

EUROPEAN PARENT STOCK

ROSS 308 FF

Performance
Objectives

2016

Fast Feathering



Introduction

This booklet contains the performance objectives for Ross® 308 FF (fast-feathering) parent stock and should be used in conjunction with the **Ross Parent Stock Management Handbook** and the **Ross 308 FF Management Supplement**.

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.

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Performance Summary

European Ross 308 FF 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)	434
(weeks)	62
Total eggs (HH)	186.8
Hatching eggs (HH)	175.8
Chicks / female housed at 161 days (23 weeks)	147.9
Hatchability (%)	84.1
Age at 5% production (days)	161
(weeks)	23
Peak production (%)	87.4
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)	37.7 kg
Feed / 100 hatching eggs* day old - 434 days (0 - 62 weeks)	31.8 kg

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

ROSS 308 FF 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)*
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 FF PARENT STOCK: Performance Objectives

Female Body Weight and Feeding Program

Feeding into Lay

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	153	430
182	26	3223	130	165	461
189	27	3333	110	165	461
196	28	3428	95	165	461
203	29	3478	50	165	461
210	30	3508	30	165	461
217	31	3528	20	165	461
224	32	3547	19	165	461
231	33	3566	19	165	461
238	34	3585	19	165	461
245	35	3604	19	165	461
252	36	3623	19	164	460
259	37	3642	19	164	459
266	38	3661	19	163	458
273	39	3680	19	163	457
280	40	3699	19	163	456
287	41	3718	19	162	454
294	42	3737	19	162	453
301	43	3756	19	162	452
308	44	3775	19	161	451
315	45	3794	19	161	450
322	46	3813	19	160	449
329	47	3832	19	160	448
336	48	3851	19	160	447
343	49	3870	19	159	446
350	50	3889	19	159	445
357	51	3908	19	159	444
364	52	3927	19	158	443
371	53	3946	19	158	442
378	54	3965	19	157	441
385	55	3984	19	157	440
392	56	4003	19	157	439
399	57	4022	19	156	438
406	58	4041	19	156	437
413	59	4060	19	156	436
420	60	4079	19	155	434
427	61	4098	19	155	433
434	62	4117	19	154	432

Hen-day (%)	Daily energy intake (kcal/bird/day)	Feed intake (g/bird/day)	Feed increase (g/bird/day)
5	364	130	
10	371	132	2
15	377	135	3
20	384	137	2
25	390	139	2
30	397	142	3
35	405	145	3
40	412	147	2
45	419	150	3
50	428	153	3
55	433	155	2
60	441	157	3
65	448	160	3
70	455	163	3
peak	461	165	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	461
DIGESTIBLE AMINO ACIDS mg/bird/day	
Lysine	990
Methionine + Cystine	974
Methionine	611
Threonine	809
Valine	924
Isoleucine	825
Arginine	1304
Tryptophan	231
MINERALS mg/bird/day	
Calcium	4950
Available Phosphorus	578

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.

ROSS 308 FF PARENT STOCK: Performance Objectives

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	22.6	22.7	1.6	2.0	0.9	0.9	57.1	46.1
3	175	25	52.4	52.7	3.7	5.6	2.6	3.5	71.0	62.3
4	182	26	73.4	74.0	5.1	10.8	4.5	8.0	86.7	73.9
5	189	27	82.2	83.0	5.8	16.5	5.2	13.1	89.8	79.5
6	196	28	86.2	87.2	6.0	22.6	5.6	18.7	92.3	82.9
7	203	29	87.4	88.6	6.1	28.7	5.8	24.5	94.3	85.3
8	210	30	86.5	87.9	6.1	34.7	5.7	30.2	94.8	87.0
9	217	31	85.5	87.1	6.0	40.7	5.7	35.9	95.3	88.2
10	224	32	84.5	86.2	5.9	46.6	5.7	41.6	95.7	89.2
11	231	33	83.5	85.4	5.8	52.5	5.6	47.2	96.2	89.9
12	238	34	82.4	84.4	5.8	58.2	5.5	52.7	96.2	90.6
13	245	35	81.3	83.5	5.7	63.9	5.5	58.2	96.2	91.1
14	252	36	80.2	82.5	5.6	69.5	5.4	63.6	96.5	91.5
15	259	37	79.1	81.5	5.5	75.1	5.3	69.0	96.4	91.9
16	266	38	78.0	80.6	5.5	80.5	5.3	74.2	96.4	92.2
17	273	39	76.9	79.6	5.4	85.9	5.2	79.4	96.4	92.4
18	280	40	75.8	78.6	5.3	91.2	5.1	84.5	96.4	92.7
19	287	41	74.7	77.6	5.2	96.5	5.0	89.6	96.1	92.8
20	294	42	73.5	76.6	5.1	101.6	4.9	94.5	96.0	93.0
21	301	43	72.3	75.5	5.1	106.7	4.9	99.4	96.0	93.2
22	308	44	71.1	74.4	5.0	111.6	4.8	104.1	96.0	93.3
23	315	45	69.9	73.3	4.9	116.5	4.7	108.8	96.0	93.4
24	322	46	68.7	72.2	4.8	121.3	4.6	113.4	95.9	93.5
25	329	47	67.5	71.1	4.7	126.1	4.5	118.0	95.9	93.6
26	336	48	66.3	69.9	4.6	130.7	4.4	122.4	95.9	93.7
27	343	49	65.1	68.8	4.6	135.3	4.4	126.8	95.9	93.7
28	350	50	63.9	67.7	4.5	139.7	4.3	131.1	95.8	93.8
29	357	51	62.7	66.6	4.4	144.1	4.2	135.3	95.8	93.9
30	364	52	61.5	65.4	4.3	148.4	4.1	139.4	95.3	93.9
31	371	53	60.3	64.3	4.2	152.7	4.0	143.4	95.2	93.9
32	378	54	59.1	63.1	4.1	156.8	3.9	147.3	95.2	94.0
33	385	55	57.9	62.0	4.1	160.8	3.9	151.2	95.2	94.0
34	392	56	56.7	60.8	4.0	164.8	3.8	155.0	95.1	94.0
35	399	57	55.5	59.7	3.9	168.7	3.7	158.7	94.9	94.1
36	406	58	54.3	58.5	3.8	172.5	3.6	162.3	94.5	94.1
37	413	59	53.1	57.3	3.7	176.2	3.5	165.8	94.5	94.1
38	420	60	51.8	56.1	3.6	179.8	3.4	169.2	94.5	94.1
39	427	61	50.5	54.8	3.5	183.4	3.3	172.5	94.4	94.1
40	434	62	49.2	53.5	3.4	186.8	3.2	175.8	94.3	94.1

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

ROSS 308 FF PARENT STOCK: Performance Objectives

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	71.0	71.0	0.6	0.6
3	175	25	78.0	76.2	2.0	2.7
4	182	26	81.0	78.9	3.6	6.3
5	189	27	83.6	80.7	4.3	10.6
6	196	28	85.7	82.2	4.8	15.4
7	203	29	87.5	83.5	5.0	20.4
8	210	30	88.7	84.5	5.1	25.5
9	217	31	89.6	85.3	5.1	30.6
10	224	32	89.9	85.9	5.1	35.7
11	231	33	90.4	86.4	5.1	40.8
12	238	34	90.8	86.9	5.0	45.8
13	245	35	90.6	87.2	5.0	50.8
14	252	36	90.4	87.5	4.9	55.7
15	259	37	90.1	87.7	4.8	60.5
16	266	38	89.8	87.9	4.7	65.2
17	273	39	89.5	88.0	4.6	69.9
18	280	40	89.0	88.0	4.6	74.4
19	287	41	88.5	88.1	4.4	78.9
20	294	42	88.0	88.1	4.3	83.2
21	301	43	87.5	88.0	4.3	87.5
22	308	44	86.8	88.0	4.1	91.6
23	315	45	86.1	87.9	4.0	95.7
24	322	46	85.4	87.8	3.9	99.6
25	329	47	84.7	87.7	3.8	103.4
26	336	48	83.8	87.5	3.7	107.2
27	343	49	82.9	87.4	3.6	110.8
28	350	50	82.0	87.2	3.5	114.3
29	357	51	81.1	87.0	3.4	117.7
30	364	52	80.2	86.8	3.3	121.0
31	371	53	79.1	86.6	3.2	124.2
32	378	54	78.0	86.4	3.1	127.2
33	385	55	76.9	86.1	3.0	130.2
34	392	56	75.8	85.9	2.9	133.1
35	399	57	74.5	85.6	2.7	135.8
36	406	58	73.2	85.3	2.6	138.5
37	413	59	71.9	85.0	2.5	141.0
38	420	60	70.5	84.7	2.4	143.4
39	427	61	69.1	84.4	2.3	145.7
40	434	62	67.8	84.1	2.2	147.9

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.

ROSS 308 FF PARENT STOCK: Performance Objectives

Weekly Egg Weight and Egg Mass

Week of production	Age (days)	Age (weeks)	Hen-week (%)	Egg weight	Egg mass*
1	161	23	5.4	47.6	2.6
2	168	24	22.7	49.7	11.3
3	175	25	52.7	51.2	27.0
4	182	26	74.0	52.3	38.7
5	189	27	83.0	53.4	44.4
6	196	28	87.2	54.4	47.5
7	203	29	88.6	55.3	49.1
8	210	30	87.9	56.0	49.3
9	217	31	87.1	56.7	49.4
10	224	32	86.2	57.4	49.5
11	231	33	85.4	57.9	49.5
12	238	34	84.4	58.5	49.4
13	245	35	83.5	59.1	49.4
14	252	36	82.5	59.6	49.2
15	259	37	81.5	60.1	49.0
16	266	38	80.6	60.5	48.8
17	273	39	79.6	61.0	48.6
18	280	40	78.6	61.4	48.3
19	287	41	77.6	61.7	47.9
20	294	42	76.6	62.1	47.6
21	301	43	75.5	62.5	47.2
22	308	44	74.4	62.9	46.8
23	315	45	73.3	63.2	46.3
24	322	46	72.2	63.6	45.9
25	329	47	71.1	63.9	45.4
26	336	48	69.9	64.3	45.0
27	343	49	68.8	64.6	44.4
28	350	50	67.7	65.0	44.0
29	357	51	66.6	65.2	43.4
30	364	52	65.4	65.5	42.9
31	371	53	64.3	65.8	42.3
32	378	54	63.1	66.1	41.8
33	385	55	62.0	66.4	41.2
34	392	56	60.8	66.7	40.6
35	399	57	59.7	67.2	40.1
36	406	58	58.5	67.4	39.5
37	413	59	57.3	67.6	38.8
38	420	60	56.1	67.9	38.1
39	427	61	54.8	68.2	37.4
40	434	62	53.5	68.4	36.6

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

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