EUROPEAN PARENT STOCK

ROSS 308

Performance Objectives

2016

ROSS
An Aviagen Brand

Introduction

This booklet contains the performance objectives for the Ross® 308 parent stock and should be used in conjunction with the **Ross Parent Stock Management Handbook**.

Performance

The performance objectives included here are reflective of the economic drivers and stocking densities typical of parent stock production operations within Europe which influence flock cycle planning and management techniques. This typically involves adopting a breeder management strategy which provides first light increase at or before 21 weeks of age (up to 146 days of age).

Performance can be influenced by many factors including flock management, health status and climatic conditions. These objectives indicate the performance which can be achieved under good management and environmental conditions and when feeding recommended nutrient levels.

Variation in performance may occur for a variety of reasons. For example, feed consumption can be affected by form of feed, energy level and house temperature. Information in this booklet should not be regarded as a specification but as a 'Performance Objective.'

Performance levels given assume flocks are managed with separate-sex feeding.

In the tables, values are rounded. This may result in small inaccuracies when using the objectives to calculate other performance statistics.

For further information on the management of Ross stock, please contact your local Ross representative.

Contents

Performance Summary

European Ross 308 breeder performance objectives for birds light stimulated **at** or **before** 21 weeks of age (up to 146 days of age).

Summary of 40 Weeks of Production

Age at depletion (days) (weeks)	434 62
Total eggs (HH)	183.8
Hatching eggs (HH)	175.8
Chicks / female housed at 161 days (23 weeks)	146.1
Hatchability (%)	83.1
Age at 5% production (days) (weeks)	161 23
Peak production (%)	86.3
Body weight at 161 days (23 weeks)	2810 g
Body weight at depletion	4117 g
Liveability (%) (Rearing period)	95 - 96
Liveability (%) (Laying period)	92
Feed / 100 chicks* day old - 434 days (0 - 62 weeks)	38.5 kg
Feed / 100 hatching eggs* day old - 434 days (0 - 62 weeks)	32.0 kg

**Feed amounts expressed in the table do not include male feed allocations.*

ROSS 308 PARENT STOCK: Performance Objectives

Male Body Weight and Feeding Program

Age (days)	Age (weeks)	Body weight (g)	Weekly gain (g)	Feed (g/bird/day)	Energy (kcal ME/ bird/day)[1]
Day old	0	40		ad lib	ad lib
7	1	150	110	29	81
14	2	310	160	38	106
21	3	505	195	46	129
28	4	720	215	54	152
35	5	900	180	62	174
42	6	1075	175	70	182
49	7	1230	155	73	190
56	8	1375	145	75	195
63	9	1510	135	77	201
70	10	1640	130	79	205
77	11	1770	130	81	210
84	12	1900	130	83	215
91	13	2030	130	85	220
98	14	2160	130	86	224
105	15	2290	130	88	229
112	16	2430	140	90	243
119	17	2575	145	92	248
126	18	2725	150	94	253
133	19	2880	155	96	259
140	20	3035	155	98	264
147	21	3195	160	101	273
154	22	3345	150	103	278
161	23	3490	145	105	284
168	24	3630	140	108	292
175	25	3750	120	111	299
182	26	3860	110	113	306
189	27	3920	60	116	312
196	28	3970	50	117	315
203	29	4010	40	118	319
210	30	4040	30	120	324
217	31	4070	30	122	329
224	32	4100	30	123	333
231	33	4130	30	125	337
238	34	4160	30	126	340
245	35	4190	30	127	344
252	36	4220	30	129	348
259	37	4250	30	130	351
266	38	4280	30	131	354
273	39	4310	30	133	359
280	40	4340	30	134	362
287	41	4370	30	136	366
294	42	4400	30	137	369
301	43	4430	30	138	372
308	44	4460	30	139	375
315	45	4490	30	140	378
322	46	4524	34	141	380
329	47	4558	34	142	383
336	48	4592	34	143	386
343	49	4626	34	144	388
350	50	4660	34	145	391
357	51	4694	34	146	393
364	52	4728	34	146	395
371	53	4762	34	147	397
378	54	4796	34	148	399
385	55	4830	34	149	402
392	56	4864	34	150	404
399	57	4898	34	150	406
406	58	4932	34	151	407
413	59	4966	34	151	408
420	60	5000	34	151	409
427	61	5034	34	152	410
434	62	5068	34	152	411

NOTES:

Body weights are those 4-6 hours after feeding.

This profile allows the male to reach sexual maturity by first egg. Weekly body-weight gain beyond 29 weeks (203 days) should average approximately 30-34 g.

Field performance has shown that this practice ensures that the body condition of the males is not compromised so they will maintain the best possible fertility levels.

**Feed quantities are a guide only, based on recommended dietary energy levels of a 4-stage rearing program and a male diet in lay. Adjustments must be made to reflect feeding differing energy levels.*

ROSS 308 PARENT STOCK: Performance Objectives

Female Body Weight and Feeding Program

Age (days)	Age (weeks)	Body weight (g)	Weekly gain (g)	Feed (g/bird/day)	ME intake (kcal/bird/day)*
Day old	0	40		22	62
7	1	125	85	26	73
14	2	240	115	33	92
21	3	360	120	38	105
28	4	480	120	41	115
35	5	600	120	45	125
42	6	740	140	51	133
49	7	870	130	54	140
56	8	990	120	56	147
63	9	1100	110	59	154
70	10	1200	100	62	162
77	11	1300	100	66	172
84	12	1400	100	70	183
91	13	1505	105	75	194
98	14	1610	105	79	206
105	15	1715	105	83	217
112	16	1825	110	87	235
119	17	1945	120	93	250
126	18	2070	125	99	267
133	19	2200	130	106	285
140	20	2340	140	112	303
147	21	2495	155	119	320
154	22	2655	160	126	341
161	23	2810	155	130	364
168	24	2955	145	138	387
175	25	3093	138	154	431
182	26	3223	130	166	465
189	27	3333	110	166	465
196	28	3428	95	166	465
203	29	3478	50	166	465
210	30	3508	30	166	465
217	31	3528	20	166	465
224	32	3547	19	166	465
231	33	3566	19	166	465
238	34	3585	19	166	465
245	35	3604	19	166	465
252	36	3623	19	166	464
259	37	3642	19	165	463
266	38	3661	19	165	462
273	39	3680	19	164	461
280	40	3699	19	164	460
287	41	3718	19	164	458
294	42	3737	19	163	457
301	43	3756	19	163	456
308	44	3775	19	163	455
315	45	3794	19	162	454
322	46	3813	19	162	453
329	47	3832	19	162	452
336	48	3851	19	161	451
343	49	3870	19	161	450
350	50	3889	19	160	449
357	51	3908	19	160	448
364	52	3927	19	160	447
371	53	3946	19	159	446
378	54	3965	19	159	445
385	55	3984	19	159	444
392	56	4003	19	158	443
399	57	4022	19	158	442
406	58	4041	19	157	441
413	59	4060	19	157	440
420	60	4079	19	157	439
427	61	4098	19	156	438
434	62	4117	19	156	437

NOTES:

Body weights are those 4-6 hours after feeding.

Weekly body-weight gain beyond 30 weeks (210 days) should average approximately 19 g.

**Feed quantities are a guide only, based on recommended dietary energy levels of a 4 stage-rearing program. Adjustments must be made to reflect feeding differing energy levels.*

Feeding into Lay

Hen-day (%)	Daily energy intake (kcal/bird/day)	Feed intake (g/bird/day)	Feed increase (g/bird/day)
5	364	130	
10	371	133	3
15	378	135	2
20	385	138	3
25	392	140	2
30	399	143	3
35	407	145	2
40	414	148	3
45	421	150	2
50	429	153	3
55	436	156	3
60	444	159	3
65	452	162	3
70	460	164	2
peak	465	166	2

NOTES:

Daily energy and feed intakes are based on current recommended dietary levels of energy and assuming an ambient temperature of 20 - 21°C.

Feeding programs should be adjusted according to actual feed intake at 5% hen-day production. It may be necessary to adjust feed amounts daily (rather than every 5% as given in the table), taking into account the rate of daily production. Adjustments to feed amounts will need to be made if dietary energy levels are different to those recommended or if environmental temperatures are warmer or cooler than assumed here.

Female Parent Stock Nutrient Allocations at Peak Production

Nutrient	Nutrient Allocation at Peak
Energy	465
DIGESTIBLE AMINO ACIDS mg/bird/day	
Lysine	996
Methionine + Cystine	979
Methionine	614
Threonine	813
Valine	930
Isoleucine	830
Arginine	1311
Tryptophan	232
MINERALS mg/bird/day	
Calcium	4980
Available Phosphorus	581

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Weekly Egg Production

Week of production	Age (days)	Age (weeks)	Hen-housed (%)	Hen-week (%)	Eggs/ birds/week	Eggs/ bird/cum.	Hatching eggs/bird/ week*	Hatching eggs/birds/ cum.	Hatching egg utilization weekly	Hatching egg utilization cum.
1	161	23	5.4	5.4	0.4	0.4				
2	168	24	21.5	21.6	1.5	1.9	0.9	0.9	60.0	48.0
3	175	25	51.3	51.6	3.6	5.5	2.6	3.5	72.5	64.1
4	182	26	72.3	72.9	5.1	10.5	4.5	8.0	88.0	75.6
5	189	27	81.1	81.9	5.7	16.2	5.2	13.1	91.0	81.0
6	196	28	85.1	86.1	6.0	22.2	5.6	18.7	93.5	84.3
7	203	29	86.3	87.5	6.0	28.2	5.8	24.5	95.5	86.7
8	210	30	85.4	86.8	6.0	34.2	5.7	30.2	96.0	88.3
9	217	31	84.4	85.9	5.9	40.1	5.7	35.9	96.5	89.5
10	224	32	83.4	85.1	5.8	45.9	5.7	41.6	97.0	90.5
11	231	33	82.4	84.3	5.8	51.7	5.6	47.2	97.5	91.3
12	238	34	81.3	83.3	5.7	57.4	5.5	52.7	97.5	91.9
13	245	35	80.2	82.3	5.6	63.0	5.5	58.2	97.5	92.4
14	252	36	79.1	81.4	5.5	68.5	5.4	63.6	97.8	92.8
15	259	37	78.0	80.4	5.5	74.0	5.3	69.0	97.8	93.2
16	266	38	76.9	79.4	5.4	79.4	5.3	74.2	97.8	93.5
17	273	39	75.8	78.5	5.3	84.7	5.2	79.4	97.8	93.8
18	280	40	74.7	77.5	5.2	89.9	5.1	84.5	97.8	94.0
19	287	41	73.6	76.5	5.2	95.1	5.0	89.6	97.5	94.2
20	294	42	72.4	75.4	5.1	100.1	4.9	94.5	97.5	94.4
21	301	43	71.2	74.3	5.0	105.1	4.9	99.4	97.5	94.5
22	308	44	70.0	73.2	4.9	110.0	4.8	104.1	97.5	94.6
23	315	45	68.8	72.1	4.8	114.8	4.7	108.8	97.5	94.8
24	322	46	67.6	71.0	4.7	119.6	4.6	113.4	97.5	94.9
25	329	47	66.4	69.9	4.6	124.2	4.5	118.0	97.5	95.0
26	336	48	65.2	68.8	4.6	128.8	4.4	122.4	97.5	95.1
27	343	49	64.0	67.7	4.5	133.3	4.4	126.8	97.5	95.1
28	350	50	62.8	66.5	4.4	137.7	4.3	131.1	97.5	95.2
29	357	51	61.6	65.4	4.3	142.0	4.2	135.3	97.5	95.3
30	364	52	60.4	64.3	4.2	146.2	4.1	139.4	97.0	95.3
31	371	53	59.2	63.1	4.1	150.3	4.0	143.4	97.0	95.4
32	378	54	58.0	62.0	4.1	154.4	3.9	147.3	97.0	95.4
33	385	55	56.8	60.8	4.0	158.4	3.9	151.2	97.0	95.5
34	392	56	55.6	59.7	3.9	162.3	3.8	155.0	97.0	95.5
35	399	57	54.4	58.5	3.8	166.1	3.7	158.7	96.8	95.5
36	406	58	53.2	57.3	3.7	169.8	3.6	162.3	96.5	95.6
37	413	59	52.0	56.2	3.6	173.4	3.5	165.8	96.5	95.6
38	420	60	50.7	54.9	3.5	177.0	3.4	169.2	96.5	95.6
39	427	61	49.4	53.6	3.5	180.5	3.3	172.5	96.5	95.6
40	434	62	48.1	52.3	3.4	183.8	3.2	175.8	96.5	95.6

**A hatching egg is considered to be an egg which is 50 g or heavier.*

Weekly Hatchability and Chick Production

Week of production	Age (days)	Age (weeks)	Hatch all eggs* (%)	Cum. hatchability (%)	Chicks/week hen-housed	Cum. chicks hen-housed
1	161	23				
2	168	24	70.0	70.0	0.6	0.6
3	175	25	77.0	75.2	2.0	2.6
4	182	26	80.0	77.9	3.6	6.2
5	189	27	82.6	79.7	4.3	10.5
6	196	28	84.7	81.2	4.7	15.2
7	203	29	86.5	82.5	5.0	20.2
8	210	30	87.7	83.5	5.0	25.2
9	217	31	88.6	84.3	5.1	30.3
10	224	32	88.9	84.9	5.0	35.3
11	231	33	89.4	85.4	5.0	40.3
12	238	34	89.8	85.9	5.0	45.3
13	245	35	89.6	86.2	4.9	50.2
14	252	36	89.4	86.5	4.8	55.0
15	259	37	89.1	86.7	4.8	59.8
16	266	38	88.8	86.9	4.7	64.5
17	273	39	88.5	87.0	4.6	69.1
18	280	40	88.0	87.0	4.5	73.6
19	287	41	87.5	87.1	4.4	78.0
20	294	42	87.0	87.1	4.3	82.3
21	301	43	86.5	87.0	4.2	86.5
22	308	44	85.8	87.0	4.1	90.6
23	315	45	85.1	86.9	4.0	94.6
24	322	46	84.4	86.8	3.9	98.5
25	329	47	83.7	86.7	3.8	102.3
26	336	48	82.8	86.5	3.7	105.9
27	343	49	81.9	86.4	3.6	109.5
28	350	50	81.0	86.2	3.5	113.0
29	357	51	80.1	86.0	3.4	116.4
30	364	52	79.2	85.8	3.2	119.6
31	371	53	78.1	85.6	3.1	122.7
32	378	54	77.0	85.4	3.0	125.8
33	385	55	75.9	85.1	2.9	128.7
34	392	56	74.8	84.9	2.8	131.5
35	399	57	73.5	84.6	2.7	134.2
36	406	58	72.2	84.3	2.6	136.8
37	413	59	70.9	84.0	2.5	139.3
38	420	60	69.5	83.7	2.4	141.7
39	427	61	68.1	83.4	2.3	144.0
40	434	62	66.8	83.1	2.2	146.1

NOTES:

**Hatchability is based on an average egg age of 3 days.*

Hatchability will drop by 0.5% per day of storage between 7 and 11 days.

Weekly Egg Weight and Egg Mass

Week of production	Age (days)	Age (weeks)	Hen-week (%)	Egg weight	Egg mass*
1	161	23	5.4	49.0	2.6
2	168	24	21.6	51.0	10.9
3	175	25	51.6	52.2	26.9
4	182	26	72.9	53.7	39.1
5	189	27	81.9	55.0	45.1
6	196	28	86.1	56.2	48.4
7	203	29	87.5	57.3	50.2
8	210	30	86.8	58.2	50.5
9	217	31	85.9	59.0	50.7
10	224	32	85.1	59.8	50.9
11	231	33	84.3	60.4	50.9
12	238	34	83.3	61.0	50.8
13	245	35	82.3	61.6	50.7
14	252	36	81.4	62.1	50.5
15	259	37	80.4	62.5	50.3
16	266	38	79.4	62.9	50.0
17	273	39	78.5	63.3	49.7
18	280	40	77.5	63.7	49.4
19	287	41	76.5	64.0	49.0
20	294	42	75.4	64.4	48.6
21	301	43	74.3	64.7	48.1
22	308	44	73.2	65.1	47.7
23	315	45	72.1	65.4	47.2
24	322	46	71.0	65.8	46.7
25	329	47	69.9	66.1	46.2
26	336	48	68.8	66.5	45.7
27	343	49	67.7	66.8	45.2
28	350	50	66.5	67.2	44.7
29	357	51	65.4	67.5	44.1
30	364	52	64.3	67.9	43.6
31	371	53	63.1	68.2	43.0
32	378	54	62.0	68.5	42.4
33	385	55	60.8	68.8	41.8
34	392	56	59.7	69.1	41.2
35	399	57	58.5	69.4	40.6
36	406	58	57.3	69.6	39.9
37	413	59	56.2	69.8	39.2
38	420	60	54.9	70.0	38.4
39	427	61	53.6	70.3	37.7
40	434	62	52.3	70.5	36.9

$$*\text{Egg mass} = \frac{\text{Hen-week (\%)} \times \text{Egg weight (g)}}{100}$$

Notes

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