.0	1988.0	2305.5
			1847.5	1856.5	1975.5	1984.0	2110.0	2452.6
			1846.5	1846.5	1945.5	1974.5	2059.0	2366.9
12	xxxxx	**ø**	**1845.8**	**1909.2**	**1974.8**	**2041.2**	**2137.3**	**2298.2**
			1853.0	1874.0	1951.5	1996.5	2080.0	2333.7
			1873.5	1985.5	2003.0	2080.5	2219.0	2242.1
			1811.0	1868.0	1970.0	2046.5	2113.0	2318.7

Mortality and it's causes **Tab. No. 7 (page 1)**

Sample	Cross		Number of hens				Causes													
			Initial flock	Final flock	Mortality		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Way of rearing		Birds	Birds	Birds	%															
1	xxxxx	**ø**	**180**	**161**	**19**	**10.56**						**1**			**8**		**3**	**7**			
		a	60	58	2	3.33											2				
		b	60	45	15	25.00						1			6		1	7			
		c	60	58	2	3.33									2						
2	xxxxx	**ø**	**180**	**176**	**4**	**2.22**									**2**		**2**				
		a	60	60	0	0.00															
		b	60	59	1	1.67											1				
		c	60	57	3	5.00									2		1				
3	xxxxx	**ø**	**180**	**177**	**3**	**1.67**									**3**						
		a	60	60	0	0.00															
		b	60	57	3	5.00									3						
		c	60	60	0	0.00															
4	xxxxx	**ø**	**180**	**159**	**21**	**11.67**									**6**	**1**	**7**	**7**			
		a	60	59	1	1.67											1				
		b	60	42	18	30.00									6	1	5	6			
		c	60	58	2	3.33											1	1			
5	xxxxx	**ø**	**180**	**174**	**6**	**3.33**									**4**		**2**				
		a	60	58	2	3.33									2						
		b	60	56	4	6.67									2		2				
		c	60	60	0	0.00															

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Mortality and it's causes **Tab. No. 7 (page 2)**

Sample	Cross		Number of hens				Causes													
			Initial flock	Final flock	Mortality		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Way of rearing		Birds	Birds	Birds	%															
6	xxxxx	**ø**	**180**	**175**	**5**	**2.78**									**4**		**1**				
		a	60	58	2	3.33									2						
		b	60	59	1	1.67									1						
		c	60	58	2	3.33									1		1				
7	xxxxx	**ø**	**180**	**157**	**23**	**12.78**									**12**		**10**	**1**			
		a	60	47	13	21.67									8		5				
		b	60	58	2	3.33									2						
		c	60	52	8	13.33									2		5	1			
8	xxxxx	**ø**	**180**	**165**	**15**	**8.33**									**11**		**4**				
		a	60	52	8	13.33									7		1				
		b	60	56	4	6.67									2		2				
		c	60	57	3	5.00									2		1				
9	xxxxx	**ø**	**180**	**169**	**11**	**6.11**						**1**			**8**		**2**				
		a	60	58	2	3.33						1			1						
		b	60	52	8	13.33									6		2				
		c	60	59	1	1.67									1						
10	xxxxx	**ø**	**180**	**170**	**10**	**5.56**									**6**		**1**	**3**			
		a	60	59	1	1.67									1						
		b	60	53	7	11.67									5		1	1			
		c	60	58	2	3.33												2			

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Mortality and it's causes **Tab. No. 7 (page 3)**

Sample	Cross		Number of hens				Causes														
			Initial flock	Final flock	Mortality		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Way of rearing		Birds	Birds	Birds	%															
11	xxxxx	ø	**180**	**163**	**17**	**9.44**		**1**							**11**		**4**	**1**			
			60	52	8	13.33									5		3				
			60	53	7	11.67		1							5			1			
			60	58	2	3.33									1		1				
12	xxxxx	ø	**180**	**174**	**6**	**3.33**							**1**		**1**		**4**				
			60	59	1	1.67											1				
			60	58	2	3.33									1		1				
			60	57	3	5.00							1				2				

Diagnostic:

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 - Metabolic derangement
12 - Cannibalism
13 - Diverticulus inflammation
14 - Culling and other causes
15 - Sampling (excluded of calculation)

Second quality eggs **Tab. No. 8 (page 1)**

Sample	Cross		Eggs layed	Cracked		Broken eggs		Double-yolked		Membranes		Nonstandard together	
	Way of rearing		number	number	%	number	%	number	%	number	%	number	%
1	xxxxx	**ø**	**60674**	**2647**	**4.36**	**1161**	**1.91**	**4**	**0.01**	**278**	**0.46**	**4090**	**6.74**
		a	20511	983	4.79	427	2.08	2	0.01	98	0.48	1510	7.36
		b	19464	826	4.24	374	1.92	1	0.01	89	0.46	1290	6.63
		c	20699	838	4.05	360	1.74	1	0.00	91	0.44	1290	6.23
2	xxxxx	**ø**	**61702**	**2590**	**4.20**	**1451**	**2.35**	**3**	**0.00**	**275**	**0.45**	**4319**	**7.00**
		a	20232	948	4.69	545	2.69	1	0.00	107	0.53	1601	7.91
		b	20717	815	3.93	441	2.13	0	0.00	69	0.33	1325	6.40
		c	20753	827	3.98	465	2.24	2	0.01	99	0.48	1393	6.71
3	xxxxx	**ø**	**61683**	**2593**	**4.20**	**1409**	**2.28**	**3**	**0.00**	**306**	**0.50**	**4311**	**6.99**
		a	20426	1014	4.96	479	2.35	0	0.00	84	0.41	1577	7.72
		b	20571	796	3.87	443	2.15	1	0.00	131	0.64	1371	6.66
		c	20686	783	3.79	487	2.35	2	0.01	91	0.44	1363	6.59
4	xxxxx	**ø**	**58035**	**2544**	**4.38**	**1284**	**2.21**	**8**	**0.01**	**329**	**0.57**	**4165**	**7.18**
		a	18697	939	5.02	442	2.36	4	0.02	134	0.72	1519	8.12
		b	18626	807	4.33	446	2.39	0	0.00	118	0.63	1371	7.36
		c	20712	798	3.85	396	1.91	4	0.02	77	0.37	1275	6.16
5	xxxxx	**ø**	**60246**	**2601**	**4.32**	**1432**	**2.38**	**7**	**0.01**	**358**	**0.59**	**4398**	**7.30**
		a	18483	894	4.84	556	3.01	3	0.02	138	0.75	1591	8.61
		b	20605	857	4.16	445	2.16	3	0.01	110	0.53	1415	6.87
		c	21158	850	4.02	431	2.04	1	0.00	110	0.52	1392	6.58

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Second quality eggs **Tab. No. 8 (page 2)**

Sample	Cross		Eggs layed	Cracked		Broken eggs		Double-yolked		Membranes		Nonstandard together	
	Way of rearing		number	number	%	number	%	number	%	number	%	number	%
6	xxxxx	**ø**	**63309**	**2732**	**4.32**	**1250**	**1.97**	**4**	**0.01**	**276**	**0.44**	**4262**	**6.73**
		a	20705	912	4.40	430	2.08	1	0.00	75	0.36	1418	6.85
		b	21006	930	4.43	396	1.89	0	0.00	86	0.41	1412	6.72
		c	21598	890	4.12	424	1.96	3	0.01	115	0.53	1432	6.63
7	xxxxx	**ø**	**60675**	**2597**	**4.28**	**1247**	**2.06**	**5**	**0.01**	**338**	**0.56**	**4187**	**6.90**
		a	19430	948	4.88	433	2.23	5	0.03	101	0.52	1487	7.65
		b	20510	746	3.64	422	2.06	0	0.00	107	0.52	1275	6.22
		c	20735	903	4.35	392	1.89	0	0.00	130	0.63	1425	6.87
8	xxxxx	**ø**	**60330**	**2600**	**4.31**	**1352**	**2.24**	**3**	**0.00**	**346**	**0.57**	**4301**	**7.13**
		a	18904	910	4.81	415	2.20	1	0.01	104	0.55	1430	7.56
		b	20695	807	3.90	446	2.16	0	0.00	95	0.46	1348	6.51
		c	20731	883	4.26	491	2.37	2	0.01	147	0.71	1523	7.35
9	xxxxx	**ø**	**60356**	**2595**	**4.30**	**1411**	**2.34**	**10**	**0.02**	**377**	**0.62**	**4393**	**7.28**
		a	19687	940	4.77	498	2.53	4	0.02	173	0.88	1615	8.20
		b	19516	767	3.93	441	2.26	1	0.01	94	0.48	1303	6.68
		c	21153	888	4.20	472	2.23	5	0.02	110	0.52	1475	6.97
10	xxxxx	**ø**	**60184**	**2643**	**4.39**	**1418**	**2.36**	**2**	**0.00**	**332**	**0.55**	**4395**	**7.30**
		a	19823	930	4.69	459	2.32	1	0.01	107	0.54	1497	7.55
		b	19458	832	4.28	504	2.59	0	0.00	82	0.42	1418	7.29
		c	20903	881	4.21	455	2.18	1	0.00	143	0.68	1480	7.08

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Second quality eggs **Tab. No. 8 (page 3)**

Sample	Cross		Eggs layed	Cracked		Broken eggs		Double-yolked		Membranes		Nonstandard together	
	Way of rearing		number	number	%	number	%	number	%	number	%	number	%
11	xxxxx	**ø**	**18474**	**1109**	**6.02**	**558**	**3.03**	**1**	**0.01**	**110**	**0.60**	**1778**	**9.65**
			19000	1077	5.67	521	2.74	0	0.00	107	0.56	1705	8.97
			17302	1149	6.64	544	3.14	2	0.01	113	0.65	1808	10.45
			19121	1100	5.75	610	3.19	2	0.01	109	0.57	1821	9.52
12	xxxxx	**ø**	**17466**	**1065**	**6.14**	**496**	**2.86**	**4**	**0.02**	**108**	**0.62**	**1673**	**9.64**
			18096	1020	5.64	488	2.70	3	0.02	114	0.63	1625	8.98
			18229	1023	5.61	472	2.59	3	0.02	114	0.63	1612	8.84
			16072	1153	7.17	529	3.29	5	0.03	95	0.59	1782	11.09

Weight classes of eggs **Tab. No. 9 (page 1)**

Sample	Cross		Egg weight	XL	L	M	S
				(= > 73 g)	(63 - 73 g)	(53 - 63 g)	(= < 53 g)
	Way of rearing		g	%	%	%	%
1	xxxxx	**ø**	**60.35**	**1.79**	**25.24**	**70.50**	**2.47**
		a	60.25	1.12	25.98	69.84	3.06
		b	60.26	1.44	27.07	68.46	3.03
		c	60.53	2.78	22.77	73.09	1.36
2	xxxxx	**ø**	**62.32**	**4.36**	**41.13**	**53.51**	**1.00**
		a	63.07	3.76	48.99	46.34	0.90
		b	62.24	5.40	40.61	53.00	0.99
		c	61.69	3.87	34.28	60.76	1.09
3	xxxxx	**ø**	**61.71**	**3.83**	**35.67**	**58.61**	**1.90**
		a	61.47	1.93	34.53	62.44	1.10
		b	62.23	6.37	39.56	51.16	2.91
		c	61.40	3.07	32.85	62.44	1.64
4	xxxxx	**ø**	**62.78**	**6.22**	**41.37**	**50.89**	**1.52**
		a	62.75	4.57	42.20	52.32	0.91
		b	63.19	7.51	44.25	46.96	1.27
		c	62.44	6.49	38.10	53.15	2.26
5	xxxxx	**ø**	**63.03**	**4.39**	**46.87**	**48.00**	**0.74**
		a	63.08	3.94	48.94	45.59	1.53
		b	63.35	5.67	48.28	45.75	0.30
		c	62.67	3.51	43.72	52.28	0.50

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Weight classes of eggs **Tab. No. 9 (page 2)**

Sample	Cross		Egg weight	XL	L	M	S
				(= > 73 g)	(63 - 73 g)	(53 - 63 g)	(= < 53 g)
	Way of rearing		g	%	%	%	%
6	xxxxx	**ø**	**62.27**	**4.32**	**37.94**	**57.02**	**0.72**
		a	61.49	2.22	32.14	65.04	0.60
		b	63.41	6.09	49.45	44.01	0.45
		c	61.92	4.61	32.52	61.79	1.08
7	xxxxx	**ø**	**61.62**	**2.78**	**36.01**	**59.92**	**1.29**
		a	61.40	1.40	38.66	58.36	1.57
		b	61.82	2.91	35.73	59.99	1.38
		c	61.64	3.89	33.93	61.24	0.95
8	xxxxx	**ø**	**62.39**	**4.96**	**39.61**	**54.15**	**1.28**
		a	63.30	7.42	41.96	49.21	1.41
		b	61.62	2.27	37.93	58.84	0.96
		c	62.37	5.45	39.19	53.89	1.48
9	xxxxx	**ø**	**62.66**	**6.36**	**40.70**	**51.27**	**1.66**
		a	62.77	6.11	41.03	51.45	1.42
		b	63.84	9.14	47.98	42.04	0.84
		c	61.47	3.98	33.61	59.75	2.65
10	xxxxx	**ø**	**63.34**	**6.97**	**46.96**	**44.95**	**1.11**
		a	62.62	4.50	45.31	48.97	1.22
		b	64.63	10.27	54.10	34.83	0.79
		c	62.83	6.18	41.76	50.75	1.31

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Weight classes of eggs **Tab. No. 9 (page 3)**

Sample	Cross		Egg weight	XL	L	M	S
				(= > 73 g)	(63 - 73 g)	(53 - 63 g)	(= < 53 g)
	Way of rearing		g	%	%	%	%
11	xxxxx	ø	**60.98**	**3.18**	**32.09**	**62.15**	**2.58**
			59.60	1.64	24.84	69.78	3.74
			63.00	5.79	46.19	47.04	0.98
			60.34	2.12	25.23	69.62	3.03
12	xxxxx	ø	**63.15**	**7.74**	**43.60**	**46.95**	**1.71**
			62.35	2.71	44.12	50.93	2.23
			63.53	9.67	46.40	42.45	1.47
			63.58	10.83	40.27	47.47	1.43

Egg quality - Period 6 **Tab. No. 10a**

Sample	Cross	Egg weight	Yolk weight	Shell strength	Index of egg shape	Shell thickness	Haugh's units	Yolk colour				Egg shell colour			Blood spot
								L	a	b	Roche	L	a	b	
		g	g	N		mm									
1	xxxxx	62.04	17.59	42.04	1.27	0.35	86.75	-4.72	3.3	9.8	11.53	55.75	20.8	29.5	0
2	xxxxx	63.81	17.46	43.76	1.25	0.36	91.47	-6.37	3.8	7.6	12.48	53.33	20.4	27.9	0
3	xxxxx	61.83	16.93	43.26	1.25	0.35	92.98	-4.82	3.5	9.7	11.68	59.28	19.1	29.6	1
4	xxxxx	63.97	17.41	40.38	1.29	0.35	86.85	-5.55	3.7	8.9	12.27	57.87	20.4	30.1	2
5	xxxxx	65.32	17.73	44.19	1.25	0.36	92.47	-5.77	3.6	8.8	12.10	55.57	22.3	30.8	0
6	xxxxx	63.51	17.36	42.13	1.30	0.36	87.90	-5.32	3.6	9.3	11.97	53.98	20.7	28.9	0
7	xxxxx	62.58	17.45	41.45	1.27	0.35	87.67	-5.13	3.7	9.4	12.00	51.60	19.7	27.3	0
8	xxxxx	63.54	18.66	42.80	1.29	0.36	85.70	-3.90	3.0	10.5	10.93	52.78	21.2	28.7	0
9	xxxxx	64.00	18.22	43.65	1.27	0.36	90.10	-4.67	3.5	9.9	11.75	54.37	19.7	28.0	0
10	xxxxx	64.31	18.33	43.83	1.27	0.37	88.88	-2.97	3.0	11.3	10.88	55.43	21.9	29.6	1
11	xxxxx	61.97	17.39	32.95	1.29	0.32	84.44	-4.84	3.3	9.7	11.67	64.83	14.2	25.7	0
12	xxxxx	64.05	18.01	34.90	1.30	0.33	87.47	-4.28	3.3	10.2	11.41	64.72	14.5	25.2	0

Interpretative notes:

L - colour of egg (0=black, 100=white)

a - red colouring and it's fullness

b - yellow colouring and it's fullness

Egg quality - Period 9 **Tab. No. 10b**

Sample	Cross	Egg weight	Yolk weight	Shell strength	Index of egg shape	Shell thickness	Haugh's units	Yolk colour				Egg shell colour			Blood spot
								L	a	b	Roche	L	a	b	
		g	g	N		mm									
1	xxxxx	61.62	17.78	42.71	1.30	0.36	93.77	-3.47	2.6	10.6	10.53	58.35	20.8	29.9	0
2	xxxxx	62.98	17.33	41.10	1.27	0.37	94.90	-5.78	3.6	8.9	12.05	58.67	20.7	29.8	0
3	xxxxx	62.27	17.11	41.56	1.28	0.37	96.00	-4.42	3.2	10.0	11.25	62.47	18.7	29.9	0
4	xxxxx	64.47	17.43	45.71	1.31	0.37	91.85	-4.98	3.3	9.5	11.48	58.88	20.9	30.5	0
5	xxxxx	63.97	17.27	40.18	1.27	0.36	96.37	-5.60	3.4	8.9	11.88	56.78	22.1	30.9	0
6	xxxxx	64.19	17.44	45.30	1.32	0.37	94.18	-4.12	2.9	10.1	11.03	57.83	21.1	30.1	0
7	xxxxx	63.15	17.43	43.72	1.29	0.37	94.07	-4.58	3.0	9.9	11.12	58.35	21.0	30.1	0
8	xxxxx	64.11	17.58	47.15	1.31	0.37	93.03	-4.87	2.9	9.5	11.27	57.83	21.3	30.1	0
9	xxxxx	63.81	17.11	43.62	1.29	0.37	94.37	-4.77	3.3	9.7	11.50	59.28	20.6	29.6	1
10	xxxxx	64.25	17.07	45.53	1.29	0.38	92.02	-3.65	2.8	10.6	10.65	58.45	21.0	30.3	0
11	xxxxx	61.96	17.26	33.26	1.31	0.33	86.80	-4.03	2.8	10.2	10.78	68.64	14.4	26.7	0
12	xxxxx	65.24	18.09	34.85	1.32	0.34	90.16	-3.31	2.6	10.9	10.38	67.97	15.2	26.4	0

Interpretative notes:

L - colour of egg (0=black, 100=white)

a - red colouring and it's fullness

b - yellow colouring and it's fullness

Egg quality - Period 12 **Tab. No. 10c**

Sample	Cross	Egg weight	Yolk weight	Shell strength	Index of egg shape	Shell thickness	Haugh's units	Yolk colour				Egg shell colour			Blood spot
								L	a	b	Roche	L	a	b	
		g	g	N		mm									
1	xxxxx	61.27	17.42	43.68	1.31	0.36	93.77	-4.53	3.1	9.9	11.25	57.65	21.3	29.9	0
2	xxxxx	64.44	17.68	38.61	1.28	0.36	94.88	-6.47	3.8	8.3	12.45	57.38	21.5	29.9	1
3	xxxxx	62.92	17.62	39.16	1.29	0.38	95.62	-4.53	3.3	9.9	11.52	61.35	19.3	29.8	0
4	xxxxx	64.46	17.50	44.84	1.33	0.37	91.15	-4.93	3.6	9.6	11.80	59.38	20.7	30.3	0
5	xxxxx	64.60	17.73	40.07	1.26	0.36	95.58	-5.20	3.6	9.4	11.73	56.20	22.2	30.9	0
6	xxxxx	63.50	18.60	38.88	1.32	0.36	85.63	-3.53	2.8	10.8	10.52	57.85	21.9	30.9	0
7	xxxxx	63.58	18.64	39.08	1.30	0.35	85.03	-3.32	2.7	10.9	10.35	59.10	21.3	30.5	0
8	xxxxx	63.79	18.80	37.94	1.32	0.35	85.00	-3.83	2.7	10.5	10.52	58.63	21.5	30.7	0
9	xxxxx	62.89	18.62	37.15	1.29	0.34	85.32	-3.42	3.0	10.9	10.88	58.98	20.0	29.8	0
10	xxxxx	64.73	17.43	39.69	1.30	0.35	88.13	-3.55	3.1	10.8	10.92	58.30	20.6	29.8	0
11	xxxxx	62.90	18.27	30.04	1.32	0.31	83.41	-3.67	2.8	10.5	10.82	66.60	14.0	25.7	1
12	xxxxx	67.10	19.18	31.69	1.34	0.31	83.80	-3.82	2.9	10.0	11.24	67.42	14.1	25.1	0

Interpretative notes:

L - colour of egg (0=black, 100=white)

a - red colouring and it's fullness

b - yellow colouring and it's fullness

Laying intensity **Tab. No. 11 (page 1)**

in four weeks long periods (%)

Sample	Cross		Period													
	Way of rearing		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	xxxxx	**ø**	**55.63**	**92.80**	**92.08**	**92.86**	**93.31**	**92.62**	**91.98**	**90.56**	**88.59**	**87.64**	**86.07**	**81.03**	**80.14**	**78.53**
		a	54.88	90.95	90.06	88.81	89.82	92.38	92.56	92.80	91.37	89.58	90.54	85.06	86.43	85.65
		b	55.36	95.30	93.04	93.93	95.77	93.21	90.65	88.39	87.08	84.17	77.56	72.92	68.27	62.92
		c	56.67	92.14	93.15	95.83	94.35	92.26	92.74	90.48	87.32	89.17	90.12	85.12	85.71	87.02
2	xxxxx	**ø**	**58.31**	**93.13**	**92.76**	**93.39**	**91.92**	**90.71**	**91.90**	**89.80**	**88.77**	**88.77**	**88.59**	**85.06**	**87.26**	**83.85**
		a	55.48	92.50	93.45	93.51	91.13	88.39	89.70	87.26	88.21	88.27	86.85	82.32	85.36	81.85
		b	60.89	94.58	92.08	92.68	92.20	91.67	92.98	90.65	89.05	88.69	88.69	85.06	87.50	86.43
		c	58.57	92.32	92.74	93.99	92.44	92.08	93.04	91.49	89.05	89.35	90.24	87.80	88.93	83.27
3	xxxxx	**ø**	**54.76**	**93.25**	**92.64**	**93.04**	**94.19**	**91.09**	**92.30**	**91.33**	**89.66**	**89.09**	**89.23**	**86.79**	**84.80**	**81.71**
		a	46.61	94.05	92.86	93.33	93.99	89.76	91.31	90.48	88.63	87.92	89.88	87.26	86.90	82.86
		b	57.80	92.80	92.02	92.86	95.00	91.90	92.62	92.38	91.13	89.82	88.33	87.20	81.96	78.63
		c	59.88	92.92	93.04	92.92	93.57	91.61	92.98	91.13	89.23	89.52	89.46	85.89	85.54	83.63
4	xxxxx	**ø**	**45.95**	**90.77**	**89.70**	**90.75**	**90.18**	**88.12**	**89.96**	**88.04**	**85.60**	**84.90**	**85.36**	**77.90**	**73.10**	**71.17**
		a	37.98	85.77	86.25	86.31	87.08	83.45	87.08	83.93	83.33	82.44	83.27	77.74	75.18	72.14
		b	42.74	91.85	89.64	91.25	89.17	88.69	91.13	90.12	84.82	82.86	83.75	71.49	57.32	55.65
		c	57.14	94.70	93.21	94.70	94.29	92.20	91.67	90.06	88.63	89.40	89.05	84.46	86.79	85.71
5	xxxxx	**ø**	**56.77**	**91.43**	**89.74**	**90.36**	**91.15**	**88.69**	**89.33**	**88.75**	**88.29**	**87.56**	**87.22**	**82.80**	**84.31**	**78.97**
		a	53.93	87.80	82.80	82.56	83.63	80.71	81.96	81.55	79.82	78.87	79.70	76.07	77.08	73.69
		b	58.04	92.56	92.80	95.18	94.29	91.96	92.68	91.43	91.79	90.12	88.69	82.56	85.36	79.05
		c	58.33	93.93	93.63	93.33	95.54	93.39	93.33	93.27	93.27	93.69	93.27	89.76	90.48	84.17

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Laying intensity **Tab. No. 11 (page 2)**

in four weeks long periods (%)

Sample	Cross		Period													
	Way of rearing		1	2	3	4	5	6	7	8	9	10	11	12	13	14
6	xxxxx	**ø**	**59.76**	**94.07**	**92.90**	**95.20**	**94.98**	**94.40**	**95.73**	**94.90**	**92.88**	**92.00**	**91.13**	**87.00**	**87.14**	**84.03**
		a	55.83	92.32	92.32	95.00	95.30	94.40	94.94	92.56	90.95	89.64	88.63	85.06	83.75	81.73
		b	59.40	95.60	92.92	95.18	94.76	92.92	95.77	95.65	92.38	90.30	89.35	84.29	87.62	84.23
		c	64.05	94.29	93.45	95.42	94.88	95.89	96.49	96.49	95.30	96.07	95.42	91.67	90.06	86.13
7	xxxxx	**ø**	**59.33**	**93.51**	**91.75**	**93.79**	**93.91**	**90.69**	**92.46**	**90.97**	**89.66**	**89.74**	**87.58**	**81.67**	**76.83**	**71.98**
		a	57.56	92.68	89.76	91.67	90.89	87.80	88.81	89.23	87.38	85.54	80.95	76.37	73.81	64.11
		b	60.00	94.52	92.50	94.17	94.58	90.77	92.80	89.76	89.52	90.54	88.75	84.46	80.65	77.80
		c	60.42	93.33	92.98	95.54	96.25	93.51	95.77	93.93	92.08	93.15	93.04	84.17	76.01	74.05
8	xxxxx	**ø**	**56.15**	**92.58**	**91.65**	**93.39**	**93.69**	**90.93**	**90.28**	**90.14**	**87.94**	**87.08**	**85.10**	**81.11**	**80.89**	**76.09**
		a	50.83	92.32	88.39	90.36	91.25	86.79	84.88	84.05	79.58	78.99	77.26	74.88	75.12	70.54
		b	60.42	94.40	94.23	93.81	95.18	93.51	93.81	93.21	92.86	91.25	87.38	80.65	82.44	78.69
		c	57.20	91.01	92.32	96.01	94.64	92.50	92.14	93.15	91.37	91.01	90.65	87.80	85.12	79.05
9	xxxxx	**ø**	**53.33**	**92.48**	**90.26**	**91.31**	**92.56**	**91.41**	**92.08**	**90.91**	**89.38**	**88.06**	**84.01**	**80.42**	**82.20**	**79.13**
		a	50.95	90.12	87.44	88.15	90.60	88.57	88.75	88.99	86.85	85.48	83.63	81.55	83.04	77.74
		b	49.70	93.33	89.76	91.49	92.92	91.43	92.26	89.88	88.63	85.06	75.71	70.65	76.25	74.58
		c	59.35	93.99	93.57	94.29	94.17	94.23	95.24	93.87	92.68	93.63	92.68	89.05	87.32	85.06
10	xxxxx	**ø**	**56.25**	**91.61**	**90.24**	**91.71**	**91.67**	**90.62**	**90.93**	**89.07**	**88.69**	**87.80**	**86.07**	**81.09**	**80.95**	**77.44**
		a	55.06	91.19	87.80	88.69	90.54	88.10	88.63	84.88	86.73	85.77	86.79	81.85	83.57	80.36
		b	47.38	90.77	91.31	92.08	90.48	89.82	89.76	88.10	87.56	85.65	81.79	76.96	74.52	72.02
		c	66.31	92.86	91.61	94.35	93.99	93.93	94.40	94.23	91.79	91.96	89.64	84.46	84.76	79.94

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Laying intensity **Tab. No. 11 (page 3)**

in four weeks long periods (%)

Sample	Cross		Period													
	Way of rearing		1	2	3	4	5	6	7	8	9	10	11	12	13	14
11	xxxxx	**ø**	**50.58**	**91.33**	**88.49**	**87.60**	**88.17**	**87.52**	**86.31**	**83.83**	**80.30**	**79.29**	**77.76**	**70.79**	**66.29**	**61.41**
			53.87	92.38	89.11	88.39	90.24	89.64	87.74	86.31	82.86	84.11	82.56	75.77	66.90	61.07
			49.35	89.17	84.17	81.90	82.92	82.56	80.18	77.62	72.74	72.92	70.48	63.87	63.45	58.57
			48.51	92.44	92.20	92.50	91.37	90.36	91.01	87.56	85.30	80.83	80.24	72.74	68.51	64.58
12	xxxxx	**ø**	**53.39**	**88.71**	**84.94**	**84.50**	**81.43**	**78.33**	**79.50**	**76.01**	**74.21**	**72.62**	**72.08**	**67.26**	**65.04**	**61.59**
			55.36	91.07	86.31	84.64	81.90	79.29	81.07	77.80	75.71	76.96	76.67	71.85	70.83	67.68
			54.58	88.81	85.77	90.71	87.20	85.00	84.88	79.94	79.52	78.10	74.35	69.29	65.42	61.49
			50.24	86.25	82.74	78.15	75.18	70.71	72.56	70.30	67.38	62.80	65.24	60.65	58.87	55.60

Average weight of eggs **Tab. No. 12 (page 1)**

in four weeks long periods (g)

Sample	Cross		Period													
	Way of rearing		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	xxxxx	**ø**	**49.00**	**56.69**	**60.02**	**60.32**	**61.46**	**61.44**	**61.26**	**61.90**	**61.99**	**61.26**	**60.94**	**61.47**	**61.25**	**62.03**
		a	49.23	56.76	59.67	60.63	61.13	60.48	61.48	62.31	61.82	60.95	60.93	61.44	60.83	61.58
		b	48.44	56.39	59.75	60.19	61.64	61.90	61.10	61.70	62.03	61.49	60.67	61.47	61.40	62.45
		c	49.40	56.96	60.63	60.19	61.58	62.03	61.18	61.69	62.12	61.36	61.18	61.50	61.55	62.14
2	xxxxx	**ø**	**51.69**	**58.71**	**62.20**	**61.82**	**63.16**	**63.29**	**63.49**	**63.36**	**63.84**	**63.22**	**63.12**	**63.92**	**63.70**	**63.56**
		a	52.32	60.19	63.33	62.69	63.60	63.82	64.58	64.01	64.29	63.43	63.84	64.66	64.38	64.13
		b	51.59	58.47	61.82	61.66	62.28	62.99	63.13	62.75	64.08	63.86	62.92	64.05	64.41	64.36
		c	51.21	57.50	61.43	61.11	63.66	63.15	62.80	63.31	63.20	62.41	62.66	63.10	62.35	62.20
3	xxxxx	**ø**	**51.43**	**58.44**	**61.35**	**61.63**	**62.22**	**62.34**	**62.65**	**62.72**	**62.71**	**61.91**	**62.40**	**63.28**	**63.57**	**63.64**
		a	51.30	59.25	61.38	61.54	62.23	61.89	62.36	62.82	62.25	59.71	61.80	62.60	63.13	63.66
		b	51.13	57.90	61.65	62.33	62.65	63.45	63.33	63.08	63.29	63.29	63.05	64.05	64.35	64.26
		c	51.82	58.17	61.02	60.99	61.78	61.65	62.26	62.31	62.53	62.53	62.36	63.12	63.26	62.99
4	xxxxx	**ø**	**50.19**	**59.16**	**62.14**	**62.59**	**63.27**	**63.33**	**63.67**	**64.25**	**64.36**	**64.00**	**64.07**	**64.24**	**64.22**	**64.29**
		a	49.41	59.42	62.14	62.61	63.78	63.29	63.75	63.81	63.97	63.68	63.60	63.44	64.33	64.54
		b	50.09	59.57	62.52	62.99	63.13	63.41	63.95	65.22	64.96	64.52	64.65	65.91	64.30	64.38
		c	50.74	58.54	61.78	62.20	62.98	63.27	63.33	63.64	64.16	63.86	63.96	63.68	64.08	64.05
5	xxxxx	**ø**	**51.62**	**59.87**	**62.95**	**62.47**	**63.86**	**64.34**	**64.35**	**63.95**	**64.57**	**63.98**	**63.79**	**64.15**	**64.27**	**64.55**
		a	50.99	59.30	62.62	62.52	63.97	64.38	64.58	64.71	64.64	64.12	64.27	64.09	64.35	65.19
		b	51.69	60.75	63.35	63.10	63.48	64.68	64.91	63.67	64.62	64.28	64.35	64.64	64.72	64.81
		c	52.10	59.56	62.83	61.68	64.15	64.00	63.57	63.53	64.47	63.57	62.84	63.69	63.80	63.75

way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

Average weight of eggs **Tab. No. 12 (page 2)**

in four weeks long periods (g)

Sample	Cross		Period													
	Way of rearing		1	2	3	4	5	6	7	8	9	10	11	12	13	14
6	xxxxx	**ø**	**50.65**	**58.56**	**62.01**	**62.10**	**62.46**	**62.98**	**63.54**	**63.63**	**63.63**	**63.50**	**63.38**	**63.84**	**63.70**	**64.00**
		a	49.55	58.25	61.26	61.40	61.82	62.07	63.09	62.56	63.05	62.79	62.10	62.89	62.61	63.15
		b	51.04	58.75	62.88	63.25	63.48	63.27	65.06	64.51	64.87	64.52	65.54	65.19	65.53	66.14
		c	51.30	58.68	61.94	61.71	62.11	63.57	62.53	63.79	63.01	63.16	62.55	63.43	63.02	62.72
7	xxxxx	**ø**	**50.21**	**57.75**	**61.32**	**61.25**	**62.33**	**62.27**	**62.55**	**63.43**	**63.01**	**62.71**	**62.66**	**63.14**	**63.68**	**63.49**
		a	50.13	57.48	61.69	61.10	62.57	61.85	62.82	63.25	62.81	62.39	62.19	63.19	62.63	62.64
		b	49.94	57.56	60.85	62.02	61.73	62.50	62.73	63.48	63.29	63.24	62.66	63.20	65.52	63.76
		c	50.55	58.21	61.43	60.60	62.69	62.42	62.11	63.54	62.94	62.50	63.04	63.03	62.86	63.88
8	xxxxx	**ø**	**49.91**	**59.53**	**61.80**	**62.04**	**62.46**	**63.09**	**63.66**	**63.82**	**63.67**	**63.69**	**63.80**	**63.92**	**63.55**	**64.73**
		a	50.65	61.61	62.34	62.86	63.03	63.47	64.00	64.54	64.14	65.40	64.66	64.47	64.58	66.75
		b	49.53	58.81	61.17	61.95	61.78	62.10	63.12	62.90	62.80	62.73	63.14	63.64	62.78	62.68
		c	49.68	58.41	61.97	61.36	62.58	63.78	63.89	64.11	64.18	63.22	63.65	63.70	63.40	64.95
9	xxxxx	**ø**	**51.29**	**59.47**	**62.38**	**62.14**	**63.18**	**63.39**	**64.04**	**63.98**	**63.76**	**63.42**	**63.67**	**64.06**	**63.98**	**64.42**
		a	51.34	59.41	62.15	60.99	63.99	64.51	64.75	64.11	63.84	63.11	63.55	63.93	63.57	65.17
		b	51.52	60.43	62.43	63.79	63.66	63.83	65.39	65.49	65.03	64.82	64.89	66.14	65.92	66.43
		c	51.04	58.50	62.53	61.51	61.95	61.97	61.97	62.42	62.45	62.47	62.68	62.55	62.68	62.28
10	xxxxx	**ø**	**51.91**	**59.48**	**62.75**	**62.68**	**63.81**	**64.55**	**64.38**	**64.29**	**64.82**	**64.03**	**64.27**	**64.97**	**65.50**	**65.98**
		a	50.95	59.54	62.11	61.94	62.76	63.44	63.87	63.05	64.03	63.55	63.70	64.64	64.55	64.76
		b	52.15	59.46	63.70	64.24	65.13	66.54	65.53	65.31	66.08	65.24	65.25	66.00	67.27	68.66
		c	52.52	59.44	62.50	61.89	63.46	63.72	63.80	64.45	64.39	63.33	63.92	64.35	64.81	64.68

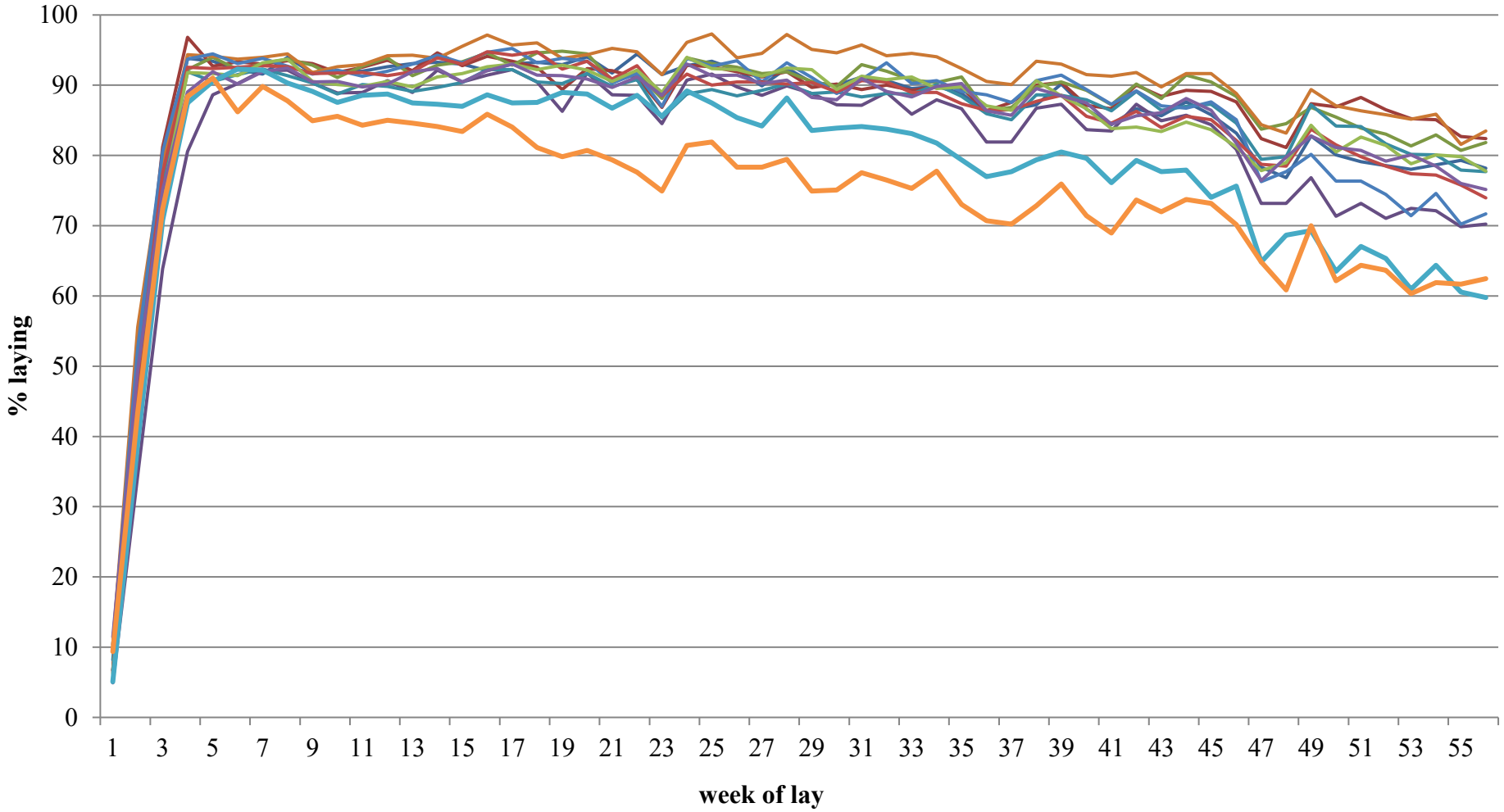
way of rearing: a - deep litter + beak trimming b - cages + non beak trimming c - cages + beak trimming

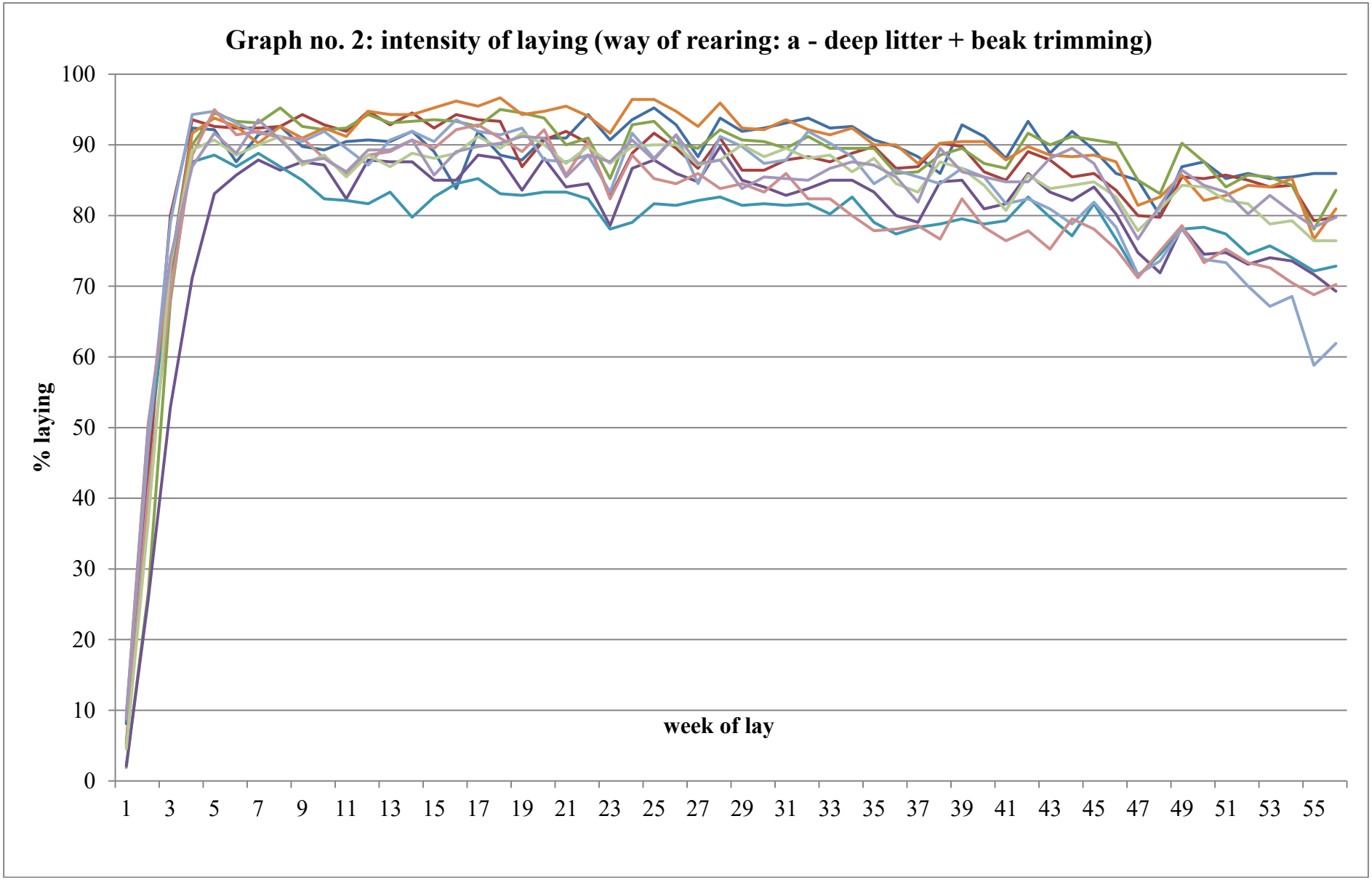
Average weight of eggs **Tab. No. 12 (page 3)**

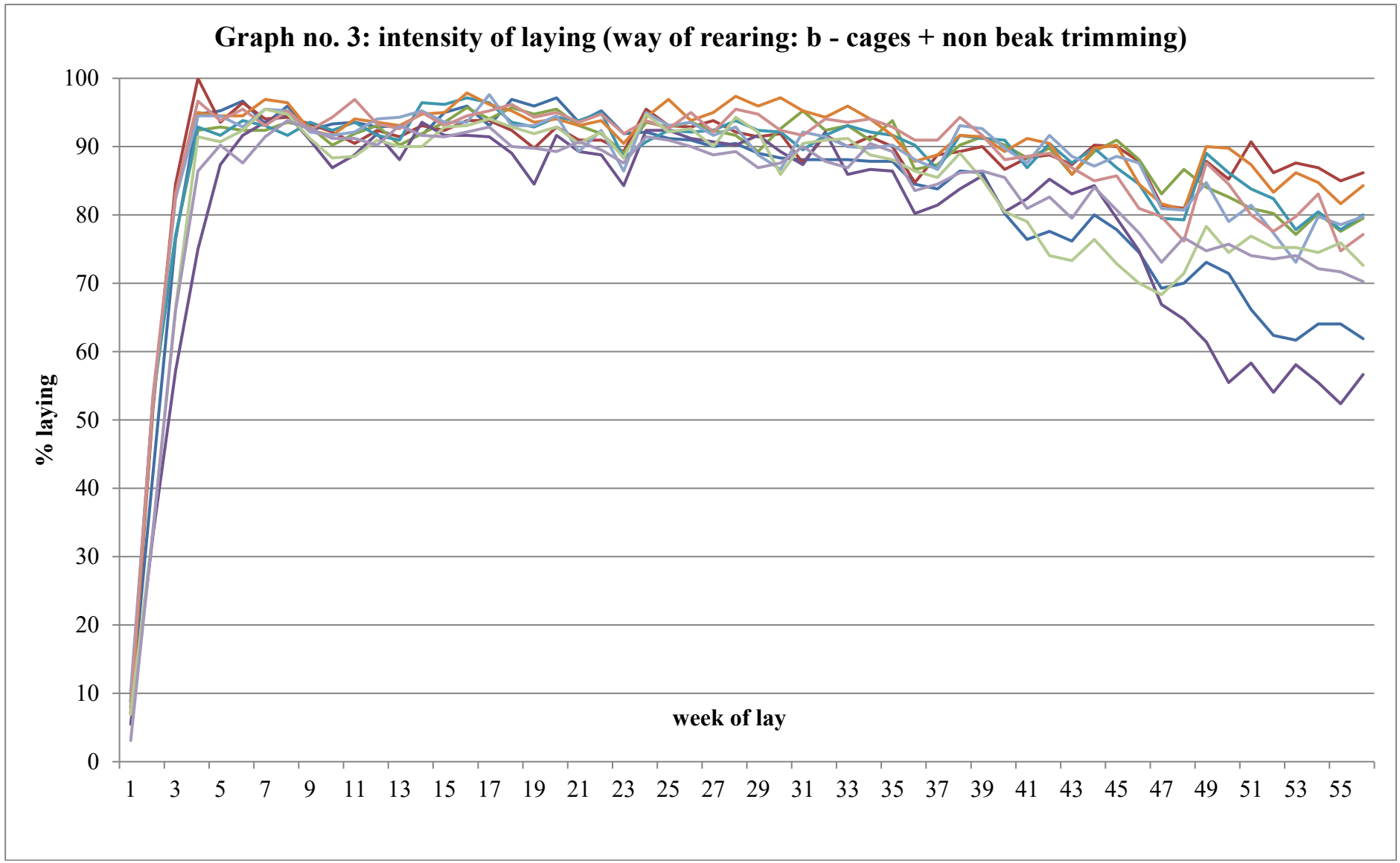
in four weeks long periods (g)

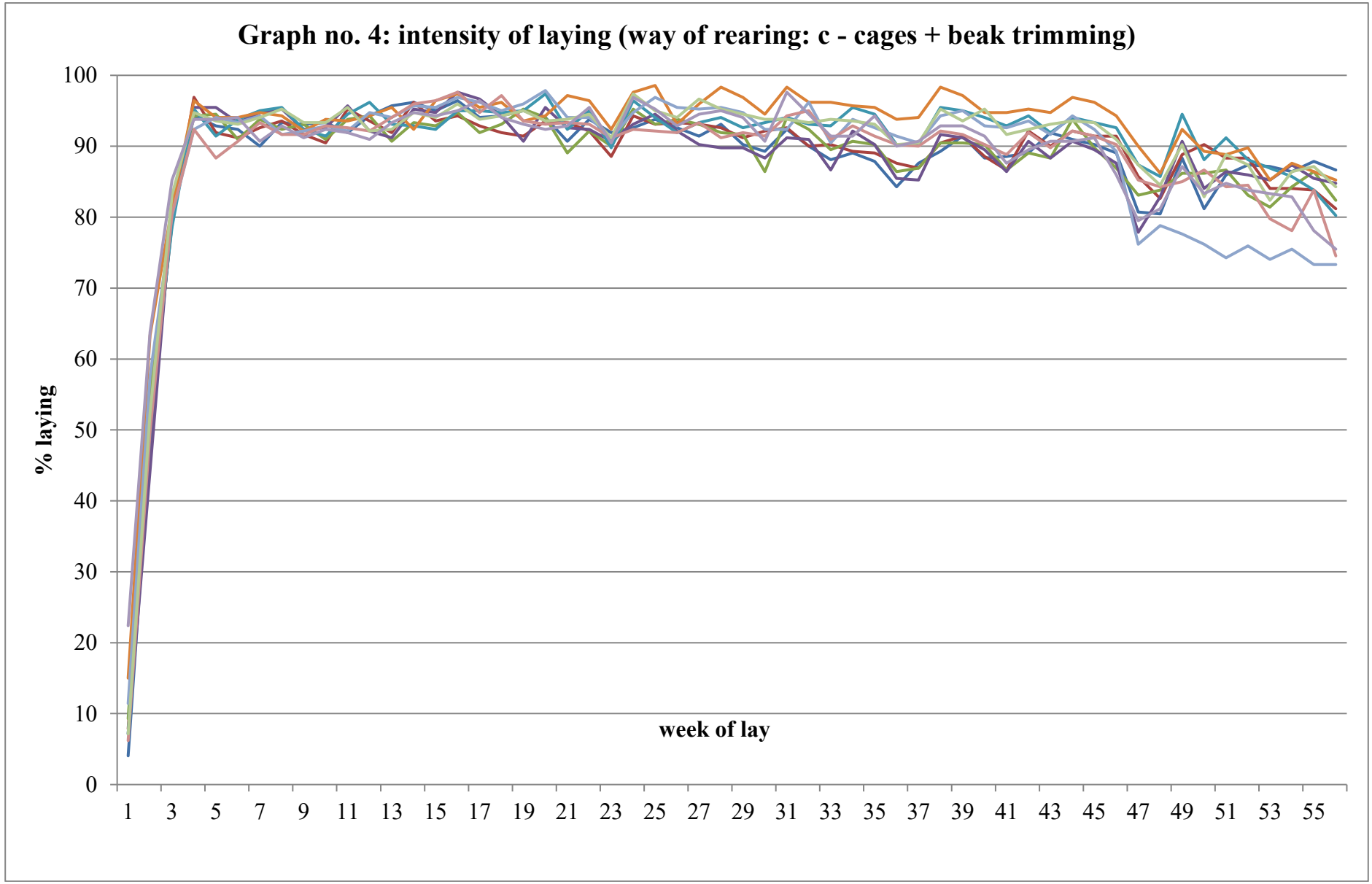
Sample	Cross		Period													
	Way of rearing		1	2	3	4	5	6	7	8	9	10	11	12	13	14
11	xxxxx	**ø**	**48.58**	**56.45**	**60.28**	**60.53**	**61.62**	**61.31**	**61.98**	**62.77**	**62.35**	**62.72**	**62.24**	**63.42**	**62.71**	**64.12**
			47.12	54.90	59.23	59.76	60.21	59.81	60.89	61.16	61.28	61.20	60.92	61.25	61.83	61.93
			50.00	58.39	61.55	61.51	63.24	63.24	64.02	65.51	64.59	65.22	64.73	66.48	65.06	66.99
			48.62	56.05	60.07	60.32	61.42	60.90	61.04	61.64	61.19	61.75	61.08	62.52	61.25	63.45
12	xxxxx	**ø**	**50.76**	**58.05**	**61.71**	**61.94**	**63.39**	**63.83**	**64.13**	**65.04**	**64.57**	**65.71**	**65.48**	**66.01**	**65.63**	**67.04**
			50.62	57.24	60.70	60.89	62.41	62.86	63.23	64.25	64.69	64.81	64.64	64.55	65.05	65.61
			50.45	57.88	62.57	62.22	63.64	64.23	63.55	65.11	63.92	65.87	66.47	67.09	67.40	68.22
			51.22	59.03	61.84	62.71	64.12	64.40	65.63	65.75	65.11	66.44	65.33	66.38	64.43	67.30

Graph no. 1: intensity of laying (ø)




Graph no. 2: intensity of laying (way of rearing: a - deep litter + beak trimming)
% laying
100
90
80
70
60
50
40
30
20
10
0
week of lay
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55


Graph no. 3: intensity of laying (way of rearing: b - cages + non beak trimming)
% laying
100
90
80
70
60
50
40
30
20
10
0
week of lay
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55


Graph no. 4: intensity of laying (way of rearing: c - cages + beak trimming)
% laying
100
90
80
70
60
50
40
30
20
10
0
week of lay
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55