Broiler Performance & Nutrition Supplement

broiler

Cobb*500*™

cobb-vantress.com

Cobb500 Broiler Performance & Nutrition Supplement

Introduction

This supplement presents broiler performance and yield targets for your Cobb500 broilers, together with recommendations on nutritional specifications designed to help achieve these targets.

Broiler performance varies from country to country. The growth rates shown are the targets for achieving cost-efficient performance.

The performance objectives in this supplement are displayed in both metric and imperial configurations:

Metric Imperial

Please contact your local Cobb technical representative to help develop a program designed specifically to suit your own local conditions based on the advice and information contained in this supplement and the main Cobb Broiler Management Guide.

Revised July 2015

Performance objectives - metric

AS HATCHED

Age days	Weight for Age (g)	Daily Gain (g)	Average Daily Gain (g)	Cumulative Feed Conversion	Daily Feed Consumption (g)	Cumulative Feed Consumption (g)
0	42	0				
1	56	14		0.232	13	13
2	72	16		0.417	17	30
3	89	17		0.573	21	51
4	109	20		0.679	23	74
5	131	22		0.773	27	101
6	157	26		0.841	31	132
7	**185**	**28**	**26.4**	**0.902**	**35**	**167**
8	215	30	26.9	0.958	39	206
9	247	32	27.4	1.012	44	250
10	283	36	28.3	1.053	48	298
11	321	38	29.2	1.097	54	352
12	364	43	30.3	1.126	58	410
13	412	48	31.7	1.150	64	474
14	**465**	**53**	**33.2**	**1.165**	**68**	**542**
15	524	59	34.9	1.177	75	617
16	586	62	36.6	1.191	81	698
17	651	65	38.3	1.206	87	785
18	719	68	39.9	1.221	93	878
19	790	71	41.6	1.235	98	976
20	865	75	43.3	1.250	105	1081
21	**943**	**78**	**44.9**	**1.264**	**111**	**1192**
22	1023	80	46.4	1.284	117	1309
23	1104	81	47.8	1.303	123	1432
24	1186	82	49.3	1.321	130	1562
25	1269	83	50.8	1.337	134	1696
26	1353	84	52.1	1.356	141	1837
27	1438	85	53.6	1.373	148	1985
28	**1524**	**86**	**54.4**	**1.402**	**152**	**2137**
29	1613	89	55.6	1.423	158	2295
30	1705	92	56.8	1.442	163	2458
31	1799	94	58.0	1.460	169	2627
32	1895	96	59.2	1.478	174	2801
33	1993	98	60.4	1.496	180	2981
34	2092	99	61.5	1.512	182	3163
35	**2191**	**99**	**62.6**	**1.530**	**189**	**3352**
36	2289	98	63.6	1.549	193	3545
37	2386	97	64.5	1.568	197	3742
38	2482	96	65.3	1.589	201	3943
39	2577	95	66.1	1.610	205	4148
40	2671	94	66.8	1.631	209	4357
41	2764	93	67.4	1.653	213	4570
42	**2857**	**93**	**68.0**	**1.675**	**216**	**4786**
43	2950	93	68.6	1.697	220	5006
44	3043	93	69.2	1.718	222	5228
45	3136	93	69.7	1.739	225	5453
46	3229	93	70.2	1.759	227	5680
47	3322	93	70.7	1.779	231	5911
48	3414	92	71.1	1.800	233	6144
49	**3506**	**92**	**71.6**	**1.819**	**235**	**6379**
50	3596	90	71.9	1.840	237	6616
51	3685	89	72.3	1.860	239	6855
52	3773	88	72.6	1.880	240	7095
53	3859	86	72.8	1.901	242	7337
54	3944	85	73.0	1.922	243	7580
55	4028	84	73.2	1.943	245	7825
56	**4111**	**83**	**73.4**	**1.963**	**245**	**8070**
57	4192	81	73.5	1.984	245	8315
58	4272	80	73.7	2.004	245	8560
59	4350	78	73.7	2.024	245	8805
60	4427	77	73.8	2.044	245	9050
61	4502	75	73.8	2.065	245	9295
62	4576	74	73.8	2.085	245	9540
63	**4649**	**73**	**73.8**	**2.105**	**245**	**9785**

Performance objectives - metric

FEMALES

Age days	Weight for Age (g)	Daily Gain (g)	Average Daily Gain (g)	Cumulative Feed Conversion	Daily Feed Consumption (g)	Cumulative Feed Consumption (g)
0	42	0				
1	56	14		0.232	13	13
2	72	16		0.417	17	30
3	89	17		0.573	21	51
4	109	20		0.679	23	74
5	130	21		0.776	27	101
6	156	27		0.841	31	132
7	**184**	**27**	**26.3**	**0.908**	**35**	**167**
8	214	30	26.8	0.953	37	204
9	244	30	27.1	1.016	44	248
10	280	36	28.0	1.053	47	295
11	318	38	28.9	1.098	54	349
12	360	43	30.0	1.127	57	406
13	408	48	31.4	1.150	63	469
14	**460**	**53**	**32.9**	**1.166**	**68**	**537**
15	520	60	34.7	1.173	73	610
16	582	62	36.4	1.184	79	689
17	646	64	38.0	1.197	84	773
18	711	65	39.5	1.212	89	862
19	777	66	40.9	1.228	92	954
20	844	67	42.2	1.246	98	1052
21	**914**	**70**	**43.5**	**1.263**	**103**	**1155**
22	986	72	44.8	1.284	111	1266
23	1060	74	46.1	1.304	116	1382
24	1136	76	47.3	1.326	124	1506
25	1214	78	48.6	1.344	126	1632
26	1294	80	49.8	1.365	134	1766
27	1378	84	51.0	1.385	142	1908
28	**1463**	**85**	**52.2**	**1.403**	**144**	**2052**
29	1549	86	53.4	1.422	151	2203
30	1636	87	54.5	1.441	155	2358
31	1724	88	55.6	1.461	161	2519
32	1813	89	56.7	1.479	163	2682
33	1903	90	57.7	1.496	165	2847
34	1993	90	58.6	1.512	167	3014
35	**2083**	**90**	**59.5**	**1.528**	**169**	**3183**
36	2172	89	60.3	1.546	175	3358
37	2259	87	61.1	1.566	179	3537
38	2344	85	61.7	1.587	184	3721
39	2428	84	62.3	1.610	189	3910
40	2510	82	62.8	1.635	193	4103
41	2591	81	63.2	1.660	197	4300
42	**2671**	**80**	**63.6**	**1.684**	**199**	**4499**
43	2751	80	64.0	1.709	203	4702
44	2831	80	64.3	1.733	203	4905
45	2910	79	64.7	1.756	205	5110
46	2989	79	65.0	1.778	204	5314
47	3068	79	65.3	1.800	207	5521
48	3147	79	65.6	1.820	208	5729
49	**3226**	**79**	**65.8**	**1.841**	**209**	**5938**
50	3301	75	66.0	1.862	209	6147
51	3376	75	66.2	1.884	213	6360
52	3451	75	66.4	1.905	215	6575
53	3524	73	66.5	1.928	219	6794
54	3597	73	66.6	1.950	221	7015
55	3670	73	66.7	1.973	225	7240
56	**3741**	**71**	**66.8**	**1.995**	**225**	**7465**
57	3812	71	66.9	2.017	225	7690
58	3883	71	66.9	2.038	225	7915
59	3953	70	67.0	2.059	225	8140
60	4023	70	67.1	2.079	225	8365
61	4093	70	67.1	2.099	225	8590
62	4162	69	67.1	2.118	225	8815
63	**4230**	**68**	**67.1**	**2.137**	**225**	**9040**

Performance objectives - metric

MALES

Age days	Weight for Age (g)	Daily Gain (g)	Average Daily Gain (g)	Cumulative Feed Conversion	Daily Feed Consumption (g)	Cumulative Feed Consumption (g)
0	42	0				
1	56	14		0.232	13	13
2	72	16		0.417	17	30
3	89	17		0.573	21	51
4	109	20		0.679	23	74
5	131	22		0.771	27	101
6	157	26		0.841	31	132
7	**186**	**29**	**26.6**	**0.898**	**35**	**167**
8	217	32	27.1	0.949	39	206
9	250	33	27.8	1.000	44	250
10	286	36	28.6	1.046	49	299
11	324	38	29.5	1.089	54	353
12	368	43	30.6	1.121	59	412
13	416	48	32.0	1.144	64	476
14	**470**	**54**	**33.6**	**1.162**	**70**	**546**
15	528	58	35.2	1.180	77	623
16	590	62	36.9	1.197	83	706
17	656	66	38.6	1.213	90	796
18	727	71	40.4	1.228	97	893
19	803	76	42.3	1.242	104	997
20	884	81	44.2	1.255	112	1109
21	**971**	**87**	**46.2**	**1.265**	**119**	**1228**
22	1058	87	48.1	1.278	124	1352
23	1145	87	49.8	1.294	130	1482
24	1233	88	51.4	1.312	136	1618
25	1321	88	52.8	1.332	142	1760
26	1409	88	54.2	1.354	148	1908
27	1497	88	55.4	1.377	154	2062
28	**1585**	**88**	**56.6**	**1.402**	**160**	**2222**
29	1677	92	57.8	1.423	165	2387
30	1773	96	59.1	1.443	171	2558
31	1873	100	60.4	1.460	177	2735
32	1978	105	61.8	1.476	184	2919
33	2085	107	63.2	1.492	192	3111
34	2192	107	64.5	1.510	200	3311
35	**2299**	**107**	**65.7**	**1.531**	**209**	**3520**
36	2406	107	66.8	1.551	212	3732
37	2513	107	67.9	1.571	215	3947
38	2620	107	68.9	1.590	218	4165
39	2726	106	69.9	1.609	221	4386
40	2832	106	70.8	1.628	225	4611
41	2938	106	71.7	1.647	229	4840
42	**3044**	**106**	**72.5**	**1.667**	**233**	**5073**
43	3150	106	73.3	1.686	237	5310
44	3256	106	74.0	1.705	241	5551
45	3362	106	74.7	1.724	245	5796
46	3468	106	75.4	1.743	250	6046
47	3574	106	76.0	1.763	255	6301
48	3680	106	76.7	1.784	265	6566
49	**3786**	**106**	**77.3**	**1.805**	**270**	**6836**
50	3891	105	77.8	1.825	265	7101
51	3994	103	78.3	1.844	265	7366
52	4095	101	78.8	1.863	265	7631
53	4194	99	79.1	1.883	265	7896
54	4291	97	79.5	1.902	265	8161
55	4386	95	79.7	1.921	265	8426
56	**4481**	**95**	**80.0**	**1.940**	**265**	**8691**
57	4573	92	80.2	1.958	265	8956
58	4662	89	80.4	1.978	265	9221
59	4748	86	80.5	1.998	265	9486
60	4831	83	80.5	2.018	265	9751
61	4912	81	80.5	2.039	265	10016
62	4990	78	80.5	2.060	265	10281
63	**5068**	**78**	**80.4**	**2.081**	**265**	**10546**

Performance objectives - notes

Performance objectives - imperial

AS HATCHED

Age days	Weight for Age (lb)	Daily Gain (lb)	Average Daily Gain (lb)	Cumulative Feed Conversion	Daily Feed Consumption (lb)	Cumulative Feed Consumption (lb)
0	0.093	0.000				
1	0.123	0.031		0.232	0.029	0.029
2	0.159	0.035		0.417	0.037	0.066
3	0.196	0.037		0.573	0.046	0.112
4	0.240	0.044		0.679	0.051	0.163
5	0.288	0.048		0.773	0.060	0.223
6	0.346	0.058		0.841	0.068	0.291
7	**0.408**	**0.062**	**0.058**	**0.902**	**0.077**	**0.368**
8	0.474	0.066	0.059	0.958	0.086	0.454
9	0.545	0.071	0.061	1.012	0.097	0.551
10	0.624	0.079	0.062	1.053	0.106	0.657
11	0.708	0.084	0.064	1.097	0.119	0.776
12	0.803	0.095	0.067	1.126	0.128	0.904
13	0.908	0.106	0.070	1.150	0.141	1.045
14	**1.025**	**0.117**	**0.073**	**1.165**	**0.150**	**1.195**
15	1.155	0.130	0.077	1.177	0.165	1.360
16	1.292	0.137	0.081	1.191	0.179	1.539
17	1.435	0.143	0.084	1.206	0.192	1.731
18	1.585	0.150	0.088	1.221	0.205	1.936
19	1.742	0.157	0.092	1.235	0.216	2.152
20	1.907	0.165	0.095	1.250	0.232	2.384
21	**2.079**	**0.172**	**0.099**	**1.264**	**0.245**	**2.628**
22	2.254	0.175	0.102	1.281	0.258	2.886
23	2.432	0.179	0.106	1.298	0.271	3.158
24	2.613	0.181	0.109	1.318	0.287	3.444
25	2.796	0.183	0.112	1.338	0.295	3.740
26	2.981	0.185	0.115	1.359	0.311	4.051
27	3.171	0.190	0.117	1.380	0.326	4.377
28	**3.360**	**0.189**	**0.120**	**1.402**	**0.335**	**4.712**
29	3.557	0.197	0.123	1.423	0.348	5.060
30	3.760	0.203	0.125	1.442	0.359	5.420
31	3.967	0.207	0.128	1.460	0.373	5.793
32	4.178	0.212	0.131	1.478	0.384	6.176
33	4.395	0.216	0.133	1.496	0.397	6.573
34	4.613	0.218	0.136	1.512	0.401	6.974
35	**4.831**	**0.218**	**0.138**	**1.530**	**0.417**	**7.391**
36	5.047	0.216	0.140	1.549	0.426	7.817
37	5.261	0.214	0.142	1.568	0.434	8.251
38	5.473	0.212	0.144	1.589	0.443	8.694
39	5.682	0.209	0.146	1.610	0.452	9.146
40	5.890	0.207	0.147	1.631	0.461	9.607
41	6.095	0.205	0.149	1.653	0.470	10.077
42	**6.300**	**0.205**	**0.150**	**1.675**	**0.476**	**10.553**
43	6.505	0.205	0.151	1.697	0.485	11.038
44	6.710	0.205	0.152	1.718	0.490	11.528
45	6.915	0.205	0.154	1.739	0.496	12.024
46	7.120	0.205	0.155	1.759	0.501	12.524
47	7.325	0.205	0.156	1.779	0.509	13.034
48	7.528	0.203	0.157	1.800	0.514	13.548
49	**7.731**	**0.203**	**0.158**	**1.819**	**0.518**	**14.066**
50	7.929	0.198	0.159	1.840	0.523	14.588
51	8.125	0.196	0.159	1.860	0.527	15.115
52	8.319	0.194	0.160	1.880	0.529	15.644
53	8.509	0.190	0.161	1.901	0.534	16.178
54	8.697	0.187	0.161	1.922	0.536	16.714
55	8.882	0.185	0.161	1.943	0.540	17.254
56	**9.065**	**0.183**	**0.162**	**1.963**	**0.540**	**17.794**
57	9.243	0.179	0.162	1.984	0.540	18.335
58	9.420	0.176	0.162	2.004	0.540	18.875
59	9.592	0.172	0.163	2.024	0.540	19.415
60	9.762	0.170	0.163	2.044	0.540	19.955
61	9.927	0.165	0.163	2.065	0.540	20.495
62	10.090	0.163	0.163	2.085	0.540	21.036
63	**10.251**	**0.161**	**0.163**	**2.105**	**0.540**	**21.576**

Performance objectives - imperial

FEMALES

Age days	Weight for Age (lb)	Daily Gain (lb)	Average Daily Gain (lb)	Cumulative Feed Conversion	Daily Feed Consumption (lb)	Cumulative Feed Consumption (lb)
0	0.093	0.000				
1	0.123	0.031		0.232	0.029	0.029
2	0.159	0.035		0.417	0.037	0.066
3	0.196	0.037		0.573	0.046	0.112
4	0.240	0.044		0.679	0.051	0.163
5	0.287	0.047		0.776	0.060	0.223
6	0.346	0.059		0.841	0.068	0.291
7	**0.406**	**0.060**	**0.058**	**0.908**	**0.077**	**0.368**
8	0.472	0.066	0.059	0.953	0.082	0.450
9	0.538	0.066	0.060	1.016	0.097	0.547
10	0.618	0.080	0.062	1.053	0.104	0.650
11	0.701	0.083	0.064	1.098	0.119	0.770
12	0.795	0.094	0.066	1.127	0.126	0.895
13	0.899	0.105	0.069	1.150	0.139	1.034
14	**1.015**	**0.116**	**0.073**	**1.166**	**0.150**	**1.184**
15	1.147	0.131	0.076	1.173	0.161	1.345
16	1.283	0.137	0.080	1.184	0.174	1.519
17	1.424	0.141	0.084	1.197	0.185	1.704
18	1.568	0.143	0.087	1.212	0.196	1.901
19	1.713	0.146	0.090	1.228	0.203	2.104
20	1.861	0.148	0.093	1.246	0.216	2.320
21	**2.016**	**0.155**	**0.096**	**1.263**	**0.227**	**2.547**
22	2.174	0.158	0.099	1.284	0.245	2.792
23	2.337	0.163	0.102	1.304	0.256	3.047
24	2.505	0.168	0.104	1.326	0.273	3.321
25	2.677	0.172	0.107	1.344	0.278	3.599
26	2.853	0.176	0.110	1.365	0.295	3.894
27	3.038	0.185	0.113	1.385	0.313	4.207
28	**3.226**	**0.187**	**0.115**	**1.403**	**0.318**	**4.525**
29	3.416	0.190	0.118	1.422	0.333	4.858
30	3.607	0.192	0.120	1.441	0.342	5.199
31	3.801	0.194	0.123	1.461	0.355	5.554
32	3.998	0.196	0.125	1.479	0.359	5.914
33	4.196	0.198	0.127	1.496	0.364	6.278
34	4.395	0.198	0.129	1.512	0.368	6.646
35	**4.593**	**0.198**	**0.131**	**1.528**	**0.373**	**7.019**
36	4.789	0.196	0.133	1.546	0.386	7.404
37	4.981	0.192	0.135	1.566	0.395	7.799
38	5.169	0.187	0.136	1.587	0.406	8.205
39	5.354	0.185	0.137	1.610	0.417	8.622
40	5.535	0.181	0.138	1.635	0.426	9.047
41	5.713	0.179	0.139	1.660	0.434	9.482
42	**5.890**	**0.176**	**0.140**	**1.684**	**0.439**	**9.920**
43	6.066	0.176	0.141	1.709	0.448	10.368
44	6.242	0.176	0.142	1.733	0.448	10.816
45	6.417	0.174	0.143	1.756	0.452	11.268
46	6.591	0.174	0.143	1.778	0.450	11.717
47	6.765	0.174	0.144	1.800	0.456	12.174
48	6.939	0.174	0.145	1.820	0.459	12.632
49	**7.112**	**0.173**	**0.145**	**1.841**	**0.461**	**13.093**
50	7.279	0.166	0.146	1.862	0.461	13.554
51	7.444	0.165	0.146	1.884	0.470	14.024
52	7.609	0.165	0.146	1.905	0.474	14.498
53	7.770	0.161	0.147	1.928	0.483	14.981
54	7.931	0.161	0.147	1.950	0.487	15.468
55	8.092	0.161	0.147	1.973	0.496	15.964
56	**8.249**	**0.157**	**0.147**	**1.995**	**0.496**	**16.460**
57	8.405	0.157	0.147	2.017	0.496	16.956
58	8.562	0.157	0.148	2.038	0.496	17.453
59	8.716	0.154	0.148	2.059	0.496	17.949
60	8.871	0.154	0.148	2.079	0.496	18.445
61	9.025	0.154	0.148	2.099	0.496	18.941
62	9.177	0.152	0.148	2.118	0.496	19.437
63	**9.327**	**0.150**	**0.148**	**2.137**	**0.496**	**19.933**

Performance objectives - imperial

MALES

Age days	Weight for Age (lb)	Daily Gain (lb)	Average Daily Gain (lb)	Cumulative Feed Conversion	Daily Feed Consumption (lb)	Cumulative Feed Consumption (lb)
0	0.093	0.000				
1	0.123	0.031		0.232	0.029	0.029
2	0.159	0.035		0.417	0.037	0.066
3	0.196	0.037		0.573	0.046	0.112
4	0.240	0.044		0.679	0.051	0.163
5	0.289	0.049		0.771	0.060	0.223
6	0.346	0.057		0.841	0.068	0.291
7	**0.410**	**0.064**	**0.059**	**0.898**	**0.077**	**0.368**
8	0.479	0.069	0.060	0.949	0.086	0.454
9	0.551	0.072	0.061	1.000	0.097	0.551
10	0.630	0.079	0.063	1.046	0.108	0.659
11	0.715	0.085	0.065	1.089	0.119	0.778
12	0.811	0.096	0.068	1.121	0.130	0.908
13	0.918	0.107	0.071	1.144	0.141	1.050
14	**1.036**	**0.118**	**0.074**	**1.162**	**0.154**	**1.204**
15	1.164	0.129	0.078	1.180	0.170	1.374
16	1.301	0.137	0.081	1.197	0.183	1.557
17	1.446	0.146	0.085	1.213	0.198	1.755
18	1.603	0.157	0.089	1.228	0.214	1.969
19	1.771	0.168	0.093	1.242	0.229	2.198
20	1.949	0.179	0.097	1.255	0.247	2.445
21	**2.141**	**0.192**	**0.102**	**1.265**	**0.262**	**2.708**
22	2.333	0.192	0.106	1.278	0.273	2.981
23	2.525	0.192	0.110	1.294	0.287	3.268
24	2.719	0.194	0.113	1.312	0.300	3.568
25	2.913	0.194	0.117	1.332	0.313	3.881
26	3.107	0.194	0.119	1.354	0.326	4.207
27	3.301	0.194	0.122	1.377	0.340	4.547
28	**3.494**	**0.194**	**0.125**	**1.402**	**0.353**	**4.900**
29	3.698	0.203	0.128	1.423	0.364	5.263
30	3.909	0.212	0.130	1.443	0.377	5.640
31	4.130	0.220	0.133	1.460	0.390	6.031
32	4.361	0.232	0.136	1.476	0.406	6.436
33	4.597	0.236	0.139	1.492	0.423	6.860
34	4.833	0.236	0.142	1.510	0.441	7.301
35	**5.069**	**0.236**	**0.145**	**1.531**	**0.461**	**7.762**
36	5.305	0.236	0.147	1.551	0.467	8.229
37	5.541	0.236	0.150	1.571	0.474	8.703
38	5.777	0.236	0.152	1.590	0.481	9.184
39	6.011	0.234	0.154	1.609	0.487	9.671
40	6.245	0.234	0.156	1.628	0.496	10.167
41	6.478	0.234	0.158	1.647	0.505	10.672
42	**6.712**	**0.234**	**0.160**	**1.667**	**0.514**	**11.186**
43	6.946	0.234	0.162	1.686	0.523	11.709
44	7.179	0.234	0.163	1.705	0.531	12.240
45	7.413	0.234	0.165	1.724	0.540	12.780
46	7.647	0.234	0.166	1.743	0.551	13.331
47	7.881	0.234	0.168	1.763	0.562	13.894
48	8.114	0.234	0.169	1.784	0.584	14.478
49	**8.349**	**0.235**	**0.170**	**1.805**	**0.595**	**15.073**
50	8.580	0.230	0.172	1.825	0.584	15.658
51	8.807	0.227	0.173	1.844	0.584	16.242
52	9.029	0.223	0.174	1.863	0.584	16.826
53	9.248	0.218	0.174	1.883	0.584	17.411
54	9.462	0.214	0.175	1.902	0.584	17.995
55	9.671	0.209	0.176	1.921	0.584	18.579
56	**9.881**	**0.209**	**0.176**	**1.940**	**0.584**	**19.164**
57	10.083	0.203	0.177	1.958	0.584	19.748
58	10.280	0.196	0.177	1.978	0.584	20.332
59	10.469	0.190	0.177	1.998	0.584	20.917
60	10.652	0.183	0.178	2.018	0.584	21.501
61	10.831	0.179	0.178	2.039	0.584	22.085
62	11.003	0.172	0.177	2.060	0.584	22.670
63	**11.175**	**0.172**	**0.177**	**2.081**	**0.584**	**23.254**

Broiler Nutrition

Recommended minimum specifications

		Starter	Grower	Finisher 1	Finisher 2*
FEEDING AMOUNT/bird		**250 g 0.55 lb**	**1000 g 2.20 lb**		
FEEDING PERIOD days		**0 - 10**	**11 - 22**	**23 - 42**	**43 +**
FEED STRUCTURE		**Crumb**	**Pellet**	**Pellet**	**Pellet**
Crude Protein	%	21-22	19-20	18-19	17-18
Metabolizable energy (AMEn)	MJ/kg Kcal/kg Kcal/lb	12.59 3008 1365	12.92 3086 1400	13.26 3167 1438	13.36 3191 1448
Lysine	%	1.32	1.19	1.05	1.00
Digestible Lysine	%	1.18	1.05	0.95	0.90
Methionine	%	0.50	0.48	0.43	0.41
Digestible Methionine	%	0.45	0.42	0.39	0.37
Met + Cys	%	0.98	0.89	0.82	0.78
Digestible Met + Cys	%	0.88	0.80	0.74	0.70
Tryptophan	%	0.20	0.19	0.19	0.18
Digestible Tryptophan	%	0.18	0.17	0.17	0.16
Threonine	%	0.86	0.78	0.71	0.68
Digestible Threonine	%	0.77	0.69	0.65	0.61
Arginine	%	1.38	1.25	1.13	1.08
Digestible Arginine	%	1.24	1.10	1.03	0.97
Valine	%	1.00	0.91	0.81	0.77
Digestible Valine	%	0.89	0.80	0.73	0.69
Isoleucine	%	0.88	0.80	0.71	0.68
Digestible Isoleucine	%	0.79	0.70	0.65	0.61
Calcium	%	0.90	0.84	0.76	0.76
Available Phosphorus	%	0.45	0.42	0.38	0.38
Sodium	%	0.16-0.23	0.16-0.23	0.15-0.23	0.15-0.23
Chloride	%	0.17-0.35	0.16-0.35	0.15-0.35	0.15-0.35
Potassium	%	0.60-0.95	0.60-0.85	0.60-0.80	0.60-0.80
Linoleic Acid	%	1.00	1.00	1.00	1.00

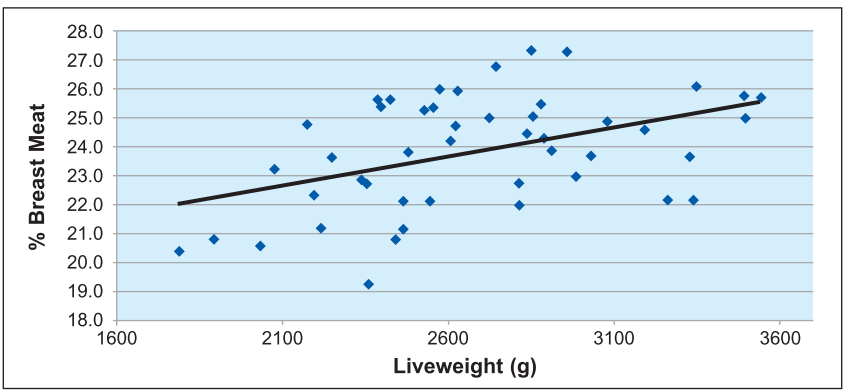
* Should withdrawal feed be required use same finisher specification.

Yield Performance

Meat yield is dependent on many factors, but those that have the most influence are weight, age and nutrition.

Weight

- Carcass and breast meat yield increase as a function of liveweight at any given age.



The graph above is a representative sample of percent breast meat yield (dry yields) for birds from a single flock of as-hatched broilers processed at 48 days.

Feed, Yield, and Economics

- Cobb data have shown that protein and amino acids can be elevated by approximately 8 percent for the purpose of increasing breast meat yield, although higher feed cost per unit of live weight may be a secondary result.
- For the most economical feed per unit of live weight, lower amino acids may be more applicable, although slower growth rate and higher FCR may be a secondary result.
- The exact overall levels of amino acids should be determined by ingredient prices and finished product values (from the processing plant).
- The Cobb 500 is a **flexible** broiler that can bring good costs from low amino acid density feeds, or will respond with accelerated growth and breast yield using high amino acid levels.
- Cobb Technical Service will gladly assist customers to match specific economic priorities with formulation; however, the recommendations in this supplement represent very sound overall baseline levels.

Yield Performance

Predicted dry yields at given weights (% of live weight)

AS HATCHED

Weight g	Weight lb	% Carcass	% Boneless Breast	% Whole Thigh	% Whole Drum Stick	% Wing
1600	3.527	71.91	21.25	14.49	9.00	7.51
1800	3.968	72.30	21.65	14.48	9.04	7.51
2000	4.409	72.69	22.05	14.48	9.09	7.51
2200	4.850	73.08	22.45	14.48	9.13	7.52
2400	5.291	73.47	22.85	14.48	9.17	7.52
2600	5.732	73.86	23.25	14.47	9.22	7.53
2800	6.173	74.25	23.65	14.47	9.26	7.53
3000	6.614	74.64	24.05	14.47	9.30	7.53
3200	7.055	75.03	24.45	14.47	9.35	7.54
3400	7.496	75.42	24.85	14.46	9.39	7.54
3600	7.937	75.81	25.25	14.46	9.43	7.55
3800	8.377	76.20	25.65	14.46	9.47	7.55
4000	8.818	76.59	26.04	14.46	9.52	7.55

FEMALES

Weight g	Weight lb	% Carcass	% Boneless Breast	% Whole Thigh	% Whole Drum Stick	% Wing
1600	3.527	71.89	21.83	14.48	8.81	7.53
1800	3.968	72.32	22.36	14.43	8.83	7.51
2000	4.409	72.75	22.88	14.39	8.85	7.49
2200	4.850	73.18	23.40	14.34	8.87	7.47
2400	5.291	73.61	23.92	14.30	8.88	7.45
2600	5.732	74.04	24.44	14.25	8.90	7.43
2800	6.173	74.47	24.96	14.21	8.92	7.41
3000	6.614	74.90	25.48	14.16	8.94	7.39

MALES

Weight g	Weight lb	% Carcass	% Boneless Breast	% Whole Thigh	% Whole Drum Stick	% Wing
1600	3.527	71.93	20.84	14.46	9.15	7.48
1800	3.968	72.28	21.13	14.49	9.21	7.50
2000	4.409	72.63	21.41	14.53	9.28	7.51
2200	4.850	72.98	21.70	14.56	9.35	7.53
2400	5.291	73.33	21.99	14.60	9.41	7.55
2600	5.732	73.68	22.28	14.63	9.48	7.57
2800	6.173	74.03	22.57	14.67	9.54	7.59
3000	6.614	74.38	22.85	14.70	9.61	7.61
3200	7.055	74.73	23.14	14.74	9.68	7.63
3400	7.496	75.08	23.43	14.77	9.74	7.65
3600	7.937	75.43	23.71	14.81	9.81	7.67
3800	8.377	75.78	24.00	14.84	9.88	7.68
4000	8.818	76.13	24.29	14.88	9.94	7.70
4200	9.259	76.48	24.58	14.91	10.01	7.72
4400	9.700	76.83	24.86	14.95	10.07	7.74
4600	10.141	77.18	25.15	14.98	10.14	7.76
4800	10.582	77.53	25.44	15.02	10.20	7.78

- Eviscerated carcass is calculated with feet and shanks removed from the hock joint.
- % Boneless breast is as a percentage of live weight.

Broiler Nutrition

Balanced digestible amino acid ratios

Amino Acid	Starter 0-10 days	Grower 11-22 days	Finisher 1 23-42 days	Finisher 2 43- days
Lysine*	100	100	100	100
Methionine	38	40	41	41
Methionine + Cystine	75	76	78	78
Tryptophan	16	16	18	18
Threonine	65	66	68	68
Arginine	105	105	108	108
Valine	75	76	77	77
Isoleucine	67	67	68	68

* In the profile Lysine is always the reference amino acid, and is shown at 100%.

Supplementary levels of vitamins and trace elements (per tonne)

		Starter	Grower	Finisher 1 and 2
Vitamin A	(MIU)	10-13	10	10
Vitamin D3	(MIU)	5	5	5
Vitamin E	(KIU)	80	50	50
Vitamin K	(g)	3	3	3
Vitamin B1 (thiamine)	(g)	3	2	2
Vitamin B2 (riboflavin)	(g)	9	8	6
Vitamin B6 (pyridoxine)	(g)	4	3	3
Vitamin B12	(mg)	20	15	15
Biotin (Maize Diets)	(mg)	150	120	120
Biotin (Wheat Diets)	(mg)	200	180	180
Choline*	(mg)	500	400	350
Folic Acid	(g)	2	2	1.5
Nicotinic Acid	(g)	60	50	50
Pantothenic Acid	(g)	15	12	10
Manganese	(g)	100	100	100
Zinc	(g)	100	100	100
Iron	(g)	40	40	40
Copper	(g)	15	15	15
Iodine	(g)	1	1	1
Selenium	(g)	0.35	0.35	0.35

* Preferably Choline is added directly into the mixer rather than via a premix because of its hygroscopic nature.

Vitamin and trace mineral levels may vary depending on the source and supplier. The numbers above refers to e.g. usage of inorganic minerals and a vitamin D3 source.

MIU = million international units; KIU = thousand international units; g = grams; mg = milligrams

Supplementary levels of trace elements should always be reviewed to ensure total levels do not exceed those set in local legislation (e.g. EU 1334/2003).

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