PARENT STOCK

ROSS 308 AP

Performance Objectives

2021

ROSS
An Aviagen Brand

Introduction

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

Performance

Poultry production is a global activity, but across the world there are differing management strategies adapted to local conditions.

These performance objectives are for birds that receive the first light stimulation **after** 21 weeks (147 days) of age. This is the most common strategy used worldwide as it gives distinct advantages in early egg size, chick number, and broiler chick quality.

Achieving the genetic potential of the birds depends on:

- Management to provide birds with their required environment.
- A dietary regime that provides the appropriate nutrients.
- Effective biosecurity and disease control.

If any one of these elements is sub-optimal, performance will suffer. The three sectors, environment, nutrition and health, are also interdependent. A problem in any one will result in a negative response by the bird to the other factors.

Data contained within this booklet indicates the performance that can be achieved under good management and environmental conditions and should therefore be regarded as “Performance Objectives” and not specifications. In practice, variations in performance may occur for a wide variety of reasons. For example, feed consumption can be affected significantly by form of feed, energy level, and house temperature.

While every attempt has been made to ensure the accuracy and relevance of the information presented, Aviagen® accepts no liability for the consequences of using this information to manage parent stock.

All weight measurements are shown in both metric *(kg/g)* and imperial *(lb/oz)* to reflect the global nature of this publication.

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

The figures below are for birds light-stimulated **after** 21 weeks (147 days of age).

Summary of 40 weeks of production.

KEY
(kg/g) – *metric measurement*
(lb/oz) – *imperial measurement*

Age at depletion (days) (weeks)	448 64	448 64
Total Eggs (HHA*)	181.8	181.8
Hatching Eggs (HHA*)	174.9	174.9
Chicks/female housed at 175 days (25 weeks)	148.8	148.8
Hatchability %	85.1	85.1
Age at 5% Production (days) (weeks)	175 25	175 25
Peak Production %	86.5	86.5
Body weight at 175 days (25 weeks)	3080 g	6.8 lb
Body weight at depletion	4175 g	9.2 lb
Liveability % (rearing period)	95-96	95-96
Liveability % (laying period)	92	92
Feed/100 Chicks** day old - 448 days (0–64 weeks)	37.8 kg	83.3 lb
Feed/100 Hatching Eggs** day old - 448 days (0–64 weeks)	32.2 kg	71.0 lb

* Hen-Housed Average.
** Feed amounts expressed in the table do not include male feed allocations.

Male Body Weight and Feeding Program

Age (days)	Age (weeks)	Body Weight (g)	Weekly Gain (g)	Feed (g/bird/day)	Body Weight (lb)	Weekly Gain (lb)	Feed (lb/100/day)	Energy Intake (kcal/bird/day)*
Day old	0	40		ad lib	0.09		ad lib	ad lib
7	1	150	110	33	0.33	0.24	7.2	92
14	2	320	170	42	0.71	0.38	9.3	118
21	3	525	205	49	1.16	0.45	10.8	137
28	4	755	230	54	1.66	0.50	11.9	152
35	5	945	190	58	2.08	0.42	12.8	162
42	6	1130	185	61	2.49	0.41	13.4	170
49	7	1280	150	63	2.82	0.33	13.9	177
56	8	1420	140	65	3.13	0.31	14.4	183
63	9	1545	125	67	3.41	0.28	14.8	188
70	10	1670	125	69	3.68	0.27	15.3	194
77	11	1795	125	72	3.96	0.28	15.8	200
84	12	1920	125	74	4.23	0.27	16.4	208
91	13	2045	125	77	4.51	0.28	17.0	216
98	14	2170	125	80	4.78	0.27	17.6	224
105	15	2295	125	83	5.06	0.28	18.4	233
112	16	2420	125	87	5.34	0.28	19.1	243
119	17	2560	140	90	5.64	0.30	19.8	252
126	18	2715	155	93	5.99	0.35	20.6	262
133	19	2875	160	98	6.34	0.35	21.5	273
140	20	3035	160	102	6.69	0.35	22.5	286
147	21	3195	160	107	7.04	0.35	23.5	299
154	22	3355	160	112	7.40	0.36	24.7	313
161	23	3515	160	118	7.75	0.35	26.0	330
168	24	3675	160	121	8.10	0.35	26.7	340
175	25	3825	150	123	8.43	0.33	27.1	344
182	26	3960	135	124	8.73	0.30	27.4	348
189	27	4035	75	125	8.90	0.17	27.6	351
196	28	4090	55	126	9.02	0.12	27.8	353
203	29	4120	30	127	9.08	0.06	28.0	355
210	30	4150	30	128	9.15	0.07	28.1	357
217	31	4180	30	128	9.22	0.07	28.3	360
224	32	4210	30	129	9.28	0.06	28.5	362
231	33	4240	30	130	9.35	0.07	28.7	365
238	34	4270	30	131	9.41	0.06	28.9	367
245	35	4300	30	132	9.48	0.07	29.1	370
252	36	4330	30	133	9.55	0.07	29.3	372
259	37	4360	30	134	9.61	0.06	29.5	375
266	38	4390	30	135	9.68	0.07	29.7	377
273	39	4420	30	136	9.74	0.06	29.9	380
280	40	4450	30	136	9.81	0.07	30.1	382
287	41	4480	30	137	9.88	0.07	30.3	384
294	42	4510	30	138	9.94	0.06	30.5	387
301	43	4540	30	139	10.01	0.07	30.6	389
308	44	4570	30	140	10.08	0.07	30.8	392
315	45	4600	30	141	10.14	0.06	31.0	394
322	46	4630	30	141	10.21	0.07	31.2	396
329	47	4660	30	142	10.27	0.06	31.4	398
336	48	4690	30	143	10.34	0.07	31.5	401
343	49	4720	30	144	10.41	0.07	31.7	403
350	50	4750	30	145	10.47	0.06	31.9	405
357	51	4780	30	145	10.54	0.07	32.1	407
364	52	4810	30	146	10.60	0.06	32.2	409
371	53	4840	30	147	10.67	0.07	32.4	411
378	54	4870	30	148	10.74	0.07	32.5	413
385	55	4900	30	148	10.80	0.06	32.7	415
392	56	4930	30	149	10.87	0.07	32.8	417
399	57	4960	30	150	10.93	0.06	33.0	419
406	58	4990	30	150	11.00	0.07	33.1	421
413	59	5020	30	151	11.07	0.07	33.3	422
420	60	5050	30	151	11.13	0.06	33.4	424
427	61	5080	30	152	11.20	0.07	33.5	426
434	62	5110	30	153	11.27	0.07	33.6	427
441	63	5140	30	153	11.33	0.06	33.7	429
448	64	5170	30	154	11.40	0.07	33.9	430

KEY

(kg/g) – metric measurement

(lb/oz) – imperial measurement

*Feed quantities are a guide only, based on recommended dietary energy levels of 2800 kcal ME/kg (1270 kcal ME/lb). Adjustments must be made to reflect feeding differing energy levels.

NOTES

Body weights are those 4-6 hours after feeding.

This profile allows the male to reach sexual maturity by female first egg. Weekly body-weight gain beyond 28 weeks (196 days) should average approximately 30 g (0.06-0.07 lb).

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.

Female Body Weight and Feeding Program

Age (days)	Age (weeks)	Body Weight (g)	Weekly Gain (g)	Feed (g/bird/day)	Body Weight (lb)	Weekly Gain (lb)	Feed (lb/100/day)	Energy Intake (kcal/bird/day)*
Day old	0	40		ad lib	0.09		ad lib	ad lib
7	1	145	105	22	0.32	0.23	5.0	63
14	2	260	115	27	0.57	0.25	6.0	76
21	3	380	120	30	0.84	0.27	6.7	85
28	4	490	110	33	1.08	0.24	7.3	92
35	5	590	100	36	1.30	0.22	7.8	99
42	6	680	90	38	1.50	0.20	8.4	107
49	7	770	90	41	1.70	0.20	9.1	115
56	8	860	90	44	1.90	0.20	9.8	124
63	9	950	90	47	2.09	0.19	10.5	133
70	10	1040	90	51	2.29	0.20	11.2	142
77	11	1130	90	54	2.49	0.20	11.9	151
84	12	1220	90	57	2.69	0.20	12.6	161
91	13	1315	95	62	2.90	0.21	13.6	173
98	14	1425	110	66	3.14	0.24	14.5	185
105	15	1535	110	71	3.38	0.24	15.6	198
112	16	1655	120	76	3.65	0.27	16.7	212
119	17	1785	130	80	3.94	0.29	17.7	224
126	18	1915	130	85	4.22	0.28	18.8	239
133	19	2060	145	91	4.54	0.32	20.0	254
140	20	2215	155	98	4.88	0.34	21.7	275
147	21	2400	185	104	5.29	0.41	22.9	291
154	22	2575	175	109	5.68	0.39	23.9	304
161	23	2745	170	113	6.05	0.37	24.9	317
168	24	2915	170	119	6.43	0.38	26.3	335
175	25	3080	165	135	6.79	0.36	29.7	377
182	26	3235	155	153	7.13	0.34	33.8	429
189	27	3365	130	165	7.42	0.29	36.3	461
196	28	3455	90	168	7.62	0.20	37.0	470
203	29	3515	60	168	7.75	0.13	37.0	470
210	30	3555	40	168	7.84	0.09	37.0	470
217	31	3590	35	168	7.91	0.07	37.0	470
224	32	3620	30	168	7.98	0.07	37.0	470
231	33	3640	20	168	8.02	0.04	37.0	470
238	34	3660	20	168	8.07	0.05	37.0	470
245	35	3680	20	168	8.11	0.04	37.0	470
252	36	3700	20	167	8.16	0.05	36.9	469
259	37	3720	20	167	8.20	0.04	36.8	467
266	38	3740	20	167	8.25	0.05	36.8	467
273	39	3760	20	167	8.29	0.04	36.8	467
280	40	3780	20	167	8.33	0.04	36.7	466
287	41	3800	20	166	8.38	0.05	36.7	466
294	42	3820	20	166	8.42	0.04	36.6	465
301	43	3840	20	166	8.47	0.05	36.6	464
308	44	3860	20	165	8.51	0.04	36.4	463
315	45	3880	20	165	8.55	0.04	36.3	462
322	46	3900	20	164	8.60	0.05	36.2	460
329	47	3920	20	164	8.64	0.04	36.1	459
336	48	3935	15	163	8.68	0.04	36.0	457
343	49	3950	15	163	8.71	0.03	35.9	456
350	50	3965	15	162	8.74	0.03	35.8	455
357	51	3980	15	162	8.77	0.03	35.6	452
364	52	3995	15	161	8.81	0.04	35.5	450
371	53	4010	15	160	8.84	0.03	35.3	449
378	54	4025	15	160	8.87	0.03	35.2	447
385	55	4040	15	159	8.91	0.04	35.1	446
392	56	4055	15	159	8.94	0.03	35.0	444
399	57	4070	15	158	8.97	0.03	34.8	443
406	58	4085	15	158	9.01	0.04	34.7	441
413	59	4100	15	157	9.04	0.03	34.6	440
420	60	4115	15	157	9.07	0.03	34.5	438
427	61	4130	15	156	9.11	0.04	34.4	437
434	62	4145	15	156	9.14	0.03	34.3	436
441	63	4160	15	155	9.17	0.03	34.2	434
448	64	4175	15	155	9.20	0.03	34.1	433

KEY

(kg/g) – metric measurement

(lb/oz) – imperial measurement

*Feed quantities are a guide only, based on recommended dietary levels of 2800 kcal ME/kg (1270 kcal ME/lb). Adjustments must be made to reflect feeding differing energy levels.

NOTES

Weekly body-weight gain beyond 32 weeks (224 days) should average approximately 15-20 g (0.03-0.05 lb).

Body weights are based on a feed day, 4-6 hours after feeding.

Female Feeding into Lay

Hen-day (%)	Daily energy intake (kcal/bird/day)*	Feed intake (g/bird/day)	Feed increase (g/bird/day)
5	377	135	
10	383	137	2
15	389	139	2
20	394	141	2
25	400	143	2
30	405	145	2
35	414	148	3
40	422	151	3
45	431	154	3
50	439	157	3
55	447	160	3
65	459	164	4
>75	470	168	4

*Daily energy and feed intakes are based on current recommended dietary levels of energy [2800 kcal ME/kg (1270 kcal ME/lb)] and assuming an ambient temperature of 20 - 21°C (68-70°F).

NOTES

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.

Weekly Egg Production

Week of Production	Age (days)	Age (weeks)	Hen-Housed (%)	Hen-Week (%)*	Eggs/Bird/ Week Hen-Housed	Eggs/Bird/ Cum. Hen-Housed	Hatching Eggs/Bird/ Week**	Hatching Eggs/Bird/ Cum.	Hatching Egg Utilization Weekly	Hatching Egg Utilization Cum.
1	175	25	4.9	4.9	0.3	0.3				
2	182	26	27.5	27.6	1.9	2.3	1.5	1.5	78.0	66.3
3	189	27	57.2	57.5	4.0	6.3	3.3	4.8	83.6	77.4
4	196	28	77.0	77.6	5.4	11.7	4.8	9.6	89.0	82.8
5	203	29	84.6	85.5	5.9	17.6	5.6	15.2	94.0	86.5
6	210	30	86.5	87.5	6.1	23.6	5.9	21.1	97.0	89.2
7	217	31	85.8	87.0	6.0	29.6	5.9	27.0	97.9	91.0
8	224	32	85.1	86.5	6.0	35.6	5.8	32.8	98.0	92.2
9	231	33	84.5	86.0	5.9	41.5	5.8	38.6	97.9	93.0
10	238	34	83.3	85.0	5.8	47.3	5.7	44.3	97.9	93.6
11	245	35	82.2	84.0	5.8	53.1	5.6	49.9	98.0	94.1
12	252	36	81.0	83.0	5.7	58.8	5.6	55.5	98.0	94.4
13	259	37	79.9	82.0	5.6	64.4	5.5	61.0	97.9	94.7
14	266	38	78.8	81.0	5.5	69.9	5.4	66.4	97.8	95.0
15	273	39	77.6	80.0	5.4	75.3	5.3	71.7	97.7	95.2
16	280	40	76.5	79.0	5.4	80.7	5.2	76.9	97.7	95.3
17	287	41	75.1	77.7	5.3	85.9	5.1	82.0	97.7	95.5
18	294	42	73.7	76.4	5.2	91.1	5.0	87.1	97.7	95.6
19	301	43	72.3	75.1	5.1	96.1	4.9	92.0	97.7	95.7
20	308	44	70.9	73.9	5.0	101.1	4.8	96.9	97.7	95.8
21	315	45	69.6	72.7	4.9	106.0	4.8	101.6	97.6	95.9
22	322	46	68.3	71.5	4.8	110.8	4.7	106.3	97.5	96.0
23	329	47	67.0	70.3	4.7	115.4	4.6	110.9	97.4	96.0
24	336	48	65.8	69.1	4.6	120.0	4.5	115.3	97.3	96.1
25	343	49	64.5	67.9	4.5	124.6	4.4	119.7	97.2	96.1
26	350	50	63.2	66.7	4.4	129.0	4.3	124.0	97.1	96.2
27	357	51	61.9	65.5	4.3	133.3	4.2	128.2	97.0	96.2
28	364	52	60.7	64.3	4.2	137.6	4.1	132.3	96.9	96.2
29	371	53	59.4	63.1	4.2	141.7	4.0	136.4	96.8	96.2
30	378	54	58.2	61.9	4.1	145.8	3.9	140.3	96.7	96.2
31	385	55	56.9	60.7	4.0	149.8	3.8	144.2	96.6	96.2
32	392	56	55.7	59.5	3.9	153.7	3.8	147.9	96.5	96.3
33	399	57	54.4	58.3	3.8	157.5	3.7	151.6	96.4	96.3
34	406	58	53.2	57.1	3.7	161.2	3.6	155.2	96.3	96.3
35	413	59	52.0	55.9	3.6	164.9	3.5	158.7	96.2	96.3
36	420	60	50.8	54.7	3.6	168.4	3.4	162.1	96.1	96.3
37	427	61	49.5	53.5	3.5	171.9	3.3	165.4	96.0	96.2
38	434	62	48.3	52.3	3.4	175.3	3.2	168.7	96.0	96.2
39	441	63	47.1	51.1	3.3	178.6	3.2	171.8	95.9	96.2
40	448	64	45.9	49.9	3.2	181.8	3.1	174.9	95.8	96.2

** Hen-week (%) is based on the assumption that cumulative mortality in lay is 8% with 0.2% mortality per week.*
*** A hatching egg is considered to be an egg which is 50 g (21.2 oz/dozen) 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	175	25				
2	182	26	77.8	77.8	1.2	1.2
3	189	27	81.4	80.3	2.7	3.9
4	196	28	84.2	82.2	4.0	7.9
5	203	29	86.2	83.7	4.8	12.7
6	210	30	87.8	84.8	5.2	17.9
7	217	31	88.9	85.7	5.2	23.1
8	224	32	89.6	86.4	5.2	28.3
9	231	33	90.1	87.0	5.2	33.6
10	238	34	90.4	87.4	5.2	38.7
11	245	35	90.5	87.7	5.1	43.8
12	252	36	90.4	88.0	5.0	48.8
13	259	37	90.3	88.2	4.9	53.8
14	266	38	90.0	88.4	4.9	58.6
15	273	39	89.7	88.5	4.8	63.4
16	280	40	89.3	88.5	4.7	68.1
17	287	41	88.9	88.5	4.6	72.6
18	294	42	88.4	88.5	4.5	77.1
19	301	43	87.9	88.5	4.3	81.4
20	308	44	87.4	88.4	4.2	85.7
21	315	45	86.8	88.4	4.1	89.8
22	322	46	86.2	88.3	4.0	93.8
23	329	47	85.6	88.2	3.9	97.7
24	336	48	85.0	88.0	3.8	101.5
25	343	49	84.4	87.9	3.7	105.2
26	350	50	83.7	87.8	3.6	108.8
27	357	51	83.0	87.6	3.5	112.3
28	364	52	82.3	87.4	3.4	115.7
29	371	53	81.6	87.3	3.3	119.0
30	378	54	80.9	87.1	3.2	122.2
31	385	55	80.2	86.9	3.1	125.3
32	392	56	79.4	86.7	3.0	128.3
33	399	57	78.7	86.5	2.9	131.2
34	406	58	77.9	86.3	2.8	134.0
35	413	59	77.1	86.1	2.7	136.6
36	420	60	76.3	85.9	2.6	139.3
37	427	61	75.5	85.7	2.5	141.8
38	434	62	74.7	85.5	2.4	144.2
39	441	63	73.8	85.3	2.3	146.5
40	448	64	73.0	85.1	2.2	148.8

** 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 (g)	Egg Mass (g)*	Egg Weight (oz/dozen)
1	175	25	4.9	50.1	2.4	21.2
2	182	26	27.6	52.3	14.4	22.1
3	189	27	57.5	53.9	31.0	22.8
4	196	28	77.6	55.5	43.1	23.5
5	203	29	85.5	56.8	48.6	24.0
6	210	30	87.5	58.0	50.8	24.6
7	217	31	87.0	59.0	51.3	25.0
8	224	32	86.5	59.8	51.7	25.3
9	231	33	86.0	60.4	52.0	25.6
10	238	34	85.0	61.0	51.9	25.8
11	245	35	84.0	61.6	51.8	26.1
12	252	36	83.0	62.1	51.6	26.3
13	259	37	82.0	62.5	51.3	26.5
14	266	38	81.0	62.9	51.0	26.6
15	273	39	80.0	63.3	50.7	26.8
16	280	40	79.0	63.7	50.3	27.0
17	287	41	77.7	64.0	49.8	27.1
18	294	42	76.4	64.4	49.2	27.3
19	301	43	75.1	64.7	48.6	27.4
20	308	44	73.9	65.1	48.1	27.6
21	315	45	72.7	65.4	47.5	27.7
22	322	46	71.5	65.8	47.0	27.9
23	329	47	70.3	66.1	46.4	28.0
24	336	48	69.1	66.5	45.9	28.1
25	343	49	67.9	66.8	45.3	28.3
26	350	50	66.7	67.2	44.8	28.4
27	357	51	65.5	67.5	44.2	28.6
28	364	52	64.3	67.9	43.6	28.7
29	371	53	63.1	68.2	43.0	28.9
30	378	54	61.9	68.5	42.4	29.0
31	385	55	60.7	68.8	41.8	29.1
32	392	56	59.5	69.1	41.1	29.2
33	399	57	58.3	69.4	40.5	29.4
34	406	58	57.1	69.6	39.7	29.5
35	413	59	55.9	69.8	39.0	29.5
36	420	60	54.7	70.0	38.3	29.6
37	427	61	53.5	70.1	37.5	29.7
38	434	62	52.3	70.2	36.7	29.7
39	441	63	51.1	70.3	35.9	29.8
40	448	64	49.9	70.4	35.1	29.8

KEY
(kg/g) – metric measurement
(lb/oz) – imperial measurement

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

Notes

Notes

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