



Arbor Acres plus

Parent Stock Performance Objectives

June 2007



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The Arbor Acres Plus

The Arbor Acres Plus is available in two types, one which produces sexable broilers and one that produces all fast-feathering broilers.

The sexable type produces fast-feathering female broilers and slow-feathering male broilers. This allows broilers to be sexed in the hatchery by evaluating feather development differences between sexes.

The fast-feathering type produces broilers that are all fast-feathering. They cannot be sexed in the hatchery by evaluating feathers because males and females grow their feathers at the same rate.

Parent females for both types are very similar. They should have the same growth profile, and require the same feeding regime and their egg production should be the same.

It is important to manage the breeders so they do not come into production too early. If they reach 5-10% production prior to 25 weeks of age early egg size will be reduced, resulting in smaller chicks.

An important consideration when bringing flocks into production is the timing of photo-stimulation. In-season females should be photo-stimulated at 154 days while out-of-season flocks may be photo-stimulated at 147 days.

Daily egg production, feed clean-up and body weights should be evaluated on a daily basis from 5% production through post peak production and feed amounts adjusted appropriately.

Eggs from the Arbor Acres Plus may hatch faster than eggs from other females. In order to avoid dehydration, monitor the hatching process and pull chicks when ready.

The Arbor Acres Plus is a Yield type broiler breeder that benefits greatly in performance from the use of environmentally controlled housing (ventilation, temperature and light).

This booklet should be used with the Arbor Acres Parent Stock Manual to achieve the genetic potential of Arbor Acres breeding stock. For further information, please consult your local Technical Services Manager or contact the Technical Services Department.

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Arbor Acres Plus Parent Female *Performance Objectives*

The figures below are a summary for 40 weeks of production. The figures also refer to breeders that receive their first light increase after 21 weeks of age (147 days +).

Age at depletion (days)	448
(weeks)	64
Total Eggs (HHA)	185
Hatching Eggs (HHA)	177
Chicks/female housed at 175 days (25 weeks)	151
% Hatchability	85.0
Age at 5% production (days)	175
(weeks)	25
% Peak Production	86.3
Body Weight at 175 days (25 weeks) (g)	2950
Body Weight at depletion (g)	3650-3750
Mortality + culls (rearing period) %	4-5
Mortality (laying period) %	8
Feed/100 Chicks (kg) day old - 448 days (0-64 weeks)*	36.3
Feed/100 Hatching Eggs (kg) day old - 448 days (0-64 weeks)*	30.7

Flock performance will vary due to a number of reasons, including climate, health status, nutrition and husbandry.

*Male feed allocations not included in calculation

Arbor Acres Plus Parent Female *Body Weight Standard and Feeding Program*

Age of Flock		Body Weight (g)		Feed Quantity ²		Energy ³
Week	Day	Standard	Weekly Gain	(g/bird/day)	(g/bird/week)	(kcal ME/bird/day)
1	7	100		21	147	59
2	14	200	100	29	203	81
3	21	330	130	31	217	87
4	28	430	100	35	245	98
5	35	505	75	39	273	109
6	42	600	95	43	301	120
7	49	695	95	45	315	126
8	56	790	95	48	336	134
9	63	885	95	51	357	143
10	70	980	95	54	378	151
11	77	1075	95	56	392	157
12	84	1170	95	59	413	165
13	91	1270	100	64	448	179
14	98	1380	110	70	490	196
15	105	1490	110	74	518	207
16	112	1620	130	80	560	224
17	119	1750	130	84	588	235
18	126	1880	130	88	616	246
19	133	2020	140	92	644	258
20	140	2160	140	100	700	280
21	147	2300	140	105	735	294
22	154	2450	150	110	770	308
23	161	2620	170	115	805	322
24	168	2800	180	120	840	336
25	175	2950	150	125	875	350
26	182	3100	150	138	966	386
27	189	3200	100	151	1057	423
28	196	3260	60	163	1141	456
29	203	3290	30	163	1141	456
30	210	3310	20	163	1141	456
31	217	3330	20	163	1141	456
32	224	3350	20	163	1141	456

¹North of Equator: Flocks hatched August–December. South of the Equator: Flocks hatched February–June. January and July are transitional months so lighting programs for placements during these two months should be based on individual experience and location.

ALL FLOCKS GROWN IN BLACKOUT HOUSING ARE CONSIDERED IN-SEASON.

²Approximate feed amounts at 27°C (80°F). Adjustments are required for warmer (reduce feed) or cooler (increase feed) temperatures. For further assistance, contact your Technical Service representative.

³Based on 2800 kcal ME/kg. Adjustments must be made to reflect feeding of differing energy levels.



Age of Flock		Body Weight (g)		Feed Quantity ²		Energy ³
Week	Day	Standard	Weekly Gain	(g/bird/day)	(g/bird/week)	(kcal ME/bird/day)
33	231	3370	20	162	1134	454
34	238	3390	20	161	1127	451
35	245	3400	10	160	1120	448
36	252	3410	10	160	1120	448
37	259	3420	10	159	1113	445
38	266	3430	10	159	1113	445
39	273	3440	10	158	1106	442
40	280	3450	10	158	1106	442
41	287	3460	10	157	1099	440
42	294	3470	10	157	1099	440
43	301	3480	10	156	1092	437
44	308	3490	10	156	1092	437
45	315	3500	10	155	1085	434
46	322	3510	10	155	1085	434
47	329	3520	10	154	1078	431
48	336	3530	10	154	1078	431
49	343	3540	10	153	1071	428
50	350	3550	10	153	1071	428
51	357	3560	10	152	1064	426
52	364	3570	10	152	1064	426
53	371	3580	10	151	1057	423
54	378	3590	10	151	1057	423
55	385	3600	10	150	1050	420
56	392	3610	10	150	1050	420
57	399	3620	10	149	1043	417
58	406	3630	10	149	1043	417
59	413	3640	10	148	1036	414
60	420	3650	10	148	1036	414
61	427	3660	10	147	1029	412
62	434	3670	10	147	1029	412
63	441	3680	10	146	1022	409
64	448	3690	10	146	1022	409

Arbor Acres Plus Parent Female *Body Weight Standard and Feeding Program*

Age of Flock		Body Weight (g)		Feed Quantity ²		Energy ³
Week	Day	Standard	Weekly Gain	(g/bird/day)	(g/bird/week)	(kcal ME/bird/day)
1	7	100		21	147	59
2	14	200	100	29	203	81
3	21	330	130	31	217	87
4	28	430	100	35	245	98
5	35	505	75	39	273	109
6	42	600	95	43	301	120
7	49	695	95	45	315	126
8	56	790	95	48	336	134
9	63	885	95	51	357	143
10	70	980	95	54	378	151
11	77	1075	95	56	392	157
12	84	1170	95	59	413	165
13	91	1270	100	64	448	179
14	98	1380	110	70	490	196
15	105	1490	110	74	518	207
16	112	1620	130	81	567	227
17	119	1760	140	86	602	241
18	126	1900	140	91	637	255
19	133	2040	140	95	665	266
20	140	2190	150	104	728	291
21	147	2350	160	110	770	308
22	154	2520	170	115	805	322
23	161	2690	170	120	840	336
24	168	2900	210	125	875	350
25	175	3065	165	130	910	364
26	182	3230	165	142	994	398
27	189	3340	110	155	1085	434
28	196	3410	70	166	1162	465
29	203	3440	30	166	1162	465
30	210	3460	20	166	1162	465
31	217	3480	20	166	1162	465
32	224	3500	20	166	1162	465

¹North of Equator: Flocks hatched February–June. South of the Equator: Flocks hatched August–December. January and July are transitional months so lighting programs for placements during these two months should be based on individual experience and location.

²Approximate feed amounts at 27°C (80°F). Adjustments are required for warmer (reduce feed) or cooler (increase feed) temperatures. For further assistance, contact your Technical Service representative.

³Based on 2800 kcal ME/kg. Adjustments must be made to reflect feeding of differing energy levels.



Age of Flock		Body Weight (g)		Feed Quantity ²		Energy ³
Week	Day	Standard	Weekly Gain	(g/bird/day)	(g/bird/week)	(kcal ME/bird/day)
33	231	3520	20	165	1155	462
34	238	3540	20	165	1155	462
35	245	3560	10	164	1148	459
36	252	3570	10	164	1148	459
37	259	3580	10	163	1141	456
38	266	3590	10	163	1141	456
39	273	3600	10	162	1134	454
40	280	3610	10	162	1134	454
41	287	3620	10	161	1127	451
42	294	3630	10	161	1127	451
43	301	3640	10	160	1120	448
44	308	3650	10	160	1120	448
45	315	3660	10	159	1113	445
46	322	3670	10	159	1113	445
47	329	3680	10	158	1106	442
48	336	3690	10	158	1106	442
49	343	3700	10	157	1099	440
50	350	3710	10	157	1099	440
51	357	3720	10	156	1092	437
52	364	3730	10	156	1092	437
53	371	3740	10	155	1085	434
54	378	3750	10	155	1085	434
55	385	3760	10	154	1078	431
56	392	3770	10	154	1078	431
57	399	3780	10	153	1071	428
58	406	3790	10	153	1071	428
59	413	3800	10	152	1064	426
60	420	3810	10	152	1064	426
61	427	3820	10	151	1057	423
62	434	3830	10	151	1057	423
63	441	3840	10	150	1050	420
64	448	3850	10	150	1050	420

Arbor Acres Plus Parent Male *Body Weight Standard and Feeding Program*

Age of Flock		Body Weight (g)		Feed Quantity ¹		Energy ²
Week	Day	Standard	Weekly Gain	(g/bird/day)	(g/bird/week)	(kcal ME/bird/day)
1	7	150		26	182	73
2	14	310	160	36	252	101
3	21	505	195	44	308	123
4	28	690	185	54	378	151
5	35	900	210	61	427	171
6	42	1075	175	66	462	185
7	49	1215	140	67	469	188
8	56	1345	130	68	476	190
9	63	1465	120	70	490	196
10	70	1585	120	73	511	204
11	77	1705	120	75	525	210
12	84	1825	120	77	539	216
13	91	1945	120	79	553	221
14	98	2065	120	82	574	230
15	105	2185	120	84	588	235
16	112	2305	120	88	616	246
17	119	2435	130	93	651	260
18	126	2580	145	97	679	272
19	133	2730	150	101	707	283
20	140	2880	150	106	742	297
21	147	3030	150	111	777	311
22	154	3180	150	116	812	325
23	161	3330	150	120	840	336
24	168	3480	150	124	868	347
25	175	3620	140	127	889	356
26	182	3745	125	130	910	364
27	189	3815	70	132	924	370
28	196	3865	50	133	931	372
29	203	3895	30	133	931	372
30	210	3925	30	134	938	375
31	217	3955	30	134	938	375
32	224	3985	30	135	945	378

¹Approximate feed amounts at 27°C (80°F). Adjustments are required for warmer (reduce feed) or cooler (increase feed) temperatures. For further assistance, contact your local Technical Service representative.

The suggested feed amounts during the laying period can vary considerably due to incidence of males stealing hen feed. Therefore, careful monitoring of body weight and fleshing is recommended to allow for appropriate feeding adjustments. For further assistance, contact your Technical Service representative.

²Based on 2800 kcal ME/kg. Adjustments must be made to reflect feeding of differing energy levels.



In-season and Out-of-Season

Age of Flock		Body Weight (g)		Feed Quantity ¹		Energy ²
Week	Day	Standard	Weekly Gain	(g/bird/day)	(g/bird/week)	(kcal ME/bird/day)
33	231	4015	30	135	945	378
34	238	4045	30	136	952	381
35	245	4075	30	136	952	381
36	252	4105	30	137	959	384
37	259	4135	30	137	959	384
38	266	4165	30	138	966	386
39	273	4195	30	138	966	386
40	280	4225	30	139	973	389
41	287	4255	30	139	973	389
42	294	4285	30	140	980	392
43	301	4315	30	140	980	392
44	308	4345	30	141	987	395
45	315	4375	30	141	987	395
46	322	4405	30	142	994	398
47	329	4435	30	142	994	398
48	336	4465	30	143	1001	400
49	343	4495	30	143	1001	400
50	350	4525	20	144	1008	403
51	357	4545	20	144	1008	403
52	364	4565	20	145	1015	406
53	371	4585	20	145	1015	406
54	378	4605	20	146	1022	409
55	385	4625	20	146	1022	409
56	392	4645	20	147	1029	412
57	399	4665	20	147	1029	412
58	406	4685	20	148	1036	414
59	413	4705	20	148	1036	414
60	420	4725	20	149	1043	417
61	427	4745	20	149	1043	417
62	434	4765	20	150	1050	420
63	441	4785	20	150	1050	420
64	448	4805	20	151	1057	423

Arbor Acres Plus Parent Female *Weekly Egg Production*

Week of Production	Age in Days	Age in Weeks	Hen Housed %	Hen Week %	Eggs/Bird/Week	Eggs/Bird Cum.	Hatching Eggs/Bird/Week	Hatching Eggs/Bird/Cum.
1	175	25	5.3	5.3	0.4	0.4		
2	182	26	13.6	13.7	1.0	1.4	0.5	0.5
3	189	27	36.5	36.7	2.6	4.0	2.0	2.5
4	196	28	57.2	57.6	4.0	8.0	3.2	5.7
5	203	29	72.5	73.3	5.1	13.1	4.5	10.2
6	210	30	81.6	82.6	5.7	18.8	5.4	15.6
7	217	31	85.4	86.6	6.0	24.8	5.7	21.3
8	224	32	86.3	87.7	6.0	30.8	5.8	27.1
9	231	33	86.0	87.6	6.0	36.8	5.8	32.9
10	238	34	85.3	87.0	6.0	42.8	5.8	38.7
11	245	35	84.1	85.9	5.9	48.7	5.7	44.4
12	252	36	82.9	84.9	5.8	54.5	5.6	50.0
13	259	37	81.7	83.9	5.7	60.2	5.6	55.6
14	266	38	80.5	82.8	5.6	65.8	5.5	61.6
15	273	39	79.3	81.8	5.6	71.4	5.4	66.5
16	280	40	78.2	80.7	5.5	76.9	5.3	71.8
17	287	41	77.0	79.7	5.4	82.3	5.3	77.1
18	294	42	75.8	78.7	5.3	87.6	5.2	82.3
19	301	43	74.7	77.6	5.2	92.8	5.1	87.4
20	308	44	73.5	76.6	5.1	97.9	5.0	92.4
21	315	45	72.4	75.5	5.1	103.0	4.9	97.3
22	322	46	71.2	74.5	5.0	108.0	4.9	102.2
23	329	47	70.1	73.5	4.9	112.9	4.8	107.0
24	336	48	69.0	72.4	4.8	117.7	4.7	111.7
25	343	49	67.8	71.4	4.7	122.4	4.6	116.3
26	350	50	66.7	70.4	4.7	127.1	4.6	120.9
27	357	51	65.6	69.3	4.6	131.7	4.5	125.4
28	364	52	64.5	68.3	4.5	136.2	4.4	129.8
29	371	53	63.4	67.3	4.4	140.6	4.3	134.1
30	378	54	62.3	66.2	4.4	145.0	4.3	138.4
31	385	55	61.2	65.2	4.3	149.3	4.2	142.6
32	392	56	60.1	64.2	4.2	153.5	4.1	146.7
33	399	57	59.0	63.1	4.1	157.6	4.0	150.7
34	406	58	57.9	62.1	4.1	161.7	4.0	154.7
35	413	59	56.8	61.1	4.0	165.7	3.9	158.6
36	420	60	55.7	60.1	3.9	169.6	3.8	162.4
37	427	61	54.7	59.0	3.8	173.4	3.7	166.1
38	434	62	53.6	58.0	3.8	177.2	3.7	169.8
39	441	63	52.5	57.0	3.7	180.9	3.6	173.4
40	448	64	51.5	55.9	3.6	184.5	3.5	176.9



Arbor Acres Plus Parent Female *Weekly Egg Weight, Egg Mass*

Week of Production	Age in Days	Age in Weeks	Hen Week %	Sexable Egg Weight (g)	Sexable Egg Mass	Fast-Feathered Egg Weight (g)	Fast-Feathered Egg Mass
1	175	25	5.3				
2	182	26	13.7	51.9	7.1	51.1	7.0
3	189	27	36.7	53.6	19.7	52.6	19.3
4	196	28	57.6	55.2	31.8	53.8	31.0
5	203	29	73.3	56.5	41.4	54.9	40.2
6	210	30	82.6	57.6	47.6	55.8	46.1
7	217	31	86.6	58.6	50.7	56.6	49.0
8	224	32	87.7	59.5	52.2	57.3	50.3
9	231	33	87.6	60.2	52.7	57.9	50.7
10	238	34	87.0	60.9	53.0	58.5	50.9
11	245	35	85.9	61.5	52.8	59.0	50.7
12	252	36	84.9	62.1	52.7	59.6	50.6
13	259	37	83.9	62.6	52.5	60.1	50.4
14	266	38	82.8	63.1	52.2	60.6	50.2
15	273	39	81.8	63.5	51.9	61.1	50.0
16	280	40	80.7	64.0	51.6	61.6	49.7
17	287	41	79.7	64.4	51.3	62.1	49.5
18	294	42	78.7	64.8	51.0	62.5	49.2
19	301	43	77.6	65.3	50.7	63.0	48.9
20	308	44	76.6	65.7	50.3	63.4	48.6
21	315	45	75.5	66.1	49.9	63.9	48.2
22	322	46	74.5	66.5	49.5	64.3	47.9
23	329	47	73.5	66.9	49.2	64.7	47.6
24	336	48	72.4	67.3	48.7	65.1	47.1
25	343	49	71.4	67.7	48.3	65.4	46.7
26	350	50	70.4	68.0	47.9	65.8	46.3
27	357	51	69.3	68.4	47.4	66.1	45.8
28	364	52	68.3	68.7	46.9	66.4	45.4
29	371	53	67.3	69.0	46.4	66.6	44.8
30	378	54	66.2	69.3	45.9	66.9	44.3
31	385	55	65.2	69.5	45.3	67.1	43.7
32	392	56	64.2	69.8	44.8	67.4	43.3
33	399	57	63.1	70.0	44.2	67.6	42.7
34	406	58	62.1	70.2	43.6	67.8	42.1
35	413	59	61.1	70.3	43.0	68.1	41.6
36	420	60	60.1	70.5	42.4	68.3	41.0
37	427	61	59.0	70.7	41.7	68.5	40.4
38	434	62	58.0	70.8	41.1	68.7	39.8
39	441	63	57.0	71.0	40.5	68.9	39.3
40	448	64	55.9	71.2	39.8	69.1	38.6

Note: It is important to manage flocks so they do not come into production too early. If they reach 5-10% production prior to 25 weeks of age, early egg size will be reduced resulting in smaller chicks.

An important consideration when bringing flocks into production is the timing of photo-stimulation. In-season females should be photo-stimulated at 154 days while out-of-season flocks may be photo-stimulated at 147 days.

Daily egg production, feed clean-up and body weights should be evaluated on a daily basis from 5% production through post peak production. Feed amounts should be adjusted appropriately.

Arbor Acres Plus Parent Female *Weekly Hatchability and Chick Production*

Week of Production	Age in Days	Age in Weeks	% Hatch All Eggs	% Cum. Hatchability	Chicks/Wk Hen Housed	Cum. Chicks Hen Housed
1	175	25				
2	182	26	75.2	75.2	0.4	0.4
3	189	27	78.0	77.4	1.6	2.0
4	196	28	80.3	79.1	2.6	4.6
5	203	29	82.4	80.5	3.7	8.3
6	210	30	84.8	82.0	4.6	12.9
7	217	31	85.9	83.0	4.9	17.8
8	224	32	86.9	83.9	5.0	22.8
9	231	33	87.8	84.6	5.1	27.9
10	238	34	88.4	85.1	5.1	33.0
11	245	35	88.9	85.6	5.1	38.1
12	252	36	89.0	86.0	5.0	43.1
13	259	37	89.4	86.3	5.0	48.1
14	266	38	89.1	86.6	4.9	53.0
15	273	39	88.8	86.8	4.8	57.8
16	280	40	88.3	86.9	4.7	62.5
17	287	41	88.2	87.0	4.7	67.2
18	294	42	88.0	87.0	4.6	71.8
19	301	43	87.7	87.1	4.5	76.3
20	308	44	87.3	87.1	4.4	80.7
21	315	45	86.9	87.1	4.3	85.0
22	322	46	86.0	87.0	4.2	89.2
23	329	47	85.9	87.0	4.1	93.3
24	336	48	85.5	86.9	4.0	97.3
25	343	49	85.2	86.8	3.9	101.2
26	350	50	85.0	86.8	3.9	105.1
27	357	51	84.7	86.7	3.8	108.9
28	364	52	84.4	86.6	3.7	112.6
29	371	53	84.0	86.5	3.6	116.2
30	378	54	83.6	86.5	3.6	119.8
31	385	55	83.0	86.3	3.5	123.3
32	392	56	82.4	86.2	3.4	126.7
33	399	57	81.9	86.1	3.3	130.0
34	406	58	81.2	86.0	3.2	133.2
35	413	59	80.6	85.9	3.1	136.3
36	420	60	79.9	85.7	3.0	139.3
37	427	61	78.8	85.6	2.9	142.2
38	434	62	77.8	85.4	2.9	145.1
39	441	63	76.8	85.2	2.8	147.9
40	448	64	75.8	85.0	2.7	150.6



Notes

Notes



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